**UNIVERSIDAD COMPLUTENSE DE MADRID**
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**TESIS DOCTORAL**

# CENTRAL BANKING IN WAR TIMES: CHINA, 1927-1949
# LA BANCA CENTRAL EN TIEMPOS DE GUERRA: CHINA, 1927-1949

MEMORIA PARA OPTAR AL GRADO DE DOCTOR

PRESENTADA POR
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To my parents

# Contents

## List of Figures

## List of Table

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## Abstract

The central banking system has been a worldwide-adopted banking system since the 20th century, which influences political and economic structures profoundly in different countries to this day. Chinese Mainland is the second biggest economic entity, whose economic growth in the last 30 years gets the attention of the world. One hot topic is the function of China's central banking system. But the works for studying the establishment of China's central bank and the monetary thought debate behind the event still require further analysis. This thesis explains the establishment of China's central banking system by following the monetary thought debate among Chinese economists, politicians, and foreign financial specialists. They provided advice for monetary policy from 1927 to 1949.

This research has the following three main objectives:

Revise the monetary thought debate from 1927 to 1949 among Chinese economists, politicians, and Western financial specialists on how to improve the Chinese monetary system and how to build an effective central-banking system during wartime.

Demonstrate how the establishment of central banking was supported by the monetary theories provided in the monetary thought debate.

Identify which parts of the above monetary thoughts caused the growing and enormous price inflation during wartime; discuss whether other thoughts in the debate or related financial thoughts were adopted as monetary policies and if they could have avoided the economic collapse and Communist occupation in 1949.

This research uses the two following methodologies:

**Economic history:** this thesis uses the methods of economic history (a combination of orthodox economic theory, the Austrian school's view on central banking and price inflation, and quantitative methods, paying particular attention to institutional factors and the long run) to view the establishment of China's central bank and the monetary debate behind it.

**Extensive use of primary sources located in archives:** this thesis uses archives to demonstrate the above topics.

The thesis is structured in three parts. The first part is about China's general economic and political situation (from the 19th century to 1927) (Chapter 1). The second part demonstrates the monetary thought debates and silver standard currency reform from 1927 to 1937 (Chapter 2 to Chapter 4). The third part focuses on central banking and wartime (1937-1949) (Chapter 5 to Chapter 6). The contents of each chapter of the thesis can be briefly summarized as follows:

**Chapter 1:** This chapter reviews China's general economic and political situation from the 19th century to 1927. First, we discuss the comprehensive history of China from the Qing Empire—the last Chinese dynasty—to the 1911 Republican Xinhai Revolution. The reform of the late Qing Dynasty had contributed mainly to China's progress, especially the modernization of the Chinese economy and opening the Chinese market to the entire world. Still, stagnant political reform disappointed the social elite and caused the Xinhai Revolution. Since then, China was either in wartime or in Communist despotism, except the Nanjing Golden Decade (1927-1937). We argue that if the Qing Dynasty successfully implemented all necessary reforms, including banking reform, faster before people became angry, China could have been a developed, prosperous, and liberal society without authoritarian rule. Furthermore, we also introduce the Austrian

school's economic study of free banking institutions in the late 1890s in the Chinese southeastern coastal city of Fuzhou. Along with other studies, they revealed that China had a long-time history of free banking institutions before the 1920s, which is different from the later central banking patterns in China. This chapter also points out that unlike the Chinese Communist Party's official negative opinions on the epoch of the Beiyang Government, independent researchers have found some positive elements that happened during the Beiyang era. Although some regional wars happened among the warlords, due to a pro-laissez-faire economic policy, the domestic economy was still growing, especially the industries that were not related to the war. Because of World War I, the energy of Western countries was placed on the European battlefield. Hence, there was no Western power to intervene in China's domestic political and economic affairs, which on one side, avoided the wars that had happened in the late Qing Dynasty due to poor Sino-foreign relations. In addition, we also argue that the improving economic situation and monetary ideas laid the foundation of the monetary policy debate and led to the establishment of China's first modern central bank since the late 1920s, especially during the Nanjing Golden Decade (1927-1937).

**Chapter 2:** This chapter is an original synthesis that reviews the biography, monetary theories, and reports for China's central banking institutions of Edwin Kemmerer. Most importantly, this chapter also includes our original review of Kemmerer's 1929 reports for the construction of China's first modern central banking experiment. These crucial reports sought to build an effective Chinese central banking system based on Edwin Kemmerer's main theories, such as a central banking system with a 100% gold reserve. Kemmerer was an economics professor at Princeton University and the world-famous "Money Doctor" who helped build central banks in various countries in Latin America, Europe, and Asia.

One originality of the research in this chapter is that we visited the original archives of Kemmerer's research on China's economic issues kept by the Hoover Institution at Stanford University. To start, we demonstrate the biography of "Money Doctor" Edwin Kemmerer and his monetary and gold theories. We not only review his general theory on central banking and gold reserves but also provide some commentary from a few Austrian economists on Kemmerer's theory, as they both emphasize the function of a gold standard in banking systems. Secondly, we present Kemmerer's reports from 1929 and our commentary on whether his project for China was well planned and practicable. We provide a detailed description of Kemmerer's reports and present the critical reports on China's banking system. Finally, we illustrate our commentary on the reports. In addition, the general political and economic background in China from 1927 to 1937, which were related to Kemmerer's reports, is presented in this chapter.

**Chapter 3:** This chapter reviews Arthur N. Young's banking thoughts on China's central banking reform from 1927 to 1937. As a member of Kemmerer's Western monetary specialists' group for China, who also influenced the decision-making of the Chinese National Government and Generalissimo Chiang Kai-shek to adopt Western-style central banking institutions, Young's reports on his banking thoughts will be mainly checked in this chapter.

One originality of the research in this chapter is that we visited the original archive of Young's research on China's economic issues kept by the Hoover Institution at Stanford University. This chapter also reviews Arthur Young's biography. As a senior

student graduating with a Ph.D. in economics from Princeton University, Young worked with "Money Doctor" Edwin Kemmerer and came to China as an essential member of the 1929 Kemmerer Commission for China to analyze and study China's currency and economic issues, making policy recommendations to the Chinese National Government. Kemmerer was his "teacher and colleague" who influenced Young's economic thoughts. Also, we find that Young not only came to China as an international economist proficient in Spanish but also visited Latin American countries and Spain to conduct research on the economic affairs of these countries. Furthermore, he also visited some European and Asian countries such as Poland and Vietnam to help them carry out economic and monetary policies. In the later sections, we review Young's general comments on the modernization of Nationalist China and his central banking thoughts from 1927 to 1937.

**Chapter 4:** This chapter studies how China established its first modern central banking system from 1927 to 1937, filling a gap in the previous international research on the entire process of establishing China's first modern central bank. In Chapter 1, we discussed that China had more than two thousand years of free banking, and silver tael was used as the main currency standard since the 15th century. However, the three central banking reforms that happened in the 1920s and 1930s fundamentally changed the status of China's banking system. China, a country of using traditional and diverse metal standards, eventually established its first modern central bank in 1928. In 1933, the country abolished the traditional silver tael standard, setting its Silver Dollar standard, which was designed by the Sino and Western financial specialists of the National Government based one a decade discussion.

Initially, due to the 1929 gold standard plan proposed by the U.S. financial specialist E. W. Kemmerer, the Silver Dollar standard would become a transition between the old silver tael standard and the future gold standard. However, due to the fragile internal financial condition and the 1934 US Silver Purchase Act, it became impossible for China to have sufficient silver to establish its Silver Dollar Standard, not mention the gold standard given that China was not a country that produced this scarce metal. Instead, from 1934 to 1935, after three rounds of Sino-Western negotiations, China was going to implement a fiat money system, Fabi, whose currency value was based on its exchange rates of the U.S. dollar and the British pound. The reform was taken in November 1935, which ended China's two-thousand-year history of using metals as currency standards. The relatively stable political and economic conditions, along with the global trend of establishing a central banking system to strengthen the state power and the national financial system, made the birth of China's first modern central banking system inevitable. Based on first-hand references, the monographs of the authoritative scholars, and the empirical data, this chapter focuses on the study of the history of the establishment of China's first modern central banking institutions, providing an original, in-depth synthesis and analysis of China's first modern central banking establishment process.

**Chapter 5:** This chapter analyzes the conditions of China's first modern central banking institutions during the Second Sino-Japanese War. China established its first modern central banking in 1928, along with its 1933 silver-standard reform and its 1935 fiat-currency reform. Due to the 1935 banking reform plan, the Chinese National Government would establish a modern central reserve banking system that was planned to control the currency issuance fully. However, the outbreak of the Second Sino-

Japanese War in 1937 delayed the ongoing central banking reform. Based on quantitative analysis and original synthesis of archives and previous research, this chapter studies China's central banking institutions during the Second Sino-Japanese War, 1937-1945.

To understand the wartime banking structure in China, it is crucial to review the relevant historical backgrounds. This is due to the complicity of the wartime China as the country was separated into Free China, Japanese-occupied China (along with Manchukuo) and Communist-occupied area. At the beginning of the analysis, this chapter provides the political and economic background during the Second Sino-Japanese War, along with an analysis of the disappearing local, private, and spontaneously free-banking systems. Secondly, this chapter deals with the background of the wartime banking policy. In the later sections, we discuss the process of the wartime expansionary monetary policy and price inflation and provide an in-depth discussion of the possible causes of the wartime price inflation, along with its consequences.

**Chapter 6:** This chapter analyzes the conditions and the collapse of China's first modern central banking institutions during the Chinese Civil War. Although China established its first modern central bank in 1928, along with its 1933 silver-standard reform and its 1935 fiat currency reform, due to the outbreak of the Second Sino-Japanese War, the banking reform deployed. Because China passed its first democratically created Constitution in 1946, becoming the world's largest democratic country at the time, post-WWII China was originally expected to establish a stable banking system. However, during the following Chinese Civil War period, not only did the central banking experiment fail by massive price inflation and chaotic economic order, but the government of the Republic of China was also defeated militarily by the Chinese Communist Party.

This chapter provides a quantitative, qualitative, and synthetic analysis of the collapse of China's first modern central banking system and its price hyperinflation during the Chinese Civil War. Based on the above political background, this chapter provides a brief description of the Chinese economy during not only the Chinese Civil War, but also an in-depth analysis of the process and the reasons why two currency systems, the Fabi and the Gold Yuan Notes, collapsed successively during the Civil War. This chapter also synthesizes the economic, political, and social consequences of the wartime expansionary monetary policy and its price hyperinflation. The massive issuance of currency and its subsequent price hyperinflation in response to military expenditures later became the most prominent feature of China's economy during the Civil War. We point out that President Chiang Kai-shek and the government of the Republic of China must bear the ultimate responsibility for the collapse of the monetary system and price hyperinflation as they ignored all the suggestions of the Chinese and foreign economists. They opposed the payment of military spending through excessive monetary expansion policy.

An original evaluation of the economic and monetary policy debates during the Civil War is provided in this chapter. Furthermore, we also point out that the Marshall Plan for China, which arrived lately in 1948, was useless to stabilize the Chinese economy and its monetary system. The chapter concludes by pointing out that the Chinese Civil War and the collapse of China's first central banking system have had a profound impact on the contemporary cross-strait relationship among the Communist Chinese Mainland and the Republic of China on Taiwan since 1949.

**Conclusion:** Finally, in the concluding chapter, we provide some conclusions and suggest extensions for future research.

## Resumen

El sistema de banca central ha sido el sistema bancario adoptado en todo el mundo desde el siglo XX, influyendo profundamente en las estructuras políticas y económicas de muchos países hasta nuestros días. China continental es la segunda potencia económica más grande a nivel internacional, cuyo crecimiento económico en los últimos 30 años ha llamado la atención en todo el mundo. Un tema candente relacionado con China es la función de su sistema de banca central. Sin embargo, los trabajos para estudiar la creación del banco central de China y el debate sobre el pensamiento monetario detrás de la aparición de dicha institución, aún requieren un análisis más detallado. Esta tesis explica el establecimiento del sistema de banca central de China siguiendo el debate del pensamiento monetario entre economistas y políticos chinos y especialistas financieros extranjeros, que brindaron asesoramiento para la política monetaria de 1927 a 1949.

Esta investigación tiene tres objetivos principales:

Revisar el debate sobre el pensamiento monetario de 1927 a 1949 entre los economistas y políticos chinos y especialistas financieros occidentales sobre cómo mejorar el sistema monetario chino y cómo construir un sistema bancario central efectivo durante la guerra.

Demostrar cómo el establecimiento de la banca central se fundamentó en las teorías monetarias propuestas en el debate del pensamiento monetario.

Identificar qué partes de ese pensamiento monetario causaron la creciente y enorme inflación durante la guerra y discutir si otros planteamientos del debate o posturas financieras relacionadas, de haber sido adoptados como políticas monetarias, podrían haber evitado el colapso económico y la ocupación comunista en 1949.

Esta investigación utiliza dos metodologías:

**Historia económica:** esta tesis utiliza los métodos de la historia económica (una combinación de teoría económica ortodoxa, la visión de la escuela austriaca sobre la banca central y la inflación de precios, y métodos cuantitativos, prestando especial atención a los factores institucionales y a largo plazo) para ver el establecimiento del banco central de China y el debate monetario que hubo detrás de él.

**Uso extenso de fuentes primarias ubicadas en archivos:** esta tesis utiliza archivos para demostrar los puntos anteriores.

La tesis está estructurada en tres partes. La primera parte es sobre la situación general económica y politica de China (desde el siglo XIX hasta 1927) (Capítulo 1). La segunda parte demuestra los debates de pensamiento monetario y la reforma del patrón plata de 1927 a 1937 (Capítulo 2 al Capítulo 4). La tercera parte se centra en la banca central y la guerra (1937-1949) (Capítulo 5 al Capítulo 6). El contenido de cada capítulo de la tesis se puede resumir brevemente de la siguiente manera:

**Capítulo 1:** Este capítulo revisa la situación económica y política general de China desde el siglo XIX hasta 1927. Primero, discutimos la historia extensa de China desde el Imperio Qing, la última dinastía china, hasta la Revolución Republicana Xinhai de 1911. La reforma en los últimos momentos de la dinastía Qing había contribuido principalmente al progreso de China, en concreto, con la modernización de la economía china y la apertura del mercado chino al mundo entero. Aun así, la estancada reforma política decepcionó a la élite social y causó la Revolución Xinhai. Desde entonces, China

estuvo en tiempos de guerra o en despotismo comunista, excepto en la Década de Oro de Nanjing (1927-1937). Argumentamos que, si la dinastía Qing hubiera implementado con éxito todas las reformas necesarias, incluida la reforma bancaria, antes de que la gente se enojara, China podría haber sido una sociedad desarrollada, próspera y liberal sin un Gobierno autoritario. Además, también presentamos el estudio económico de la escuela austriaca sobre las instituciones de banca libre a finales de la década de 1890 en la ciudad costera de Fuzhou, en el sureste de China. Junto con otros estudios, revelaron que China tenía una larga historia de instituciones de banca libre antes de la década de 1920, que es diferente de los patrones posteriores de banca central en China. Este capítulo también señala que, a diferencia de las negativas opiniones oficiales del Partido Comunista Chino sobre la época del Gobierno de Beiyang, investigadores independientes han encontrado algunos elementos positivos que ocurrieron durante la era de Beiyang. Aunque tuvieron lugar algunas guerras regionales entre los jefes militares, debido a una política económica pro-laissez-faire, la economía nacional todavía estaba creciendo, especialmente las industrias que no estaban relacionadas con la guerra. Debido a la Primera Guerra Mundial, la energía de los países occidentales se focalizó en el campo de batalla europeo. Por lo tanto, no había poder occidental para intervenir en los asuntos políticos y económicos internos de China, lo que evitó las guerras que habían sucedido a finales de la dinastía Qing debido a las malas relaciones chino-extranjeras. Además, sostenemos que la mejora de la situación económica por un lado y las ideas monetarias por otro, sentaron las bases del debate de política monetaria y condujeron al establecimiento del primer banco central moderno de China desde finales de la década de 1920, especialmente durante la Década de Oro de Nanjing (1927-1937).

**Capítulo 2:** Este capítulo es una síntesis original que revisa la biografía, las teorías monetarias y los informes de instituciones de la banca central china de Edwin Kemmerer. Lo más importante de este capítulo es que también incluye nuestra revisión original de los informes de Kemmerer de 1929 para la construcción del primer experimento moderno de banca central de China. Estos cruciales informes buscaban construir un sistema efectivo de banca central china basado en las principales teorías de Edwin Kemmerer, como un sistema de banca central con una reserva de oro del 100%. Kemmerer fue profesor de economía en la Universidad de Princeton y el famoso "Money Doctor" que ayudó a construir bancos centrales en varios países de América Latina, Europa y Asia.

Una originalidad de nuestra investigación en este capítulo es que visitamos los archivos originales de la investigación de Kemmerer sobre los problemas económicos de China guardados por la Institución Hoover en la Universidad de Stanford. Para comenzar, mostramos la biografía de "Money Doctor" Edwin Kemmerer y sus teorías monetarias y sobre el oro. No solo revisamos su teoría general sobre la banca central y las reservas de oro, sino que también proporcionamos algunos comentarios de algunos economistas austriacos sobre la teoría de Kemmerer, ya que todos ellos enfatizan la función de un patrón oro en los sistemas bancarios. En segundo lugar, presentamos los informes de Kemmerer de 1929 y nuestro comentario sobre si su proyecto para China estaba bien planificado y era factible. Proporcionamos también una descripción detallada de los informes de Kemmerer y presentamos informes críticos sobre el sistema bancario de China. Finalmente, ilustramos nuestro comentario sobre los informes. Además, en este

capítulo se presentan los antecedentes políticos y económicos generales de China desde 1927 hasta 1937, que estaban relacionados con los informes de Kemmerer.

**Capítulo 3:** Este capítulo revisa la opinión de Arthur N. Young sobre la reforma de la banca central de China de 1927 a 1937. Como miembro del grupo de especialistas monetarios occidentales de Kemmerer para China, también influyó en la toma de decisiones del Gobierno Nacional Chino y del Generalísimo Chiang Kai-shek para adoptar las instituciones de banca central de estilo occidental, los informes de Young sobre su pensamiento bancario serán revisados principalmente en este capítulo.

Este capítulo también repasa la biografía de Arthur Young. Como estudiante senior graduado con un PhD. en economía por la Universidad de Princeton, Young trabajó con el "Money Doctor" Edwin Kemmerer y llegó a China como miembro esencial de la Comisión Kemmerer de 1929 para China para analizar y estudiar los problemas económicos y monetarios de China, haciendo recomendaciones de política al Gobierno Nacional Chino. Kemmerer fue su "maestro y colega" que influyó en los pensamientos económicos de Young. Además, descubrimos que Young no solo vino a China como economista internacional con un buen dominio del español, sino que también visitó países latinoamericanos y España para realizar investigaciones sobre los asuntos económicos de estos países. Además, también visitó algunos países europeos y asiáticos como Polonia y Vietnam para ayudarlos a llevar a cabo políticas económicas y monetarias. En las últimas posteriores, revisamos los comentarios generales de Young sobre la modernización de la China nacionalista y su pensamiento sobre la banca central de 1927 a 1937.

**Capítulo 4:** Este capítulo estudia cómo China estableció su primer sistema moderno de banca central de 1927 a 1937, llenando un vacío en la investigación internacional previa sobre todo el proceso de creación del primer banco central moderno de China. En el Capítulo 1, discutimos que China había tenido más de dos mil años de banca libre, y como el tael de plata se usó como el principal patrón de divisas desde el siglo XV. Sin embargo, las tres reformas de la banca central que ocurrieron en las décadas de 1920 y 1930 cambiaron fundamentalmente el estado del sistema bancario de China. China, un país que utilizaba diferentes patrones metálicos tradicionales, finalmente estableció su primer banco central moderno en 1928. En 1933, el país abolió el patrón tradicional de tael de plata, estableciendo su estándar de dólar de plata, que fue diseñado por especialistas financieros de China y Occidente del Gobierno nacional, basándose en una discusión de una década sobre asuntos monetarios.

Inicialmente, debido al plan estándar de oro de 1929 propuesto por E. W. Kemmerer, especialista financiero de EE. UU., el estándar del dólar de plata pasaría a ser una transición entre el antiguo patrón plata y el futuro patrón oro. Sin embargo, debido a la frágil situación financiera interna y la Ley de Compra de Plata de los Estados Unidos de 1934, fue imposible para China tener suficiente plata para establecer su Estándar del Dólar de Plata, sin hacer referencia al patrón oro puesto que China no era un país que produjera este escaso metal. En cambio, de 1934 a 1935, después de tres rondas de negociaciones sino-occidentales, China iba a implementar un sistema de dinero fiduciario, Fabi, cuyo valor monetario se basaba en sus tipos de cambio con el dólar estadounidense y la libra esterlina. La reforma fue adoptada en noviembre de 1935, lo que puso fin a los dos mil años de historia de China con el uso de metales como estándares monetarios. Las condiciones políticas y económicas relativamente estables, junto con la tendencia global de establecer un sistema de banca central para fortalecer el poder estatal y el sistema

financiero nacional, hicieron inevitable el nacimiento del primer sistema moderno de banca central de China. Basado en referencias de primera mano, las monografías de estudiosos autorizados y en datos empíricos, este capítulo se centra en el estudio de la historia del establecimiento de las primeras instituciones modernas de banca central de China, proporcionando una síntesis y análisis originales y en profundidad del primer proceso moderno de establecimiento de la banca central china.

**Capítulo 5:** Este capítulo analiza las condiciones de las primeras instituciones modernas de banca central de China durante la Segunda Guerra Sino-Japonesa. China estableció su primera banca central moderna en 1928, junto con su reforma del patrón plata de 1933 y la reforma de la moneda fiduciaria de 1935. Debido al plan de reforma bancaria de 1935, el Gobierno nacional chino establecería un moderno sistema central de reservas bancarias que estaba pensado para controlar completamente la emisión de divisas. Sin embargo, el estallido de la Segunda Guerra Sino-Japonesa en 1937, retrasó la reforma de la banca central que estaba en curso. Basado en un análisis cuantitativo y en la síntesis original de archivos e investigaciones previas, este capítulo estudia las instituciones del sistema de banca central de China durante la Segunda Guerra Sino-Japonesa (1937-1945).

Para comprender la organización bancaria de China en tiempos de guerra, es crucial revisar algunos antecedentes históricos relevantes. Esto se debe a la complejidad de China en tiempos de guerra, ya que el país se separó en la China Libre, la China ocupada por los japoneses (junto con Manchukuo) y el área ocupada por los comunistas. Al comienzo del análisis, este capítulo proporciona los antecedentes políticos y económicos durante la Segunda Guerra Sino-Japonesa, junto con un análisis de la desaparición de los sistemas de banca libre locales, privados y espontáneos. En segundo lugar, este capítulo trata sobre los antecedentes de la política bancaria en tiempos de guerra. En las secciones posteriores, discutimos los procesos de la política monetaria expansiva en tiempos de guerra y la inflación de precios, y brindamos una discusión en profundidad de las posibles causas de la inflación de precios durante la guerra, junto con sus consecuencias.

**Capítulo 6:** Este capítulo analiza las condiciones y el colapso de las primeras instituciones modernas de banca central de China durante la Guerra Civil China. Aunque China estableció su primer banco central moderno en 1928, junto con su reforma del patrón plata de 1933 y su reforma de la moneda fiduciaria de 1935, como consecuencia del estallido de la Segunda Guerra Sino-Japonesa, la reforma bancaria se implementó. Debido a que China aprobó su primera Constitución democráticamente creada en 1946, convirtiéndose en el país democrático más grande del mundo en ese momento, originalmente se esperaba que la China posterior a la Segunda Guerra Mundial estableciera un sistema bancario estable. Sin embargo, durante el siguiente período de la Guerra Civil China, el experimento de la banca central no solo fracasó por la inflación masiva de precios y el caótico orden económico, sino que el Gobierno de la República de China también fue derrotado militarmente por el Partido Comunista Chino.

Este capítulo proporciona un análisis cuantitativo, cualitativo y sintético del colapso del primer sistema moderno de banca central de China y su hiperinflación de precios durante la Guerra Civil China. Basado en el contexto político anterior, este capítulo proporciona una breve descripción de la economía china durante la Guerra Civil China, pero también un análisis en profundidad del proceso y las razones por las cuales

dos sistemas monetarios, el Fabi y el Gold Yuan Notes, colapsaron sucesivamente durante la Guerra Civil. Este capítulo también sintetiza las consecuencias económicas, políticas y sociales de la política monetaria expansiva durante la guerra y su hiperinflación de precios. La emisión masiva de divisas y la posterior hiperinflación de precios en respuesta a los gastos militares, más tarde se convirtió en la característica más destacada de la economía de China durante la Guerra Civil. Señalamos que el presidente Chiang Kai-shek y el Gobierno de la República de China debían asumir la responsabilidad final del colapso del sistema monetario y la hiperinflación de precios, ya que ignoraron todas las sugerencias de los economistas chinos y extranjeros. Se opusieron al pago del gasto militar, a través de una política de expansión monetaria excesiva.

En este capítulo se proporciona una evaluación original de los debates de política económica y monetaria durante la Guerra Civil. Además, también señalamos que el Plan Marshall para China, que llegó en 1948, fue inútil para estabilizar la economía china y su sistema monetario. El capítulo concluye señalando que la Guerra Civil China y el colapso del primer sistema de banca central de China han tenido un profundo impacto en la relación contemporánea del Estrecho entre la China continental comunista y la República de China en Taiwán desde 1949.

**Conclusión:** Finalmente, en el capítulo final, proporcionamos algunas conclusiones y sugerimos extensiones para futuras investigaciones.

## Introduction

This introductory chapter presents the general characteristics of the doctoral thesis. It begins by exposing the research background that led to the choice of the topic to investigate. Then it explains the objectives pursued and the methodology with which the thesis has been carried out. Finally, it argues the structure with which the content has been organized according to the research questions that the thesis faces.

### Research Background

The central banking system has been a worldwide-adopted banking system since the 20th century, which influences political and economic structures profoundly in different countries to this day. Chinese Mainland is the second biggest economic entity, whose economic growth in the last 30 years gets the attention of the world. One hot topic is the function of China's central banking system. But the works for studying the establishment of China's central bank and the monetary thought debate behind the event still require further analysis. This thesis explains the establishment of China's central banking system by following the monetary thought debate among Chinese economists, politicians, and foreign financial specialists. They provided advice for monetary policy from 1927 to 1949.

**The Review of Chinese Monetary and Banking History.** The reason that gives us the incentive to research this topic is because of our review on Chinese financial and banking history (K. Chang, 1958; Chou, 1963/1969; Tamagna, 1942; Rawski, 1989; Hong, 2008; J. X. Zhang, 2001). Before the establishment of the Chinese National Government in 1927, both the private sector and the government shared legal rights to do mintage. Meanwhile, China had less governmental regulation in monetary issues (J. Zhu,

2012). Silver, as a rare metal, was recognized as the primary currency standard in China (J. Zhu, 2012; Rawski, 1993; Friedman, 1992) long throughout Chinese history.

However, as the institutions in China rapidly changed during the late 1800s and the early 1900s, everything related to the Chinese banking system gradually changed according to the following reasons; (D. Ma, 2016; Shiroyama, 2008; Hong, 2008; K. Chang, 1958): 1) the popularity of central banking systems in the early 20$^{th}$ century all around the world; 2) the price fluctuations caused by the global economic situation and the unstable political and economic situation in China (Rawski, 1989); 3) the necessity of National Government for building a central banking system to consolidate its political power (Ji, 2003); and 4) wars among the National Government, the Japanese, and the Communists in Chinese territory (Boyle, 1972; Chassin, 1966).

Due to these reasons, the following things happened during the transformation from the free banking system to central banking: 1) the issuance of money was gradually monopolized by central banking before 1935 (D. Ma, 2016); 2) the establishment of China's first central bank in 1928; 3) the emergence of the central banking silver standard in 1933 (J. Dai, 2005); 4) the appearance of fiat money Fabi (法幣) in 1935 (Du, 2014), which was the first central banking paper currency system; and 5) the short and hurried appearance of Gold Yuan in 1948 (金圓券), which was the National Government's last currency system in Mainland China (J. Zhu, 2012). Meanwhile, as the National Government was using the issuance of paper currency fighting in the war, the disaster of expansionary monetary policy and price inflation was happening from 1937 to 1949 (K. Chang, 1958), which almost destroyed the enormous Chinese economy, especially causing the establishment of Chinese Communist rule in 1949. Behind the establishment

of China's central bank, the big and enthusiastic monetary thought debate (1927-1937) was discussed amongst both Chinese and Western specialists, which was about how to solve China's political and economic crisis by building an excellent central banking system (J. Du, 2014; J. Zhu 2012; Hong, 2008; Shiroyama, 2008; J. Dai, 2005; J. X. Zhang, 2001).

**The Review of Edwin W. Kemmerer and Arthur N. Young's Theories on the Chinese Central Banking System.** During the big debate, some Western monetary specialists like Edwin W. Kemmerer and Arthur N. Young provided direct policy advice on China's banking system (A. Young, 1936, 1963, 1965, 1971). Especially E. W. Kemmerer, who also participated in the establishment of central banking in many Latin American countries, played a significant role in solving the Chinese question (Kemmerer, 1944/2011; Kemmerer Commission 1929a, 1929b). As the politicians in National Government directly got advice from both Chinese and Western monetary specialists, illustrating the relationship between policymaking and the monetary thought debate is very important to see the general picture in that epoch. The thesis systematically researches the new Chinese-born central banking system by following the monetary debate and making a connection between Chinese and global central-banking movements.

**The Review of President Chiang Kai-shek's Position on Banking Institutions, Along with the Banking Proposals of the Republic of China's Founding Father Sun Yat-sen.** As the leader of the National Government, Chiang Kai-shek's understanding of the currency system played a decisive role in the final decision of the National Government (J. Zhang, 2001, p. 1158; ACPBC, 1991, pp. 181-182). Though Chiang did not have sufficient economic knowledge, he firmly believed that the issuance

of banknotes through the central banking system and the abolition of metal currencies such as gold and silver were the trends in social evolution. He also legitimized his proposal by claiming that the monetary revolution he was managing was also advocated by Sun Yat-sen, the founding father of the Republic of China.

However, Chiang's claim was not precisely what Sun Yat-sen proposed. Though Sun did not offer any systematic theory of establishing the modern central banking institution, he still argued that it was necessary to issue banknotes to solve the financial shortage of the National Government, but that the banknote reserves do not necessarily have to be 100%. While on the contrary, our research finds that Chiang never showed any keen interest in supporting a 100% reserve banking system. From the analysis of the Chapters 5 and Chapter 6, we see that Chiang Kai-shek's vague currency concept had buried an indefinite bomb for his next series of erroneous currency decisions.

**The Review of Monetary Theories of Economists and Politicians Soong Tse-ven and Kung Hsiang-hsi.** As the most important economic policy advisors and politicians of Chiang, Soong Tse-ven and Kung Hsiang-hsi also played essential roles in the formulation of the National Government's monetary policy (J. Wu, 1992; Kuo & Lin, 2006, J. Zhang, 2001, pp. 1104-1106). However, as an economist who once studied at Harvard University and Columbia University in the United States, Soong, who had the economic theory and international vision, obviously did not agree with Chiang Kai-shek's thinking in currency policy. On the issue of monetary policy, T. V. Soong, like Chiang Kai-shek, advocated that China needed a unified national monetary system and the introduction of a Western modern central banking system. As for how to establish the institution of the central bank, Soong did not have a clear answer initially, but gradually

evolved his monetary thought according to the development of the economic and political situation and the suggestions of other economists. The most significant difference between Soong Tse-ven and Chiang Kai-shek's monetary policy is that Soong opposed the expansionary monetary policy and price inflation, advocating limiting currency issuance to curb price inflation. It is worth mentioning that Soong's 100% reserve proposal and the 100% gold-standard reserve plan proposed by Edwin K. Kemmerer in 1929 complemented each other. Soong also supported Kemmerer's plan at that time. In fiscal policy, he also advocated austerity for budgetary policy, opposing the government's use of large amounts of expenditure for military spending. Because the government's final decision-maker was Chiang Kai-shek, although Soong theoretically fought price inflation policy, he was unable to act upon his convictions. Instead, he was forced to help the Chinese government sort out as much as possible the fiscal and monetary policies with the development of the economic situation and Chiang Kai-shek's policy thinking. Generally speaking, Soong Tse-ven was a Milton Friedman-like monetarist and a laissez-faire financial scholar and politician. From the understanding of the gold standard and 100% reserve, perhaps Soong may be the most libertarian among the financial policymakers of the National Government.

Like Chiang Kai-shek and Soong Tse-ven, Kung also considered that the fiat money reform of the National Government inherited Sun Yat-sen's monetary thinking (S. Wang, 2006; J. X. Zhang, 2001, p. 1160; Zhuo, 1986, p. 435). After 1933, Kung became Chiang's most crucial financial assistant instead of Soong. Unlike Soong, although Kung's point of view acquiesced in his understanding of supporting a 100% silver reserve, he also endorsed a fiat money policy with fractional reserves, which is contradictory.

Kung did not have a clear monetary theory and indulged Chiang Kai-shek's policy on currency abuse in practice. Therefore, Kung Hsiang-hsi was utterly different from Soong Tse-ven's tight fiscal and monetary policies practically, though he himself theoretically was against expansionary monetary policy and price inflation.

**The Review of Monetary Theories of Other Chinese Economists and Their Laissez-faire Proposals.** Before and during the currency reform around 1935, other economists also put forward their opinions and suggestions on China's currency banking system and currency standard, though their voices did not directly affect China's currency reform as the monetary ideas and policies of Chiang Kai-shek, Soong Tse-ven, and Kung Hsiang-hsi. The opinions and suggestions of these economists on monetary policy were mainly divided into three groups. The first group of scholars supported various forms of the silver standard, the second group of scholars supports multiple forms of physical articles standard, and the third group of scholars were radicals in supporting the policy of non-exchangeable banknotes (J. X. Zhang, 2001; Ye, B. Li & Zhong, 2003). It is regrettable that in the literature we have found so far, no scholars of the Golden Decade (1927-1937) were supporting the idea of returning to the traditional free banking silver standard or were influenced by the Austrian school supporting the modern school's position on the free banking system.

It is worth mentioning that, among the above scholars, Yao Qingsan systematically introduced the monetary theories of Western scholars from the ones who supported gold standard (i.e., G. Cassel, J. Kitchin, G. F. Warren, and F. A. Pearson), the ones who supported to stabilize price levels (i.e., I. Fisher, A. Salter, P. Einzig, H. Strakosch, and D. H. Robertson), and the Keynesian monetary theories (Yao, 1935a,

1935b, 1935c, 1938). Especially, Yao Qingsan was probably the first Chinese economist during the Mainland period of the Republic of China who systematically introduced the Austrian School of Economics' monetary theories into China. In *Trends in Modern Currency Thoughts and World Currency Systems*, Yao introduced F. V. Weisser, J. G. K. Wicksell, F. A. Hayek, and L. von Mises' business cycle theories.

During the Civil War, economic scientists and intellectuals provided sufficient and diverse opinions on how to construct China's economic and monetary system. Among them, Soong Tse-ven and Arthur N. Young were the representatives of the economists who were in the level of policymaking that can directly influence the decision-making of President Chiang Kai-shek; they were in favor of relatively free trade, and free exchange policy that they believed was positive for the Chinese economy, and they were firmly against the expansionary monetary policy along with its consequence of price (hyper)inflation (RCLHNCC, 1985). They suggested the postwar ROC government should adopt a more self-disciplined monetary policy, arguing that this policy would be good for post-war economic rehabilitation and reconstruction. They strongly opposed uncontrolled military spending and advocated stabilizing the economic and financial order through fiscal austerity and other methods. From the previous chapters of the thesis, we have already known that Soong Tse-ven and Arthur N. Young had a consistent view of supporting fiscal and monetary tightening policies, even after the late 1920s. They did not contradict themselves.

Apart from them, economist Yang Peixin was in favor of a more laissez-faire and a more profound perspective, who not only supported the above policy views that Soong Tse-ven and Arthur N. Young held, but even proposed the complete abolition of

state-owned enterprises and any other kind of government. He did this by demonstrating the danger of government economic intervention and regulation through his down-to-earth empirical observation of the real situation of the Chinese economy and the economic life of the Chinese people with sound and systematic argumentation.

Furthermore, Yang Peixin also perceived that a sound economic policy alone was not enough for China's post-war rehabilitation and reconstruction (P. Yang, 1946, 1948). For him, constitutional democracy was also essential to establish a healthy and positive postwar economy. Therefore, his perspective was not just from the limited version of policymaking, but also considers the more profound question of building an excellent institution in a macro and long-term perspective.

We also reviewed the theories of other scholars, such as Wu Chi-yuen, who advocated a market economy with a certain degree of government economic intervention on China's economy and monetary system (i.e., just prices and a certain degree of governmental industrial and international trade regulations) (C. Y. Wu, 1946a, 1946b; S. Fang 1945/1947). None of them agree that the government can deal with the Civil War's military expenditures using indiscriminate monetary expansion. They were also very critical of the danger of price inflation and its harm caused by an extremely expansionary monetary policy.

Unfortunately, none of the above views were adopted by President Chiang Kai-shek, who was the final political decision-maker and who had little knowledge of economic theories. Therefore, it was no wonder why George Marshall, who had come to China from 1946 to 1947 to regulate the conflicts between the Chinese government and the Communist Party and ultimately failed later, became pessimistic about the future of

the Republic of China during the ongoing Chinse Civil War. Although these scholars did not propose a free banking theory similar to the Austrian School of economics, if their proposals against inflation were adopted, they might have been enough to stop the collapse of the Republic of China's financial system before 1949.

**The Review of the Austrian School Economists' Views on Edwin Kemmerer and His Theory of Gold Standard.** We also find that the Austrian school economists, who are in a strong position of supporting the gold standard, free banking, and criticizing price inflation, also studied Edwin Kemmerer's monetary theories and provided their perspectives on central banking and its price inflation. Selgin (1992) demonstrated Foochow's free banking system, which provided more evidence on the Chinese banking system before 1927. Edwin Kemmerer (1944/2011; Kemmerer Commission, 1929a, 1929b; J. Zhu, 2012) brought the central banking theories from the United States, directly submitting a monetary reform report to top politicians and economists in National Government and influenced the conception of central banking in their minds.

Selgin also criticized the theory of gold-standard central banking-system proposal by Kemmerer and his companions, both theoretically and historically (Selgin, 1988, 2015a, 2015b). He suggested a free-banking system without the regulation of deposit reserve. Fundamentally, Selgin claimed that the proposal of establishing a gold-standard central-banking system was theoretically wrong. For Selgin, it is the private-law which made the gold standard possible and credible, not the governmental law (Selgin, 2015b, p. 261). The commitments attached by sovereign immunity do not and cannot execute private sanctions if the banks break their promises, which will make the commitments to maintain a gold parity impossible and not credible. Moreover, central

banks can use their monopolized power to devalue currency without punishment. They can even benefit by doing this manipulation and can also make the currency holder of central banks afraid of the devaluation of currency. A gold standard based on the central banking system would be finally tempted by speculative attacks (Selgin, 2015b, p. 261).

For the gold and monetary theories of Edwin Kemmerer, Selgin claimed that historically, there was no relationship between the pre-WWI gold standard and manipulation from the central banking system (Selgin, 2015a, p. 17; 2015b, p. 261). Thus, Kemmerer was wrong in the historical evidence of the pre-war gold standard issues. For Selgin, it was the war that broke and ended the previous gold standard. Therefore, the development of central banking in the post-war era made it impossible to maintain the gold standard according to Selgin's theory, which we demonstrated in the last paragraph. In this sense, the efforts of Kemmerer and his companions for establishing a stable gold-standard central-banking system would not work. Selgin also believed that in the post-war era, the intention of the establishment of central banking was not only to re-establish a gold standard but more to re-establish a durable system of fixed exchange rates.

In Selgin's view, it was precisely Kemmerer's support for the establishment of the U.S. Federal Reserve that caused the collapse of the traditional gold standard (Selgin, 2015b, p. 261). For Selgin, the conventional gold standard that relied on the free banking system was destroyed by the Fed's central banking system. Thus, from Selgin's perspective, Kemmerer himself clearly should bear some responsibility for the disappearance of the traditional gold standard.

Selgin also criticized that historically the post-war central banking system was a tragedy that avoided the price fluctuation of neither inflation nor deflation. But with the

faith of the gold-standard central-banking system, Kemmerer and his companions went to different countries to propose the idea of the gold standard central banking system. Therefore, although Selgin did not fully agree with Kemmerer's currency theory, he still affirmed Kemmerer's efforts to return to the traditional gold standard (Selgin, 2015a, p. 17).

The contemporary Austrian School economist Joseph Salerno studied Kemmerer's contribution to the definition of monetary supply and business arbitrage, the definition of inflation, and the gold standard (Salerno, 2010, p. 129, p. 342, p. 424). For the Bretton Woods system, Salerno pointed out that Edwin Kemmerer, along with another two American economists, Benjamin Anderson and Melchior Palyi, were all against the Bretton Woods agreement. The economists advocated a return to the prewar gold standard (Salerno, 1985/1992). As we have demonstrated, before the establishment of the Bretton Woods system, Kemmerer actively criticized the fiat money-based monetary system through a newspaper article, monograph, and the U.S. congressional hearing. However, he did not participate in the conference in Bretton Woods. Not to mention that the conference did not accepted his opinion in the Keynesian-dominated meeting.

Furthermore, Salerno also reviewed Kemmerer's contribution to the relationship between the price fluctuation and gold.[1] Salerno agreed with Kemmerer that with the significance of the scarcity and durability of gold, the stability of the money supply would be realized. For Salerno, whether in the empirical sense, gold is scarce or not will not influence its characteristics of scarcity and durability (Salerno, 2010, p. 344). Besides, Salerno agreed with Kemmerer that as gold is scare and durable, a considerable reduction

[1] See Salerno (2010, pp. 343-345).

or increase in the cost of gold production will not cause the fluctuation in the annual supply of gold-based money.

**The Review of the Austrian Business Cycle Theory on How Central Banking Credit Expansion and Monetary Inflation Cause Price Inflation and Distort the Economy.** Mises (1912/2009, 1949/1998), Hayek (1931/1935), Huerta de Soto (1998/2008), Rothbard (1962/2009, pp. 755-874, 1963/2008, pp. 3-81), and Salerno (2010) provide the version of the Austrian Business Cycle Theory (ABCT) on how central banking credit expansion and monetary inflation cause price inflation and distort the economy. The economists of the Austrian school argue that the unlimited issuance of central banking banknotes can cause price inflation or price hyperinflation, making the prices of consumption goods higher than the purchasing power that the consumers have, as the salaries of the consumers are fixed due to their labor contracts or the growth rate of the wages of the consumers are slower than the growth rate of the general prices. Among the aforementioned Austrian economists, Mises (1912/2009) firstly provided the analytical framework that we have demonstrated in this paragraph, who also argues that the destructed purchasing power of the banknotes that the consumers hold *de facto* cause the gap between the rich and the poor, as the people who first receive the central banking credit can provide product or consume without facing an inflating price that the latter consumers have to face (Mises, 1949/1998). We initially apply Mises's theory of how central banking credit distorts the economic process in the institutional analysis of the causes and process of the price hyperinflation of Fabi and Gold Yuan Notes, causing price inflation. Mises's argument will also be applied to argue the consequences of the monetary and price hyperinflation of Fabi and Gold Yuan Notes.

Based on the analytical framework of Mises, Hayek focused on how an artificially lowered interested rate and cheap bank credit distort the industrial production process. It is argued that after the central banking system issues more bank credit and banknotes, the producers who first received the bank credit would use it to initiate their production, which distorts the original production structures. This Hayekian theory is later sublimed in the ABCT of Huerta de Soto (1998/2006) that the cheap central banking credit distorts entrepreneurship as the entrepreneurs no longer produce in the same way before monetary inflation. As the Austrian school argues that entrepreneurship is the driving force of the market economy (Mises, 1949/1998, p. 249), entrepreneurs that receive cheap credit through cronyism are defined as destructive entrepreneurship (Foss and Klein, 2002). Though in the analysis of the wartime central banking situation, it is not necessary both theoretically and empirically to have a lower interest rate, the Hayekian theory of how monetary and price inflation triggered by the central banks can still be applied to analyze how this type of increase distorts the production process and entrepreneurship. We innovatively use the aforementioned Austrian theory of production and entrepreneurship to demonstrate the consequences of monetary and price hyperinflation of Fabi and Gold Yuan Notes, along with the criticism of the relevant monetary theories of the wartime Chinese economists.

For solving the problem of economic crises and the negative consequences triggered by monetary and price inflation, the tradition of the economic thoughts of the Austrian school Gold proposes a 100% reserve gold standard. Mises (1912/2009) firstly argued that a 100% reserve gold standard could restrain the monetary issuance in a free banking system. Hayek (1937b) argued that a 100% reserve gold standard could possibly

stabilize the price level, which would in turn make the economy more stable. Based on the aforementioned theories of Mises and Hayek, Huerta de Soto (1998/2006) emphasized the separation of the deposit contract (a 100% reserve system) and the credit contract. Besides, Bagus (2010-2012) also furnished us with an Austrian view on the empirical analysis of the monetary crisis of the contemporary Euros, which provides us an insight of offering an Austrian-based analysis on the Chinese Civil War time monetary institutions.

**The Review of the Austrians on Central Banking and Wars.** Mises (1949/1998, p. 439), Huerta de Soto (1998/2006, pp. 758-760), and Salerno (2010, pp. 237-265) provided an Austrian view on how the government uses a central banking system and its monetary inflation to support its wars causing price inflation and distorting the economy. They argued that wars could be avoided if the governments do not have central banks as the mechanics to inflate the monetary supply to support the war, proposing that a 100% gold reserve-based free banking system can avoid the government manipulation on currency issues and the wars. Mises (1919/2006, p. 110-146) also provided an empirical-theoretical study of how Nazi Germany inflated its monetary system to support its expenses during World War II.

The argumentations of Mises on the economic and social consequences of central banking credit expansion provide us another theoretical foundation and hypothesis to analyze hyperinflation during the Chinese Civil War. Mises (1978/2002, pp. 102-103) argued that the increasing prices (that result from the credit expansion) would permanently cause the redistribution of income and wealth due to the "the uneven timing of the price changes of the variety of goods and services" (p. 102). Salerno (2010, p. 206)

summarized Mises's viewpoint as "every change in the quantity of money leaves indelible imprints on the relative-price structure and therefore on the pattern of wealth and income distribution." Yet, the Misesian arguments only emphasize the economic and social consequences of the central bank credit expansion.

**Review of Hayek's Comments on Monetary Nationalism in the 1930s.** In his *Monetary Nationalism and International Stability* (1937b), Hayek provided us his views on the gold standard and monetary nationalism. Theoretically and technically, Hayek was against monetary nationalism, arguing that any kind of attempt to implement an isolated national monetary standard will face its failure, even if this system is based on the gold standard. He assumed that any kind of monetary inflation would cause capital flights if the ratio of the newly issued banknotes to bank deposits has changed due to monetary inflation. Thus, further, Hayek also argued that even if one country implements a gold standard, if that country has a monetary inflation policy, then capital flights will be inevitable given that international trade is not blocked. Therefore, a national monetary system with the gold standard would also face failure. However, Hayek still proposes the possibility of establishing an international gold standard to avoid the price fluctuation and the negative effects that it brings to the production process even though he also admitted that his proposal is probably "utopian" (Hayek, 1937b, p. 93). One of his doubts on his own proposal is his review of the failure of the British Currency School in the 19$^{th}$ century.

Hayek also provided us the background for the reason that globally different states in the 1930s wanted to establish a central banking system based on the classical gold standard system that the British Currency School proposed. It was that these states

wanted to have a stable currency system to avoid economic and price fluctuation. The same economic thought trend was also happening in the 1920s and 1930s China (see Chapter 4 and Chapter 5). Moreover, as China was in a severe situation as a result of the Civil War from 1945 to 1949, the debate on how to establish a useful and effective national central banking system was continuing during the Civil War. Hayek's monograph provided us a more global insight to understand the trend of Chinese monetary nationalism during the Civil War was connected to the monetary thought debates in the 1920s and 1930s, both in China and outside the country.

**The Review of Other Academic Contributions.** Other academic contributions related to the thesis that have been made are the following, which benefit this research. Fairbank (1980, 1983, 1988), Second Historical Archives of China (1994), Adviser Chamber of People's Bank of China (1986, 1991), Qian (1984), and G. Wu (1958) described Chinese economic and financial history, which provided particular and authoritative historical materials on monetary and banking data and evidence. Borg (1964) and K. Chang (1958) described the Sino-American economic relations, by which the establishment of the Chinese central banking structure was influenced a lot. D. Ma (2016) also explicitly reviewed how the institutional reasons affected the banking system in China from the Qing Dynasty in the late 1800s to the National Government in the 1920s. J. Zhu (2012) illustrated the general monetary history from 1927 to 1949 in China but didn't mention the monetary thought debate very much. J. X. Zhang (2001) recorded the monetary thought debate among Chinese economists but didn't specifically follow the change of monetary policies through the discussion. Du (2014) and Ji (2003) recorded how the interaction between the National Government and the Shanghainese bankers

happened when the banking system was facing reform. In addition, other academic literature related to Chinese monetary history also provided many historical files (see the references below). Based on the review of Sánchez Asiaín (2012) and the above references, we find that Francesco Franco, who was also a nationalist political leader, stopped Spain's price inflation by listening to financial experts during the Spanish Civil War (1936-1939). On the contrary, Chiang Kai-shek did not take the advice of financial experts led by T. V. Soong on curbing the vicious increase in prices by reducing currency issuance and controlling military spending during the Chinese Civil War, which ultimately led to the collapse of the Republic of China's economy in the Civil War and indirectly caused the Chinese Communist Party's occupation of mainland China.

**Research Objects**

This research has the following three main objectives:

Revise the monetary thought debate from 1927 to 1949 among Chinese economists, politicians, and Western financial specialists on how to improve the Chinese monetary system and how to build an effective central-banking system during wartime.

Demonstrate how the establishment of central banking was supported by the monetary theories provided in the monetary thought debate.

Identify which parts of the above monetary thoughts caused the growing and enormous price inflation during wartime; discuss whether other thoughts in the debate or related financial thoughts were adopted as monetary policies and if they could have avoided the economic collapse and Communist occupation in 1949.

**Research Methodologies**

This research uses the two following methodologies:

**Economic history:** this thesis uses the methods of economic history (a combination of orthodox economic theory, the Austrian school's view on central banking and price inflation, and quantitative methods, paying particular attention to institutional factors and the long run) to view the establishment of China's central bank and the monetary debate behind it.

**Extensive use of primary sources located in archives:** this thesis uses archives to demonstrate the above topics. The main archives being used in this thesis are found in the following location: the library of Bank of Spain in Madrid, Spain; the library of Fudan University in Shanghai, China; the library of Shanghai University of Finance and Economics in Shanghai, China; E. W. Kemmerer's papers at the library of Princeton University in New Jersey, United States; A. N. Young's papers at the library of Stanford University in Stanford (archives are initially from Hoover Institution), United States; Cato Institute in Washington DC, United States; personal collections from Prof. Dr. Jiaming Zhu.

**The Contents of Each Chapter**

The thesis is structured in three parts. The first part is about China's general economic and banking situation (1912-1927) (Chapter 1). The second part demonstrates the monetary thought debates and silver standard currency reform from 1927 to 1937 (Chapter 2 to Chapter 4). The third part focuses on central banking and wartime (1937-1949) (Chapter 5 to Chapter 6). The contents of each chapter of the thesis can be briefly summarized as follows:

Chapter 1: This chapter reviews China's general economic and political situation from the 19th century to 1927. First, we discuss the comprehensive history of China from

the Qing Empire—the last Chinese dynasty—to the 1911 Republican Xinhai Revolution. The reform of the late Qing Dynasty had contributed mainly to China's progress, especially the modernization of the Chinese economy and opening the Chinese market to the entire world. Still, stagnant political reform disappointed the social elite and caused the Xinhai Revolution. Since then, China was either in wartime or in Communist despotism, except the Nanjing Golden Decade (1927-1937). We argue that if the Qing Dynasty successfully implemented all necessary reforms, including banking reform, faster before people became angry, China could have been a developed, prosperous, and liberal society without authoritarian rule. Furthermore, we also introduce the Austrian school's economic study of free banking institutions in the late 1890s in the Chinese southeastern coastal city of Fuzhou. Along with other studies, they revealed that China had a long-time history of free banking institutions before the 1920s, which is different from the later central banking patterns in China. This chapter also points out that unlike the Chinese Communist Party's official negative opinions on the epoch of the Beiyang Government, independent researchers have found some positive elements that happened during the Beiyang era. Although some regional wars happened among the warlords, due to a pro-laissez-faire economic policy, the domestic economy was still growing, especially the industries that were not related to the war. Because of World War I, the energy of Western countries was placed on the European battlefield. Hence, there was no Western power to intervene in China's domestic political and economic affairs, which on one side, avoided the wars that had happened in the late Qing Dynasty due to poor Sino-foreign relations. In addition, we also argue that the improving economic situation and monetary ideas laid the foundation of the monetary policy debate and led to the

establishment of China's first modern central bank since the late 1920s, especially during the Nanjing Golden Decade (1927-1937).

**Chapter 2:** This chapter is an original synthesis that reviews the biography, monetary theories, and reports for China's central banking institutions of Edwin Kemmerer. Most importantly, this chapter also includes our original review of Kemmerer's 1929 reports for the construction of China's first modern central banking experiment. These crucial reports sought to build an effective Chinese central banking system based on Edwin Kemmerer's main theories, such as a central banking system with a 100% gold reserve. Kemmerer was an economics professor at Princeton University and the world-famous "Money Doctor" who helped build central banks in various countries in Latin America, Europe, and Asia.

One originality of the research in this chapter is that we visited the original archives of Kemmerer's research on China's economic issues kept by the Hoover Institution at Stanford University. To start, we demonstrate the biography of "Money Doctor" Edwin Kemmerer and his monetary and gold theories. We not only review his general theory on central banking and gold reserves but also provide some commentary from a few Austrian economists on Kemmerer's theory, as they both emphasized the function of a gold standard in banking systems. Secondly, we present Kemmerer's reports from 1929 and our commentary on whether his project for China was well planned and practicable. We provide a detailed description of Kemmerer's reports and present the critical reports on China's banking system. Finally, we illustrate our commentary on the reports. In addition, the general political and economic background in China from 1927 to 1937, which were related to Kemmerer's reports, is presented in this chapter.

**Chapter 3:** This chapter reviews Arthur N. Young's banking thoughts on China's central banking reform from 1927 to 1937. As a member of Kemmerer's Western monetary specialists' group for China, who also influenced the decision-making of the Chinese National Government and Generalissimo Chiang Kai-shek to adopt Western-style central banking institutions, Young's reports on his banking thoughts will be mainly checked in this chapter.

One originality of the research in this chapter is that we visited the original archive of Young's research on China's economic issues kept by the Hoover Institution at Stanford University. This chapter also reviews Arthur Young's biography. As a senior student graduating with a Ph.D. in economics from Princeton University, Young worked with "Money Doctor" Edwin Kemmerer and came to China as an essential member of the 1929 Kemmerer Commission for China to analyze and study China's currency and economic issues, making policy recommendations to the Chinese National Government. Kemmerer was his "teacher and colleague" who influenced Young's economic thoughts. Also, we find that Young not only came to China as an international student proficient in Spanish but also visited Latin American countries and Spain to conduct research on the economic affairs of these countries. Furthermore, he also visited some European and Asian countries such as Poland and Vietnam to help them carry out economic and monetary policies. In the later sections, we review Young's general comments on the modernization of Nationalist China and his central banking thoughts from 1927 to 1937.

**Chapter 4:** This chapter studies how China established its first modern central banking system from 1927 to 1937, filling a gap in the previous international research on the entire process of establishing China's first modern central bank. In Chapter 1, we

discussed that China had more than two thousand years of free banking, and silver tael was used as the main currency standard since the 15th century. However, the three central banking reforms that happened in the 1920s and 1930s fundamentally changed the status of China's banking system. China, a country of using traditional and diverse metal standards, eventually established its first modern central bank in 1928. In 1933, the country abolished the traditional silver tael standard, setting its Silver Dollar standard, which was designed by the Sino and Western financial specialists of the National Government based one a decade discussion.

Initially, due to the 1929 gold standard plan proposed by the U.S. financial specialist E. W. Kemmerer, the Silver Dollar standard would become a transition between the old silver tael standard and the future gold standard. However, due to the fragile internal financial condition and the 1934 US Silver Purchase Act, it became impossible for China to have sufficient silver to establish its Silver Dollar Standard, not mention the gold standard given that China was not a country that produced this scarce metal. Instead, from 1934 to 1935, after three rounds of Sino-Western negotiations, China was going to implement a fiat money system, Fabi, whose currency value was based on its exchange rates of the U.S. dollar and the British pound. The reform was taken in November 1935, which ended China's two-thousand-year history of using metals as currency standards. The relatively stable political and economic conditions, along with the global trend of establishing a central banking system to strengthen the state power and the national financial system, made the birth of China's first modern central banking system inevitable. Based on first-hand references, the monographs of the authoritative scholars, and the empirical data, this chapter focuses on the study of the history of the

establishment of China's first modern central banking institutions, providing an original, in-depth synthesis and analysis of China's first modern central banking establishment process.

**Chapter 5:** This chapter analyzes the conditions of China's first modern central banking institutions during the Second Sino-Japanese War. China established its first modern central banking in 1928, along with its 1933 silver-standard reform and its 1935 fiat-currency reform. Due to the 1935 banking reform plan, the Chinese National Government would establish a modern central reserve banking system that was planned to control the currency issuance fully. However, the outbreak of the Second Sino-Japanese War in 1937 delayed the ongoing central banking reform. Based on quantitative analysis and original synthesis of archives and previous research, this chapter studies China's central banking institutions during the Second Sino-Japanese War, 1937-1945.

To understand the wartime banking structure in China, it is crucial to review the relevant historical backgrounds. This is due to the complicity of the wartime China as the country was separated into Free China, Japanese-occupied China (along with Manchukuo) and Communist-occupied area. At the beginning of the analysis, this chapter provides the political and economic background during the Second Sino-Japanese War, along with an analysis of the disappearing local, private, and spontaneously free-banking systems. Secondly, this chapter deals with the background of the wartime banking policy. In the later sections, we discuss the process of the wartime expansionary monetary policy and price inflation and provide an in-depth discussion of the possible causes of the wartime price inflation, along with its consequences.

**Chapter 6:** This chapter analyzes the conditions and the collapse of China's first modern central banking institutions during the Chinese Civil War. Although China established its first modern central bank in 1928, along with its 1933 silver-standard reform and its 1935 fiat currency reform, due to the outbreak of the Second Sino-Japanese War, the banking reform deployed. Because China passed its first democratically created Constitution in 1946, becoming the world's largest democratic country at the time, post-WWII China was originally expected to establish a stable banking system. However, during the following Chinese Civil War period, not only did the central banking experiment fail by massive price inflation and chaotic economic order, but the government of the Republic of China was also defeated militarily by the Chinese Communist Party.

This chapter provides a quantitative, qualitative, and synthetic analysis of the collapse of China's first modern central banking system and its price hyperinflation during the Chinese Civil War. Based on the above political background, this chapter provides a brief description of the Chinese economy during not only the Chinese Civil War, but also an in-depth analysis of the process and the reasons why two currency systems, the Fabi and the Gold Yuan Notes, collapsed successively during the Civil War. This chapter also synthesizes the economic, political, and social consequences of the wartime expansionary monetary policy and its price hyperinflation. The massive issuance of currency and its subsequent price hyperinflation in response to military expenditures later became the most prominent feature of China's economy during the Civil War. We point out that President Chiang Kai-shek and the government of the Republic of China must bear the ultimate responsibility for the collapse of the monetary system and price

hyperinflation as they ignored all the suggestions of the Chinese and foreign economists. They opposed the payment of military spending through excessive monetary expansion policy.

An original evaluation of the economic and monetary policy debates during the Civil War is provided in this chapter. Furthermore, we also point out that the Marshall Plan for China, which arrived lately in 1948, was useless to stabilize the Chinese economy and its monetary system. The chapter concludes by pointing out that the Chinese Civil War and the collapse of China's first central banking system have had a profound impact on the contemporary cross-strait relationship among the Communist Chinese Mainland and the Republic of China on Taiwan since 1949.

**Conclusion:** Finally, in the concluding chapter, we provide some conclusions and suggest extensions for future research.

# Part 1

# China's General Economic Situation, Banking Situation, and Monetary Ideas, 1912-1927

# Chapter 1

## China's General Economic and Political Situation from the 19th Century to 1927

**Abstract:** This chapter reviews China's general economic and political situation from the 19th century to 1927. First, we review the comprehensive history of China from the Qing Empire—the last Chinese dynasty—to the 1911 Republican Xinhai Revolution. The reform of the late Qing Dynasty had contributed mainly to China's progress, especially the modernization of the Chinese economy and opening the Chinese market to the entire world. Still, stagnant political reform disappointed the social elite and caused the Xinhai Revolution. Since then, China was either in wartime or in Communist despotism, except the Nanjing Golden Decade (1927-1937). We argue that if the Qing Dynasty successfully implemented all necessary reforms, including banking reform, faster before people became angry, China could have been a developed, prosperous, and liberal society without authoritarian rule. Furthermore, we also introduce the Austrian school's economic study of free banking institutions in the late 1890s in the Chinese southeastern coastal city of Fuzhou. Along with other studies, they revealed that China had a long-time history of free banking institutions before the 1920s, which is different from the later central banking patterns in China. This chapter also points out that unlike the Chinese Communist Party's official negative opinions on the epoch of the Beiyang Government, the independent researchers have found some positive elements that happened during the Beiyang era. Although some regional wars happened among the warlords, due to a pro-laissez-faire economic policy, the domestic economy was still growing, especially the industries that were not related to the war. Because of World War I, the energy of Western countries was placed on the European battlefield. Hence, there was no Western power to intervene in China's domestic political and economic affairs, which on one side, avoided the wars that had happened in the late Qing Dynasty due to poor Sino-foreign relations. In addition, we also argue that the improving economic situation and monetary ideas laid the foundation of the monetary policy debate and led to the establishment of China's first modern central bank since the late 1920s, especially during the Nanjing Golden Decade (1927-1937).

**JEL Classification:** B53, E42, N15, N25, N45, O230.

**Keywords:** Late Qing Dynasty, the Xinhai Revolution, the modernization of China, Chinese banking, the Republic of China.

## 1.1 Introduction

To understand why China established the first modern central bank in 1928, we have to understand the related background in banking, economics, politics, and associated international events, especially in the period of Westernization and colonization from the 1840s to the 1920s. This thesis is to study the process of the establishment of China's first central bank in 1928. Still, to understand why China established the central banking system, it is necessary to review the historical, political, and economic backgrounds of China in the 19th century. It is also necessary to discuss whether or not China's reform and modernization in the 19th century benefitted the later development of China's economy and the central banking reform in the early 20th century.

This chapter reviews the critical political and economic events that happened from the 19th century to the 1920s under Western influence. Section 1.2 provides the general political and economic situation of the late Qing Dynasty (1800-1912) before the establishment of the Republic of China (ROC) in 1912. We mainly review how the Qing Dynasty reformed its political and economic situation and the causes of the Republican Xinhai Revolution in 1911. Furthermore, we also introduce the Austrian school's economic study of free banking institutions in the late 1890s in the Chinese southeastern coastal city, Fuzhou. Along with other studies, they revealed that China had a long history of free banking institutions before the 1920s, which is different from the later central banking patterns in China. Section 1.3 examines the general political and economic conditions under the warlord time in the early years of ROC (1912-1927). Unlike the official negative opinions of the Chinese Communist Party (CCP) on the epoch of the Beiyang Government, the independent researchers have found some positive

elements that happened during the Beiyang era. Their arguments are provided in this section. In addition, banking and currency reforms in both the late Qing Dynasty and the early period of the ROC will be demonstrated. Section 1.4 is the conclusion.

## 1.2 From the Chinese Empire to the 1911 Republican Revolution

This section reviews the history of the 19th century Chinese Empire to the 1911 Republican Xinhai Revolution. Subsection 1.2.1 is about the late Qing Dynasty before 1840. Subsection 1.2.2 demonstrates the Opium Wars and the beginning of the Qing's modernization reform. Subsection 1.2.3 reviews the Late Qing Reform and the 1911 Xinhai Revolution.

### 1.2.1 The Late Qing Dynasty before 1840

Until 1820, China was still the biggest economy in the world.[2] It seemed that China was still a very prosperous country, but trade bans and ideological control made the disparity between the Western countries and China become deeper and deeper.[3] In 1689, 45 years later after the Manchu people's Qing Dynasty (1644-1911) started ruling China, John Locke published his famous *Two Treatises of Government*, studying the importance of the protection of private rights and the principle of limited government.[4] Meanwhile, China's economy was still recovering from the war between the Ming Dynasty and the Qing Dynasty in 1644.[5] Industry and commerce suffered a lot from the war, especially the most important economic center on the southern side of the Yangzi River. During the rule of Emperor Kangxi (1654-1722), the Literary Inquisition made it

[2] See Maddison (1996) and K. Deng (2016).
[3] See G. Deng (1997).
[4] See John Locke's *Two Treatises of Government* (1689).
[5] See Kishimoto-Nakayama (1984, pp. 227-256) and Twitchett & Fairbank (2002).

almost impossible to produce new thoughts in social science. [6] In 1776, Adam Smith published his famous *The Wealth of Nations*, who systematically studied economic science.[7]

After that, in Western society, different economic and banking thoughts started developing prosperously, but China almost produced nothing. It was not sufficient to say that it was only the Literary Inquisition that brought the lack of economic thoughts. The sea ban and trade ban from 1655 to 1840 would possibly be another important reason why China did not have any progress on economic views.[8] Not only material goods from the Western countries were banned during the majority of that period, but also the philosophy and thoughts of the West. The Chinese elites never had the opportunity to learn from Western social scientists like John Locke and Adam Smith in that epoch. Without new thoughts, it was impossible to reform any political and economic institutions. The whole political and economic system was running in the old way.[9] The banking system in the Qing Empire, like in other dynasties, was a mix between central banking and free banking. Both the official and private money houses could issue silver, silver tael, and other metals as currency, which are called Multiple Metal Standard.[10]

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[6] The Literary Inquisition is written as "文字獄" in Chinese. For the references of the Literary Inquisition, see B. Zhang & Y. Zhang (2010, p. 10) and Wakeman Jr (1998, pp. 167-189).

[7] See A. Smith (1776). Before Adam Smith, the Spanish scholastics of the Salamanca School, such as Juan de Mariana, Diego de Covarubias, Xoan de Lugo, Martín de Azpilcueta, etc., were discussing the subjective character of value and the role of the entrepreneur in economic development. Thus, some pointed out that economic science already started its development before Adam Smith. For the related studies, see *Juan de Mariana and the Spanish scholastics* (Huerta de Soto, 2009/2010, pp. 204-210), *New light on the prehistory of the theory of banking and the School of Salamanca* (Huerta de Soto, 2009/2010, pp. 211-228), and *La escuela española de economía* (Fernández Álvarez, 2017).

[8] See Flynn and Giraldez (1995, pp. 429-448). The ban is trade ban. Since the late 17th century, the Qing Dynasty forbade imports, exports by not allowing any shipping doing business with foreigners through the seas. For more references, see Flynn & Giraldez (1995) and Brook (1988, pp.177-196).

[9] See J. Zhu (2012).

[10] The private money houses are also called the local banks, which are written as "錢莊" in Chinese. Silver tael is written as "銀兩" in Chinese. the Multiple Metal Standard is written as "多元本位制" in Chinese. For the reference of the Multiple Metal Standard, see and N. Zhang (2007), Von Glahn (1996), and J. Zhu

Price inflation controlled through economic growth was very slow.[11] Different currencies were circulating in different areas in China.[12] This situation looked like a natural status by many Chinese historians. Still, we have to doubt that if China did not have a sea ban, if the Western-style modern banking system was introduced spontaneously, the Multiple Metal Standard could still exist at that time as a trade barrier.

### 1.2.2 The Opium Wars and the Beginning of Qing's Reform

The Opium War in 1840 broke the natural status of the old Chinese political and economic system.[13] The Qing Dynasty was beaten by the United Kingdom in the war and was forced to open some trade ports for international commerce. It should have been a good chance for the Qing Dynasty to reform its political and economic system at that time. Still, the Qing Regime did not pay attention to improving the institutions and delayed the reform again.[14]

Because of famine in the countryside of southern China and the disappointment with the defeat of the Qing court, the angry peasants started their uprising in 1851. The Taiping Heavenly Kingdom Movement (1851-1864) swept through almost the whole of southern China.[15] This peasant uprising opened the prelude to the decline of the Qing Dynasty. The economy of the Qing Dynasty was destroyed severely. The price of gold, silver, and jewelry suddenly started fluctuating in the market because of the fear of people, which accelerated price inflation. The price of silver reached its peak in 1854, and

(2012).
[11] See J. H. Zhang & G. Li (2008, p. 12).
[12] See N. Zhang (2007) and J. Zhu (2012).
[13] For more references of the Opium War, See Fairbank & K. Liu (1980), Lovell (2015), Fay (2000), Holt (1964), N. Zhang (2007), and J. Zhu (2012).
[14] See Lovell (2011) and Fay (2000).
[15] See Spence (1996) and Reilly (2011).

the international economic exchange was destroyed.[16] The Jiangnan area, which is one of the core economic centers of China around the Yangzi River near the Eastern China Sea, was eradicated.[17] The loss of money, withered agriculture, and business made it hard for people to buy products as usual, which also promoted price inflation.[18] In 1861, when the Qing Dynasty almost finished putting down the Taiping Rebellion, the Qing Empire started the Self-Strengthening Movement (1861-1895), aiming to introduce Western technology, factories, military industries, and educational systems to revitalize the country.[19] The Self-Strengthening Movement brought China a result of many Western and modern institutions. The modern postal system, Western-style educational system, Western-style army, railway, industries (shipbuilding industry, iron factory, textile industry, etc.) and banking system were gradually being introduced into China. Science, technology, ideologies, and religion from the Western society also entered China. Especially the introduction of republican and constitutional thoughts buried the seeds of the republican revolution in the early 20th century. The spirit of the business contract was also being introduced into China in the Self-Strengthening Movement. Many Western commercial banks were opened during that period. As a consequence, the Western banking system hit the traditional Multiple Metal Standard and banking institutions.[20]

During the Self-Strengthening Movement, the Qing dynasty was trying to build a modern navy to strengthen the national defense. Unfortunately, the modernized Beiyang

[16] See J. Zhu (2012), Spence (1996), and Reilly (2011).
[17] Jiangnan Area is written as "江南地區" in Chinese.
[18] See Spence (1996), Reilly (2011), and J. Zhu (2012).
[19] The Self-Strengthening Movement is written as "自強運動" or "洋務運動" in Chinese. For the references of the Self-Strengthening Movement, see Kennedy (1974, pp. 3-35) and Hsü (1970, p. 484).
[20] See J. Zhu (2012) and N. Zhang (2007).

Fleet was defeated by the Japanese navy in the First Sino-Japanese War (1894-1895).[21] According to the Treaty of Shimonoseki, the Qing Empire lost many territories, including ceding Taiwan Island to Japan, and had to compensate for Japan a total of over 276,000,000 troy ounces (8,600 ton) silver.[22] The defeat shocked the whole of China, as top politicians and people thought that after almost a 30-year self-reform, the prosperity of the Qing Empire would be more robust than before, at least the strength of Qing would be the same as Japan.[23] The Japanese were also having their own Westernization movement, the 1868 Meiji Revolution.[24]

On the contrary to the Qing Dynasty, after the Meiji Revolution, Japan gradually opened its market internationally, established monarchy constitutional government, and a modern central banking system. Compared to Japan, the Qing Dynasty did not produce any profund systematic reform like the Meiji Revolution.[25] The Qing Empire was defeated by the Japanese, which exposed the real weakness of the Qing Empire all around the world.

The Chinese Communist Party regime's official version of Chinese history usually claims the defeat of the First Sino-Japanese War made the Self-Strengthening Movement become a failure.[26] However, to what degree can we say that the Movement *per se* was a failure? If we measure that the successful introduction of institutions of science, technology, industry, education, and finance from the Western countries, and the spread of Western thoughts in philosophy and social science, it would be more accurate

[21] For more about the Beiyang Fleet (北洋艦隊), see Fairbank & K. Liu (1980), Rawlinson (1967), Hsü (1970), and Y. He (2007).
[22] For The Treaty of Shimonoseki (馬關條約), see Hurst (1972) and Kerr (1974).
[23] See Fairbank (1978), Rawlinson (1967), Hsü (1970), and Y. He (2007).
[24] For more about the Meiji Revolution, see Gordon (2003, pp. 61-137).
[25] See Fairbank & K. Liu (1980) and Paine (2005).
[26] See Z. J. Chen & Jiang (2001), D. Hu & J. Song (2006), S. Zheng (2007), Z. X. Liu (1986), and S. Lv (1997).

to say that the Self-Strengthening Movement was successful. Without the successful introduction of the Western and modern banking system, it would have been impossible for Chinese people to have the chance to talk about whether they needed a modern central banking system or not in the 1920s. The 1920s modern banking system in China was based on the banking system in the late 1800s. At least, we can say that the Self-Strengthening Movement was successful in introducing the Western-modern banking system in the late 1800s as the first step of banking reform.

Nevertheless, as the defeat of the First Sino-Japanese War exposed the weakness of the Qing Empire, it was urgent for the top politicians of Qing to reform the system. The Hundred Days' Reform was an experiment. [27] After the First Sino-Japanese War, leading politicians and intellectuals were arguing if the reform of the Self-Strengthening Movement was not sufficient in changing the fundamental political and economic institutions. Thus, at the suggestion of the aides, in 1898, Emperor Guangxu started trying to reform the whole political and economic system. In the educational part, modern universities, Western-style primary and secondary schools were established, including the private ones. Science, politics, economics, and mathematics were introduced into the new educational system instead of the traditional study of an eight-legged essay. [28] In the military part, the reform aimed to adopt the Western military system, which laid the foundations for military modernization in the 20th century. In a political aspect, the newspaper ban was canceled. The proposal of making a constitution was put on the list in the reform, before China was in an absolute monarchy. In the economic part, the reform encouraged both the state and private sectors to establish factories and industries,

[27] For the references of the Hundred Days' Reform (戊戌變法), see Kwong (2000) and P. Ho (1951).
[28] The eight-legged essay is written as "八股文" in Chinese.

encouraging people to do business. Still, it did not involve any systematic banking and currency reform.

Almost all the programs of the reform started in less than three months. Thus, the intense reform caused a strong rebound in the top conservative politicians. On September 21, Empress Dowager Cixi launched a coup, arrested Emperor Guangxu, and abolished the 103-day reform. The only remaining result of the reform was the famous Peking University.

The social crisis continued to spread after the Hundred Days' Reform was abolished. Because of natural disasters like floods, drought, locusts and plagues, and conflict between Chinese and westerners, the Boxers, a peasant movement, killed many western missionaries.[29] The murder of German Plenipotentiary Clemens von Ketteler (1853-1900) by the Boxer Rebellion was the fuse of the war between the Qing Dynasty and the Eight-Nation Alliance, which was made of 8 western countries including Japan. The Eight-Nation Alliance finally defeated the Qing Dynasty. According to the *Boxer Protocol* (1901), Qing should pay 450 million taels of fine silver as the compensation to the Eight-Nation Alliance. The war reparations and other spending on restoring the economy after frequent wars against rebellions and western countries became an intense burden on the Qing Dynasty. After 1899, Qing Empire owed an external debt of £55 million, which was equivalent to three years of China's fiscal revenue at that time.[30] The Chinese people's complaint and the spread of the republican revolution made the Qing court gradually lose the heart of people. The reigning Empress Dowager Cixi and top

[29] For the Boxer Rebellion, see Preston (2000), Bickers & Tiedemann (2007), and Clements (1915).
[30] See J. Zhu (2012).

politicians finally realized that if they did not restore the previous reform, their regime would be forced to step down soon.

### 1.2.3 The Late Qing Reform and the 1911 Xinhai Republican Revolution

In 1901, Empress Dowager Cixi started the Late Qing Reform (1901-1911).[31] The new reform not only restored the suspended programs of the Hundred Days' Reform but also created a more profound reform in broad aspects of politics, society, and economy. The *Principles of the Constitution* was made in 1908.[32] During that period, the Conference Board in both central and provincial governments were established.[33] Torture and collective punishment were suspended instead of the Western personal responsibility system, independent judicial system and responsible cabinet system were under construction. The imperial examination, which was run for more than 1,300 years in China, was also abolished instead of the Western educational system.[34] The well-known military general Yuan Shikai trained the modern Western-style army in Tianjin.

One of the most significant reforms in this period was economic reform.[35] In 1906, the Ministry of Finance started to be responsible for the central government's fiscal revenue and expenditure. Before that time, different ministries were managing their own budget. After a few years of preparation, the Qing Dynasty finally made its first modern tax system and governmental and budget in 1910, which was also the first modern governmental budget in Chinese history. The regime also encouraged the construction of the railway. From 1900 to 1905, 1843.2 km of railways were built. The Chinese investors

[31] The Late Qing Reform is written as "清末新政" in Chinese. For the references of the Late Qing Reform, see Reynolds (1993), Karl & Zarrow (2002), Judge (1996), Fewsmith (1983), and T. M. L. Lee (1998).
[32] The *Principles of the Constitution* is written as "欽定憲法大綱" in Chinese.
[33] The Conference Board is written as "諮議會" in Chinese.
[34] The imperial examination as written as "科舉考試" in Chinese.
[35] See Fairbank & K. Liu (1980) and J. Zhu (2013).

created only 201 km of it and foreign shares partly constructed the rest of the railway lines. The Qing Government also urged and encouraged people to do business in agriculture and industry. Some apartments were established to be a response to that issue.

In addition, the Qing Dynasty finally started its first systematic banking and currency reforms.[36] As markets and business were developing faster than before, authorities finally decided to abolish the Multiple Metal Standard in favor of adopting any other single monetary standard. After several discussions of which kind of currency system was better and should be accepted, in 1910, the court finally decided to adopt the silver dollar standard instead of the silver tael standard as the official currency unit.[37] In 1905, the Bank of the Ministry of Revenue established and started to issue paper money.[38] This establishment was the first time that China tried to develop a central bank. Although silver coins that were based on the silver tael standard were still circulating, as the central banking framework was established, sooner or later China would have a simple currency unit. However, as the majority of members of the first modern responsible cabinet in 1911 were royal family relatives, the elites who were in favor of the constitutional monarchy felt that the court cheated them.[39]

At the same time, free banking was developing in a southeastern coastal city, Fuzhou, in China. Economist George Selgin provided a thorough study of the free banking institution in Fuzhou in the late 1890s. He said,

> Though not free from shortcomings Foochow's free banking system— an example of complete laissez-faire in paper currency and banking— can be

[36] See N. Zhang (2007) and J. Zhu (2013).
[37] The silver dollar is written as "銀元" in Chinese separately.
[38] The Bank of the Ministry of Revenue is written as "戶部銀行" in Chinese.
[39] See Fairbank & K. Liu (1980), Etō & Schiffrin (1994), Harrison (2000), and Mitter (2011).

> judged to have been largely beneficial. Real, it was based on an archaic copper-cash system, with a confusing array of units of account. However, the local banks themselves were mainly a source of order, convenience, efficiency and stability. Their currency was widely preferred to cash, and it provided a superior unit of account. Native banks were an important source of loanable funds, and there is no evidence that they behaved recklessly. On the contrary: by all accounts the local banks of Foochow were among the most reputable ever to have operated in all of Chinese history. There were few losses to noteholders from local bank failures, and only smaller banks were vulnerable to runs (which were in any case encouraged by an unusual approach to unlimited liability). […] On the whole, local banks performed better than Chinese government banks either before or after the free-banking era. In China as elsewhere, decentralized currency supply was abandoned, not because of any inherent shortcomings of competitive note issue, but largely because the government wanted to improve its ability to borrow from particular banks.
>
> […] The case of Foochow supplies further evidence that free banking is neither inherently unstable nor inferior in practice to centralized banking. It was, moreover, only one of numerous instances of free banking in China—of which many were more important and quite possibly more successful. (Selgin, 1992)

Hence, China had both central banking and free banking institutions at that time. Due to Selgin's study, the free banking system was working efficiently in the coastal city of Fuzhou. China's free banking system was serving for many regional and national financial issues until it gradually disappeared due to the 1920s monetary reform.

The Railway Protection Movement that was against the nationalization of private railways triggered the 1911 Xinhai Republican Revolution. In 1911, the Qing Dynasty dissipated and their own soldiers became republicans who had accepted modern and western military training. Thus, all banking reforms ceased because of the Xinhai Revolution.[40] On January 1, 1912, Sun Yat-sen, founder of the Chinese Nationalist Party (also called Kuomintang or KMT), was sworn in as the first Provisional President of the Republic of China and became the father of the Republic of China. The Republic of China was the early constitutional republic in Asia, and its establishment also marked the complete end of the monarchy in China for more than 2,000 years.

## 1.3 From the Warlord Era to Nationalist China

In this section, we review Chinese history from the Beiyang warlord era (1912-1928). Subsection 1.3.1 reviews the establishment of the Republic of China and its early currency reforms. Subsection 1.3.2 demonstrates the general situation of the Beiyang Government and the warlord era. Subsection 1.3.3 is about the New Culture Movement and the introduction of Communism.

### 1.3.1 The Establishment of the Republic of China and Its Early Currency Reforms

Just like the stories that happened in other countries, the end of the Qing Dynasty did not bring China a peaceful and stable society, but chaos and wars. It is clear that when there is a power vacuum that all political groups would like to try to fill the political vacancy. After the death of President Yuan Shikai in 1916, China entered a warlord era. This period is also called the Beiyang era, as the Beiyang Army reigned for the majority of that epoch.[41] The Beiyang Army and the Nationalist Army that were

[40] See Fairbank & K. Liu (1980), Etō & Schiffrin (1994), Harrison (2000), and Mitter (2011).
[41] See Fairbank & K. Liu (1980), Harrison 2000, and Strauss (1997).

controlled by the Chinese Nationalist Party and other forces were fighting against each other in some periods and areas in China. As this civil war was not carried out nationwide the whole time, the Chinese economy had a noticeable growth even though western countries did not intervene in China because they were busy with World War I (1914-1918).

After the dissipation of the Qing Dynasty, the republicans finally established the Republic of China on January 1, 1912, in Nanjing.[42] The provincial representatives elected Sun Yat-Sen as the first Provisional President of the Republic of China. There were a lot of governing affairs that were needed to be dealt with by the new Provisional Government in Nanjing. One thing that the Provisional Government believed that it should do was to unify national finance and currency. President Sun and his government thought that the unification of national finance and currency was good for the future development and the unification of China. Thus, the plan of new currency and the central bank was on the list.

After some discussion, the Provisional Government of the Republic of China in Nanjing was in favor of the gold exchange standard, aiming to fix the currency exchange rate of Chinese currency with some foreign currency based on a fixed quality of gold.[43] This policy was the earliest monetary plan of the ROC government, which was suggested by top Chinese politicians and economists. Unfortunately, the plan was not implemented. The Provisional Government in Nanjing only ruled China for less than three months. During these three months, it did not have enough time to establish any kind of central bank nor to ask provisional governments to issue a currency based on a gold exchange

[42] See Fairbank & K. Liu (1980), Etō & Schiffrin (1994), Harrison (2000), and Mitter (2011).
[43] The gold exchange standard is written as "金匯兌本位制" in Chinese. For the reference, see Adviser Chamber of People's Bank of China [ACPBC] (1986, p. 4), J. Zhu (2013) and N. Zhang (2007).

standard.[44] Furthermore, President Sun's request of nationalizing Jiangnan Mint, which belonged to the government of Jiangsu Province, was refuted.[45] Thus, the Provisional Government could not establish its own central bank and issue money. The Government of Jiangsu province believed that the President did not have the right to change the coinage rights, which belonged to the local governments, according to European and American practice.[46] As the Provisional Government in Nanjing was powerless to force the government of Jiangsu Province to transfer the ownership of Jiangnan Mint, the plan of building a central bank and unifying the national currency died.

In February 1912, Qing's Premier Yuan Shikai persuaded Emperor Xuantong to abdicate. Sun and Yuan agreed that if Yuan could successfully persuade the royal family to abdicate, Sun would resign as the President and recommend Yuan as the new Provisional President of the ROC. Sun Yat-sen then resigned the presidency and the Temporary Senate elected Yuan as the new Provisional President of the ROC. After Yuan swore his presidency in Beijing, the capital also moved from Nanjing to Beijing, and the Beiyang Army led by Yuan Shikai seized power.[47]

As a senior politician, President Yuan quickly started to continue to reform China after the Late Qing Reform.[48] It was reasonable to follow the previous reforms that were in the process without repealing all previous policies as a conditioned reflex. Yuan's reform succeeded in the Qing Dynasty. In the political field, Yuan continually reform the civil service system by the reference of the Western system. He also continually

[44] See ACPBC (1986, p. 6).
[45] The Jiangnan Mint is written as "江南造幣廠" in Chinese. For the reference, See ACPBC (1986, p. 9).
[46] See ACPBC (1986, p. 13).
[47] See Fairbank & K. Liu (1980), Etō & Schiffrin (1994), Harrison (2000), and Mitter (2011).
[48] See Fairbank & K. Liu (1980), J. Zhu (2013), Harrison (2000), E. Young (1977), and Hu (1991).

supported the policy of local autonomy.[49] In the educational realm, the reformed new educational system in the Late Qing Reform was reserved and developed during the Yuan administration. In the military part, Yuan continued to train the Chinese military by adopting a modernized Western system.[50] In the economic field, he encouraged the development of private sectors and the introduction of foreign investment. Yuan also unified national finance and was trying to unify the Chinese currency system.[51]

As the Chinese economy had a dual economic structure, urban economy and rural economy, and the vast territory, different people were using separate currency units under the Multiple Metal Standard. It would have been difficult to unify Chinese currency, especially when the late Qing Dynasty did not have enough time to make it. Nevertheless, as President Yuan was a senior and prestigious politician, who stabilized the situation of China after the Xinhai Revolution, the reform became possible.[52]

In 1912, the Bank of Daqing reorganized into the Bank of China and continually served as the central bank of the Republic of China, but the central bank did not function very well. As China was in political turmoil in the early months of 1912, some local governments were issuing silver currency without permission from the central bank. After Yuan became President, he started to rectify the monetary institutions. In March 1912, Provisional Government in Beijing promulgated a new law, which said that the people who issued currency without permission from the central bank would be regarded as guilty of forging money, which would result in a maximum sentence of life in prison.[53]

[49] The local autonomy is written as "地方自治" in Chinese.
[50] See E. Young (1977).
[51] See J. Zhu (2013).
[52] See J. Zhu (2013) and N. Zhang (2007).
[53] See ACPBC (1986, p. 7).

Besides the punishment on making unofficial currency, Yuan and his advisor were also making plans for a new currency.

In 1913, the National Assembly elected Yuan Shikai as the President of the ROC, which further centralized the political power. In 1914, Yuan's Government issued the *National Monetary Regulations* based on the 1910 one issued by Qing Dynasty.[54] According to this new law, the silver dollar would be the new single currency unit, which meant that the Beiyang Government intended to adopt a silver standard. The initial plan was to use silver dollar as a substitution of the silver tael standard, copper dollar, and other currency units. However, as different types of currency units were in circulation, it was impossible to unify the currency immediately. Gradually until the spring of 1920, 380 million silver dollars were issued, which also became the main currency being used in the monetary circulation at that time.[55]

### 1.3.2 The Beiyang Government and the Warlord Era, 1912-1928

However, things did not go that well and civil wars happened again.[56] The loss of power made Sun Yat-sen and some Nationalists feel unhappy. After several political conflicts between Yuan and Sun's Nationalists, in July 1913, in the call of Sun Yat-sen, some provinces led by the Nationalists fought against the Beiyang Army led by President Yuan. In 1914, President Yuan dismissed the National Assembly, which was controlled by the Nationalists as the majority. In January of 1916, Yuan proclaimed himself as the Emperor of China and abolished the Republic of China. This action quickly led to opposition all around the country. The warlords in different provinces started to fight

[54] The name of *National Monetary Regulations* is written as "國幣條例" in Chinese. For the references, see J. Zhu (2013), and N. Zhang (2007).
[55] See J. Zhu (2012, p. 323).
[56] See Fairbank (1983) and Strauss (1997).

against Yuan in the name of anti-monarchy. Although Yuan canceled monarchy in March, the war continued because Yuan still served as President after his abdication. In June, President Yuan died.

The death of Yuan made China split.[57] From 1916 to 1928, the warlords of the Beiyang Army fought against each other, and the Beiyang warlords also controlled the presidency. Meanwhile, Sun Yat-sen was also trying to fight against the Beiyang Government. After the death of Sun Yat-sen in 1925, Kuomintang established the National Government in Guangzhou on July 1, 1925, with political and military help from the Soviet Union, being against the Beiyang Government in Beijing. Subsequently, northern and southern China launched a civil war, and the National Government used this opportunity to gradually eliminate the power of the Beiyang Government, known as the Northern Expedition War. In April 1927, the new leader of the Nationalists, Chiang Kai-shek, moved the capital to Nanjing. In 1928, the last branch of the Beiyang government in Manchuria replaced all the flags with the National Government. Thus, the National Government nominally united China under one state. From 1927 to 1937, due to the relatively stable political situation, the Nationalists' rule China entered the so-called Nanjing Golden Decade.

Although the rule of the Beiyang Government was in the period of warlords, the economy was still growing, as wars only happened irregularly in local areas, and there was no national civil war that coincided.[58] World War I gave China an excellent opportunity to develop, whose economy was still growing sustainably, as western powers

[57] See Fairbank (1983) and Strauss (1997).
[58] See J. Zhu (2012) and N. Zhang (2007).

were busy fighting each other.[59] Industrialization accelerated during the rule of the Beiyang Government. During the period of the Beiyang Government, the electrical industry, the dye industry, the textile industry, and the chemical industry all flourished. From 1912 to 1920, the annual growth rate of Chinese industrial sectors was 13.8%.[60] In 1913, like other countries, China had no highways, but by 1921, it reached 736 miles.[61] Railway also became the main transportation among big cities. Shanghai, Tianjin, Guangzhou, Wuhan, and other coastal and riverside cities developed rapidly.[62] Although there were regional wars, the development of foreign and private capital investment was not restricted a lot and population migration was free. This situation was quite contrary to the CCP ruled Chinese Mainland since its so-called 1978 market reform. The CCP economic pattern not only has a strong institution of state-owned enterprises, but migration inside the Chinese Mainland is also restricted.[63]

As we have mentioned before, the Beiyang Government was also trying to build a robust single unit monetary standard and a functional central bank.[64] The process was prolonged, but it laid the foundation of banking reform during the rule of the National Government. Besides, the main currency unit as silver dollar, silver tael, and copper dollar, paper money, was also in circulation during that period. The banknotes issued by the Bank of China (as a central bank from 1912 to 1928) and Bank of Communications could be exchanged for silver and copper dollars. The Bank of China used to be called the Ta-Ching Government Bank, which was the central bank of the Qing Empire. The Bank

[59] See Strachan (2003) and Hardach (1981).
[60] See J. Zhu (2012, p. 336) and Frölich (2014).
[61] See J. Zhu (2012, p. 336).
[62] See J. Zhu (2012, p. 337).
[63] See Ralston *et al.* (2006) and W. H. Wang & Vegas (2017).
[64] See J. Zhu (2012) and N. Zhang (2007).

of Communications was a state-owned bank established by the Qing Empire in 1909. From 1912 to 1919, the two banks issued a total of about 905,900 Chinese silver dollars, which was not a considerable amount by the cautious issuance.[65] The cease of exchange in some areas like Beijing and Tianjin in 1916 caused a bank run.[66] As the Beiyang Government was not stable because of the wars, the currency and central banking reform did not do very much.[67] The issuance of the silver dollar still did not enter many rural areas and the traditional barters that sued silver tael as currency were still happening in many parts of China.

To understand the political and economic situation in the period of the Beiyang Government, we also have to understand Sino-foreign relations, as the links became tighter than before.[68] Because western countries were fighting against each other in World War I and they were dealing with post-war issues, they did not intervene in China through territorial occupations. China gained a period for developing its economy. From 1912 to 1920, the annual growth rate of Chinese industrial sectors was 13.8%.[69] Economic growth was also due to the fact that the warlord warfare at that time only happened in scattered and different parts of the country. There was no national civil war. Meanwhile, as a result of the lack of western powers during World War I in China, Japan swooped in during that time.[70] In 1915, Japan threatened to wage war against China to force President Yuan to sign some unequal treaties. Although President Yuan Shikai rejected Japan's sovereignty claims on the Shandong Peninsula, China was still forced to

[65] See J. Zhu (2012).
[66] See Ding (2010).
[67] See J. Zhu (2012).
[68] See Strachan (2003) and Hardach (1981).
[69] See J. Zhu (2012, p. 336) and Frölich (2014).
[70] See Strachan (2003) and Hardach (1981).

transfer Germany's privileges in the Shandong Peninsula to Japan. Japan also gained a monopoly in business in many areas in China, especially some railways in Manchuria, which laid the foundation of putting Japanese troops in Manchuria and the invasion of China in the 1930s. Japanese occupation became one of the most important reasons for establishing China's first modern central bank in the late 1920s. Due to China's fragile central finances at that time, the establishment of a strong central bank not only became the goal of the National Government, but also gained the support of the business community.

In terms of money, World War I also influenced the domestic issues in China. Although World War I was physically European, as the Western powers did not have the time to intervene in China, the Chinese economy was developing. The world's silver price rose from 23.69 pence/ounce in 1909 to 61.5 pence/ounce in 1918, which increased around 104.7 %.[71] After the establishment of ROC, China needed much funding to develop the economy when the Western power did not intervene in China. Due to the demand for silver that was caused by the outbreak of the economic crisis in Western countries in 1929, more than 300 million silver taels entered China from Western countries.[72] We can assume that if the domestic situation in China would have been more stable, then this silver would have been more likely to help China to carry out economic construction.

### 1.3.3 The New Culture Movement and the Introduction of Communism

During the Beiyang era, as the control of the Beiyang Government was not strong, new thoughts from Western countries also quickly came into China. Intellectuals

[71] See J. Zhu (2012, p. 317).
[72] See N. Zhang (2007, p. 44).

were also debating in the New Culture Movement from the 1910s to the 1920s.[73] During the New Culture Movement, the Chinese intellectuals were discussing which kind of political institutions China should adopt. "Science" and "Democracy" were the slogans in the New Culture Movement. The New Culture Movement in the period of Beiyang Government also gave Chinese people a chance to discuss what kind of monetary system China should adopt. As more and more Western thoughts were entering China in that period, people were arguing more on different social issues, including monetary thoughts.

As many people in the Movement were so eager to use the Western ideologies as institutions to be instead of the traditional ones, some radical people introduced Communism during the New Culture Movement.[74] In 1921, with the help of the Soviet Union, the Chinese Communist Party (CCP) was established in Shanghai. In 1927, the CCP established its own army. Therefore, whether it was the Beiyang Government, the National Government, or the Chinese Communist Party, each political force attempted to consolidate its political position by establishing its own army. In the same year, the National Government started to rule China. The Nationalists and the Communists were fighting against each other until the Communists finally occupied the whole of Chinese Mainland in 1949.[75] The wars between the Nationalists and the Communists also influenced the establishment, structure, and policy of the Central Bank of China.[76] If we are going to draw a clear picture of the history of China's first modern central bank, we also have to take this into account.

[73] See N. Lee (2009) and Schwarcz (1986).
[74] See Dirlik (1989) and Schwarcz (1986).
[75] See Fairbank & Feuerwerker (1986).
[76] See D. Ma (2019).

## 1.4 Conclusion

This chapter reviews China's general economic and political situation from the 19th century to 1927. In section 1.2, we have reviewed the comprehensive history of China from the Qing Empire to the 1911 Republican Xinhai Revolution. The reform of the late Qing Dynasty had contributed mainly to China's reform progress, especially the modernization of the Chinese economy and opening the Chinese market to the entire world. Still, the stagnant political system reform disappointed the social elite and caused the Xinhai Revolution. Since then, China was either in wartime or in the Communist despotism, expect the Nanjing Golden Decade (1927-1937). We wonder that if the Qing Dynasty instituted all reforms, including banking reform, faster before people became angry, China could become a developed, prosperous, and liberal society without authoritarian rule. Of course, this is just an assumption. Still, chaos in Chinese society and the failure of its first central bank before the Communist Revolution in 1949 made a good reason for us to reflect if the premise is reasonable or not. Besides, we also introduce the Austrian school's economic study of free banking institutions in the late 1890s in the Chinese southeastern coastal city, Fuzhou. Along with other studies, they revealed that China had a long-time history of free banking institutions before the 1920s, which is different from the later central banking patterns in China.

Unlike the CCP's official negative opinions on the epoch of the Beiyang Government, as we have demonstrated in section 1.3, the independent researchers found some positive things that happened. Although some regional wars happened among the warlords in this time, the domestic economy was still growing, especially the industries that were not related to war. A few factors should be considered as the reasons for

economic growth. The first was the Beiyang Government's pro-laissez-faire economic policy.[77] The second was that the Western countries did not have the energy to intervene in China due to World War I.[78] Because of World War I, the energy of the Western countries was placed on the European battlefield, so there was no Western power to intervene in China's domestic political and economic affairs, which on one side avoided the wars that happened in the late Qing Dynasty due to poor Sino-foreign relations. The third was that the relatively free-speech environment brought space to economic innovation and entrepreneurial activities.[79] The improving economic situation and growing monetary thoughts laid as the foundation of the monetary policy debate and the establishment of China's first modern central bank since the late 1920s, especially during the Nanjing Golden Decade (1927-1937). During this time, the Chinese and Western politicians and economists expressed their views on what kind of monetary system China needed to establish. These people included Chiang Kai-shek, Soong Tse-ven, Kung Hsiang-his, Edwin W. Kemmerer, Arthur N. Young, etc. As we have illustrated, wartime was a salient feature during the rule of the Beiyang Government, but also the relatively free and relaxed speech environment. Because of this condition, intellectuals and politicians had enough space to talk about the currency reform publicly. Now let us review the history altogether.

For building a better and prosperous society, China had to reform its monetary system from the old urban and rural dual economy in the Beiyang epoch. For better economic development, it was essential to monetize the entire economy. Nevertheless, whether imitating and copying other countries' central banking policy was a wise

[77] See J. Zhu (2012) and N. Zhang (2007).
[78] See Strachan (2003) and Hardach (1981).
[79] See N. Lee (2009).

decision should also be considered again. The banking system should serve for Chinese people properly, which means all the banking reforms should match the spontaneous economic order itself. We have reason to doubt if the suggestion of establishing a single monetary standard in the era of the Beiyang Government in a short period was very urgent for the development of China.[80] Perhaps the biggest problem was timing as the Beiyang Government only ruled China for 16 years. Also, whether eliminating the spontaneous traditional Chinese free banking institutions and adopting the Western-style central banking system was suitable for China remained a question to be investigated thoroughly. To answer these questions, in the next chapter, we start to review how Western monetary thoughts influenced China's banking institutions since 1927.

[80] See J. Zhu (2012) and N. Zhang (2007).

# Part 2

## Monetary Thoughts Debate and Silver Standard Currency Reform, 1927-1937

# Chapter 2

## Edwin Kemmerer's Report for China, 1929

**Abstract:** This chapter is an original synthesis that reviews the biography, monetary theories, and reports for China's central banking institutions of Edwin Kemmerer. Most importantly, this chapter also includes our original review of Kemmerer's 1929 reports for the construction of China's first modern central banking experiment. These crucial reports sought to build an effective Chinese central banking system based on Edwin Kemmerer's main theories, such as a central banking system with a 100% gold reserve. Kemmerer was an economics professor at Princeton University and the world-famous "Money Doctor" who helped build central banks in various countries in Latin America, Europe, and Asia. One originality of the research in this chapter is that we visited the original archives of Kemmerer's research on China's economic issues kept by the Hoover Institution at Stanford University. To start, we demonstrate the biography of "Money Doctor" Edwin Kemmerer and his monetary and gold theories. We not only review his general theory on central banking and gold reserves, but also provide some commentary from a few Austrian economists on Kemmerer's theory, as they both emphasize the function of a gold standard in banking systems. Secondly, we present Kemmerer's reports from 1929 and our commentary on whether his project for China was well planned and practicable. We provide a detailed description of Kemmerer's reports and present the critical reports on China's banking system. Finally, we illustrate our commentary on the reports. In addition, the general political and economic background in China from 1927 to 1937, which were related to Kemmerer's reports, is presented in this chapter.

**JEL Classification:** B53, E42, N15, N25, N45, O230.

**Keywords:** Edwin Kemmerer, China, central banking, gold standard, monetary thought.

## 2.1 Introduction

This chapter is an original synthesis that reviews the biography, monetary theories, and reports for China's central banking institutions of Edwin Kemmerer. Most importantly, this chapter also includes our original review of Kemmerer's 1929 reports for the construction of China's first modern central banking experiment. These crucial reports seeked to build an effective Chinese central banking system based on Edwin Kemmerer's main theories, such as a central banking system with a 100% gold reserve. Kemmerer was an economics professor at Princeton University and the world-famous "Money Doctor" who helped build central banks in various countries in Latin America, Europe, and Asia.

Section 2.2. demonstrates the biography of "Money Doctor" Edwin Kemmerer and his monetary and gold theories. Subsection 2.2.1 is about Kemmerer's biography. Subsection 2.2.2 reviews his academic career as a "Money Doctor." Subsection 2.2.3 demonstrates his general theory on central banking and gold reserves. Subsection 2.2.4 provides commentary from a few Austrian economists on Kemmerer's theory, as they both emphasize the functions of a gold standard in banking systems.

Section 2.3 is about the 1929 Kemmerer reports and our commentary on whether his project for China was well planned and practicable. Section 2.3.1 reviews the general political and economic background in China from 1927 to 1937, which is related to Kemmerer's reports. Section 2.3.2 provides a detailed description of the reports. Section 2.3.3 presents the critical reports on China's banking system. Section 2.3.4 illustrates our commentary on the reports.

Section 2.4 is the conclusion.

## 2.2 Biography of "Money Doctor" Edwin Kemmerer and his Monetary and Gold Theories

Edwin W. Kemmerer was one of the key figures who played an essential role in establishing China's first modern central bank in the late 1920s. An examination of his biography, especially his academic background and his general theory on central banking and gold reserves, will help us understand why he issued a central banking proposal in China.[81] Section 2.2.1 is about Kemmerer's biography. Section 2.2.2 reviews his academic career as a "Money Doctor." Section 2.2.3 demonstrates his general theory on central banking and gold reserves. Section 2.2.4 provides commentary from a few economists on Kemmerer's theory.

### 2.2.1 Edwin Kemmerer's General Biography

On June 25, 1875, Edwin Walter Kemmerer was born in Scranton, Pennsylvania, as the oldest son of Lorenzo Dow Kemmerer and Martha Hanna. His father was of Dutch and German ancestry.[82] The whole Kemmerer family, like other Dutch families in Pennsylvania at that time, was very devout to their religion. Lorenzo Kemmerer and his father were very active in the Methodist Church. Their passionate and determined faith also made the young Kemmerer very devout. To support his family, Lorenzo Kemmerer moved from a coal-mining city to a quiet village called Factoryville, where there actually was no factory. Although the financial condition of the Kemmerer family was not very good at that time, which made Edwin drop out of school once, he was still working hard at several jobs to support himself as a typical self-improving Dutch Christian in 19$^{th}$-century America. In his teenage years, Edwin Kemmerer already showed interest and

[81] See D. Kemmerer (1993, pp. 9-42), Leitch (1978, pp. 279-280), and Howard *et al.* (1946).
[82] See D. Kemmerer (1993, pp. 10-11).

excellence in economic studies. After Edwin went back to school, he was interested in debate and political economy, which led him to commit himself to be a professional economist for the rest of his life. When he was 16 in 1895, Kemmerer graduated from high school as the winner of Latin and essay prizes and as the valedictorian of his class.[83]

Kemmerer graduated with his bachelor's degree from Wesleyan University with honors and a Phi Beta Kappa key in 1899.[84] The Phi Beta Kappa key is an honor granted by one of the oldest and prestigious honor societies, Phi Beta Kappa Society, for the liberal arts and science in the United States.[85] His senior thesis was to defend the quantity theory of money.[86] In 1899, Kemmerer went to Cornell University to pursue a doctorate program. In 1901, he got a teaching position in Economics and History at Purdue University. In 1903, Kemmerer graduated with his Ph.D. degree from Cornell University. His Ph.D. thesis was *Money and Credit Instruments in their Relation to General Prices*.[87] This thesis was considered to be a leading study in quantitative economics.[88] Because of the dissertation, Kemmerer was becoming a rising authority in monetary issues.

Because of the excellent quality of his Ph.D. dissertation, in the same year of his graduation, the 28-year-old Kemmerer was appointed as Financial Advisor to the United States Philippine Commission.[89] During his three-year stay in the Philippines and the Far East from 1903 to 1906, Kemmerer designed specifically the monetary system on a gold exchange standard. In addition, Kemmerer was also helping Iceland and Egypt to prepare

[83] See D. Kemmerer (1993, p. 13).
[84] See Howard *et al.* (1946)
[85] See Current (1990).
[86] See Leitch (1978, p. 279).
[87] See E. Kemmerer (1909).
[88] See Howard *et al.* (1946).
[89] See Howard *et al.* (1946) and D. Kemmerer (1993, pp. 15-16).

their currency reform. During that period, he started his career as the famous "Money Doctor."[90]

In 1912, Kemmerer went from Cornell to Princeton to continue his academic career, who served there until his retirement in 1943. The 31-year duration in Princeton should be Kemmerer's most splendid academic period. Kemmerer was not only teaching in the university but also provided suggestions on both the US and international monetary systems. He also organized various academic activities related to political economy and banking issues.[91] During his career at Princeton, Kemmerer also helped to establish the Federal Reserve of the United States.[92] From 1917 to 1934, the "Money Doctor" Edwin Kemmerer worked as the governmental financial and central banking advisor of Mexico in 1917, Guatemala in 1919, Colombia in 1923, South Africa and Chile in 1925, Poland in 1926, Ecuador in 1926-1927, Bolivia in 1927, China in 1929, Peru in 1931, and Turkey in 1937.[93] During that period, he was providing financial and banking suggestions to various American, European, and Asian countries, especially his "uncompromising" urge to return to the gold standard. Kemmerer's work in these countries deeply influenced their banking structure.[94]

Not only teaching and organizing academic activities, and providing policy suggestions, Kemmerer also published various books on banking theory and banking history.[95] Some of the Kemmerer's most influential works are his *Modern Currency Reforms* (1916), *The ABC of the Federal Reserve System* (1918/1922), *Gold and the Gold*

[90] See Leitch (1978, p. 279).
[91] See Leitch (1978, pp. 272-273).
[92] See Betancourt (2008, 2010).
[93] See Leitch (1978, p. 279). For the money doctor in Mexico, see Babb (2005).
[94] See Howard *et al.* (1946).
[95] See Leitch (1978, pp. 279-280).

*Standard* (1944).[96] *Modern Currency Reform* illustrated how to base banking reform on the quantity theory of money.[97] In this book, Kemmerer explained how to reform currency based on real cases in India, Puerto Rico, the Philippines, and the Straight Settlements.[98] *The ABC of the Federal Reserve System* illustrated the principles and structures of the Federal Reserve System in the United States.[99] In this book, Kemmerer said that the aim of this monograph was "to set forth in non-technical language the chief reasons why the federal reserve system was called into being, the main feature of its organization and how it works."[100] In the first four chapters, Kemmerer discussed four problems with the monetary system in the 1910s: the decentralization of the monetary system, the inelasticity of the credit system, the cumbersome exchange and transfer system, and the defective organization in monetary institutions. In the other four chapters, Kemmerer illustrated the respective remedies provided by the US federal reserve system, including legislative provisions of the monetary system and the progress of the currency system made to date.

Kemmerer's last published book, *Gold and the Gold Standard*, illustrated how a gold standard, especially a 100% gold reserve, works in the Kemmererian perspective.[101] In the first four chapters of the book, Kemmerer explained the history of the gold standard from ancient Asia to the 1920s when Western countries during the Great Depression.[102] Chapter V demonstrated the characteristics of the gold standard, in which

[96] For the comments of the above E. Kemmerer's books, see Dowrie (1919), Leitch (1978, pp. 279-80), Salerno (1985/1992; 1999).
[97] See E. Kemmerer (1916), D. Kemmerer (1993, p. 22), and Brown (1918).
[98] See E. Kemmerer (1905).
[99] See E. Kemmerer (1918/1922).
[100] See E. Kemmerer (1918/1922, p. 1).
[101] See E. Kemmerer (1944/2009). For the book review, see Nichols (1945).
[102] Kemmerer was a life-long supporter of the gold standard, even during the Great Depression. On the contrary, scholars like Barry Eichengreen argued that the gold standard was the cause of the depression,

Kemmerer discussed the definition of the gold standard. Chapter VI illustrated the varieties of the gold standard in history, including the gold standard in a free banking system and a central banking system. In Chapter VII, Kemmerer described both the merits and defects of the gold standard, especially the merits of it. In the last chapter, Chapter VII, Kemmerer provided his perspective on returning to the gold standard, especially the gold exchange standard. Kemmerer also proposed that it is possible to return to the gold standard through the central banking system. In this book, Kemmerer treated monetary expansion policy and its consequence, price inflation, as a thief, who robs the money and fruit of honest people's labor and creates chaos.[103] Obviously, Kemmerer's view was different from the current global central banking policies that are generally adopted.[104]

Not only did he write a lot of thoughtful books on monetary issues and the gold standard, Kemmerer also provided a remarkable literary style for "its lucid simplicity and the same quality marked his oral exposition."[105] Furthermore, Kemmerer also left his students with a deep impression on his detailed and brilliant explanations in class.[106] Therefore, Kemmerer was a professor of economics who did both research and lectures well.

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which was a completely different opinion than Kemmerer's. For Barry Eichengreen's opinion, see his *Golden Fetters: The Gold Standard and the Great Depression, 1919-1939* (1992). For the Austrian school's view of defending the gold standard, see Huerta de Soto's *Money, Bank Credit, and Economic Cycles* (2006).

[103] See E. Kemmerer (1944/2009) and D. Kemmerer (1993, p. 23).

[104] The majority of modern economists, presented by Eichengreen (1992), and the old-fashioned gold standard promoter like Kemmerer, are all against extreme monetary expansion policy and price hyperinflation that could hurt the economy. Their main difference is that Kemmerer promoted a 100% gold standard and treated price deflation caused by the nature fluctuation of prices as a normal economic phenomenon, while the economics presented by Eichengreen argue that price deflation is a threat of the contemporary economy.

[105] See Howard *et al.* (1946).

[106] See Howard *et al.* (1946).

Kemmerer's hard work in monetary policy suggestions made him receive many honors.[107] On the academic side, Kemmerer received honorary doctorate degrees at Wesleyan University (1926), Occidental College (1928), Oglethorpe University (1933), Rutgers University (1933), and Columbia University (1935). In 1927, the Central University of Ecuador and all the universities of Bolivia altogether awarded him an honorary doctorate, with no specific field of knowledge. On the non-academic side, Kemmerer received high-level awards from the government of Colombia (1923), the government of Poland (1926), the government of Ecuador (1927), and the government of Belgium (1937).[108]

In July 1944, the Bretton Woods Agreement was established. As a result of the Bretton Woods system, countries around the world established a fixed exchange rate system, the US dollar set a fixed exchange rate with gold, and the traditional gold standard was abandoned. In the same year, Kemmerer published a monograph, *Gold and the Gold Standard: The Story of Gold Money, Past, Present and Future* which defended the traditional 100% gold standard. He also published articles in the media. In addition, he participated in a US congressional hearing to criticize the fiat money based on the Bretton Woods system and to defend the gold standard.[109] Yet despite Kemmerer's efforts, the Bretton Woods system was established, and the conference did not accept his ideas. At the Bretton Woods conference, Keynes's theoretical ideas that advocated abandoning the gold standard became the mainstream tone of the discussion. Kemmerer was critical of the attitude of the economic scholars attending the meeting that echoed the

[107] See Howard *et al.* (1946) and Leitch (1978, p. 280).
[108] It is worth mentioning that although Kemmerer designed the gold standard for China, the Chinese National Government did not award him any official honor.
[109] See Giovannini (1993) and Wintour (2017).

government's opinion of abandoning the gold standard and establishing a fiat money standard.[110]

After serving in academia and public monetary policymaking for decades, on December 16, 1945, the world-famous "Money Doctor" Edwin Kemmerer passed away at the age of 70 in Princeton, New Jersey, United States.[111] Still, the influence of his thoughts continued to spread. After Kemmerer passed away, the professors from Princeton University gave him very high praise, they said:

> As a man he was singularly genial and unassuming. His strong convictions were always considerately expressed, and he never suffered doctrinal differences to cloud his personal regard for his opponents. On many of his missions he was exuberantly lauded by those in high office but he himself never lost his simple charm. His disciples were legion, and they will sorely miss him but, however highly his friends may rate him as a scholar, they will hold still more dearly the memory of the gentleman. (Howard *et al.*, 1946)

It is a pity that Kemmerer himself did not participate in the Bretton Woods meeting. It's also a pity that the idea of returning to the traditional gold standard was also drowned out by Sir Maynard Keynes's dominating proposal on the issuance of fiat money and the abolition of the metal standard. In the next section, we demonstrate Edwin Kemmerer's academic career as a "Money Doctor."

### 2.2.2 Edwin Kemmerer's Academic Career as a "Money Doctor"

As we have demonstrated in the above section, throughout his entire life, Edwin Kemmerer held numerous positions both in academia and in government as a policy

[110] See E. Kemmerer (1945).
[111] See Machlup (1978).

advisor. Still, the biggest highlight of his career was being the famous "Money Doctor." In this section, we mainly review Kemmerer's career all around the world.

After Kemmerer's service in the Philippines (1903-1906) and his work on the monetary system of the Iceland and Egypt during his stay in the Philippines, he continued to work as the international "Money Doctor." In 1917, Kemmerer was nominated as a financial advisor to the government of Mexico. In 1919, he started to serve the government of Guatemala. Kemmerer's service in Mexico and Guatemala made him more and more prestigious and increased the demand for his help. As the monetary system is tightly connected with other institutions such as public budgets, taxation systems, banking systems, and foreign exchange, Kemmerer organized a group of specialists in the above-related areas to function more properly in monetary policymaking. In 1922, Kemmerer was nominated as the United States Trade Commissioner in South America. The Kemmerer Commission served Colombia in 1923 and 1930, Chile in 1925, Poland in 1926, Ecuador in 1926-1927, Bolivia in 1927, China in 1929, and Peru in 1931.[112]

In 1924-1925, Kemmerer worked with two groups to the return to the gold standard, the Union of South Africa (Vissering-Kemmerer Commission) and an economic survey for Turkey (Hines-Kemmerer Commission).[113] In 1924 to 1925, he worked with the Dawes Commission in Europe, providing policy suggestions for the reorganization of the central bank of Germany, the Reichsbank, and for the stabilization of German

[112] See Howard *et al.* (1946) and Leitch (1978, p. 279).
[113] See Howard *et al.* (1946).

currency after the price hyperinflation after the World War I.[114] In the next section, we review Edwin Kemmerer's general theory on central banking and gold reserves.

### 2.2.3 Edwin Kemmerer's General Theory on Central Banking and Gold Reserves

After illustrating Kemmerer's biography and his career as the "monetary doctor," we demonstrate Kemmerer's general theory on central banking and gold reserves in this section. Subsection 2.2.3.1 is about the Kemmererian definition of the gold standard.

**2.2.3.1 The Kemmererian definition of the gold standard.** We have demonstrated in section 2.2.1 that in 1944, Kemmerer published articles in the media and participated in a US congressional hearing to criticize the fiat money system based on the Bretton Woods system and defend the gold standard.[115] In the same year, one year before Kemmerer passed away, he published his famous *Gold and Gold Standard*, which was his last book, and integrated his understanding of gold standard principles. After demonstrating the history of the gold standard from ancient Asia to the 1920s, when Western countries were facing the Great Depression, Kemmerer started to solidify his definition of the gold standard. Kemmerer treated the gold standard as a monetary system where prices are measured and exchanged by gold internationally and freely. He said,

> The generic gold standard may be briefly defined as a monetary system where the unit of value — in terms of which prices, wages, and debts are customarily expressed and paid — consists of the value of a fixed quantity of gold in a large international market that is substantially free. (Kemmerer, 1944/2009, p. 134)

Kemmerer provided a classical definition of the gold standard. Although he did not express the meaning of the gold standard by providing specific kinds of the gold standard,

[114] For the reference of the two Kemmerer commissions, see Howard *et al.* (1946, p. 220) and Leitch (1978). For the German price hyperinflation after the First World War, see Sennholz (1979, pp. 79-108).
[115] See Giovannini (1993) and Wintour (2017).

he still illustrated the abstract sense and principle of it. He didn't use the induction method to develop his definition, but the deduction method.[116] In fact, Kemmerer provided both his definition of the gold standard and some specific kinds of it (i.e., gold-coin, free coinage of gold, gold-bullion standard, gold-exchange standard) to crystalize the Kemmererian gold standard.[117] However, the gold-exchange standard implies a monetary system under which the value of one country's currency remains at parity with another currency based on the gold standard, which was different from the classical definition of the gold standard that Kemmerer provided. In this sense, Kemmerer's definition had a small contradiction as the classical definition of the gold standard. In the classic definition, all currencies maintain a fixed price with gold, and there is no relationship between currencies directly linked to fixed and floating exchange rates.

Further, Kemmerer provided some explanations of his definition of the gold standard. First, Kemmerer stressed that it is not necessary to provide a gold standard based on legal tender, the form of currency that is a satisfactory payment for any monetary debt. For Kemmerer, the gold standard can both exist and perform without a legal tender as the latter only started to develop in contemporary history.[118] In addition, Kemmerer also pointed out that neither the Gresham Law nor the custom of using non-legal tender[119] could drive out the legal tendency. Gresham Law states that if there are two forms of commodity currency in circulation, consumers retain and store high-quality currencies with high precious metal content and use low-quality currencies in the market

[116] For the difference between the induction and deduction methodology in science, see Mises (1957/2007).
[117] See E. Kemmerer (1944/2009, p. 135).
[118] See E. Kemmerer (1944/2009, p. 135) and Hülsmann (2008).
[119] For the reference of the custom of non-legal tender, see Selgin (2015b), Huerta de Soto (2006, pp. 20-36). For the reference of the origin of the government prerogative of making money, see Huerta de Soto (2006, pp. 41-58).

for market transactions. This means most of the circulation in the private sector is low-quality and inferior currency while high-quality currencies with high precious metal content are not under market circulation. As we are describing in this paragraph and we've mentioned in section 2.2.1, Kemmerer treated price inflation as a thief, who robs the money and fruit of honest people's labor and creates chaos. Kemmerer criticized the negative consequence caused by both the Gresham Law and the legal tender.[120]

Secondly, Kemmerer believed that accepting the gold standard is the best choice for a nation as it was almost universal respected.[121] But as his son Donald Kemmerer pointed out, there possibly would have been a high opportunity cost for underdeveloped countries to switch their currency system to the gold standard. In Kemmerer's proposal, the relatively underdeveloped countries would choose the trustworthy developed countries' gold-standard-based central banks for keeping their deposits, as they would be gold-guaranteed there. This choice would be challenging for underdeveloped countries because they would have to measure which banks were trustworthy or not.[122]

Thirdly, Kemmerer also emphasized that there is no need to "mention in the definition of redeemability in gold (or its equivalent) of paper money and fiduciary coins."[123] Though redeemability is a privilege of paper money and fiduciary coins, the privilege *per se* is not necessary for a gold standard. For Kemmerer, the sufficient conditions for the redeemability in gold of paper money and fiduciary are restrictions of the issuance of paper money and of fiduciary, and the unlimited use of paper and fiduciary currency to pay tax and public debts. Kemmerer realized that many times in

[120] See E. Kemmerer (1944/2009, pp. 17-18).
[121] See E. Kemmerer (1944/2009, pp. 139-140).
[122] See D. Kemmerer (1993, p. 23).
[123] See E. Kemmerer (1944/2009, p. 136).

history, the government did not allow people to pay taxes and public dues, as the government clearly knew the value of the inflating fiduciary currency had been declining because of its over-issuance.

Fourthly, Kemmerer also pointed that even with the following conditions; a particular kind of gold unit, a gold standard based on legal tender, a gold standard as the widest accepted currency standard in a country, and redeemability in gold, it is still possible that the gold standard would not be a *real* gold standard.[124] He provided the case of the Union of South Africa in 1919 and 1920 to demonstrate his theory. During that period, the gold standard and price level in South Africa were not stable, caused by governmental manipulation of the issuance and the prohibition of exporting gold.[125] Later, Kemmerer also pointed out that with a ban on the importation of gold in a country, the value of gold would artificially rise, which is not natural in a real free market and in the classic gold standard criteria. It is clear the Kemmererian precondition of a true gold standard is based on the free market exchange of gold, where there is no governmental restriction on both the exportation and importation of gold. Kemmerer also pointed out that it is not possible to call one currency standard is a true gold standard if its value is not based on the international free market evaluation. He said,

> Whenever the gold value of the monetary unit of a country is divorced from the market value of gold in the free markets of the world, the country cannot be said to be on a true gold standard. (E. Kemmerer, 1944/2009, p. 137)

[124] See E. Kemmerer (1944/2009, p. 136).
[125] See E. Kemmerer (1944/2009, pp. 136-137).

Therefore, for Kemmerer, a true gold standard not only requires no price controls in the domestic market but also in the international market. Only such a gold standard can genuinely reflect the market's true price and demand for gold.

Finally, Kemmerer made a very legible judgment that the value of a country's currency is only valid if their government keeps it at parity with the value of the gold monetary unit reflected by the international free market. For Kemmerer, as we have demonstrated in the above paragraph, the global market should be available for both importation and exportation of gold, which means that it is an independent trade criterion that the government could not intervene the gold exchange. Thus, in the condition of the free market without government intervention in monetary issues, the gold standard would reveal itself naturally. A gold standard *per se* is not needed to maintain the value of a currency, but it is the result of the stability of currency itself. Kemmerer said,

> Regardless, therefore, of which of the many common means may be adopted by a nation to maintain the value of its money — such as convertibility, legal tender, and free coinage — the supreme test of the existence of the gold standard is the answer to the question whether or not the money of the country is actually kept at a parity with the value of the gold monetary unit comprising it, in the outside free international gold market, assuming, of course, that such a market of reasonable size actually exists. It is not a question of the means adopted to obtain a particular result, but rather, one of the results itself. The gold standard exists then in any country whenever the value of a fixed quantity of gold in a large and substantially free international market is actually maintained as the standard unit of value. (E. Kemmerer, 1944/2009, p. 138)

Therefore, for Kemmerer, if a country maintains a fixed price of gold and its own currency under the premise of a free market, then the choice of any currency is reasonable. For him, the choice of currency is only a technical result, and the real key lies in the fact that gold and currency are not subject to government price restrictions in the market. From his viewpoint, Kemmerer was not in favor of governmental manipulation of currency exchange through international trade, and the Kemmererian way of preserving the value of gold and the gold standard-backed currency is only through market activity.

**2.2.3.2 The theory of gold as a monetary unit.** After establishing the definition of the gold standard, Kemmerer further developed his theory of gold as a monetary unit. In the first place, Kemmerer treated gold as a monetary unit, which is "a fixed weight, not a fixed value."[126] For Kemmerer, the valuation or the purchasing power of a unit of a gold standard currency "is attached at a particular moment to a fixed weight of pure gold." [127] In addition, Kemmerer analyzed that because of the well-known physical qualities of beauty, scarcity and "its freedom from corrosion or solution" for keeping it for thousands of years, gold has been well recognized and prized highly as the universal demanded currency by both the most primitive and the most advanced peoples. [128] Moreover, for Kemmerer, it's not only the rugged durability that makes the value of gold very stable, but also the steady annual production rate of it. According to Kemmerer, the yearly production rate of gold before the First World War was around four percent of the known stock of monetary gold around the world. [129]

[126] See E. Kemmerer (1944/2009, p. 139).
[127] See E. Kemmerer (1944/2009, p. 139).
[128] See E. Kemmerer (1944/2009, p. 140).
[129] See E. Kemmerer (1944/2009, p. 141). The date of the annual growth rate of the world's known gold is a

**2.2.3.3 The theory of demand for gold.** For Kemmerer, there are three reasons why gold has a highly elastic demand.[130] The first is *monetary demand*. According to the demonstration of the characteristics of gold in Kemmerer's theory of gold as a monetary unit in the last section, gold is naturally selected as a highly demanded monetary unit. The second reason why gold has a highly elastic demand is the *demand for ornamentation*. Kemmerer believed that gold "is the most widely treasured material for articles of beauty," which means "most people in the world would like to have more gold ornaments than they do possess and would buy more if such articles were to become cheaper."[131] The last reason why gold has a high demand because of its *hoarding demand*. For Kemmerer, throughout human history, acting man hoarded gold as insurance to avoid famine and other misfortune. This is evidenced in China, India, and South Africa. Acting man would hoard gold as art or luxurious goods.[132]

**2.2.3.4 The theory of characteristics of gold in its relation to the gold standard.** According to Kemmerer, there are three distinct characteristics of gold in its relation to the gold standard.[133] The first characteristic is *a fixed price*. For Kemmerer, once the government adopted the gold standard, it "fixes the gold content of the monetary unit."[134] Kemmerer also gave the example of in the United States, how gold standards fit the monetary unit. Unfortunately, the fixed price between the gold standard and monetary unit was gradually destroyed by governmental manipulation until the disappearance of

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little bit different from another monetary specialist. According to Skousen (1990, pp. 269-271), the annual growth rate of the worldwide stock of gold is between one and three percent per year over the last 100 years, which is not Kemmerer's "four percent" before World War II.

[130] See E. Kemmerer (1944/2009, pp. 141-142).
[131] See E. Kemmerer (1944/2009, p. 142).
[132] See E. Kemmerer (1944/2009, pp. 147-148).
[133] See E. Kemmerer (1944/2009, pp. 143-146).
[134] See E. Kemmerer (1944/2009, p. 143).

the gold standard of the failure of Bretton Woods in 1971.[135] However, Kemmerer did not explain how the government can maintain the value of gold. If, as Kemmerer pointed out, that market is the best way to trade and express the value of gold (though different trader's subjective valuation of it), then it would be suspicious for the role of government to be dealing with gold standard issues. If the market *per se* could provide this kind of trading institution, then *free banking* emerges, where there would be no space for a gold standard *central banking* system. It would be much more compelling if Kemmerer could have written more on the difference between the above two different banking systems.

The second characteristic is *an unlimited market*.[136] For Kemmerer, the price of different forms of gold is not only always the same at the gold mine and its assay officers. Their price is also being checked in a proper way as a paying obligation in both the domestic and international market, where that could stabilize the price of gold. Though Kemmerer provided his demonstration of the characteristic of the unlimited market of gold, it would be much more compelling if Kemmerer illustrated whether it was good or not for fixing the price of gold in either the examining part or the market exchange part.

The third characteristic is *the production of gold, correlated inversely with the prices of other commodities*.[137] Kemmerer believed that though usually the output of gold increases if its market prices advance and the production of gold decreases while its market prices fall, the price of gold would not change, which has nothing to do with the increase or the reduction of the production of gold in a gold standard country. Kemmerer then argued the gold standard system fixed the price of gold instead of fixing the value of gold. But what's still not clear is the Kemmererian distinction *between the price of gold*

[135] See Giovannini (1993).
[136] See E. Kemmerer (1944/2009. p. 144).
[137] See E. Kemmerer (1944/2009, pp. 144-147).

and *the value of gold*. The price of a gold is a way to express the trader's subjective value of it. Obviously, Kemmerer did not make a clear demonstration of the distinction between the price of gold and the value of gold in this part. However, Kemmerer did provide an example, which shows the price of pure gold at the mint was *always* $20.67 an ounce between 1879 and 1916.[138] Furthermore, Kemmerer also pointed out that though the price of goods may be the same, the producers' costs of producing goods may also change when the value of the purchasing power of gold changes. For Kemmerer, once there was an increase in production of goods related to the increasing demand for them, "the supply of monetary gold and other "money and deposit-currency circulation that is based upon it, […] through increasing commodity prices, tends to make gold less valuable."[139] Once the demand for monetary gold and other related monetary standard increases, the commodity price increases, which makes the value of gold tend to decline. On the contrary, when the value of gold increases, the gold producers' profit and the production of gold would also increase, Kemmerer also explained what would happen opposite to the increased gold production and the increased yield of it. He said,

> On the other hand, when the value of gold is increasing, i.e., when commodity prices are falling, the prices of the things that comprise mining costs tend to fall with the prices of other commodities. This reduces the cost of mining and, since the mine owner continues to sell all of his gold at the same mint price as before, his profits are increased, and gold production is stimulated. Therefore, the production of gold tends to increase when the value of gold rises and to decrease when that value falls. (E. Kemmerer, 1944/2009, p. 146)

[138] See E. Kemmerer (1944/2009, p. 145).
[139] See E. Kemmerer (1944/2009, p. 145).

Here, Kemmerer analyzed the relationship between the costs of gold mining and the prices of the market by using basic economic principles. Under other conditions that remain unchanged, when the price of gold rises, it will cause gold miners to feel profitable because the cost of producing gold is relatively reduced at this time. Kemmerer applied the economic theory of large-scale production of commodities to reduce the production cost of enterprises to the analysis of gold.

**2.2.3.5 The theory of monetary gold versus gold in arts.** The last part of Kemmerer's theory of the gold standard is the theory of monetary gold versus gold in the arts.[140] For Kemmerer, if the value of gold falls and the commodity price rises, the price of gold in arts such as jewelry and utensils does not rise, "although the costs of other materials and labor involved in their manufacture and marketing will advance."[141] In this criterion, as the price of gold in arts decrease, more individuals would like to buy the gold-made luxurious goods. And on the contrary, when the price of commodity lowers, less money would be spent on gold-made art. Kemmerer said,

> When, on the other hand, commodity prices are falling and the value of gold is rising, we have the opposite situation. Then the prices of jewelry, ornaments, and other gold manufactures do not fall as much as the prices of most other things and as wages, because the price of gold itself does not fall. This makes gold products appear dear to the consumer and, therefore, lessens the demand for them. (E. Kemmerer, 1944/2009, pp. 147-148)

Here, Kemmerer clearly saw the difference between the nature of art and gold commodities. If other conditions are the same, the demand for art is unstable compared to

[140] See E. Kemmerer (1944/2009, pp. 147-148)
[141] See E. Kemmerer (1944/2009, p. 147).

gold, so their prices often fluctuate. Therefore, when the prices of artworks fluctuate, the owners of artworks are more willing to exchange artworks for relatively stable gold prices. In fact, here Kemmerer hinted at the stored value function of gold. This stored value function of gold is undoubtedly a function of risk aversion for those who trade in the art market full of uncertainty.

### 2.2.4 A Short Review on the Commentary from a few Economists on Kemmerer's Theory

After we have demonstrated Edwin Kemmerer's general theory on the gold standard, this section, we review some Austrian school commentary on Kemmerer's theory. As we have shown above, Kemmerer's gold standard proposal implies the establishment of a free banking system, which is on the contrary of his central banking proposal, we chose the economists of the Austrian school. The latter is in favor of free banking to present in this section. Section 2.2.4.1 is George Selgin on Kemmerer. Section 2.2.4.2 reviews Joseph Salerno's view on the Kemmererian theories.

**2.2.4.1 George Selgin on Edwin Kemmerer.** The free banking theorist George Selgin criticized the theory of gold-standard central banking-system proposal by Kemmerer and his companions, both theoretically and historically.[142] Selgin suggested a free-banking system without the regulation of deposit reserve. Fundamentally, Selgin claimed that the proposal of establishing a gold-standard central-banking system was theoretically wrong. For Selgin, it is the private-law which made the gold standard possible and credible, but not the governmental-law.[143] And the commitments attached by sovereign immunity do not and cannot execute private sanctions if the banks break their

[142] For Selgin's monetary theory, see Selgin (1988, 2015a, 2015b).
[143] See Selgin (2015b, p. 261).

promises, which will make the commitments to maintain a gold parity impossible and not credible. Moreover, central banks can use their monopolized power to devalue currency without punishment. They can even get benefit by doing this manipulation and can also make the currency holder of central banks afraid of the devaluation of currency. A gold standard based on the central banking system would be finally tempted by speculative attacks. Selgin said,

> Knowing that central banks can devalue with impunity, and that they may even profit by so doing, holders of a central bank's currency have good reason to fear that it might devalue, especially if it has already done so in the past. […] Gold pegs enforced by central banks are for this reason just as likely as any central-bank-based fixed exchange-rate scheme to eventually succumb to a speculative attack. (Selgin, 2015b, p. 261)

Selgin claimed that historically, there was no relationship between the pre-WWI gold standard and manipulation from the central banking system.[144] Thus, Kemmerer was wrong in the historical evidence of the pre-war gold standard issues. For Selgin, it was the war that broke and ceased the previous gold standard. Therefore, the development of central banking in the post-war era made it impossible to maintain the gold standard according to Selgin's theory, which we demonstrated in the last paragraph. In this sense, the efforts of Kemmerer and his companions for establishing a stable gold-standard central-banking system would not work. Selgin also believed that in the post-war era, the intention of the establishment of central banking was not only to reestablish a gold standard but more to reestablish a durable system of fixed exchange rates. Selgin said,

[144] See Selgin (2015a, p. 17; 2015b, p. 261).

> The general proliferation of central banks, starting with the Federal Reserve's establishment in 1914 […] thanks to campaigning by Edwin Kemmerer and Montagu Norman, […], may thus be said to have played no less important a role than World War I in sealing the fate of the gold standard, for it was that development that undermined, as war itself could not, the private legal foundation upon which the classical gold standard's success had rested. […] [T]he same developments [of the establishment of the post-war central-banking] would ultimately doom not just attempts to reestablish some kind of gold standard, but all attempts to reestablish a durable system of fixed-exchange rates. (Selgin, 2015b, p. 261)

In Selgin's view, it was precisely Kemmerer's support for the establishment of the U.S Federal Reserve that caused the collapse of the traditional gold standard. For Selgin, the conventional gold standard that relied on the free banking system was destroyed by the Fed's central banking system. Thus, from Selgin's perspective, Kemmerer himself clearly should bear some responsibility for the disappearance of the traditional gold standard.

Selgin also criticized that historically the post-war central banking system was a tragedy that avoided the price fluctuation of neither inflation nor of deflation. But with faith of the gold-standard central-banking system, Kemmerer and his companions went to different countries to propose the idea of the gold standard central banking system. Selgin said,

> In particular, [the American gold-standard central-banking theorists] subscribed to the (in the event tragically mistaken) belief that, by taking part in an international gold "exchange" standard, […], a league of central banks would

> make that reconstruction possible without heavy resort to either deflation or devaluation. The European effort in turn inspired Edwin Kemmerer, Princeton's "Money Doctor," to spread the same central-bank gospel around Latin America. (Selgin, 2015a, p. 17)

Therefore, although Selgin did not fully agree with Kemmerer's currency theory, he still affirmed Kemmerer's efforts to return to the traditional gold standard. In the next section, we review Joseph Salerno's view on Kemmerer's theory.

**2.2.4.2 Joseph Salerno on Edwin Kemmerer.** The contemporary Austrian school economist Joseph Salerno studied Kemmerer's contribution to the definition of monetary supply and business arbitrage, the definition of inflation, and the gold standard.[145] Here we focus on Salerno's comments on Kemmerer's views of Bretton Woods system and the gold standard. For the Bretton Woods system, Salerno pointed out Edwin Kemmerer, along with another two American economists, Benjamin Anderson and Melchior Palyi, were all against the Bretton Woods agreement, who advocated to return to the prewar gold standard.[146] As we have demonstrated in section 2.2.1, before the establishment of the Bretton Woods system, Kemmerer actively criticized the fiat-money based monetary system through a newspaper article, monograph, and the US congressional hearing. However, he did not participate in the conference in Bretton Woods. Not to mention that the conference did not accepted his opinion in the Keynesian-dominated meeting.

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[145] For Salerno's comments on Kemmerer's contribution of the definition of monetary supply and business arbitrage, the definition of inflation and gold standard, see Salerno's *Money, Sound and Unsound* (2010, p. 129, p. 342, p. 424).

[146] See Salerno's "Gold and the International Monetary System: The Contribution of Michael A. Heilperin" (1985/1992). For Benjamin Anderson' monetary theory, see *Cheap Money, Gold, and Federal Reserve Bank Policy* (1924). For Palyi's monetary theory, see his *Liquidity* (1936).

Furthermore, Salerno also reviewed Kemmerer's contribution to the relationship between the price fluctuation and gold.[147] Salerno agreed with Kemmerer that with the significance of the scarcity and durability of gold, the stability of the money supply would be realized. Salerno said,

> An increase of the supply of the money-commodity under the gold standard yields net benefits to society assuming there is still a nonmonetary demand for gold. […] Most importantly however, even in the case in which gold has completely lost its value in nonmonetary uses—certainly a theoretical possibility, if not an empirical likelihood—the money-commodity would still involve the use of scarce, and therefore costly, resources. […] Furthermore, since gold is an extremely scarce as well as highly durable commodity its annual production tends to be a tiny proportion of the existing stock. Consequently, even relatively large reductions or increases in its costs of production will not cause great fluctuations in the annual supply of money. The significance of the scarcity and durability of gold for the stability of the money supply has been vividly expressed by the monetary theorist, Edwin Kemmerer. (Salerno, 2010, p. 344)

For Salerno, whether in the empirical sense, gold is scarce or not will not influence its characteristics of scarcity and durability. Besides, Salerno agreed with Kemmerer that as gold is scare and durable, a considerable reduction or increase in the cost of gold production will not cause the fluctuation in the annual supply of gold-based money. After introducing the biography of Edwin Kemmerer and his monetary and gold theories. In the next section, we review the 1929 Kemmerer reports for China.

[147] See Salerno (2010, pp. 343-345).

## 2.3 Kemmerer's Reports and Commentary

In the last section, we have reviewed Edwin W. Kemmerer's general biography, especially his academic career as the world-known "Money Doctor," his general theory on central banking and gold reserves and did a short review on the commentary from a few economists on Kemmerer's theory. In this section, we demonstrate our comments on Kemmerer's 1929 reports on China's banking reform. Section 2.3.1 reviews the general political and economic background in China from 1927 to 1937, which are related to Kemmerer's reports. Section 2.3.2 provides an in-detailed description of Kemmerer's 1929 reports. Section 2.3.3 presents the critical reports on China's banking system. Section 2.3.4 illustrates our commentary on Kemmerer's 1929 reports.

### 2.3.1 Political and Economic Background of China, 1927-1937

After World War I, the gold standard was suspended in many countries. On the contrary, as a former silver standard country, China was trying to adopt the gold standard in the 1920s, as influenced by American gold standard promoters like Edwin Kemmerer.[148] For understanding the policymaking in China and the impact of the American monetary specialists during the 1920s, it was essential to review the history of China at that epoch to understand their general situation. In this section, we survey the general political and economic background in China from 1927 to 1937, the beginning of Nationalist China, and the era of the Nanjing Golden Decade due to the economic growth that happened in China at that time. Subsection 2.3.1.1 reviews the general political conditions of China from 1927 to 1937. Subsection 2.3.1.2 demonstrates the economic background during that period.

[148] See D. Kemmerer (1993, p. 22).

**2.3.1.1 The general political conditions during the Nanjing Golden Decade, 1927-1937.** Chinese politics before the establishment of the National Government were chaotic. As the political, economic, and social crises of the late Qing Dynasty continued erupting, the republicans launched the Wuchang Uprising on October 10, 1911.[149] The Wuchang Uprising, as a part of the 1911 republication Xinhai Revolution, overthrew the Manchurian Qing Dynasty's 268-year rule in the Han majority China. Subsequently, on January 1, 1912, due to *The Provisional Constitution of the Republic of China*, Sun Yat-sen, a republican leader and founder of the Kuomintang, was sworn in as the Provisional President of the Republic of China in Nanjing.[150] In February, Yuan Shikai, Prime Minister of the last modern western-style responsible cabinet of the Qing Dynasty and the leader of the Beiyang Army of the court, persuaded Emperor Xuantong and the Qing royal family to abdicate, which marked the suspension of China's attempt to establish a constitutional monarchy. Later, Yuan Shikai moved the Republic of China's capital from Nanjing to Beijing, the former capital of the Qing Dynasty, to control the political situation of the whole of China in his hands. In this way, the former military personnel of the Beiyang Army, represented by Yuan Shikai, began to rule China for 15 years. After Yuan died in 1916, the Beiyang Government was divided. In early 1917, Duan Qirui, Prime Minister of the Beiyang Government, announced the abolition of *The Provisional Constitution of the Republic of China* and the Congress. Duan's controversial action led to the dissatisfaction of Kuomintang parliamentary members and its leader Sun Yat-sen. On July 17 of the same year, in the south China city Guangzhou, Sun Yat-sen established the Constitutional Protection Junta (also called the Military Government) to restore the

[149] For more about the political background before the establishment of the National Government, see Chapter 1 of this thesis.
[150] The Provisional Constitution of the Republic of China is written as "中華民國臨時約法" in Chinese.

provisional constitution which was the predecessor of the later National Government. During the rule of the Beiyang Government, the Chinese Communist Party (CCP) was established in Shanghai in 1921, gradually becoming a significant political force during the period of the Republic of China on the Chinese Mainland. The CCP defeated the democratically elected government of the Republic of China led by the Chinese Nationalist Party during the Civil War from 1945 to 1949 and began a reign of terror of communist and totalitarian rule over Mainland China for more than 70 years.

China's political situation was gradually stabilizing with the gradual establishment of the National Government. After the establishment of the Military Government, Sun Yat-sen intended to use Guangdong Province as a southern base to restore the Provisional Constitution of the Republic of China.[151] On April 12, 1924, Sun Yat-sen published *The National Government's Outline for Founding the Nation*, which became one of the essential principles of the Chinese Nationalist Party (Kuomintang or KMT) and its Military Government.[152] As a result of this book, China would achieve a constitutional order through the Period of Military Government, the Period of Political Tutelage through the Kuomintang led Party-State and the Period of Constitutional Politics.[153] To achieve the goal of establishing a constitutional order, at the military level, Sun Yat-sen and his Kuomintang also organized their own army, the National Revolutionary Army, which later became the national military force fighting against the Japanese during the Second Sino-Japanese War (1937-1945).[154] Chiang Kai-shek was nominated as an essential military official of the National Revolutionary Army. In May

[151] See X. Li & Z. Li (2011, pp. 125-187).
[152] See Y. Sun (1924).
[153] The Period of Military Government, the Period of Political Tutelage, and the Period of Constitutional Politics are written in Chinese as "軍政, " "訓政,", and "憲政" originally.
[154] See C. Wang (2011, p. 283).

1924, Chiang was appointed as the Superintendent of Republic of China Military Academy, who became the highest military leader of the National Government after Sun Yat-sen's death, also known as "Generalissimo Chiang." In March 1925, Sun Yat-sen died in Beijing when he was negotiating with the Beiyang Government in peace talks.[155] After Sun's death, the peace talks between the Nationalists and the Beiyang Government broken down soon.

In this situation, On July 1, 1925, the Chinese Nationalist Party officially established the National Government of the Republic of China to achieve the Period of Political Tutelage that the political party had promised to the Chinese people.[156] With the breakdown of the peace talks between the National Government and the Beiyang Government, in July 1926, the National Government began the Northern Expedition to unify China and eliminate the Beiyang Government.[157] On April 18, 1927, the National Government moved its capital to Nanjing. In the same year, the Nationalist Party and the Communist Party, which had initially cooperated in military and political affairs, split. The Communist Party began its military rebellion and gradually controlled Mainland China after 1949. In 1928, the Northern Expedition of the National Government succeeded, ending the rule of the Beiyang Government in north China and unifying the whole of China officially. In the same year, the National Government promulgated *The Provisional Constitution for the Period of Political Tutelage of the Republic of China*, formally starting to implement the Kuomintang led Party-State period that Sun Yat-sen

[155] See Luo *et al.* (2011, pp. 78-106).
[156] See Luo *et al.* (2011, pp. 503-507).
[157] Reference of the Northern Expedition and the establishment of the National Government see T. Yang (2011, pp. 341-345, pp. 358-361) and Fairbank & Feuerwerker (1986, p. 10, pp. 111-115).

had designed.[158] After the Northern Expedition, the National Government controlled most of the Chinese Mainland except some small areas (only 7 of 18 provinces) that were mostly occupied by the Communist Party and the Japanese (especially in Manchuria).[159]

The following years were Chiang Kai-shek's leadership of the ROC National Government. Qiang became the *de facto* head of the National Government after it moved its capital to Nanjing in 1927. He served as President of the National Government from October 1928 to December 1931. From December 1931 to May 1946, he served as Chairman of the Military Commission of the National Government. In April 1938, he started working as the Director-General of the Kuomintang. On May 20, 1948, Chiang Kai-shek was elected as the President of the Republic of China by the First National Assembly, becoming the first head of state in Chinese history to be democratically elected like the Electoral College of the US presidential election.[160] After the defeat in the Civil War in 1949, Chiang retreated to Taiwan, serving as the Director-General of the Kuomintang and the President of the Republic of China until he died in Taipei on April 5, 1975.

The ten years from 1927 to 1937 were a rare period of relative peace during the era of the Republic of China on the Chinese Mainland. That period from 1927 to 1937

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[158] *The Provisional Constitution for the Period of Political Tutelage of the Republic of China* is written as "中華民國訓政時期約法" in Chinese.

[159] See Fairbank & Feuerwerker (1986, p. 150). In the middle and late years of the Nanjing Golden Decade, the northern territory of the Republic of China was gradually invaded by the Japanese. Japan launched the Mukden Incident in 1931, and gradually occupied Northeast China (Manchuria) in the following months. In 1932, the Japanese supported the establishment of Manchukuo (1932-1945) in northeast China. The investigation by the League of Nations identified it as the puppet regime of the Japanese. Therefore, some scholars believe that the Sino-Japanese War has broken out since 1931, rather than 1937 (Gordon, 2003, p. 189). For a detailed description of this history, see Fairbank & Feuerwerker (1986, pp. 492-519). For more about the political and economic situation in Japan before the Second Sino Japanese War, see Chapter 11 of A. Gordon's *A Modern History of Japan: From Tokugawa Times to the Present* (2003, pp. 182-203). For the wartime Japan, see Chapter 12 of the same book (pp. 204-225).

[160] In 1996, the Republic of China on Taiwan elected Lee Teng-hui as the President of the Republic of China through direct election of the people. In this way, the Republic of China fully realized its constitutional system in its Free Area.

was also called "the Nanjing Golden Decade."[161] As a result, the National Government was able to pursue its policies. The government and the Kuomintang adhered to Sun Yat-sen's *The Three Principles of the People*: *Chinese Nationalism*, *Government by the People*, and *Minshengism*. *Chinese Nationalism* stands for equality among all ethnic groups in the Republic of China, and the use of traditional Chinese morals as the basis for peace among all the Chinese ethnic groups.[162] *Government by the People* is about Sun Yat-sen's proposition of the separation of the constitutional five powers, namely, the separation of administrative, legislative, judicial, examination, and political audit institutions.[163] This political system was first initiated in 1925 when the National Government was established. In 1946, the Constitutional National Assembly, which was elected through democratic procedures, adopted *The Constitution of the Republic of China* based on Sun's separation of the five powers.[164] After the government of the Republic of China retired to Taiwan in 1949, it continued to use the basic structure of this constitution until now.

*Minshengism* is about Sun Yat-sen's proposals of economic policy, which can be literally translated as "the People's livelihood."[165] Sun Yat-sen's economic policy was neither a completely laissez-faire economic policy nor a Marxist communism proposal. In his view, a market economy can certainly promote economic development. Still, it requires state intervention to control capital and collect taxations (such as the land tax), avoiding a wide gap between the rich and the poor.[166] Thereinto, the establishment of the

[161] See Fairbank & Feuerwerker (1986, pp. 116-167) and D. Ma (2012).
[162] See Y. Sun (1924/1927c).
[163] For Sun Yat-sen's entire theory of *Government by the People*, see Y. Sun (1924/1927a).
[164] For more about the adoption of the 1946 *Constitution of the Republic of China*, see section 6.2.1 in Chapter 6.
[165] For Sun Yat-sen's entire theory of *Minshengism*, see Y. Sun (1924/1927b).
[166] See Y. Sun (1924/1927b, pp. 30-35).

system of state-owned controlled by state capitals is an essential tool for achieving social equality in Sun Yat-sen's thought. In the discourse of *Minshengism*, although Sun Yat-sen had no systematic banking theory, he emphasized the necessity to establish a modern central bank system for China. He advocated the introduction of foreign capital to develop the Chinese economy, and a national central bank could play a role in financing the process of economic opening and development.[167]

Though Sun Yat-sen did not propose any systematic theory of establishing a modern central banking institution, he still argued that it is necessary to issue banknotes to solve the financial shortage of the National Government. In contrast, he proposed that although the banknote reserves do not necessarily have to be 100% reserve when the government receives tax revenue, the previously issued banknotes that were used for supporting the government expenditure should be destroyed so that there would no price inflation which would distort the economy.[168] Thus, Sun supported a 100% reserve system and opposed monetary inflation and price inflation. Sun's theories of 100% reserve and anti-price inflation were accepted by the National Government when it designed the central bank system in the late 1920s. However, we will show in later analysis in Chapter 5 and Chapter 6 that although the Chinese and Western financial and economic experts agreed in principle with Sun Yat-sen's theories of 100% reserve and anti-price inflation, Generalissimo Chiang Kai-shek did not follow these two principles during the Second Sino-Japanese War and the Chinese Civil War, which eventually led to price hyperinflation causing the collapse of the Chinese economy during the Communist Revolution.

[167] See Tamagna (1942, pp. 48-49) and Y. Sun (1924/1927b, pp. 32-35).
[168] For more about Sun Yat-sen's proposal of establishing banknote system, see Y. Sun (1912/1982).

**2.3.1.2 The general economic conditions during the Nanjing Golden Decade, 1927-1937.** During the Golden Decade, China's industries were developing rapidly. At the same time, investment, commodity size, market size, and import and export were all growing. Transportation and urbanization were also evolving. Despite the limited data at that time, we can still find the promising phenomenon of China's economic growth during the Nanjing Golden Decade. Despite the lack of comprehensive statistics, existing research has revealed that the Chinese industries were developing very rapidly during the Golden Decade. In the 1920s, the development of the handicraft industry reached its peak, and its output value was comparable to that of agricultural products.[169] Knitting, silk weaving, dyeing, wool textile, and other industries continued to develop in the 1920s and 1930s. Several industries also emerged, such as the electrical appliance industry, the motor industry, the fuel industry, the alcohol industry, and the saline-alkali industry. The development of the electrical appliance industry and motor industry also led to the growth of handicrafts.[170] In the 1930s, 93.5% and 89.6% of Chinese and foreign-invested industries turned a profit.[171]

During the Nanjing Golden Decade, foreign investment, commodity size, market size, and import and export in China all increased compared to previous periods. From 1911 to 1914, foreign capital invested in China reached 1.021 billion yuan, a proportion of 57.2% of the whole investment in China, which had an average annual growth rate of 5.8%.[172] The period from the 1920s to the 1930s was the fastest period for foreign

[169] See C. Wu (2001, p. 298).
[170] See H. Huang (2007).
[171] See Chen Zhao (2007).
[172] See Zheng (2005, p. 560).

investment growth during the era of the ROC on Mainland China.[173] In 1931, foreign investment reached 242.5 million yuan, of which 1.4 billion was a commercial investment, including 8,000 foreign banks, shops, hotels, and even various entertainment venues. Compared with 1920 and 1914, domestic capital investment increased from 1.786 billion yuan to 2.597 billion yuan. From 1908 to 1920, the annual growth rate of commodities was 10.46%. From 1920 to 1936, the annual growth rate of commodities was 3.6%, of which the annual growth rate of industrial products was 7.55% (the factor of price inflation excluded).[174] From 1920 to 1936, China's domestic investment increased from 9.244 billion yuan to 16.806 billion yuan, an increase of 2.7%.[175] From an extended period, we can see it more clearly the degree of domestic investment growth in the Nanjing Golden Decade. From 1887 to 1922, the annual growth rate of domestic investment was only 1.00%, and the growth rate of consumption was only 0.67%. From 1922 to 1936, the annual growth of domestic investment was 1.45%, while the percentage of consumption was 3.75%.

Similarly, imports and exports were growing. Despite the lack of statistics from previous periods, China's exports tripled in the first 30 years of the 20th century, while Japan only doubled, and India had almost no growth.[176] Regardless of the Manchuria region, China's import quota was C$1,298 million in 1927, and the highest import quota in the period of Nanjing Decade was reached in 1931, which was C$2,002 million, an increase of 54%. The export value in 1927 was C$980 million and in 1929 it reached the highest export quota in the same period, which was C$944 million. The total value of

[173] Data of the foreign investment from 1920s to 1930s see J. Zhu (2012, p. 334).
[174] See C. Wu (2001, p. 298)
[175] See D. Zhang (2005, p. 125).
[176] See Du (2004, p. 157).

imports and exports increased from C$2,278 million in 1927 to C$2,917 million in 1931. Although the total value of imports and exports fell to C$1,791 million in 1937 due to war issues, China's imports and exports had developed to a considerable extent in the years before the Second Sino-Japanese War began. During this period, railway, shipping, and road transport all developed, but the development of road transport was the most significant.[177] China had no highways in 1913 and the total mileage of highways grew to 1185 kilometers in 1922 and 9,6078 kilometers in 1935, an increase of more than 80 times in 15 years.[178] In the 1930s, the urban population reached a growth rate twice that of the percentage of the national population.[179] The provinces that the major cities Shanghai, Tianjin, Guangzhou, Wuhan, and Shenyang were located in, accounted for only about 10% of China's territory, but had 36.3% of the national population, and 84% of foreign trade of the whole country.

Compared to the development of other industries, the situation of agriculture was entirely the opposite. Despite the lack of systematic statistics, studies based on some statistics and evidence point out that China's agriculture was very underdeveloped at that time. In 1933, modern manufacturing, mining, and utilities accounted for only 3.4% of domestic products.[180] Four of the five Chinese were farmers, and they contributed 65% of domestic products.[181] Although no systematic statistics are available, China's backwardness can be seen from the mortality rate. In the 1930s, China had the highest mortality rate in the world. The mortality rate was 2.5 times that of the United States and even higher than India at that time.

[177] See J. Zhu (2012, p. 336).
[178] See D. Zhang (2005, p. 125).
[179] See J. Zhu (2012, p. 337).
[180] See Fairbank & Feuerwerker (1986, p. 151) and T. C. Liu & Yeh (1965, p. 66, p. 89).
[181] See Fairbank & Feuerwerker (1986, p. 151) and T. C. Liu & Yeh (1965, p. 66, p. 89).

In 1930, the Legislative Yuan passed the Land Law in an attempt to reduce the burden on farmers by rents of up to 37.5%. However, the reform was opposed by landowners. 50-70% of the main crop rents were still paid by farmers, while half of the Chinese farmers were still tenant farmers, so the reform failed.[182] Economist A. N. Young believed that the reason for the failure of the agrarian reform was that the government sympathized with the landlord class and was unwilling to offend them.[183] Historian of Chinese history L. E. Eastman considered that the cause of rural poverty was the unfavorable ratio between the rural population and food production.[184] However, from the capital theory of the Austrian school, the reason for poverty is that capital accumulation is underdeveloped. The lack of capital leads to the backward production technology and low labor prices, wherein workers cannot be transferred to higher-paying industries, and their marginal returns cannot be improved.[185] The land reform of the Republic of China's government did not achieve results until it moved to Taiwan in 1949. From 1934 to 1936, the government adjusted the flood control facilities in agricultural areas and helped the farmers improve their production techniques.[186] However, only four percent of government revenue was used to promote the economic development of farms.[187] From 1936 to 1937, the survival of the peasants became more moderate. The temperate weather resulted in the best harvest in 20 years, while price inflation improved

[182] See Fairbank & Feuerwerker (1986, p. 151-152).
[183] See A. Young (1971, p. 389).
[184] See Fairbank & Feuerwerker (1986, p. 152).
[185] See Mises (1949/1998, pp. 669-680).
[186] See Fairbank & Feuerwerker (1986, p. 152).
[187] See A. Young (1971, p. 437, p. 439).

the farmers' nominal income.[188] In any case, in 1936, the National Government apologized for its ineffective agricultural policy.[189]

The agricultural industry also faced a general price deflation during that period.[190] Due to the lack of statistics, there is no corresponding data for other years in the Golden Decade. However, if the 1931 agricultural price index was taken as 100, then the index fell continuously in the next few years. From 1932 to 1934, the annual index was 72, 61, and 56. After the currency reform in 1935, the index rose. The index in 1935 was 56, 57 in 1936, and 60 in 1937. Therefore, from the perspective of falling prices or price deflation, it is clear that farmers did not benefit from the Golden Decade. From the above data, we can see that the agricultural situation in the golden decade was not prosperous. Only after 1935, the year of the currency reform, the prices were deflationary in the agricultural industry, and the farmers were receiving more profits. It was indeed a "golden decade" for the development of industry, but not for agriculture. For more about the political and economic background during the Nanjing Golden Decade, see section 4.2 in Chapter 4.

### 2.3.2 A General Description of the 1929 Kemmerer Reports

After reviewing China's political and economic background from 1927-1937 that were related to the 1929 Kemmerer reports, in this section, we generally demonstrate the reports. Subsection 2.3.2.1 demonstrates the general background of the 1929 Kemmerer reports and his trip to China in 1929. Subsection 2.3.2.2 provides the description of the investigated Kemmerer China papers at Princeton University. Subsection 2.3.2.3 provides the description of the investigated Kemmerer China papers at

[188] See Fairbank & Feuerwerker (1986, p. 153).
[189] See Fairbank & Feuerwerker (1986, p. 153) and Holland & Mitchells (1937, p. 166).
[190] See A. Young (1971, p. 479).

the Hoover Institution Library and Archives. Subsection 2.3.2.4 is about the description of the investigated Kemmerer China papers in China.

**2.3.2.1 The general background of the 1929 Kemmerer reports and his trip to China in 1929.** China built their first central bank in November 1928. But as it was not a central reserve bank and meanwhile China was facing the threat of Japanese and the Communists, the National Government and many economists believed that a proper banking system could help the Chinese overcome those challenges. Therefore, a proper banking system was an urgent priority for China's politicians, bankers, and elites.[191] The coming of the American monetary specialist group directed by E. Kemmerer provided an opportunity for China to fix those problems.

The Republic of China and the United States had an excellent relationship during the 1920s. In 1928, Sun Yat-sen's son Sun Fo came to the United States to start diplomatic activities in hopes of receiving US economic assistance. In the end, Sun Fo invited Edwin Kemmerer to China to investigate and provide advice on currency issues.[192] In February 1929, in the request of the Chinese National Government, Kemmerer went to China to design the reform program of China's monetary system.[193] After 9 months of research, Kemmerer found that China did not have a single currency system issued by the central bank, and the multiple metal standard made it different from the currency standard in the United States, Europa, and Latin America. In November 1929, Kemmerer submitted his plan, *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China*, to the National Government, proposing that

[191] For a detailed analysis of the background of the Nationalists' first central banking experiment and the process of the establishment of the Central Bank of China in 1929, see section 4.3.1 to section 4.3.3 in Chapter 4.
[192] See F. Sun (1973) and A. Young & Fuchs (1974).
[193] See Matsuoka (1939).

China should adopt the gold standard to modernize its currency system. The gold content of the new currency unit would be called Sun. One Sun should be equal to the value of US$0.40, a shill of seven pence, or 0.825 Japanese Yen.[194] This report was the final report which Kemmerer submitted to the National Government as the gold standard reform plan.[195]

The Kemmerer Report for China included not only the above paper, but also many other documents for reforming China's banking system in detail. This provides a general picture of Kemmerer's monetary thoughts on China's banking issues. Though not all the papers were included in his final report, it is still essential to understand Kemmerer's general banking plan and thoughts form China through these papers. And, as we have demonstrated in the biography section, Kemmerer was very cautious, which provides us a chance to view the general political and economic condition of China behind Kemmerer's reports.

Primarily, we must establish how many papers Kemmerer prepared for China and what were the topics of his writings. Fortunately, the Princeton University Library and Hoover Institution Library and Archives kept almost all the most critical archives related to Edwin Kemmerer and his coworkers' Chinese study. We investigated the scanned online archives of Princeton University Library, went to Hoover Institution Library and Archives in November 2016, and studied the scanned online archives from friends in Mainland China's academia.

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[194] See J. Zhu (2012, p. 340). The original name of *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China* in Chines is "中國逐漸採行金本位幣制法案." Sun (孫) is the surname of Kuomintang's founder, Sun Yat-sen.

[195] Our research finds that in the 1890s, American scholars raised the assumption that China needed to adopt the gold standard. For related content, see Conant (1903).

**2.3.2.2 The description of the investigated Kemmerer China papers at Princeton University.** According to the website of Princeton University Library, the documents of the 14-American-member Kemmerer Commission were located as a collection at Mudd Manuscript Library, Princeton University. The papers cover the date from 1903 to 1943, which included both the documents from the Late Qing Dynasty (1903-1912), Nanjing Provisional of Republic of China (1912), Beiyang Government (1912-1928), and the National Government (1928-1943). The documents also cover the data and evidence of China's political and economic situation, especially the financial and banking situation, and Kemmerer's banking reform suggestions, most of which are written in 1929 when he submitted his 1929 report.

In the collection of Kemmerer's papers at the online archives of Princeton University Library, we found 13 boxes which included *Banks and Banking* (1903-1943), *Budget and Accounting* (1929), *Coinage* (1924-1931), *Correspondence* (1928-1935), *Currency* (1920-1940), *Customs and Tariff* (1929), *Industry and Trade* (1929), *Kemmerer Commission of Financial Experts* (1928-1933), *Laws, Regulations and Proposals* (1929), *Match Monopoly* (1929), *Public Credit* (1918-1930), *Railroads* (1928-1930), and *Reference Materials* (1903-1941). The most relevant boxes for our thesis are the *Kemmerer Commission of Financial Experts* and *Laws, Regulations and Proposals*.

***2.3.2.2.1 The Box of Kemmerer Commission of Financial Experts.*** The first-most relevant box related to Kemmerer's gold standard plan on China, the box of *Kemmerer Commission of Financial Experts*, which is also the critical research result of Kemmerer and his commission, is mostly scanned. This box includes the following sub-boxes: *Interviews* (1929, scanned and preserved in the online archive), *Members and*

*Personal* (1928-1929, scanned and preserved), *Newspaper Clippings* (1929-1933), *Photographs* (1929), and *Reports by the Commission* (1929, mostly scanned and preserved).

The key sub-box, *Reports by the Commission*, contains the most crucial reports of Kemmerer Commission. The reports in the box *Reports by the Commission* includes the following 16 reports, *Banking Law, General* (1929, scanned and preserved), *Central Reserve Bank* (1929), Consumption Tax on Matches (1929), Consumption Tax on Portland Cement (1929), *Currency* (1929, scanned and preserved), *Customs Duties on Gold Basis* (1929, scanned and preserved), *Customs Revenues* (circa 1929 scanned and preserved), *Department of National Debt* (1929, scanned and preserved), *Documentary Stamp Tax* (1929, scanned and preserved), *Introduction of Gold-Standard Currency System* (1929), *Public Credit Rehabilitation Law* (1929, scanned and preserved), *Public Credit Rehabilitation Law* (1929, scanned and preserved), *Railway Finance* (1929), *Revenue Policy* (1929, scanned and preserved), *Tariff Law* (1929, scanned and preserved), and the *Withdrawal of Copper Coins* (1929, scanned and preserved).

*Central Reserve Bank* is the first key to Kemmerer's gold standard report in this box. The paper described the planned general characteristics and rules of the new central bank of China.

*Introduction of Gold-Standard Currency System* is the second key report in this box, which is a description of the Kemmererian gold standard plan. Although the Princeton University Library unfortunately did not provide the scanned online version of it, we can still use the following two ways to track the gold standard principles provided by Kemmerer Commission. The first way is to investigate the theory of gold standard by

Kemmerer's book *Gold and the Gold Standard* (1944), which has been illustrated in section 2.2.3 above. The second way is to track the rest of the available papers of Kemmerer Commission on the gold standard, including what we are going to describe in the rest of this chapter.

***2.3.2.2.2 The box of Laws, Regulations, and Proposals.*** The second most related box of is *Laws, Regulations and Proposals*, which contains eight papers. The eight papers are the following, *Accounting* (1929, scanned and preserved), *Bankers Weekly Articles* (1929), *Banks and Banking* (1929), *Currency Reform and Currency Conditions* (1929, scanned), *National Government* (1929), *Public Credits* (1929), *Taxation* (1929), and *Translation of Tables of Contents and Selections* (1929).

The key paper related to the topic of our thesis is *Currency Reform and Currency Conditions*. This paper was the legal proposal which illustrated how to make currency reform and provided the conditions of making the currency reform. Unfortunately, many pages of this scanned paper were not clear enough to figure out the words. Thus, we could not go further to investigate it thoroughly. In this cause, we use other articles from Kemmerer's Commission and the related papers of Arthur N. Young. He was also a member of Kemmerer's Commission to describe the gold standard reform plan of Kemmerer's Commission.

The American economist and lawyer Arthur N. Young (1890-1984) received his Ph.D. degree in economics at Princeton University and a degree in law from George Washington University. After his graduation, Young started to teach at Princeton University and began to serve as the American financial specialist in Mexico, Spain, and Honduras and other Asian and Latin American counties all around the world like Edwin

Kemmerer.[196] As a well-trained economist and excellent diplomat, Young also spoke fluent Spanish, which helped his work a lot in Latin American countries.[197] Young himself even called Kemmerer, "my teacher and my colleague."[198] From 1922 to 1928, Young served as the economic advisor of the State Department.[199] Meanwhile, he was working as an American observer with the Reparations Commission in Paris, France.[200]

In 1929, Young came to China to serve as the monetary specialist of the 1929 Kemmerer Commission on China until 1946.[201] In his 17-year serving time in China, as the monetary specialist, he helped to establish China's first modern central bank from 1928 to 1929 and switch it into the Central Reserve Bank of China in the late 1930s. During the Second World War and the Second Sino Japanese War, Young was nominated as the chairman of the Commission of the National Government on Relief and Rehabilitation. Young also served as one of the representatives from the Republic of China to the Bretton Woods Conference. After his service in China, Young returned to the US, starting to serve as a financial adviser for dozens of countries in Latin America, the Middle East, and Southeast Asia in the 1950s.[202] In 1951, he worked as the leader of the Young Commission to Saudi Arabia, investigating the political and economic situation there.[203] Throughout his life, Young wrote three monographs on China's political and economic situation during the era of Nationalist China from 1927 to 1949: *China and the Helping Hand, 1937-1945* (1963), *China's Wartime Finance and Inflation, 1937-1945* (1965), *China's Nation-Building Effort, 1927-1937: The Financial*

[196] See EARCHU (1963).
[197] See A. Young & Fuchs (1974).
[198] See A. Young & Fuchs (1974).
[199] See EARCHU (1963).
[200] See The New York Times (1984).
[201] See EARCHU (1963), and A. Young & Fuchs (1974).
[202] See EARCHU (1963).
[203] See The New York Times (1984), and A. Young &Fuchs (1974).

*and Economic Record* (1971).[204] Young arrived in China in 1928 and left the country in late 1947. He spent nearly 20 years serving as a financial advisor of the Chinese government. During his service in China, he had an excellent personal relationship with T. V. Soong and Generalissimo Chiang Kai-shek.[205] On July 19, 1984, Young died at home in Claremont, California. The East Asian Research Center of Harvard gave Young very high praise as "a skilled foreigner invited, like Marco Polo or Robert Hard, to participate in the governing of China" and "a pioneer" in bringing the new foreign aid to during war times.[206] For more about Young's monetary theories and his activities in China, see Chapter 3.

**2.3.2.3 The description of the investigated Kemmerer China Papers in Hoover Institution Library and Archives.** In Hoover Institution Library, we investigated that there are 7 reports of the Kemmerer Commission there. The reports are the following, *Memorandum on Certain Matters Relating to the Currency* (1929), *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China* (1929), *Report on railway finance (1929), Memorandum on the Withdrawal of Copper Coins from Circulation* (1929), *Report on Revenue Policy (1929), Summary of Projects of Law Dealing with Financial Planning, Budget Preparation, Budget Enforcement, Accounting, Fiscal Control, Supervisory Inspection and Audit, Together with Reports in*

[204] In 1947, A. Young wrote another small pamphlet called *China's Economic and Financial Reconstruction*. However, because the length of this book is too short, and many of its contents have been covered in his other three books, we do not list his book as his important monograph on China.
[205] See A. Young &Fuchs (1974).
[206] See EARCHU (1963). It was evident that Young's interest in a healthy currency possibly had to do with US investment in China. Because Young was a financial expert sent by the US government to China, he took the task of the US government to stabilize the Chinese currency to China which would also benefit the US economically. However, this point does not contradict his belief in a healthier monetary system as a financial expert. The following discussion in this chapter will confirm that there is no negation between these two points.

*Support Thereof* (1929), *Project of a Public Credit Rehabilitation Law, Together with a Report on the National Debt of China and the Rehabilitation of China's Credit* (1929).

The report, *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China*, which is one of the key Kemmerer reports, has been authorized to be scanned partly by the personnel in Hoover Institution Library. Due to the requirements from Hoover Institution, we could not copy all the pages of the report. Thus, we chose the articles part of the report, which illustrates the principles of the gold standard conception of the Kemmerer Commission.

In Hoover Institution Achieves, we also investigate the collection of Arthur N. Young's papers, which also contain some of Kemmerer's articles and letters for making the gold-standard banking reform. We will discuss Young's papers in Chapter 3.

**2.3.2.4 The description of the investigated Kemmerer China Papers in China.** With the help of academic friends in the Chinese Mainland, we investigated the online academic resources from Chinese literature. In our search, we sought out the Chinese version of the *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China*, which has been cited or introduced in some Chinese literature.[207] As we have both the Chinese version and English version of the report, we did a contrast reading of both versions, which would help us to understand the monetary reform of the Kemmerer Commission better.

We conclude that there are four key papers of the Kemmerer Commission related to the gold-standard and central banking, which are, *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China*, *Introduction of*

[207] See J. Zhu (2012, p. 340), Ministry of Finance (2016), and H. Zhu & J. Li (2007). For personal security reasons, the institutions and academic intellectuals from China will be anonymous in this paper.

*Gold-Standard Currency System* (which did not include in the scanned version in the Princeton University), *Central Reserve Bank*, and *Currency Reform and Currency Condition* (had been scanned but the scanned words were not able to be clearly investigated). In the next section, we present the aforementioned key Kemmerer papers on China's banking system.

### 2.3.3 Presentations of Kemmerer's Key Reports on China's Banking System

After we have demonstrated the general description of the 1929 Kemmerer reports, in this section, we present the two investigated key papers of the Kemmerer Commission, *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China* and *Project of Law for the Creation of the Central Reserve Bank of China* (the same as the described *Central Reserve Bank*).

**2.3.3.1 The presentation of Kemmerer's paper of the law for gold standard in China.** We will review the paper of the Kemmerer Commission, *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China,* in this section. [208] This paper was Kemmerer's comprehensive proposal on how to reform China's banking system in the central banking gold standard system in November 1929 after he visited China in February the same year. The paper has four chapters with 40 articles in total, which provides us a direct perspective of Kemmerer's gold standard plan on China.

Chapter I is "The Standard and Unit of Value." This chapter only has one page with three articles, but it provided the elemental gold standard form for the National Government. Firstly, in Article I, the Kemmerer commission designed that the National Government would gradually adopt the gold standard, which means the adoption of the

[208] See Kemmerer Commission (1929b).

gold standard would not be realized immediately. Secondly, in Article II, the paper defined that the unit of value of the gold standard currency should "consist of 60.1866 centigrams of pure gold," which should be called "*sun*." This article also defined that the symbol of the currency should be "S." Thirdly, Article III represented the currency units of sun, which said that one sun should be "divided into 100 cents, and the cent into ten mills."[209]

Chapter II is "Coins and Coinage." These two items defined the rules of coin and coinage in the new gold standard currency. Firstly, Article IV strictly explained that the coinage of the new currency should be made only in the mints strictly controlled by the National Government, which means that the new currency sun should be an entirely governmental central banking currency. Secondly, Article V defined that there should be four classes of coins, which composed of both silver and copper coins. Thirdly, this article also restrained the issuance of the two mill-copper coins only in the condition of "public interest," and the National Government should designate the place where the currency should be circuited. When the paper described that only in "public interest" could the government issue new currency in a restricted method, it is evident that the Kemmerer Commission knew clearly the government could overuse its power to issue currency for some benefits, which would possibly have nothing to do with the public interest. Finally, from Article VI to Article X, the paper described the planned size, form of coins, and the limit of tolerance of silver coins.[210]

Chapter III is "Legal Status of Gold-standard Currency." This chapter described the legal status after the issuance of the gold standard currency. Firstly, Article XII

[209] For Chapter I of the *Project*, see Kemmerer Commission (1929a, p.1).
[210] For Chapter II of the *Project*, see Kemmerer Commission (1929a, pp.1-2).

described the process of how to adopt the gold standard. This article set that the National Government should announce the gold standard 60 days before it is adopted in the designated provinces. Secondly, this chapter also specified that the new gold standard currency should be used in all the economic aspects, including paying salary, debt, tax, and deposits. Thirdly, the chapter also defined how to switch the old currencies into the new gold standard currency system in the above economic aspects. Finally, this chapter also rules that the non-gold standard currencies should be exchanged as redemption in a particular rate decided by the Minister of Finance in consideration of public interest. Still, it also did not provide a specific mensuration of how to choose the "exchange rate in public interest."[211]

Chapter IV is "Maintenance of Gold-standard." The chapter described how to maintain the gold standard though law. Firstly, according to the paper, the Ministry of Finance should establish a "Gold-Standard Fund" to stabilize the gold standard currency system specifically. The law ruled that the gold standard should always have at least 35% of the "total amount of gold-standard coins in circulation."[212] Secondly, the fund was forbidden to put its money as deposits in any banks. Nor were they to put Chinese or foreign banks in Chinese territory. The law allowed the fund to put its money as deposits in foreign countries that had a "free market."[213] This law also clearly showed that there should be a certain amount of gold standard funding to maintain currency circulation. Thirdly, the law also ruled new ways of withdrawing the damaged gold standard currency and ways of issuing the new currencies instead of the same amount of the damaged ones. Here, it is also clear that the Kemmerer Commission was trying to make a law to restrict

[211] For Chapter III of the *Project*, see Kemmerer Commission (1929a, pp. 4-7).
[212] For Chapter IV of the *Project*, see Kemmerer Commission (1929a, pp. 8-9).
[213] See Kemmerer Commission (1929a. pp. 11-17).

the currency issuance from government, as the government would possibly over-issue currency in the name of "using the new currencies instead of the same amount of the old ones." Fourthly, the law also ruled that there should be an office under the Minister of Finance to manage the gold standard and that specific law for paying the salaries of the office should also be demonstrated by National Government. This means that the Kemmerer Commission wanted the management of the Gold-Standard Fund to be partly separate from politics. Finally, this chapter also issued specific rules for the National Government's currency exchange, including the designated financial center in foreign countries (i.e., New York and San Francisco) for exchange, and the amount and process of the exchange. This rule also clearly pointed out that the Kemmerer Commission also had made some rules to guide the National Government to manage currency exchange to avoid damage to the Chinese economy. The problem was whether or not it was practical to execute this law, as the National Government was very authoritarian at the time.[214]

Chapter V is the "Gradual Substitution of Gold-Standard Currency for Non-Gold-Standard Currency." The chapter described how to gradually adapt to the new gold standard instead of the old one. Firstly, this chapter illustrated that a National Currency Commission and the sub-provincial commissions should be established to prepare the transition from the old currency system to the new gold standard.[215] The job of the Commission included the arrangement of the currency transition, propaganda for the new currency system, and the study of "the different kinds of currencies in circulation and conditions" in every province of China.[216] Secondly, the chapter also formulated the

[214] See Kemmerer Commission (1929a, pp. 8-17).
[215] See Kemmerer Commission (1929a, p. 18). The original Chinese name of the National Currency Commission is "全國幣制委員會."
[216] See Kemmerer Commission (1929a, p. 20).

budget and salary rules of the Commission and the sub-provincial commissions to normalize the management of them. Thirdly, this chapter posited that the newly established gold standard currency system should also be strictly decided in "public interest."[217] Here, the Kemmerer Commission realized that politicians would take the opportunity of currency exchanging for their own benefit, rather than for the public. Fourthly, to avoid accidents, the law ruled that the Ministry of Finance should manage the transportation of the old currencies. In this part, we believe that the Kemmerer Commission was also very deliberate and cautious as they considered the possible chaos caused by the transportation of the old abolished currencies as some people would take advantage of filching the old currencies for their own benefits. Fifthly, the law ruled that old paper currencies should be abolished in circulation gradually after the settlement of the new paper currencies based on the new gold standard. According to the law, the announcement of establishing the Final Note Retirement Date should be at least one year and no more than two years before the debt exchange date.[218] The Kemmerer Commission at this moment issued a clear scheduled process of how to switch the old paper currency system into the new paper currency based on the gold standard. Sixthly, this chapter also ruled the terms and the forms of the government bonds that should be paid by the new currency standard. In the final part of this chapter, the paper illustrated that with any bank, if businessmen were insolvent, the "Superintendent of Banks" should liquidate the above institutions. In this part, the modern central banking concept

[217] See Kemmerer Commission (1929a, p. 21).

[218] The original Chinese name of the Final Note Retirement Date is "紙幣最後回收日."

*supervision* has been introduced into Kemmererian law to solve the insolvent problems.[219]

We conclude that the Kemmerer Commission cautiously made the law of gold standard in China to modernize the Chinese currency system. Still, it did not address the possibility of the National Government to reserve the law and did not fundamentally answer if the central banking system could function adequately to avoid price inflation and other economic disorders described from the Kemmererian perspective.

**2.3.3.2 The presentation of Kemmerer's paper on the Central Reserve Bank.** Now, let's review the paper made by the Kemmerer Commission, *Project of Law for the Creation of the Central Reserve Bank*, in this section.[220] This paper was a general proposal of the structures of the gold reserved central reserve bank. After a 9-month investigation, on December 10, 1929, the Kemmerer Commission submitted a report, *Project of Law for the Creation, Project of Law for the Creation of the Central Reserve Bank of China* to the National Government, describing how to build an efficient and effective central reserve bank to resolve the problems that China was facing. With other working papers that Kemmerer and his group wrote, they emphasized building a central reserve bank with a gold reserve.

The paper has eleven chapters in total, which provides us a direct perspective to see Kemmerer's gold standard plan on China. Chapter I is the "Concession." Chapter II is the "Capital and Shared of the Bank." Chapter III is the "Board of Directors." Chapter IV is "Statutes." Chapter V is "Management." Chapter VI is "Operations of the Bank Exclusive of Note Issue." Chapter VII is the "Note Issue." Chapter VIII is "Reserve."

[219] See Kemmerer Commission (1929a, pp. 18-31).
[220] See Kemmerer Commission (1929b).

Chapter IX is "Supervision." Chapter X is "Distribution of Profits." Chapter XI is "Miscellaneous."

The first main point of the paper is the *Restriction of the Minimum of the Central Reserve Bank*. The report claimed that the China's Central Reserve Bank should maintain a minimum legal reserve of 50% of its outstanding notes and deposit by gold and silver.[221]

The second main point of the paper is the *Character of the Central Reserve Bank*. The article illustrated the characteristics of the central bank, which clearly defined that the vital role of the new central reserve bank was to be the fundamental bank to stabilize monetary conditions. The paper said,

> A central bank is not an ordinary type of bank with a different name but is fundamentally a banker's bank charged with the responsibility of stabilizing the country's monetary and banking conditions. (Kemmerer Commission, 1929b, p. 53)

The third main point of the paper is the *Two Main Functions of the Central Reserve Bank*. The article posits that there should be two main functions of a well-managed central bank.[222] The first function is to carry on "extensive operations with other banks only in the time of emergency."[223] This means that this central bank should not manage monetary operations if there are no urgent economic issues. If the central bank overused its power, then the reserve power of it would be depleted. The second function of the central reserve bank is that it should not have direct control of the credit situation and that it should serve

[221] See Kemmerer Commission (1929b, p. 40).
[222] See Kemmerer Commission (1929b, pp. 56-57).
[223] See Kemmerer Commission (1929b. p. 56).

the "public interest."[224] The central reserve bank should serve the public interest by being independent of the National Government. Additionally, the paper also compared two types of central banks. The first one was with operation period limitation, and the second one was without maintenance period limitation. According to his study, the better choice for China was to build a Central Reserve Bank with operation time constraints to prevent the abuse of power from the government.[225] Thus, Kemmerer saw the crucial importance of a central bank that should be independent of political power.

The fourth main point of the paper is the *Headquarter and Leadership of the Central Reserve Bank.* The paper defined the headquarters and the formation of the leadership of the central reserve bank. The operation time of the Bank was 30 years (to prevent the Government from abuse its power on the financial system.[226] Headquarters of the Bank were in Shanghai, and some branches would be open in other places in China. The President and other leaders of the banks should be elected by 2/3 of the votes of the total members of the Broad of Directors.[227] The President, vice-presidents, and other leaders should be in office for one year and could be reelected.[228] They could either be members of the Board or not. And all the members of the Board should be elected annually.[229]

The fifth main point of the paper is the *Capital of the Bank and the Operation of the National Government to it*. The article defined the capital of the central reserve bank.

[224] See Kemmerer Commission (1929b, p. 57).
[225] See Kemmerer Commission (1929b, p. 66).
[226] See Kemmerer Commission (1929b, p. 1).
[227] See Kemmerer Commission (1929b, p. 21).
[228] See Kemmerer Commission (1929b, p. 21).
[229] See Kemmerer Commission (1929b, p. 4).

Firstly, the paper ruled that the initial capital of the Bank was C$100 million.[230] The reserve of the Bank was the gold standard.[231] The shares of the Bank consisted of three classes: Class A (by National Government), Class B (by affiliated banks), and Class C (by other individuals and financial institutions).[232] Secondly, the paper also authorized that under the regulation of the law, the National Government could "sell any or all its shares of stock in the Central Reserve Bank" at any time and at a price "satisfactory to itself."[233] Thirdly, according to the paper, there were two functions of the capital of a Central Reserve Bank. The first was to provide "the initial cash funds with which the bank begins business." The second was to serve "as a guaranty and pledge of good faith on the part of the stockholders to the public."[234] Finally, the paper also studied the capital of the leading central banks all around the world and then tried to figure out how much resources should allocated to the Central Reserve Bank of China's reserves (Kemmerer Commission, p. 70). We can figure out that Kemmerer Commission was trying to adopt the principles from the leading central banks at that time as references to design China's first modern central bank.

The sixth main point of the paper is *Directors of the Board of the Central Reserve Bank*.[235] The article also presented the rules of the Board of the Bank. Firstly, the

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[230] See Kemmerer Commission (1929b, p. 3). "C$" was the symbol of Fabi (法幣), which literally means *fiat money* in Chinese.
[231] See Kemmerer Commission (1929b, p. 4).
[232] See Kemmerer Commission (1929b, p. 5).
[233] See Kemmerer Commission (1929b, p. 5).
[234] See Kemmerer Commission (1929b, p. 69).
[235] In Edwin Kemmerer's *The A B C of the Federal Reserve System* (1918/1922), he illustrated the principles and structures of the Federal Reserve System in United States. In this book, Kemmerer said that the aim of this monograph was "to set forth in non-technical language the chief reasons why the federal reserve system was called into being, the main feature of its organization and how it works." (Kemmerer, 1918/1922, p. 1). In the first four chapters, Kemmerer discussed four problems of the monetary system in the 1910s: the decentralization of monetary system, the inelasticity of credit system, the cumbersome exchange and transfer system, and the defective organization in monetary institutions. In the other four

article defined the classes of the director of the board of the Bank. According to the article, there should be three classes of directors representing each class of share above.[236] The Minister of Finance should appoint three directors of Class A, and three directors of Class B.[237] For making the policy decision more democratic, there should be a Class D director, who should be businessmen, professional men, and/or farmers.[238] None of the leaders in all three categories should be paid by the Government to make the Bank independent. Secondly, the paper also ruled the area where the directors of the Board should live. The leaders of the Board should be near the city of Shanghai by a conventional means of travel within 24 hours.[239] All directors should serve for three years.[240] Thirdly, the paper defined the three functions of the Board.[241] The first function was to "prevent the Bank from tying up its funds in unsafe assets." The second function was to "require the Bank to keep its assets in liquid form." The last function was to "keep the Bank out of politics and politics out of the Bank." Fourthly, according to the planned law, banker members cannot vote for their benefit.[242] Fifthly, the planned law also defined the travel expense and other costs of the directors of the Board of the central reserve bank. Finally, the Kemmerer Commission clearly pointed out that the danger of a central bank without regulation. It said,

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chapters, Kemmerer illustrated the respective remedies provided by the American federal reserve system, including both the legislative provisions of the monetary system recorded in each case, and the progress of the currency system made to date. Hence, although the organizational structures of the Federal Reserve and the Central Bank of China are different, it is evident Kemmerer wanted to design central banks with complicated structures that can make them separate from political power.

[236] See Kemmerer Commission (1929b, pp. 11-17).
[237] See Kemmerer Commission (1929b, pp. 11-12).
[238] See Kemmerer Commission (1929b, p. 16).
[239] See Kemmerer Commission (1929b, p. 11).
[240] See Kemmerer Commission (1929b, p. 11).
[241] See Kemmerer Commission (1929b, p. 52).
[242] See Kemmerer Commission (1929b, p. 16).

> The world's experience has shown that the two greatest dangers that beset a central bank are exploitation by the government and exploitation by the banks, and the provisions regarding the election of directors, as likewise the provisions regarding the types of operations the Bank may carry on, are designed to reduce these dangers to a minimum. (Kemmerer Commission, 1929b, p. 56)

The seventh main point of the paper is the *Duty and Obligations of the Bank*. The article also ruled the duty and obligations of the central reserve bank, which are the following:

(1) To buy and sell gold and silver bullion and Chinese and foreign money.

(2) To buy and sell telegraphic transfers.

(3) To buy and sell bills of exchange, drafts and checks payable at sight and drawn on banks and bankers of high standing located in China and abroad.

(4) To buy, sell, and discount Chinese native bank orders.

(5) To buy, sell, and discount drafts and bills of exchange payable abroad which arise from China's export trade and import trade, the maturities of which do not exceed 120 days sight or, in the case of accepted bills, do not exceed 120 days from the date of acquisition by the Bank. […]

(6) To buy, sell and discount domestic banker's acceptances, and domestic trade bills of exchange and promissory notes with maturities not exceeding 120 days from date of acquisition by the Bank and arising from the production, fabrication, transportation or sale of goods. […]

(7) To discount promissory notes with maturities not greater than 120 days from date of discount. […]

(8) To receive non-interest-bearing deposits payable on demand.

(9) To buy, sell and own, and to accept as collateral security for credit instruments. […]

(10) To receive pledges of real estate, produce, merchandise and securities of all kinds […] to protect itself. …

(11) To act as agent for the collection of drafts, bills of exchange, checks, promissory notes, bonds, coupons and other credit instruments.

(12) To provide for its customers facilities for the safe deposit of valuables. (Kemmerer Commission, 1929b, pp. 26-27)

The eighth main point of the paper is *Bank Note Issuance*. The article defined that the Central Reserve Bank should maintain a minimum legal reserve of 50% of its outstanding notes and deposit by gold and silver.[243]

The ninth main point of the paper is *Taxation on the Bank*. The article defined that the Central Reserve Bank should be tax-free (Kemmerer Commission, 1929b, p. 50)

The last main point of the paper is *Regulations of the Central Reserve Bank*. The law also put some regulations on the Central Reserve Bank on issuing loans to the beneficially related banks, enterprises, and individuals.[244] There are six restrictions below. First, the central reserve bank should "not make any loans for periods in excess of 120 days," and it should not "discount any paper with a maturity longer." Secondly, the Central Reserve Bank should not "make any loan, discount or other advance to any affiliated bank, nor purchase any bill of exchange, draft, order, or other credit document." Thirdly, the central reserve bank should not "make any loan, discount, or other advance to any individual, partnership, corporation or other private entity, except to affiliated

[243] See Kemmerer Commission (1929b, p. 40).
[244] See Kemmerer Commission (1929b, p. 31).

banks as authorized by law." Fourthly, the central reserve bank should not "make any contracts for advances in current accounts, nor shall it make any new loans nor increase any existing loans repayable on demand." Fifthly, the central reserve bank should not pay interest on deposits "except in the case of time deposits of trust funds made by governmental offices and courts of justice and of time deposits made by governmental railways and other governmental enterprises." According to the law, the notes of the Bank should be no less than one sun as the Statutes of the Bank should provide.[245] The law also settled the requirements of the redemption of the banknote.[246]

### 2.3.4 Commentary on Kemmerer's Report

After we have demonstrated the gold standard and monetary theories of Kemmerer and the details of the 1929 Kemmerer Commission Reports on the establishment of China's first modern central bank in the 1920s, in this section, we review the reliability of Kemmerer's and Young's work on China, the debatable questions in Kemmerer's gold standard theory, and the debatable questions in Kemmerer's gold standard proposal on China.

**2.3.4.1 The reliability of Kemmerer's and Young's work.** Our investigation on the related academic work made by Edwin Kemmerer, Arthur Young, and 1929 Kemmerer Commission proved that both the monetary theory by Kemmerer and the study of the political and economic situation by 1929 Kemmerer Commission were seriously made and recorded, which are the reliable reference of this thesis. For more about Young's monetary theories and his activities in China, see Chapter 3.

[245] See Kemmerer Commission (1929b, p. 36).
[246] See Kemmerer Commission (1929b, pp. 36-37).

**2.3.4.2 The debatable questions in Kemmerer's gold-standard theory.** Kemmerer clearly expressed his gold standard central banking theory, but there are still two remaining questions which he did not answer. Kemmerer provided his definition of the gold standard and, thus, believed that accepting the gold standard was the best choice for a nation as it was almost universally respected.[247] But Kemmerer did not answer the question of how developing countries should adopt the gold standard system, or whether or not objective standards for developing countries to adopt a gold standard central banking system exist.

Kemmerer realized that it had been repeating in history many times that the government did not allow people to pay tax and public due as the government clearly knew the value of the inflating fiduciary currency had been declining because of the over-issuance of currency.[248] A Kemmererian precondition of a real gold standard is based on the free market exchange of gold, where there is no governmental restriction on both the exportation and importation of gold. However, once the National Government decided to intervene in the operation of the central bank, Kemmerer's plan would become useless. Unfortunately, this was precisely what we have seen in history. Chapter 5 through Chapter 7 demonstrate how China's first modern central banking experiment gradually become a failure.

**2.3.4.3 The debatable questions in Kemmerer's gold standard proposal on China.** There are also a few questions that Kemmerer did not answer in his proposal of the application of the gold-standard central-banking system in China. Firstly, it is obvious the 1929 Kemmerer Commission studied all the related aspects of China's politics and

[247] See D. Kemmerer (1993, p. 22).
[248] See E. Kemmerer (1944/2009).

economics and provided a very considerable plan and laws for the establishment of China's first modern central bank. This included the characteristics of the gold standard, the characteristics of the central reserve bank, the manipulation of the central reserve bank, and especially how to keep the independence of the central reserve bank from the National government. But Kemmerer did not answer how to restrain the abuse of power of Chiang Kai-shek. Of course, as a currency scholar, it is beyond his expertise to let Kemmerer study the Chinese political system, but we must point out that any scholar's research scope is limited. Moreover, even if they propose a theoretically perfect design, as long as politicians abuse their power, no theory of economists can form a constraint on them. The later history of price hyperinflation in China in the 1930s and the 1940s already showed us the failure of the practice of the Central Bank of China.

The second question is if the planned gold-standard central reserve bank was applicable (i.e., the ignorance of Kemmerer Commission on the dictatorship of China at that time, and the authoritarian traditions of China since the Ming Dynasty) in China at that time. In all of Kemmerer's proposals on China 's monetary system, we have not seen his comments on the authoritarian culture in the Chinese political system. Therefore, it is likely that Kemmerer was either not aware of the seriousness of the problem, or either that he thinks the national government can prevent illegal currency issuance, or he thinks other scholars, such as Young, would help the Chinese National Government because of long-term work in China. Since the current file does not tell us this answer, Kemmerer's comment on the Chinese political system is temporarily a mystery.

## 2.4 Conclusion

This chapter is an original synthesis that reviews the biography, monetary theories, and reports for China's central banking institutions of Edwin Kemmerer. Most importantly, this chapter also includes our original review of Kemmerer's 1929 reports for the construction of China's first modern central banking experiment. Kemmerer was an economics professor at Princeton University and the world-famous "Money Doctor" who helped build central banks in various countries in Latin America, Europe, and Asia. In 1903, Kemmerer graduated with his Ph.D. degree from Cornell University. His Ph.D. thesis was *Money and Credit Instruments in their Relation to General Prices*. Since then, Kemmerer started to promote a 100% gold standard in his entire life. In 1912, Kemmerer went from Cornell to Princeton to continue his academic career, who served there until his retirement in 1943. The 31-year duration in Princeton should be Kemmerer's most splendid academic period. Kemmerer was not only teaching in the university but also provided suggestions on both the US and international monetary systems. He also organized various academic activities related to political economy and banking issues. During his career at Princeton, Kemmerer also helped to establish the Federal Reserve of the United States. From 1917 to 1934, the "Money Doctor" Edwin Kemmerer worked as the governmental financial and central banking advisor of Mexico in 1917, Guatemala in 1919, Colombia in 1923, South Africa, Chile in 1925, Poland in 1926, Ecuador in 1926-1927, Bolivia in 1927, China in 1929, Peru in 1931, and Turkey in 1937. During that period, he was providing financial and banking suggestions to various American, European, and Asian countries, especially his "uncompromising" urge to return to the gold standard. Kemmerer's work in these countries deeply influenced their banking

structure. Section 2.2.1 demonstrates Edwin Kemmerer's general biography. Section 2.2.2 reviews Edwin Kemmerer's academic career as a "Money Doctor."

Section 2.2.3 reviews Edwin Kemmerer's general theory on central banking and gold reserves. As an experienced monetary specialist, Kemmerer was seriously and carefully investigating banking theories and the application of them. His insistence on the gold standard reserve was impressive. In 1944, Kemmerer published articles in the media and participated in a US congressional hearing to criticize the fiat money system based on the Bretton Woods system and defend the gold standard.[249] In the same year, one year before Kemmerer passed away, he published his famous *Gold and Gold Standard*, which was his last book, and integrated his understanding of gold standard principles. After demonstrating the history of the gold standard from ancient Asia to the 1920s, when Western countries were facing the Great Depression, Kemmerer started to solidify his definition of the gold standard. Kemmerer treated the gold standard as a monetary system where prices are measured and exchanged by gold internationally and freely. The following monetary theories of Edwin Kemmerer are reviewed in section 2.2.3: the Kemmererian definition of the gold standard, the theory of gold as a monetary unit, the theory of demand for gold, the theory of characteristics of gold in its relation to the gold standard, the theory of monetary gold versus gold in arts.

Section 2.2.3 reviews the commentary from a few Austrian school economists on Kemmerer's theories. George Selgin suggested a free-banking system without the regulation of deposit reserve. Although Selgin affirmed Kemmerer's proposal that a stable gold standard may avoid price fluctuation, fundamentally, Selgin claimed that the proposal of establishing a gold-standard central-banking system was theoretically

[249] See Giovannini (1993) and Wintour (2017).

contradicted. For Selgin, it is private law which made the gold standard possible and credible, but not governmental law. And the commitments attached by sovereign immunity do not and cannot execute private sanctions if the banks break their promises, which will make the commitments to maintain a gold parity become impossible and not credible. Moreover, central banks can use their monopolized power to devalue currency without punishment. They can even get benefit by doing this manipulation and can also make the currency holder of central banks afraid of the devaluation of currency. A gold standard based on the central banking system would be finally tempted by speculative attacks. Joseph Salerno pointed out Edwin Kemmerer, along with another two American economists, Benjamin Anderson and Melchior Palyi, were all against the Bretton Woods agreement, who advocated to return to the pre-war gold standard. As we have demonstrated in section 2.2.1, before the establishment of the Bretton Woods system, Kemmerer actively criticized the fiat-money based monetary system through a newspaper article, monograph, and the US congressional hearing. However, he did not participate in the conference in Bretton Woods. Not to mention that the conference accepted his opinion in the Keynesian-dominated meeting. Salerno also reviewed Kemmerer's contribution to the relationship between the price fluctuation and gold. Salerno agreed with Kemmerer that with the significance of the scarcity and durability of gold, the stability of the money supply would be realized.

One originality of the research in this chapter is that we visited the original archives of Kemmerer's research on China's economic issues kept by the Hoover Institution at Stanford University. Section 2.3 reviews Kemmerer's reports for China and our commentary on his works. Section 2.3.1 provides the general background of China

from 1927-1937, the Nanjing Golden Decade. The Republic of China was established in 1912. From 1912 to 1927, it was the warlord based Beiyang Government that was ruling China. In 1927, the Kuomintang (Chinese Nationalist Party) led National Government won the Northern Expedition. China entered a relatively peaceful period of economic development, though the Chinese Communist Party was carrying out small-scale military rebellions in southern China, undermining national peace and construction. The relative peace period was called the Nanjing Golden Decade. Based on evidence and empirical data, section 2.3.1 reviews how the National Government of the Republic of China led the Chinese people to build the nation's political and economic institutions.

Based on this background, in 1928, Sun Fo, the son of the founding father of the Republic of China and the Chinese Nationalist Party, invited the Princeton economics professor Edwin Kemmerer to visit China for banking issues when Sun Fo was visiting the United States for economic support. This situation shows that the Republic of China and the United States had a great relationship at that time. In February 1929, at the request of the Chinese National Government, Kemmerer went to China to design the reform program of China's monetary system. After 9 months of research, Kemmerer found that China did not have a single currency system issued by the central bank, and the multiple metal standard made it different from the currency standard in the United States, Europa, and Latin America. In November 1929, Kemmerer submitted his plan, *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China, to the National Government*, proposing that China should adopt the gold standard to modernize its currency system. The gold content of the new currency unit would be

called Sun. One Sun should be equal to the value of US$0.40, a shill of seven pence, 0.825 Japanese Yen.

This report was the final report Kemmerer submitted to the National Government as the gold standard reform plan. The Kemmerer Report for China included not only the above paper, but also many other documents for reforming China's banking system in detail. This provides a general picture of Kemmerer's monetary thoughts on China's banking issues. Though not all the papers were included in his final report, it is still essential to understand Kemmerer's general banking plan and thoughts form China through these papers. And, as we have demonstrated in the biography section, Kemmerer was very cautious, which provides us a chance to view the general political and economic condition of China. We investigated the scanned online archives of Princeton University Library, went to Hoover Institution Library and Archives in November 2016, and studied the scanned online archives from friends in Mainland China's academia.

With the help of academic friends in the Chinese Mainland, we investigated the online academic resources from Chinese literature. In our search, we sought out the Chinese version of the *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China*, which has been cited or introduced in some Chinese literature.[250] As we have both the Chinese version and English version of the report, we did a contrast reading of both versions, which would help us to understand the monetary reform of the Kemmerer Commission better. We conclude that there are four key papers of the Kemmerer Commission related to the gold-standard and central banking, which are, *Project of Law for the Gradual Introduction of a Gold-standard Currency System of*

[250] See J. Zhu (2012, p. 340), Ministry of Finance (2016), and H. Zhu & J. Li (2007). For personal security reasons, the institutions and academic intellectuals from China will be anonymous in this paper.

*China*, *Introduction of Gold-Standard Currency System* (which did not include in the scanned version in the Princeton University), *Central Reserve Bank*, and *Currency Reform and Currency Condition* (had been scanned but the scanned words were not able to be clearly investigated). Section 2.3.2 is the general description of the 1929 Kemmerer reports.

In section 2.3.3, we present Kemmerer's two key reports on China's banking system. The first was Kemmerer's paper of the law for the gold standard in China. The second was Kemmerer's paper for the Central Reserve Bank. We believe that Kemmerer's design of China's central banking system fully considered in theory and practice that the central bank should operate independently from the government and that the central bank should be composed of private banks, independent public officials, and independent boards. This is to make it independent from the National Government, making currency issuance and supervision effective. However, we find that these two Kemmerer reports did not mention concerns about the possible abuse of power by the leaders of the National Government, nor did they comment on the negative impact of the authoritarian political system on the political and economic system in Chinese history. We believe that considering American scholars such as Arthur N. Young of the 1929 Kemmerer Commission, who stayed in China since 1929 as a financial expert, Kemmerer may have handed them over to supervise the Chinese government. However, we did not find that Kemmerer pursued this work layout. Therefore, he may have also ignored China's actual political and economic situation. We also consider that there is possibly a contradiction between the gold standard and central banking structure in the Kemmererian perspective. As we have demonstrated in the details of the 1929 Kemmerer

reports, which was his plan for helping China build its first modern central bank, although Kemmerer and his commission did seriously study China's political and economic situation, they ignored the possibility of the abuse of power by the National Government, especially in regards to central banking manipulation. In our analysis in Chapter 4 to Chapter 6, we will demonstrate how China's first modern central banking experiment was gradually facing failure mainly due to war factors and mismanagement. Before the analysis, in Chapter 3, we will review the monetary theories of Arthur N. Young, who was Edwin Kemmerer's student, who influenced China's first modern central banking experiment.

## Chapter 3

## Arthur Young's Central Banking Thoughts on the Banking Reform, 1927-1937

**Abstract:** This chapter reviews Arthur N. Young's banking thoughts on China's central banking reform from 1927 to 1937. As a member of Kemmerer's western monetary specialists' group for China, who also influenced the decision-making of the Chinese National Government and Generalissimo Chiang Kai-shek to adopt the Western-style central banking institutions, Young's reports on his banking thoughts will be mainly checked in this chapter. One originality of the research in this chapter is that we visited the original archive of Young's research on China's economic issues kept by the Hoover Institution at Stanford University. This chapter also reviews Arthur Young's biography. As a senior student graduating with a Ph.D. in economics from Princeton University, Young worked with "Money Doctor" Edwin Kemmerer and came to China as an essential member of the 1929 Kemmerer Commission for China to analyze and study China's currency and economic issues, making policy recommendations to the Chinese National Government. Kemmerer was his "teacher and colleague" who influenced Young's economic thoughts. Also, we find that Young not only came to China as an international student proficient in Spanish, but also visited Latin American countries and Spain to conduct research on the economic affairs of these countries. Furthermore, he also visited some European and Asian countries such as Poland and Vietnam to help them carry out economic and monetary policies. In the later sections, we have reviewed Young's general comments on the modernization of Nationalist China and his central banking thoughts from 1927 to 1937.

**JEL Classification:** E42, N15, N25, N45, O230.

**Keywords**: Arthur Nicolas Young, central banking, banking reform, economic thought, China.

## 3.1 Introduction

This chapter reviews Arthur N. Young's banking thoughts on the central banking reform of China from 1927 to 1937. As a member of Kemmerer's western monetary specialists' group for China, who also influenced the decision-making of the Chinese National Government and Generalissimo Chiang Kai-shek to adopt the Western-style central banking institutions, Young's reports on his banking thoughts will be mainly checked in this chapter.

Section 3.2 demonstrates the methodology and description of the investigation process of Young's academic works related to China's central banking from 1927 to 1937. Section 3.3 introduces Arthur Young's biography, who was a specialist in central banking and finance. Section 3.4 reviews Young's central banking thoughts in 1929 when he was working for the Kemmerer Commission to submit the policy suggestions on the reform of China's banking structure. Section 3.5 presents Young's central banking thoughts from 1927 to 1937. Section 3.6 is the conclusion.

## 3.2 Methodology and Description of the Investigation Process of Young's Academic Works related to China's Central Banking from 1927 to 1937

This section provides the methodology of this chapter and the description of the resource of Young's banking thoughts from the 1920s to the1930s. Subsection 3.2.1 demonstrates the investigation methodology of Young's academic work related to central banking from the 1920s to the 1930s. Furthermore, subsection 3.2.2 provides the general situation of Young's books and papers about China's Central Banking from 1927 to 1937 due to our investigation of his works.

### 3.1.1 The Methodology of Investigating Young's Related Works

The methodology of investigating Young's academic work is economic history and the wide use of primary sources located in archives. After the investigation of the topics of the Chinese economic history, the Chinese history of economic thought, and the banking issues of the Republic of China before the 1949 Communist Revolution, we conclude that Arthur Young is one of the key figures who helped China establish the Central Bank in 1928.[251] However, the related references did not systematically review Young's banking thought, which made the research on this topic very necessary.

### 3.1.2 Investigation Process in Spain and Online Archives

Primarily, we discovered and investigated Young's studies on China in the Library of Bank of Spain.[252] After we were authorized to research Young's work, *China's Wartime Finance and Inflation, 1937-1945*, and according to the studies mentioned above in the last section, we conclude that for studying Young's banking thoughts and China's political and economic situation from 1927 to 1937, it is necessary to study Young's *China's Nation-Building Effort, 1927-1937: The Financial and Economic Record* (1971). In the second step, we bought one copy of Young's *China's Nation-Building Effort* from the online bookstore. It is worth mentioning that this book recorded important content related to the earliest currency reforms carried out by the National Government in the 1920s, covering the most primary areas of Young's research on China's economic and banking issues. After reading these books, we then wrote our general description of this book related to his banking thoughts and China's political and

[251] For our relevant research and the related references, see Chapter 4 to Chapter 6 of this thesis.
[252] The Library of Bank of Spain in Spanish is: La Biblioteca del Banco de España.

economic conditions from 1927 to 1937, which are the key materials for the investigation of China's central banking issue during the Nanjing Golden Decade, 1927 to 1937.

### 3.1.3 Investigation in Hoover Institution

After we investigated the existing files in person and using the online archives, we investigated the original Young's papers on China's banking and financial issues at the Hoover Institution Archives at Stanford University in the United States for further research on Young's papers related to China. First, we were authorized by Hoover Institution Archives to investigate Arthur Young's working papers located in Hoover Institution Library and Archives. When we were researching there, we found 116 boxes which include Young's diary and his academic career as an economist and as a policy advisor all around the world. Apart from Box 2 to Box 5 that are related to banking and financial issues of Germany, France, Belgium, United States, Greece, Italy, Turkey, Yugoslavia, Austria, Hungry, etc., the boxes related to Young's works on China are Box 7 to Box 106. These files include first-hand data and evidence recorded by Young, records, news reports clippings of information of budgets, debts, loans, customs, industrial revenues, currencies, banking, central banking, banking policies, prices import, export, general economic conditions, governmental business, private business, etc., which covered almost all the areas of China's economy at that time. Besides, Young's working collection also includes his letters and telegrams with Edwin Kemmerer and other critical Chinese politicians and economists such as T. V. Soong and H.H. Kung.[253]

After we reviewed the general situation of Young's academic work related to China, we were authorized by Hoover Institution Library and Archives to scan his

[253] For Kemmerer's banking theories on China, see Chapter 3. For the banking theories of T. V. Soong and H.H. Kung, see section 4.2.3.2 and section 4.2.3.3 in Chapter 4, and section 6.2.4.5 and section 6.2.4.7 in Chapter 6.

reserved documents, which were associated with the establishment of China's first modern central bank and the political and economic conditions of China from 1927 to 1949. All of these references are related to the research topics of our thesis. After that, we investigated the scanned documents and organized them for our thesis writing. We separated the part of the period from 1927 to 1937 (China's central banking during the Nanjing Golden Decade) and the part of the period from 1937 to 1945 (China's central banking during the Second Sino-Japanese War).[254] The investigated documents related to China's banking system from 1927 to 1937 will be mainly used in this chapter.

Finally, after we finished our investigation in Hoover Library and Archives, we wrote our general description of Young's academic works we had researched in Hoover Library Archives. By comparing Young's books, *China's Nation-Building Effort, 1927-1937: The Financial and Economic Record* (1971), *China's Wartime Finance and Inflation, 1937-1945* (1965), and *China and the Helping Hand, 1937-1945* (1963), Young's collections in the Hoover Institution, and the related references that we have mentioned above, we conclude that Young's research on China was seriously and cautiously made by evidence (especially the first-hand evidence of governmental data, news reports clippings, and telegrams, etc.) and by academic thoughts. After presenting the methodology of this chapter and describing the investigation process of Young's scholarly works related to China's central banking from 1927 to 1937, in the next section, we demonstrate Arthur N. Young's biography.

### 3.2 Arthur N. Young's Biography

In this section, we review the biography of Arthur Nicolas Young, who was one

[254] For the political and economic background of the Nanjing Golden Decade, see section 4.2.1 and section 4.2.3 in Chapter 4.

of the key figures in the Kemmerer Commission on China in 1929.[255]

The American economist and lawyer Arthur N. Young (1890-1984) was born in Los Angeles, California, in 1890.[256] As a Californian, this put him in contact early with many Chinese people. His interest in economics started when his father introduced him to some materials of political economy when he was 15 years old. He graduated from Occidental College, one of the oldest liberal arts colleges on the West Coast of the US, while his father was one of the college's founders.[257] After finishing his bachelor's study, Young received his Ph.D. degree in Economics at Princeton University and a degree in Law from George Washington University. After his graduation, Young started teaching at Princeton University and served as an American financial specialist in Mexico, Spain, Honduras, and other Asian and Latin American counties all around the world, such as Edwin Kemmerer did.[258] As a well-trained economist and excellent diplomat, Young also spoke fluent Spanish, which aided his work in Latin American countries.[259] Young himself even called Kemmerer "my teacher and my colleague."[260]

From 1922 to 1928, Young served as an economic advisor for the State Department.[261] Meanwhile, he was working as an American observer with the Reparations Commission in Paris, France.[262] In 1929, Young came to China to serve as a monetary specialist for the 1929 Kemmerer Commission on China until 1946.[263] Throughout his 17 years in China as a monetary specialist, he helped establish China's

[255] For more of Young's biography, see East Asian Research Center of Harvard University [EARCHU] (1963), A. Young & Fuchs (1974), A. Young (1974), and The New York Times (1984).
[256] See EARCHU (1963) and The New York Times (1984).
[257] See A. Young & Fuchs (1974).
[258] See EARCHU (1963).
[259] See A. Young & Fuchs (1974).
[260] See A. Young & Fuchs (1974).
[261] See EARCHU (1963).
[262] See The New York Times (1984).
[263] See EARCHU (1963), and A. Young & Fuchs (1974).

first modern central bank from 1928 to 1929 and transformed it into the Central Reserve Bank of China in the late 1930s. During the Second World War and the Second Sino-Japanese War, Young was nominated as Chairman of the Commission of the National Government on Relief and Rehabilitation. Young also served as one of the representatives from the Republic of China at the Bretton Woods Conference.

After his service in China, Young returned to the US and served as a financial adviser for dozens of countries in Latin America, the Middle East, and Southeast Asia in the 1950s.[264] In 1951, he worked as the leader of the Young Commission to Saudi Arabia, investigating the political and economic situation there.[265]

Throughout his entire life, Young wrote three monographs on China's political and economic situation during the era of Nationalist China from 1927 to 1949: *China and the Helping Hand, 1937-1945* (1963), *China's Wartime Finance and Inflation*, 1937-1945 (1965), *China's Nation-Building effort, 1927-1937: The Financial and Economic Record* (1971).[266] Young arrived in China in 1928 and left the country in late 1947, where he spent nearly 20 years serving as a financial advisor for the Chinese government. During his service in China, he had an excellent personal relationship with T. V. Soong and Generalissimo Chiang Kai-shek.[267]

On July 19, 1984, Young died at home in Claremont, California. The East Asian Research Center of Harvard gave Young very high praise as "a skilled foreigner invited, like Marco Polo or Robert Hard, to participate in the governing of China" and "a

[264] See EARCHU (1963).
[265] See The New York Times (1984), and A. Young &Fuchs (1974).
[266] Besides, in 1947, A. Young wrote another small pamphlet less than 100 page called *China's economic and financial reconstruction*. However, because the length of this book is too short, and many of its contents have been covered in his other three books, we do not list his book as his important monograph on China.
[267] See A. Young &Fuchs (1974).

pioneer" in bringing new foreign aid during war times.[268] The East Asian Research Center of Harvard University said,

> Mr. Young's personal records concerning the Chinese Government's financial problems and policies are in themselves of unique value; his critical analysis of foreign aid to wartime China, based on these and other records, is a unique contribution. He not only puts American aid programs in the context of foreign aid to China in general; he also views them from the receiving end. (EARCHU, 1963)

After we have reviewed Arthur Young's biography, in the next section we demonstrate his general comments on the modernization of Nationalist China from 1927 to 1937 during the Nanjing Golden Decade.

### 3.3 Young's General Comments on the Modernization of Nationalist China

After we have reviewed Young's biography, we demonstrate how Young commented on the modernization process of Nationalist China from 1927 to 1937 in this section. Young's central banking thoughts are tightly related to his understanding of what happened in the first half of the 20th century. Comprehending what he thought about China from a general perspective can help us understand his central banking thoughts for China. As Young had systematically studied the political and economic situation in China in the first half of the 20th century, we can dig deeply on what Young thought about China's general political and economic situation, especially how Young saw the crucial

[268] See EARCHU (1963). It was evident that Young's interest in a healthy currency possibly had to do with the US's investment in China. Because Young was a financial expert sent by the US government to China, he took the task of the US government to stabilize the Chinese currency to China which would also benefit the US economically. However, this point does not contradict his belief in a healthier monetary system as a financial expert. The following discussion in this chapter will confirm that there is no negation between these two points.

reforms and revolutions that happened in China during the first half of the 20th century. In this section, we review Young's general praise and critique of the National Government from the 1920s to the 1940s, his general opinions on the government administration performance of the National Government during the Nanjing Golden Decade, the main difficulties that the National Government was facing during these ten years (according to Young), and his general views on the economic situation of China from 1927 to 1937.

### 3.3.1 Young's General Praise and Critique of the National Government from the 1920s to 1949

This section reviews Young's general praise and critique of the National Government from the 1920s to 1949. Section 3.4.1.1 is about Young's assessment of the reasons for the success of the 1949 Communist Revolution. Section 3.4.1.2 reviews Young's criticism of the Chinese Marxists. Section 3.4.1.3 demonstrates Young's opinion on corruption and government inefficiency issues. Section 3.4.1.4 illustrates Young's general positive evaluation of Chiang Kai-shek. Section 3.4.1.5 presents Young's comments on the non-achievement and deficiency of Chinese reform during the Nationalists' rule.

**3.4.1.1 An assessment of the reasons for the success of the 1949 Communist Revolution.** Young argued that the changes which happened in China after the collapse of Qing Dynasty were "swift" and "dramatic," because of "[t]he warlords of the chaotic twenties," the fights among the National Government, and the flights against Japanese aggression and the Communist revolt from the 1930s to the 1940s.[269] According to Young, it was because of the frequent wars and their consequences, such as price

[269] See A. Young (1971, p. v).

inflation and corruption from the 1920s to the 1940s, that caused the success of the 1949 Communist Revolution, switching China from a free-market-oriented society to a totalitarian state. Young Said,

> The events of the war led, in turn, to the Communist takeover on the mainland in 1949. Thus China changed from a pro-Western and fairly open society, based mostly on free enterprise, to a socialistic and totalitarian state. (A. Young, 1971, p. v)

Obviously, due to what Young said in the selected sentences, he was in favor of the relatively open and free China before the 1949 Communist Revolution. He felt sorry for China's change into a Communist dictatorship. Therefore, it is clear that Young was very disgusted with Communism and totalitarianism. And from his point of view that he regretted China because of Communism, he had a very positive motivation that the Eastern giant, China, could move toward freedom and prosperity.

**3.4.1.2 Young's criticism of Chinese Marxists.** Young also criticized a popular Marxist viewpoint from the scholars who claimed that after the collapse of the Qing Dynasty, the period of the Republic of China on the Chinese Mainland from 1911 to 1949 was an inevitable interregnum for the 1949 Communist Revolution. He also argued that this viewpoint was not based on the evidence of the modernization process achieved by the Republic of China before 1949.[270] Young said,

[270] See A. Young (1971, p. v). After the 1949 Communist Revolution, the central government, the parliamentary and the judicial institutions of the Republic of China moved to Taiwan until nowadays. Taiwan is still applying the 1946 *Constitution of the Republic of China* along with *Additional Articles of the Constitution of the Republic of China*. This Constitution has survived from the Civil War (1945-1949) and is still used effectively with some minor modifications, which shows that the Constitution itself is effective for stabilizing the constitutional system of the Republic of China on Taiwan. For more about the 1946 *Constitution of the Republic of China* and the Chinese Civil War, see section 6.2.1 of Chapter 6.

> [The Marxist viewpoint] ignores the major transformation which the Nationalists brought about after they had set up their capital at [Nanjing] in 1927. It also ignores China's promising outlook in mid-1937, tragically interrupted by Japan, when on many fronts there has been great progress, with signs of future progress than collapse. […] The Nationalists put an end to major regional militarism; created a government able to speak internationally for China; and put the country on the road to becoming a strong, unified, and developing nation. (A. Young, 1971, p. v)

Here, Young rightly pointed out that the Chinese Marxists ignored the outstanding achievements of the Chinese National Government before 1937: ending the melee of local warlords, establishing a unified government that can represent China internationally, and promoting economic development. At the same time, Young also pointed out the destruction of these achievements caused by the Second Sino-Japanese War. Such a relatively comprehensive evaluation is much fairer than the one-sided review of the National Government by Chinese Marxists.

**3.4.1.3 Corruption and government inefficiency.** Despite criticizing the ignorant Marxist views on what the National Government achieved, Young also saw that the corruption problem resulted in government inefficiency. Young also realized that the charge that the National Government was corrupted and inefficient from the Communists was accepted by the people "uncritically and without regard for what had happened before the forties," though the corruption and inefficiency were existing in the National Government.[271] In this sense, what Young judged of the National Government was more fact-oriented and academically cautious. Regarding corruption, in his interview with

[271] See A. Young (1971, p. vi).

James R. Fuchs of the Harry S. Truman Library, he believed that in Chinese tradition, it was not necessarily seen as corrupt for officials to dip into public tax funds. Officials could take around five percent, but if the amount neared 15 to 20%, that would be considered corruption. He says,

> In China they had a tradition that officials could squeeze and that for officials to benefit from their position was normal and ethical, as long as they didn't carry it to extremes. In other words, an official who took a cut of maybe five percent on taxes or revenues passing through his hands was a good official. He was paid almost nothing and he had obligations to his subordinates and to contribute upward to the throne; so that was regarded as ethical. Whereas, if he took fifteen or twenty percent or some larger cut that was unethical. (A. Young & Fuchs, 1974)

Therefore, Young had a deep understanding of China's politics and corruption. He did not have a superficial understanding of China's political traditions as a foreigner. Furthermore, Young also argued that widespread corruption of the Chinese government only affected military and backward areas. Therefore, although corruption was a problem, it was not a decisive issue that lead to the failure of the National Government. And he considered that the corruption problem of the Chinese National Government was much lighter than that of other countries he had worked for. He said,

> [T]here was, of course, a perpetuation of much corruption, especially in the armies and the less modernized areas. But, I would say from my experience in quite a number of other countries, that during the Nationalist period before the war it was certainly no worse than in the other countries all over the world in

> which I worked, perhaps better, and the situation was improving. The government was really putting together a pretty good administration by 1937 at the national level. (A. Young & Fuchs, 1974)

Here we see that Young not only had a profound understanding of corruption in traditional Chinese politics but also compared the Chinese political corruption to other countries where he worked. This view illustrated his comprehensive knowledge of corruption and his international perspective as a diplomat.

**3.4.1.4 Young's general positive evaluation of Chiang Kai-shek.** Regarding Chiang Kai-shek, Young made a high assessment. He first affirmed Chiang Kai-shek's integrity. Then, Young argued that Chiang had to rely on the corrupted officials who were loyal to him to govern. Young said,

> Not that he was personally corrupt, but that he tolerated them for reasons of loyalty, because he was not sure of the loyalty of others, and perhaps partly because he was sheltered from learning the real facts by people around him. (A. Young & Fuchs, 1974)

Young also commented on Chiang Kai-shek's contribution to China. He believed that Chiang Kai-shek's economic knowledge was limited. Still, everyone has limitations and Chiang Kai-shek's unification of China and his adherence to the War of Resistance had shown his strong leadership ability. Young said，

> [A]s I say, he was a man for the times, and I think he deserves very high marks for the degree to which he was able to unify China by 1937, and preside over a government that carried out a great many financial reforms and also some

> economic reforms that began, for example, doing many good things about agriculture.
>
> […]
>
> So, some reforms were adopted, others proposed and some beginnings made. But, after the war came with Japan, nothing much could be done. And before that, preparation to meet Japan and to arm against Japan to establish unity, by putting down the warlords, and then by putting down the Communists to strengthen their central control and as a prerequisite to carrying out reforms, had to have the priority. So, you can explain the fact that he did not give attention adequately to social reforms. But, he and China had to pay later for this failure. One man can't have all the talents and he didn't have all the talents. (A. Young & Fuchs, 1974)

Therefore, he argued that the effectiveness of Chiang Kai-shek's leadership was affected by the dual factors of Japanese aggression and the CCP rebellion. It can be seen that Young had a profound understanding of the reasons for the failure of the National Government. He did not superficially push the responsibility to Chiang Kai-shek alone but analyzed the historical conditions at that time. Moreover, he also affirmed the National Government's reforms to the country before the outbreak of the Second Sino-Japanese War in 1937.

**3.4.1.5 Young's comments on the non-achievement and deficiency of the Chinese reform during the Nationalists' rule.** Although Young gave high praise on the performance that the National Government achieved during the difficult times when the Communists and the Japanese aggressors challenged it, he also pointed out that the

National Government did not put enough effort to reform China's economic and financial issues because of political reasons. He said,

> A weakness, however, was the inadequate attention to reforms in the traditional economic and social system-partly because […] attention has centered primarily on political events, notably on the Nationalist's confrontation with the Communists and on China's relations with Japan and the other powers. Financial and economic development during these years were of first importance but have been neglected or […] have been incorrectly presented. (A. Young, 1971, p. vi)

Here, Young sharply pointed out that the National Government has ignored economic reform as a critical issue. Thus, we conclude that although Young criticized some performance of the National Government, especially the economic policy, he generally affirmed the accomplishments that the National Government achieved during the brutal war times while it was facing Communist and Japanese invaders from the 1920s to the 1940s. These performances especially include that the National Government ended the chaotic warlord era from 1916 to 1927; established a government that can speak for China's benefit internationally; and brought China on the path of achieving economic growth and development before 1937 when the Second Sino-Japanese War started. In Chapter 5 and Chapter 6, we analyze how the outbreak of the Second Sino-Japanese War became a decisive change of the fate for the Republic of China.[272] Apart from what we

[272] In the Second Sino-Japanese War, although the Chinese Communist Party (CCP) apparently announced its cooperation with the government to fight against Japanese invaders, the CCP actually continued to attack government forces and expand its territory. To some extent, this led to a balance between the strength of the government and the CCP after the war, which was also an indirect factor for the failure of the Republic of China on Mainland China. The number of CCP troops rose from more than 40,000 in the early days of the War of Resistance to more than 1.2 million by the end of the war. During the war, the CCP expanded its territory by cracking down on the Japanese and attacking the army of the National Government. The CCP-occupied area expanded from 130,000 square meters before the war to more than 800,000 square meters at the end of the War of Resistance, and its population expanded from 1.4 million to over 2 million. For

have demonstrated in this paragraph above, we can also conclude that Young strongly disagreed that the 1949 Communist Revolution was inevitable as the ROC Government did so severely before 1949. In the next section, we demonstrate Young's general opinions on the government administration performance of the National Government during the Nanjing Golden Decade.

### 3.3.2 Young's General Opinions on the Government Administration Performance From 1927 to 1937

As we have demonstrated in section 3.4.1.3, Young admitted that the National Government had the problems of corruption and inefficiency. However, he also pointed out that it was normal for less developed countries to suffer from these two problems. By reviewing his own experience in and research on developing countries, as we have demonstrated in the last section, Young claimed that the corruption and inefficiency problems in the National Government were less damaging than other developing countries (i.e., in Latin America) he worked for and claimed that even in "many respects, indeed, the situation in China was better, and notable progress was being made," including the financial and banking reforms.[273] Young said,

> Many leaders and officials at every level were trying, often with much success, to improve public administration and eliminate abuses. (A. Young, 1971, p. vii)

Not only pointing out what the National Government achieved and what it did not do enough, but Young also provided his perspective on which kind of government that can govern properly. For Young, the long-term efforts from public opinion, effective public administration, and an "adequately and regularly paid" bureaucracy are the keys to solve

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related analysis in detail, see section 5.2.1.3 of Chapter 5.
[273] See A. Young (1971, p. vi).

the problem of corruption and inefficiency, especially for developing countries who have their large tradition.[274]

It is evident that Young was not and never completely satisfied with the administrative performance of the National Government because of the corruption and inefficiency according to his criteria that we have demonstrated. However, Young also pointed out that these two problems were common among developing countries, and China was even better than the other developing countries in which he worked. In the next section, we demonstrate the main difficulties that the National Government was facing from 1927 to 1937, according to Young.

### 3.3.3 The Main Difficulties That the National Government Was Facing During the Nanjing Golden Decade According to Young

Young diagnosed four main issues that challenged the National Government before it failed in 1949, which can be retrospected from the 1920s to the 1930s. They are: disruption from local warlords, the fight against the Communists, escalating war against the Japanese, and corruption that drained the finances of the National Government and caused its failure in 1949. This section demonstrates Young's assessment of these four factors.

**3.4.3.1 The Warlords and the Communists.** According to Young, the warlords and the Communists were the two main military problems that the National Government had to face from the 1920s to the 1930s.[275] Although the Nationalists started to rule China in 1927, the warlords still did not completely disappear. For the issue of the warlords, Young argued that the regional militarists, who continued the partly serious

[274] See A. Young (1971, p. vii).
[275] See A. Young (1971, p. vii).

civil war until 1931, "were not prepared to disband their troops to central control" after the establishment of the National Government in Nanjing in 1927. And the Communists "remained in strength in Central China until 1934," until they ran away to the northwestern part of the country.[276] However, Young also claimed that the Communists in northwest China "remained a continuing though greatly diminished threat" for the National Government.[277] In addition, Young also pointed out that inside the Chinese Nationalist Party, which was the ruling party of the Chinese government, the main political and military conflicts still existed until the Guangdong Nationalist regional power was removed in 1936. Young argued that all these inner military conflicts put an intense burden on the National Government to reform China. He said,

> These pressing problems entailed a costly, drain on finances, and diverted resources and attention from development and reform. (A. Young, 1971, p. viii)

Therefore, Young not only saw the problems within the National Government, and the threat posed by the Chinese Communist Party to the peaceful development of the Chinese nation but also saw the instability brought to the country by the melee of local warlords. We argue that Young's observation comprehensively revealed the threat posed by the war between local warlords at that time to the country's economic development, peace, and stability.

**3.4.3.2 The Japanese occupation.** Young believed that after Japan assassinated the last supreme leader of Beiyang Government, Zhuang Zuolin in 1928, the Japanese occupation on China became "probably inevitable."[278] For Young, Japanese power in China became much strong after Japan seized Manchuria in 1931-1932, which was one of

[276] See A. Young (1971, vii).
[277] See A. Young (1971, p. vii).
[278] See A. Young (1971, p. viii).

the "richest areas" of China.[279] Young argued that the Japanese occupation of Manchuria made it harder for the National Government to receive revenue and made the cost of defeating the Japanese higher than before.

**3.4.3.3 Corruption.** In section 3.4.1.3, we have demonstrated Young's general opinion of the corruption problem of the Nationalists' rule from 1927 to 1949. During the Nanjing Golden Decade, corruption in the National Government was also a problem considered by Young.[280] He described that "corruption went beyond what could be deemed excusable as due to [price] inflation and confusion."[281] Furthermore, Young also argued that the reform of being against corruption became effective only after the government of the Republic of China withdrew to Taiwan in 1949.

### 3.3.4 Young's General Views on the Economic and Financial Situation of China From 1927 to 1937

Young claimed that although the military part of China was in chaos, it had achieved excellent performance related to "the growth of central authority" and "fiscal and monetary affairs."[282] Section 3.4.4.1 is about his description of the relatively stable situation in the Nationalist ruling area and the strong economic recovery and growth in the mid-1930s. Section 3.4.4.2 reviews Youngs' record and understanding of the helpful foreign advice, aids, investment, and trade.

**3.4.4.1 The relatively stable situation in the Nationalist ruling area and the strong economic recovery and growth in the mid-1930s.** According to Young, though the Japanese gradually occupied Manchuria from 1931 to 1932, the National Government

[279] See A. Young (1971, p. viii). The original Chinese name of Manchuria is "滿洲."
[280] See A. Young (1963, p. 422; 1971, p. vii).
[281] See A. Young (1963, p. 422).
[282] See A. Young (1971, p. viii).

still controlled the main parts of China until 1937, which allowed for the National Government to receive a large amount of revenue and reform the monetary system successfully in 1935.[283] Table 3.1 below shows the revenues of the National Government from 1929 to 1937. Young pointed out that because the political situation was gradually becoming stable and the favorable policy in the Nationalist ruling area, China had a robust economic recovery and growth from 1935 to 1937.[284] Table 3.2 below shows the real GDP in China from 1929 to 1938. He also pointed out that China's economic performance was much better than most of the countries of the world who were suffering from deterioration in the mid-1930s.[285] The main reason for the relative development of China's economy during the decade from 1927 to 1937 was the relatively stable political and economic changes at that time before the outbreak of the Second Sino-Japanese War. For the related analysis, see section 4.2.1 and section 4.2.2 in Chapter 4.

[283] See A. Young (1971, p. viii).
[284] See A. Young (1971, p. viii).
[285] See A. Young (1971, p. viii).

Revenues of the National Government, 1929-1937

| Year | Revenue | Growth rate |
|---|---|---|
| 1929 | 334 | - |
| 1930 | 484 | 30.99% |
| 1931 | 558 | 13.26% |
| 1932 | 619 | 9.85% |
| 1933 | 614 | -0.81% |
| 1934 | 689 | 10.89% |
| 1935 | 745 | 7.52% |
| 1936 | 817 | 8.81% |
| 1937 | 870 | 6.09% |

Table 3.1 Revenues of the National Government from 1929 to 1937. Tabke's currency unit is one million Chinese dollars (C$).
*Source:* A. Young (1971, p. 38).

**Real GDP in China, 1929-1938**

| Year | GDP | Growth rate |
|---|---|---|
| 1929 | 273,991 | - |
| 1930 | 277,467 | 1.26% |
| 1931 | 280,292 | 1.01% |
| 1932 | 289,200 | 3.17% |
| 1933 | 289,200 | 0% |
| 1934 | 263,996 | -8.71% |
| 1935 | 285,300 | 8.06% |
| 1936 | 303,324 | 6.31% |
| 1937 | 295,937 | -2.43% |
| 1938 | 288,549 | -2.49% |

Table 3.2 Real GDP in China from 1929 to 1938. The unit of GDP is one million US dollars in the 1990 price level.
*Source:* Maddison (2006, p. 192).

**3.4.4.2 Helpful foreign advice, aids, investment, and trade.** Along with the self-help which Chinese people accomplished, Young also pointed out that foreign advice, aid, investment, and trade also vitally helped China develop itself during the period from 1927 to 1937.[286] Table 3.3 below shows foreign trade from 1927 to 1937 (excluding Manchuria). Altogether, the National Government sold 187 million ounces of gold, receiving US$94 million to stabilize the Fabi and its exchange rate. Including the previous silver sale to the United Kingdom and the later one after the breaking out of the Second Sino-Japanese War, the National Government sold a total of 362 million ounces and got US$157 million.[287] Furthermore, Young also claimed that the American silver purchases also helped China financially and argued that foreign investment was playing an essential role in the progress that china achieved before 1937.[288] For more about the economic development and foreign advice, aids, investment, and trade, see section 4.2.2, section 4.4.4.12, and section 4.5 in Chapter 4.

[286] See A. Young (1971, pp. vii-ix).
[287] See A. Young (1971, pp. 241-245). For a more detailed analysis, also see section 4.5.3.4 in Chapter 4.
[288] See A. Young (1971, p. ix).

**Foreign Trade (Excluding Manchuria), 1927-1937**

| Year | Imports | Growth Rate | Exports | Growth Rate |
|---|---|---|---|---|
| 1927 | 1,298 | - | 980 | - |
| 1928 | 1,530 | 17.87% | 1,041 | 6.12% |
| 1929 | 1,620 | 5.88% | 1,070 | 2.79% |
| 1930 | 1,723 | 6.17% | 944 | -11.78% |
| 1931 | 2,002 | 16.19% | 915 | -3.07% |
| 1932 | 1,524 | 23.88% | 569 | -37.81% |
| 1933 | 1,345 | -11.75% | 612 | 7.56% |
| 1934 | 1,030 | -23.42% | 535 | -12.58% |
| 1935 | 919 | -10.78% | 576 | 7.66% |
| 1936 | 941 | 2.39% | 706 | 22.56% |
| 1937 | 935 | -0.63% | 838 | 18.70% |

Table 3.3 Foreign trade from 1927 to 1937 (excluding Manchuria). The unit of GDP is one million Chinese dollars.
*Source:* A. Young (1971, p. 492).

But which factor was more important for China's economic recovery and growth from 1927 to 1937? Young answered that it was Chinese people themselves who mainly achieved this performance.[289] He also praised what China achieved compared to other less-developed countries at that time. Young said,

> China's financial and economic progress in the prewar decade was a pioneer effort in the field of economic development. It antedated the widespread interest since World War II in the promotion of the progress of less developed countries, and the provision of large-scale foreign credits. China's effort merits the careful attention of countries seeking development and of those providing aid. (A. Young, 1971, p. ix)

We can figure out that Young gave a very high comment on what China achieved before the Second Sino-Japanese War, by not only comparing the less-developed countries in the pre-war time, but also after the Second World War. However, Young also pointed out the support of foreign credit for China's economic development, which illustrated the situation of China's external debt problem from another aspect. The Chinese were doing their best to pay foreign debts during the Nanjing Decade. For foreign bankers, China's ability to pay the foreign debt was more impressive than the new currency situation. Despite the lack of statistics on external debt payments at the time, in 1928, the remaining railway debt was US$183 million. In 1937, two years after the currency reform, the remaining rail debt was only US$226,000! Table 4.2 shows some paid debts after the 1935 currency reform.[290] For more about the debt issues during the Nanjing Decade, see section 4.5.3.7 in Chapter 4.

[289] See A. Young (1971, p. viii).
[290] See Shiroyama (2008, pp. 196-197).

If Young's assessment was correct, we could only imagine what grand achievements China could have accomplished if the Communists and totalitarianism did not interrupt the spontaneous developing process that China was marching toward, and how the great tragedy which Communism and totalitarianism brought to China could have been avoided. In the next section, we mainly focus on Young's central banking thoughts on the related political and economic issues pertaining to our research of Young's works we've mentioned in the previous parts of this chapter.

## 3.4 Young's Central Banking Thoughts From 1927 to 1937

In section 3.4 above, we have discussed Young's general comments on the modernization of China. We have concluded that Young thought that the National Government faced a lot of challenges from 1927 to 1937, especially from the banking and financial sectors. In this section, we mainly discuss Young's central banking thoughts related to political and economic issues based on our research of Young's works that we have mentioned in the previous sections. In section 3.5.1, we review Young's central banking thoughts in the late 1920s. Later in section 3.5.2, we review his central banking ideas in the 1930s before the outbreak of the Second Sino-Japanese War in 1937.

### 3.4.1 Young's Central Banking Thoughts in the Late 1920s

In this section, we review Young's central banking thoughts in the late 1920s. According to Young, the process of China's monetary reform was not efficient. Of Young's concerns, the fundamental problems of the Chinese monetary system were "the adoption of a definitive monetary standard" and "the creation of a uniform and convenient monetary circulation," which had not been solved even since China had

started discussing banking reform at the beginning of the 20th century during the Qing Dynasty.[291]

The National Government started reforming China's banking system after discussion of monetary reform in the 1920s. For more about the debate on how to establish a better and robust monetary system for China, see section 4.2.3.4 in Chapter 4. For Young, the Chinese government needed to solve the problem of "chaotic monetary circulation" and the "choice between staying with silver standard or moving toward the gold standard."[292] Thus, the National Government started to invite both Chinese and foreign monetary specialists to solve the problems. With the help of, and based on the suggestions of, the Kemmerer Commission, whom Young worked for in July 1928, the National Financial Conference decided to adopt the gold standard as the ultimate currency standard of China.[293] Before the adoption of the gold standard, the Conference decided to adopt the Silver Dollar as the basic currency unit instead of the silver taels in the transition between the old and diverse currency system and the future gold standard.[294] According to the currency reform plan decided by the Conference, other subsidiary coins would also gradually be converted into the Silver Dollar. For more about the currency reform in the late 1920s, see section 4.3 in Chapter 4.

After decades of debating and the settlement of new currency standard, on October 6, 1928, the National Government finally established the Central Bank of China, which started its operation on November 1, 1928.[295] With the C$20 million capital

[291] See A. Young (1971, p. 28).
[292] See A. Young (1971, p. 163).
[293] For more about the Kemmerer Commission, see Chapter 2 and Kemmerer (1929), A. Young (1971, p. 28), and J. Zhu (2012, pp. 340-341).
[294] The reform of abolishing the silver tale to adopt the Silver Dollar is generally called "廢兩改元" in Chinese.
[295] See A. Young (1971, p. 27), J. Zhu (2012, p. 343), and Tamagna (1942, p. 122).

provided by the National Government, the Central Bank of China aimed to have the right "to issue banknotes, to mint and circulate coins, to deal in foreign exchange, and to handle the issuance and service of public loans."[296] Thus, in nature, this central bank was entirely a state bank. Due to the plan, in the beginning, the central bank planned to have a 60% reserve in metals (silver, or gold coin, or bullion), and the remaining 40% reserve in government bonds or commercial papers.[297] Here is a detail that deserves our attention. That is, the currency reform plan announced by the National Government and the US Silver Purchase Act of 1934 were entirely out of sync. Because the National Government announced that the monetary reserve contains silver, and the US Silver Purchase Act aimed to buy silver from the Republic of China as much as possible. It can be seen here that the policies of the Franklin D. Roosevelt administration had neither been coordinated with Kemmerer Commission, nor with the Chinese National Government. For the policy discoordination, see section 4.5.1 in Chapter 4.

Young praised the National Government for clearly seeing the necessity of building a new currency system to "end the chaotic medium and bring the standard of value," which would also bring forward a stable relationship with the influential western countries at that time.[298] However, Young also pointed out that as the National Government was facing urgent fiscal problems, the fundamental reform of the monetary system was not practiced in 1928, and instead was deployed in the later 1930s. For the deployment of the banking reform in the late 1930s, see section 4.5 in Chapter 4. In the next section, we provide a detailed analysis of Young's central banking thoughts in the 1930s.

[296] See A. Young (1971, p. 27).
[297] See A. Young (1971, p. 27) and Tamagna (1942, p. 140).
[298] See A. Young (1971, p. 277).

### 3.4.2 Young's Central Banking Thoughts in the 1930s

After we have reviewed Young's central banking thoughts in the late 1920s, in this section, we continue examining his banking thoughts in the 1930s before the breakout of the Second Sino-Japanese War in 1937. Section 3.5.2.1 and section 3.5.2.3 are about Young's central banking reform theory. We discuss his theory of adopting the Customs Gold Unit System and the theory of the transition and unification to a silver standard, respectively, in these two sections. Section 3.5.2.3 introduces his theory of stabilizing the silver standard through American silver purchases. Section 3.5.2.4 reviews Young's theory of abolishing the silver standard and other currency reforms in 1935. Section 3.5.2.5 demonstrates Young's commentaries of the strengthened and integrated governmental financial system under the Central Bank of China. Section 3.5.2.6 reviews his theory of why the central bank needed to be strengthened in 1937. Section 3.5.2.7 is about his theory of establishing a central reserve bank. Section 3.5.2.8 studies Young's commentaries on the positive achievements regarding modernization of private banking institutions from 1927 to 1938. Section 3.5.2.9 is about his commentaries on the negative aspects of the banking institutions from 1927 to 1938.

**3.5.2.1 The theory of the central banking currency reform I: Adopting Customs Gold Unit system.** The first of Young's banking theory was his thoughts on adopting the Customs Gold Unit system (CGU).[299] For gradually adopting the gold standard, Young and other western specialists in the Kemmerer Commission suggested that the National Government accept the CGU, which would help the Chinese government receive more fiscal revenue. For more about the CGU, see section 4.4.1.1 in

[299] For the references of CGU, see A. Young (1971, pp. 277-278), Tamagna (1942, pp. 140-142) and J. Zhu (2012, p. 341). Customs Gold Unit is written as "海關金單位" or "關金券" in Chinese.

Chapter 4. The Kemmerer Commission and Young also argued that by using the CGU system, while the price of silver was decreasing acutely, customs revenue would enormously increase, even both the internal and external situations were still challenging for the National Government.

At the beginning of 1930, the National Government decided to adopt the CGU system as a transition towards the final gold standard:[300]

> The Customs Gold Unit, which was […] on the basis of a hypothetically pure gold content of 60.1866 centigrams; gold coins were never actually minted, however. The exchange of the Customs Gold Unit was fixed before March 1934. […] The buying and selling of Customs Gold Units became a general practice, and importers found it convenient to keep duties by checks drawn on these accounts. […] The law required that these Customs Gold Unit notes be covered by a 100 per cent cash reserve. This reserve was to be in silver before November 1935, and in silver and foreign exchange afterward. (Tamagna, 1942, p. 140)

Here is another detail that deserves our attention. In section 3.5.1, we pointed out that the 1934 US Silver Purchase Act was incompatible with China's 1933 silver-standard central-banking reform. Here, the same policy inconsistency appeared again. The CGU, designed in 1930, was also considered by using the silver standard as the reserve fund. In the 1930 design, gold only existed as a CGU exchange rate unit, so gold was an imaginary standard for the CGU, while silver was the actual currency standard. However, the US Silver Purchase Act of 1934 disrupted the previous planning of CGU by the Chinese government and currency experts such as Young.

[300] See A. Young (1971, pp. 277-278), Tamagna (1942, p. 140), and J. Zhu (2012, p. 341).

There are four assumed benefits that the CGU system could bring, according to Young's theories.[301] The first assumed benefit was that the system could help the National Government keep its credit, as the CGU system makes it possible for the government to pay foreign debts. The continuously paid debt could help the Chinese government keep its credit in the long run. The second assumed benefit was that, as the CGU system could keep the credit and reputation of the National Government, it makes the government pay their debt in other areas. As the National Government could keep its credit by paying back the debt through the revenue brought by the CGU system, it becomes possible to pay other previous debts. The third assumed benefit was that the CGU system could provide the flow of foreign currencies to the Central Bank of China. Foreign currencies could be gained by the revenue that the CGU system brings. The fourth assumed benefit was that the CGU system could become a transition between the adopted currency system and the gold standard. However, Young and the other specialists in the Kemmerer Commission suggested that the CGU system would be mainly used for paying customs duties as an internal circulation system, which should not enter the general currency circulation. Young argued,

> The advisers hoped that the CGU would be a step toward adopting the gold standard. To that CGU notes were issued. But they did not enter into general circulation, and their use was mostly for payment of customs duties. (A. Young, 1971, p. 278)

In the actual operation of CGU, it was only used to pay for foreign trade to avoid the impact of the Fabi's price fluctuation on China's foreign trade. Hence, in the practice of

[301] See A. Young (1971, pp. 277-278).

CGU, the National Government followed Young's policy proposal. For more about the CGU, see section 4.4.1.1 in Chapter 4.

**3.5.2.2 The theory of the central banking currency reform II: The transition and the unification of currency units to a silver standard.** The second of Young's banking thoughts is his theory of the transition and unification to a silver standard.[302] Young and other western specialists in the Kemmerer Commission argued that the National Government should unify the currency system. As we have demonstrated in section 3.5.1, the gold standard would be the ultimate currency standard which China should adopt. However, Young and his colleagues in the Kemmerer Commission suggested that a silver standard and the Silver Dollar would be the transition before the adoption of the gold standard in the future. Young and his western colleagues believed that the old currencies like silver taels were outdated and should be abolished. Under this condition, what the National Government should do was to abolish the old unit of silver taels into the new Silver Dollar. For a detailed discussion of the 1933 currency reform and the transition from the silver tael standard to the central banking Silver Dollar standard, see section 4.4 in Chapter 4.

Young and his western colleagues argued that the National Government should establish some institutions to execute currency exchanges from silver taels to the new silver-dollar system. The silver tael was a currency unit that China had used for at least a thousand years since the Song Dynasty (960-1276). Ordinary people often relied on small pieces of broken silver in the market to trade according to their weight, while the Silver Dollar is a paper currency based on the silver reserve. Naturally, the use of silver-based

[302] For the references of the transition and the unification of currency units to a silver standard, see A. Young (1971, pp. 178-183, p. 278) and Shiroyama (2008, pp. 168-171).

banknotes will be more convenient than the fragmented silver tael, as silver tael also needed to be weighed for trading, which costs time. However, China's Silver Dollar reform in 1933 was at the expense of the centralization of the currency and the abolition of the free banking system. From the perspective of the Austrian school, such a bank reform may have an unstable impact on the currency system, and the government may abuse its currency issuance leading to price inflation and business cycles. While in the assumed new silver-dollar system by Young and his colleagues, it should also provide fractional currencies like nickel and copper, which were also widely used in China to make the circulation of Silver Dollar possible. However, considering the financial stability, Young and his colleagues assumed that the transition from silver tales into Silver Dollar should be practiced "smoothly."[303]

**3.5.2.3 The theory of stabilizing the silver standard through the American Silver Purchase.** The third of Young's banking thoughts is his theory of stabilizing the silver standard though the American silver purchase.[304] For Young, a silver purchase could be a step to adopt the gold standard finally. According to Young, as the western world faced an economic depression in the 1930s, the price of silver decreased dramatically, which would possibly cause the collapse of China's foreign exchange system. However, Young also argued that though it seemed impossible for China to sell enough silver to receive foreign currencies to stabilize the currency exchange system, it was still possible for China to stabilize the currency exchange system through American silver purchases. Young wrote his idea in a letter to his friend, arguing that there were two pre-conditions of the successful exchange stabilization through the American silver

[303] See Young (1971, p. 278).
[304] For the references of stabilizing the silver standard though American silver purchases, see A. Young (1971, pp. 188-214, pp. 278-279), Shiroyama (2008, pp. 171-183) and J. Zhu (2012, pp. 353-372).

purchase. The first condition was that the purchase should undergo no unreasonable delay. The second was that the purchase should cause no financial collapse.[305]

Furthermore, Young also provided two reasons why the American silver purchase was necessary for China to make the exchange stabilization possible. The first reason was that the purchase could make China "sell large amounts of silver at good prices" to avoid the rise of silver and "intolerable" price rising.[306] The second was that the purchase should not break the market, as the manipulation of purchases was through the US government, not the market.

Young also gave very high praise of the American silver purchase, arguing that it would be tough for China to fight against the Japanese occupation without the helping hand from the United States. Young said,

> Without the American silver measure, there is doubt whether China could have put through a comprehensive reform. (A. Young, 1971, p. 281)

However, the facts were entirely contrary to Young's judgment. After the pass of the Silver Purchase Act in 1934, the Chinese economy experienced depression and price deflation. Moreover, this kind of price deflation was not a natural price deflation that the Austrian school believes, but an artificial phenomenon related to the US acquisition of silver.[307] In June 1934, the US Congress passed the Silver Purchase Act, which authorized that the US government should purchase foreign silver with state machinery. Influenced by the Act, at the end of 1934, the world price of silver saw year-on-year rises of 26.7%, and in May 1935, the world price of silver reached a peak of $US 0.81 per

[305] See A. Young (1971, p. 278).
[306] See A. Young (1971, p. 278).
[307] For the Austrian school's argumentation for a healthy price deflation after the depression of the business cycle, see Bagus (2015).

ounce.[308] Banks in Shanghai stocks fell from C$563 million at the end of July to C$335 million at the end of 1934.[309] The interest rate of native banks rose from around six percent to 16% per annum. Small banks and small businesses were also facing bankruptcy. On February 4, 1935, the Central Bank stated that seven small banks, five other financial companies, 58 factories, and 99 stores were facing business failure, while the Shanghai Stock Exchange also plummeted nearly 50% in 4 years since its high in mid-1931.[310] This caused national and local governments to also suffer financial woes.

The performance of the central bank from 1933 to 1935 can also be judged by using two indicators, the currency issues, and the wholesale prices index. The monetary unit during this period was the Chinese Silver Dollar. Currency issuance plus currency deposits are the total money supply. The currency issuance in 1935 was 867,984,374 yuan, a 62.3% increase from 535,190,933 yuan in 1933. The average annual increase is about 27.4%. The currency deposits in 1935 were 2,324,341,889 yuan, an increase of 47.1% from 1,579,824,899 yuan in 1933. The average annual increase is about 21.3%. The total money supply in 1935 was 3,192,326,263 yuan, an increase of 50.9% from 2,115,015,832 yuan in 1933. The average annual increase is about 22.85%. For the prices index, from 1933 to 1935, the prices index decreased from 103.9 to 96.4, which inherited the downward trend in prices from 1928. According to scholars' research, the main factors of price deflation was due to the outflow of silver caused by the 1934 US Silver Purchase Act and the competitiveness of the economy at the time.[311] Therefore, during

[308] See J. Zhu (2012, p. 358).
[309] See A. Young (1971, p. 221).
[310] See A. Young (1971, p. 221).
[311] For the references of price deflation during that period, see Friedman (1992), Friedman & Schwartz (1963, p. 483, pp. 489-491), Rawski (1989, p.15, pp. 312-400;1993), Silber (2019, pp. 38-89), and Richardson (2019/2020).

this period, despite the currency issuance, prices remained stable overall, and there was price deflation at that time. For more about the price deflation from 1933 to 1935, see section 4.4.2.4 in Chapter 4.

Also, Young believed that the currency reform in 1933 was successful. However, when talking about the 1934 US Silver Purchase Act, he argued that although the US silver acquisition policy may be beneficial to China, it reflected the uncoordinated internal policies of the US government. He even pointed out that President Franklin D. Roosevelt simply did not understand the possible impact of the silver acquisition on the Chinese economy. Young said,

> We'd had a very successful currency reform on which I had been working, and in which we fought the United States because of its silver policy. I was in the strange position of writing notes to the American Government protesting the American policies, which was very curious, since I had been on the American side before.
>
> My friends in Washington knew that and they sympathized with me, because they did not favor what the Treasury and the President were doing about silver. The State Department was opposed to it; but Roosevelt never understood it, and so forth. Well, that's a little by the way.
>
> We accomplished currency reform very successfully. It was going very well. The Central Bank, which I was advising, was going very well. I had been helping the Government with the negotiation of the defaulted debts, and we had succeeded in settling probably eighty to ninety percent of them and the rest were on the way. (A. Young & Fuchs, 1974)

Therefore, Young believed that the currency reform of 1933 was successful. Although he argued that the 1934 US Silver Act might be beneficial to China's currency stability, he also saw the impact of sudden policy changes on the Chinese monetary system and the ignorance of President Roosevelt behind China's economic situation. It can be said that Young's view is very insightful because he keenly felt the stability of the US silver acquisition policy on the Chinese financial system, and he also saw the ignorance of policymakers like President Roosevelt. Only those who are deeply involved in policymaking like Young can discover these more profound issues. Therefore, this also reflects the importance of reviewing Young's theory in understanding China's currency reform from 1920 to 1930.

**3.5.2.4 The theory of the abolishment of the silver standard and the currency reform in 1935.** The fourth of Young's banking thoughts is his theory of the abolition of the silver standard and the currency reform in 1935, which is tightly connected with Young's theory of stabilizing the silver standard though an American silver purchase.[312] Due to the loss of silver caused by the 1934 US Silver Purchase Act, it was inevitable for the National Government to switch China's currency standard into fiat money to stabilize its currency. In 1935, to stabilize the foreign exchange rate of the Chinese dollar, the National Government decided to abolish the silver standard, which was designed in 1928 and decided to nationalize silver and forbid the civil use of silver for stabilizing the foreign exchange rate of Chinese dollars. For the details of the stabilization of foreign exchange, see section 4.5.3.5 in Chapter 4.

[312] For the currency reform in 1935, see A. Young (1971, pp. 215-261, pp. 279-280), Shiroyama (2008, pp. 183-185), and J. Zhu, 2012 (pp. 371-399).

Young illustrated that the direct cause of the nationalization of silver was the newly adopted "flexible export duty," through which the National Government started to levy silver.[313] Through this measure, the previously free exchange through silver was canceled, and the export tax was no longer in silver so that people can exchange foreign currency more freely due to the policy consideration. Young also argued that it was the flexible export that made people psychologically prepare for the abolishment of the free silver standard.

Young considered that the foreign monetary policies of an American silver purchase had a strong influence on China, which made it more possible for China to make the gold-standard central banking reform, to abolish the silver standard, and to stabilize the foreign exchange rate. Furthermore, Young believed that the Chinese public, the market, and the related foreign countries were all in favor of the nationalization of silver, which laid the foundation for the reform of the Central Bank.

In addition, commenting on the result of the nationalization of silver and the silver selling policy, Young praised that this policy helped China stabilize its foreign exchange rate. He also praised that as China did not link to either the US dollar or the British pound because of the silver selling policy, the exchange rate of the Chinse dollar did not suffer from the fluctuation of the exchange rate between the US dollar and the British pound. Young said,

> "China had stable rates of foreign exchange, firmly maintained by the Central Bank. […] China carefully avoided a link to either the dollar or the pound. After dollar-sterling rates fluctuated, the Central Bank widened the spread of rates to avoid having to tie to one or the other." (A. Young, 1971, p. 280)

[313] See A. Young (1971, p. 279).

Thus, for Young, by connecting with the precious metals and stable exchange rates, the new Chinese fiat money Fabi could be stabilized. Furthermore, Young argued that there was a short-term effect that the monetary reform had, pointing out that the reform helped China recover its economy and build a good relationship with the related foreign countries for acquiring financial aid. He said,

> The immediate effects of the reform were highly favorable in clearing the war for economic recovery and accelerated progress, increased foreign trade, and coinage reform. In internal affairs, the government's ability to use generally accepted banknotes for expenditures all over the country gave it a great advantage over regional dissenters who had no such opportunity. Broadly, the success of the reform gave the government greater strength and prestige both at home and abroad. (A. Young, 1971, pp. 281-282)

Moreover, Young believed that there were also two long-term effects which the monetary reform supported by the 1934 US Silver Purchase Act. The first long-term effect was that Japan increased its hostility toward China and the United States, which made Japan accelerate its invasion of China. As we have briefly demonstrated in section 3.5.2.3, the US Silver Purchase Act caused not only the depression of Chinese economy and artificial price deflation, but also the sudden change into the fiat currency system in 1935, which was just two years after the silver standard currency reform in 1933. The second long-term effect was price inflation caused by the monetary reform from 1927 to 1937. [314] Young argued that although the reform helped China stabilize the currency exchange rate and helped China's fight against Japanese aggression by adopting a fiat paper money system, price inflation, expansionary monetary policy, and war expenses made it hard for

[314] See A. Young (1971, p. 282).

the National Government to control the economy after the Second Sino-Japanese War ended in 1945. However, Young also believed that it seemed that the National Government had to choose either the silver standard, which would possibly not cause price hyperinflation in the later 1930s and 1940s, or the fiat money system adopted by the 1935 currency reform, which would help China defeat Japan. For Young, the National Government was in a dilemma to choose either of the two options. He said,

> If by staying on a silver basis China had found herself unable to make prolonged resistance to Japan, the later events of World War II and its aftermath would certainly have been different. Whether for better or for worse is an interesting intellectual speculation. (A. Young, 1963, p. 34)

Although Young's words seem neutral, it is clear that for the people of the Republic of China, winning the fight against Japanese invaders and defending the freedom of the ROC was obviously an essential task. Otherwise, China would only fall further into the abyss of fascist dictatorship. Therefore, the adoption of any monetary system must consider the freedom and well-being of the people of the Republic of China, not short-term dogmatic policy recommendations. On another side, due to the ongoing war against the Japanese, it seemed that it was impossible to accomplish neither the planned silver standard nor the gold standard, given that war expenses might be huge. Therefore, the Second Sino-Japanese War basically made the currency reform routes designed in the 1920s and 1930s gradually impossible.

**3.5.2.5 Commentary on the strengthened and integrated governmental financial system under the Central Bank of China.** The fifth of Young's banking thoughts is his commentary on the strengthened and integrated governmental financial

system under the Central Bank of China (CBC).[315] Young argued that the CGU system made the CBC successfully integrate the governmental financial system by 1937, as the fundraising of the National Government was dealt with independently by different governmental institutions. Young praised that the reformed governmental financial system and the CGU system "enabled the Central Bank to improve procedures of foreign debt payments and other payments in foreign currencies, while gaining experience in foreign exchange operations," which made the Central Bank of China able to successfully operate exchange rates even after China abolished the silver standard in 1935.[316]

**3.5.2.6 The theory of what the Central Bank needed in order to be strengthened in 1937.** The sixth of Young's banking thoughts is his theory of what the central bank needed in order to be strengthened in 1937. Young argued that though the CBC planned to become a complete central bank, there were still two problems that remained in the management of the Central Bank of China in 1937.

Young's first concern was that the CBC was not successfully controlling the supply of money and the supply of credit. For Young, a real central bank should have the ability to constrain the supply of its currency. Thus, from Young's perspective, the Central Bank of China should improve its ability to control the money supply instead of letting other government and private financial institutions issue the currencies without the permission of the CBC.[317] In Chapters 5 and 6, we demonstrate that the Central Bank of China did not control the issuance of currency well, which led to price inflation during the Second Sino-Japanese War and the Chinese Civil War. Especially during the Civil War, the expansionary monetary policy and price inflation had a devastating impact on

[315] See A. Young (1971, pp. 283-285).
[316] See A. Young (1971, p. 283).
[317] See A. Young (1971, p. 283).

the economy of the Republic of China. It paved the way for the Communist Party to usurp the power of Mainland China.

Young's second concern was that the CBC was over-involved in supporting and financing the National Government, which was "continuously in deficit."[318] In this sense, Young argued that the CBC should be more independent and not use too much of its monetary resources to over-support the National Government. In chapter 2, we demonstrated that one of the goals of the Kemmerer Commission for establishing a stable central bank was to keep its independence. However, until 1937, after 10 years of management, the CBC was still deeply involved in government management and could not keep its monetary policy independence. However, we argue that it is difficult to guarantee the independence of any central bank during a war. The government will always take various measures to require the central bank to issue more currency and to meet the government's wartime needs, which leads to price inflation and distortion of the economy.[319]

**3.5.2.7 The Theory of Establishing a Central Reserve Bank.** The seventh of Young's banking thoughts, which replicated Young's theory of what the central bank needed to be strengthened, is his theory of establishing a central reserve bank.[320]

The first aspect of Young's theory of establishing a central reserve bank was to provide more liquidity of credit from the central banking system. Young and other monetary specialists argued that though the reduced reserve rate would cause price

[318] See A. Young (1971, p. 283).
[319] For the theory of war and wartime central banking expansionary monetary policy and price inflation, see Salerno (1995).
[320] See A. Young (1971, pp. 273-276, pp. 283-285), J. Zhu (pp. 371-398), and Shiroyama (2008, pp. 168-199).

inflation, the result would be "profitable to the banks."[321] They planned to change the old reserve rules of 60% silver reserve against 40% securities into the new rules of 40% reserve against 60% securities plus deposits.

The second aspect of Young's theory of establishing a central reserve bank was to let the CBC monopolize the currency issuance. For Young and other monetary specialists, providing more liquidity of credit from the central banking system was just one part of strengthening the Central Bank of China, another part for enhancing the role of the Central Bank was to let it monopolize the currency issuance. They had planned that the Central Bank of China should monopolize the issuance of money before 1937. Still, as the "other government banks were reluctant to give up the issue privilege," the plan was extended for another two years.[322] However, as Young argued, because of the conflicts between the CBC and other government banks, and because of the complicated situation during the war, the Central Bank of China's currency monopolization was delayed until 1942.

The third aspect of Young's theory of establishing a central reserve bank was to control government borrowing from the Central Bank of China. Young and other monetary specialists argued that the National Government should be financially supported "by selling securities paid for from the savings of the republic rather than by Central Reserve Bank Credit," which would make the CBC more independent and would allow for the CBC to control price inflation.[323] This proposal implies that the state would be financed with public debt. However, Young and his colleagues also planned to let the CBC temporarily "finance current needs up to one-fourth of the previous fiscal year's

[321] See A. Young (1971, p. 283).
[322] See A. Young (1971, p. 283).
[323] See A. Young (1971, p. 283).

revenue," which made it also possible for the National Government to get the financial support from the Central Bank of China flexibly.[324] Empirically, Young argued that though there was pressure to overuse the central banking credit to support the National Government, the financial system was stabilized and would not be over-used, which also led to the improvement of revenues. Hence, for Young, China needed to construct an excellent monetary and credit system. Young said,

> Certainly the pressures would have been strong for excessive use of central bank credit, endangering in time the stability of the currency, …, [b]ut in the first half of 1937, revenues were improving with economic recovery and stabilization of the public finances was within reach. (A. Young, 1971, p. 284)

**3.5.2.8 Commentary on the positive achievements of the modernization of private banking institutions from 1927 to 1938.** Young also had positive comments on the accomplishments of the modernization of private banking institutions from 1927 to 1928.[325] Young argued the spread of modern-style Chinese and foreign banks throughout China increased savings in the banking system. With the help of stable economic conditions and economic growth, banknote circulation and bank deposits grew a lot, which made it possible for private banks to support the development of the essential enterprises. He said,

> The sixfold growth of note circulation and threefold growth of bank deposits during the prewar decade mostly reflected greater use of modern financial instruments and growth of the economy. […] The Chinese and foreign banks

[324] See A. Young (1971, p. 283).
[325] See A. Young (1971, pp. 262-275, pp. 284-285).

were able to finance reasonably well the needs of the more important enterprises engaged in production and in domestic foreign trade. (A. Young, 1971, p. 284)

However, although Young's plan advocates market prices to determine bank credit conditions, this is obviously contradictory to the requirement he emphasized earlier to strengthen the central bank's currency issuance. If local banks can decide their own interest rates and savings, then the role of central banks will be weakened. Additionally, Young also argued that the collaboration between the National Government and the private banks "provided a most important means to finance the government's urgent needs" while it was trying to unify China and develop its own revenue system.[326] When the National Government was fighting against inner-separatists (i.e., the CCP warlords) and the Japanese, there was waste and corruption and capital was diverted from private production and trade. However, private banking support for the government could have helped China establish better and more stable conditions for progress in the future. Young argued,

> [The private-banking support for the government to put down subversive movements and prepare to confront Japanese aggression] were, in principle designed to lead a situation in which production and trade would have better opportunity to progress. … [T]he end result in greater public order unity, and in clearing the war for financial and economic reforms, justifies on the whole the general politics followed. (A. Young, 1971, p. 284)

Therefore, although Young did not have a more compelling argument for the relationship between local banks and central banks, he was aware of the importance of local banks in

[326] See A. Young (1971, p. 284).

serving local finance. At this point, he and the Austrian school's theory of decentralization of knowledge are consistent.[327]

**3.5.2.9 Commentary on the Adverse Problems of the Banking Institutions From 1927 to 1937.** The ninth of Young's banking thoughts is his commentary on the negative problems of the banking institutions from 1927 to 1937. The first problem Young described was that the growth of Chinese modern-style private banks had a crowding-out effect on the provisional and native banks. The new banking system gradually made the local banks and other financial institutions lose their living space. For more about the reform of regional currencies and the decrease of traditional native banks, see section 4.5.3.9 in Chapter 4. Young argued that the decline of the native banks reduced the credit for the "numerous small traders and producers who were not in a position to obtain credit at a modern-style bank."[328]

The second problem Young described was the underdevelopment of banking credit in rural areas. He claimed that from 1927 to 1937, China had the problem of "the undue concentration of banking facilities in the treaty ports and lack of adequate rural productions."[329] Young also argued that even in the use of banking credit in rural areas, more credit was usurious and was used for personal needs rather than "financing production and improvements."[330] And the personal needs were also for dealing with the loss from the robbery by the military and from the stealing. Young said,

[327] For more about the theory of impossibility of central planning economic calculation and the subjective, creative, dispersed, and tacit qualities of information. See Mises (1949/1998), Hayek (1945), and Huerta de Soto (1992/2010).
[328] See A. Young (1971, p. 285).
[329] See A. Young (1971, p. 285).
[330] See A. Young (1971, p. 285).

> Rural loans were commonly […] for personal needs, such as to tide over the period from late inter when food stock ran out until the new crops were ready. The personal needs were also for funerals, weddings, and in such emergencies as looting by troops or bandits. (A. Young, 1971, p. 285)

The third problem Young described was that "the commercial banks were undercapitalized and often illiquid."[331] With the help of Young and other monetary specialists, the National Government made two plans to solve the banking problem of under-capitalization and liquidity. The first plan was to establish an institution for solving the heavy mortgage burdens on commercial banks. The second plan was to improve the situation of agricultural credit in rural areas, which was claimed by Young as the "prime importance" as people were becoming more "receptive to communism" because of the over-use of usury and exploitation from local military and thieves.[332] However, Young sadly argued that the outbreak of the Second Sino-Japanese War in 1937 prevented the fruition of "the plans to improve the credit system, by the creation of the Central Reserve Bank and of agencies for the mortgage and rural credit."[333] From the analysis in the following Chapter 4 to Chapter 6, we argue that it is not easy to establish a central reserve bank under the complex background of continuous foreign and civil wars. The idea of establishing a central reserve bank eventually failed in mainland China with the victory of the 1949 Communist Revolution.

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[331] See A. Young (1971, p. 285).
[332] See A. Young (1971, p. 285). Chinese communism gradually began to develop in the rural direction after 1935, and the Chinese Communists successfully used the rural platform to develop and strengthen their influence. For more about the economic activities of the Chinese Communist Party from the 1920s to 1949, see section 4.2.1 in Chapter 4, section 5.2.1 and section 5.5.13 in Chapter 5 and section 6.2.1 in Chapter 6.
[333] See A. Young (1971, p. 285).

In general, Young argued that the monetary reform from 1927 to 1937 made mainly by China itself and partly by the assistance of related foreign countries was "striking," which brought China and other associated countries a "great benefit" in the transformation and modernization process of the currency system.[334] However, he also argued that more reform should be made after 1937 as the gold standard was not achieved before this year. Furthermore, Young also argued that though the Central Bank of China was a central bank, it still was not a real central bank in 1937, as it could not successfully control the supply of currency and it was deeply involved in financially supporting the National Government that was constantly in deficit.

## 3.5 Conclusion

As a member of Kemmerer's western monetary specialists' group for China, who also influenced the decision-making by Generalissimo Chiang Kai-shek and the Chinese National Government, along with T. V. Soong and H. H. Kung and other western monetary specialists, Young's argumentations on banking institutions are crucial and influential for the establishment of China's first modern central bank in 1928. To understand the performance of China's first modern central banking institutions from 1927 to 1949, this chapter has systematically reviewed Arthur N. Young's theories and comments on the establishment of China's central banking institutions during the Nationalist rule from 1927 to 1949, especially his economic and monetary theories from 1927 to 1937.

In section 3.2, we provide the methodology and description of the investigation process of Young's academic works related to China's central banking from 1927 to 1937.

[334] See A. Young (1971, p. 277, pp. 280-281).

The originality of the research in this chapter is that we visited the original archive of Young's research on China's economic issues kept by the Hoover Institution at Stanford University. At the Hoover Institution, we extensively researched and read Young's original manuscripts on China's economic subjects, as well as his high-level telegrams with US and Chinese governments. We found that Young remarkably recorded and sorted out almost every detail of his work in China. We concluded that Young's research on China was seriously and cautiously made by evidence (especially the first-hand evidence of governmental data, news reports clippings, and telegrams, etc.) and by his academic thoughts.

In section 3.3, we reviewed Arthur Young's biography, who was a specialist in central banking and finance. Young's interest in economics began when his father enlightened him at the age of 15. At that time, Young began to pay attention to political and economic affairs. It can be said that this laid a solid foundation for his future career as an economist and diplomat. As a senior student graduating with a Ph.D. in economics from Princeton University, Young worked with "Money Doctor" Edwin Kemmerer and came to China as an essential member of the 1929 Kemmerer Commission for China to analyze and study China's currency and economic issues, making policy recommendations to the Chinese National Government. Kemmerer was essentially his "teacher" and "colleague" who influenced on Young's economic thoughts. Furthermore, we also found that Young not only came to China as an international student proficient in Spanish, but also visited Latin American countries and Spain to conduct research on their economic affairs. In addition, Young visited some European and Asian countries such as Poland and Vietnam to help them carry out economic and monetary policies. It can be

said that since Young has detailed practical investigations and studies on the economies and monetary issues of various countries, he should also be called "Money Doctor." Moreover, we argue that as Young also participated in talks with politicians of various countries (such as Generalissimo Chiang Kai-shek) and made policy recommendations to various countries. He was also an outstanding diplomat.

In section 3.4, we reviewed Young's General Comments on the modernization of Nationalist China. Young believed that the 1949 Communist Revolution interrupted the pace of China's modernization, especially the reform of the Chinese National Government in various political and economic fields before the outbreak of the Second Sino-Japanese War in 1937. For him, it was a pity that the Communist Revolution interrupted the modernization of Mainland China. He also regretted that Mainland China entered totalitarianism and Communism after 1949. Furthermore, Young also rightly pointed out that the Chinese Marxists ignored the outstanding achievements of the Chinese National Government before 1937: ending the melee of local warlords, establishing a unified government that represented China internationally, and promoting economic development. At the same time, Young also pointed out the destruction of these achievements caused by the Second Sino-Japanese War. Such a relatively comprehensive evaluation is obviously much fairer than the one-sided assessment of the National Government by Chinese Marxists. Hence, Young's general opinions on the government administration performance from 1927 to 1937, the Nanjing Golden Decade, was positive, despite that he believed that corruption and the inefficiency of the Chinese government were the two biggest problems in China at that time.

For the corruption issue, we argue that Young had a deep understanding of China's politics and corruption. He did not have a superficial understanding of China's political traditions as a foreigner. From this point of view, Young had a deep understanding of Chinese politics. Furthermore, he also argued that the widespread corruption of the Chinese government only affected military and backward areas. Therefore, although corruption was a problem, it was not a decisive issue that lead to the failure of the National Government. Young considered that the corruption problem of the Chinese National Government was much lighter than that of other countries he had worked in. Here we see that Young not only had a profound understanding of corruption in traditional Chinese politics, but also compared Chinese political corruption to other countries he worked in. This view illustrated his comprehensive knowledge of corruption and his international perspective as a diplomat.

Regarding Chiang Kai-shek, Young made a high assessment. He first affirmed Chiang Kai-shek's integrity. Then Young argued that Chiang had to rely on the corrupted officials who were loyal to him to govern. Therefore, he argued that the effectiveness of Chiang Kai-shek's leadership was affected by the dual factors of Japanese aggression and the CCP rebellion. It can be seen that Young had a profound understanding of the reasons for the failure of the National Government. He did not superficially push the responsibility to Chiang Kai-shek alone but analyzed the historical conditions at that time.

Moreover, Young also affirmed the National Government's reforms for the country before the outbreak of the Second Sino-Japanese War in 1937. Young argued that the relatively stable situation in the Nationalist ruling area and the strong economic recovery and growth in the mid-1930s, and the helpful foreign advice, aids, investment,

and trade were the two important figures of the economic constitution during the Nanjing Golden Decade. Along with the self-improvement of the Chinese people, Young pointed out that foreign advice, aid, investment, and trade also vitally helped China develop itself from 1927 to 1937. But which factor was most important for China's economic recovery and growth from 1927 to 1937? Young claimed it was Chinese people themselves who mainly achieved this performance. Young actually gave high praise on China's achievements before the Second Sino-Japanese War, by not only comparing the less developed countries in the prewar time but also after the Second World War. However, Young pointed out that the support of foreign credit also aided China's economic development, which illustrated China's external debt problem from another aspect. The Chinese were doing their best to pay foreign debates during the Nanjing Decade.

In section 3.5, we presented Young's central banking thoughts from 1927 to 1937. In the late 1920s, Young argued that the Chinese government needed to solve the problem of chaotic monetary circulation and the choice between staying with the silver standard or moving toward the gold standard. To improve the economy and the monetary system of China, the National Government started to invite both Chinese and foreign monetary specialists to solve their problems. With the help of, and based on the suggestions of, the Kemmerer Commission, whom Young worked for in July 1928, the National Financial Conference decided to adopt the gold standard as the ultimate currency standard of China. Before the adoption of the gold standard, the Conference decided to adopt the Silver Dollar as the basic currency unit instead of the silver taels in the transition between the old and diverse currency system, and the future gold standard. After decades of debating and settling the new currency standard, on October 6, 1928, the

National Government finally established the Central Bank of China, which started its operation on November 1, 1928. With the C$20 million in capital provided by the National Government, the Central Bank of China "aimed to have the right to issue banknotes, to mint and circulate coins, to deal in foreign exchange, and to handle the issuance and service of public loans." Thus, in nature, this central bank was entirely a state bank. In the beginning, the central bank planned to have a 60% reserve in metals (silver, or gold coin, or bullion), and the remaining 40% reserve in government bonds or commercial papers. Young praised that the National Government clearly saw the necessity of building a new currency system to "end the chaotic medium and bring the standard of value," which would also foster a stable relationship with influential western countries at that time. [335] However, Young also pointed out that as the National Government was facing urgent fiscal problems, the fundamental reform of the monetary system was not practiced in 1928, and instead was deployed in the later 1930s.

In the 1930s, Young continued working for the Chinese National Government. Young argued that China should adopt the Customs Gold Unit System to transition and unify the currency unit to the silver standard. Due to Young and other economists' suggestion, gold only existed as a CGU exchange rate unit, so gold was an imaginary standard for the CGU. At the same time, silver was the actual currency standard. However, the US Silver Purchase Act of 1934 disrupted the previous planning of CGU by the Chinese government and currency experts such as Young. Thus, Young provided his theory of how to stabilize the silver standard through an American silver purchase, while also pointing out that the US silver purchase could cause economic fluctuation. However, the facts were entirely contrary to Young's judgment. After the Silver Purchase Act was

[335] See Young (1971, p. 277).

passed in 1934, the Chinese economy experienced depression and price deflation. Moreover, this kind of price deflation was not a natural price deflation that the Austrian school believes, but an artificial phenomenon related to the US acquisition of silver.[336] In June 1934, the US Congress passed the Silver Purchase Act, which authorized the US government to purchase foreign silver with state machinery. Influenced by the Act, at the end of 1934, the world price of silver saw year-on-year rises of 26.7%, and in May 1935, the world price of silver reached a peak of US$0.81 per ounce.[337] Banks in Shanghai stocks fell from C$563 million at the end of July to C$335 million at the end of 1934.[338] The interest rate of native banks rose from around 6 percent to 16% per annum. Small banks and small businesses were also facing bankruptcy. On February 4, 1935, the Central Bank stated that seven small banks, five other financial companies, 58 factories, and 99 stores were facing business failure, while the Shanghai Stock Exchange also plummeted nearly 50% in 4 years since its high in mid-1931.[339] This caused national and local governments to also suffer financial woes. Thus, Young and the other economists (i.e., T. V. Soong and H. H. Kung) who worked for the National Government proposed the abolishment of silver standard and adopted fiat money currency in 1935 as a substitution. In 1935, to stabilize the foreign exchange rate of the Chinese dollar, the National Government decided to abolish the silver standard, which was designed in 1928, and decided to nationalize silver and forbid the civil use of silver for stabilizing the foreign exchange rate of Chinese dollars. Commenting on the result of the nationalization of silver and the silver selling policy, Young praised that this policy helped China

[336] For the Austrian school's argumentation for a healthy price deflation after the depression of the business cycle, see Bagus (2015).
[337] See J. Zhu (2012, p. 358).
[338] See A. Young (1971, p. 221).
[339] See A. Young (1971, p. 221).

stabilize its foreign exchange rate. Thus, for Young, by connecting with the precious metals and stable exchange rates, the new Chinese fiat money Fabi could be stabilized. Furthermore, Young argued that there was a short-term effect that the monetary reform had, pointing out that the reform helped China recover its economy and build a good relationship with foreign countries for receiving financial aid. Young argued that although the reform helped China stabilize the currency exchange rate and helped China's fight against Japanese aggression by adopting a fiat paper money system, price inflation, expansionary monetary policy, and war expenses made it hard for the National Government to control the economy after the Second Sino-Japanese War ended in 1945. However, Young also believed that the National Government had to choose either the silver standard, which would possibly not cause price hyperinflation in the later 1930s and 1940s, or the fiat money system adopted by the 1935 currency reform, which would help China defeat Japan.

The commentaries of the strengthened and integrated governmental financial system under the Central Bank of China (CBC). The theory of what the central bank needed to be strengthened in 1937. Young's first concern was that the CBC was not successfully controlling the supply of money and the supply of credit. For Young, a real central bank should have the ability to constrain the supply of its currency. Thus, from Young's perspective, the Central Bank of China should improve its ability to control the money supply instead of letting other government and private financial institutions issue the currencies without the permission of the CBC. Young's second concern was that the CBC was over-involved in supporting and financing the National Government, which was "continuously in deficit." In this sense, Young argued that the CBC should be more

independent and should not involve too much of its monetary resources to over-support the National Government.

One of the important theories of Young was his theory of establishing a central reserve bank. Young and other monetary specialists argued that though the reduced reserve rate would cause price inflation, the result would be profitable to the banks. They planned to change the old reserve rules of 60% silver reserve against 40% securities into the new rules of 40% reserve against 60% securities plus deposits. The second aspect of Young's theory of establishing a central reserve bank was to let the CBC monopolize the currency issuance. For Young and other monetary specialists, providing more liquidity of credit from the central banking system was just one part of strengthening the Central Bank of China. Another part for strengthening the role of the Central Bank was to let it monopolize the currency issuance. They had planned that the Central Bank of China should monopolize the issuance of money before 1937, but due to the outbreak of the Second Sino-Japanese War, this plan was never implemented completely. The third aspect of Young's theory of establishing a central reserve bank was to control government borrowing from the Central Bank of China. Young and other monetary specialists argued that the National Government should be financially supported "by selling securities paid for from the savings of the republic rather than by Central Reserve Bank Credit," which would make the CBC more independent and would allow for the CBC to control price inflation.

Young also provided commentary on the adverse problems of the banking institutions from 1927 to 1937. The first problem Young described was that the growth of the Chinese modern-style private banks had a crowding-out effect on the provisional and

native banks. However, we argue that although Young's plan advocates market prices to determine more bank credit conditions, this is obviously contradictory to the requirement he emphasized earlier to strengthen the central bank's currency issuance. The second problem which Young described was the underdevelopment of banking credit in rural areas. The third problem which Young described was that the commercial banks were undercapitalized and often illiquid.

In general, Young argued that the monetary reform from 1927 to 1937 made mainly by China itself and partly by the assistance of related foreign countries was striking, which brought China and other associated countries a great benefit in the transformation and modernization of the currency system. However, he also argued that more reform should be made after 1937 as the gold standard was not achieved before this year. Furthermore, Young argued that though the Central Bank of China was a central bank, it still was not a real central bank in 1937 as it could not successfully control the supply of currency and was deeply involved in financially supporting the National Government who was constantly in deficit. We argue that although Young's central bank theory contradicts his views on the development of local banks, and for the Austrian school, the spontaneous free banking system of non-central banks will have higher efficiency. From a practical perspective and empirical evidence, Young and other national currency experts did successfully implement the Silver Dollar standard of 1933. The failure of the fiat money reform in 1935, as Young himself said, had to do with the outbreak of the Second Sino-Japanese War and the subsequent Communist Party rebellion from 1945 to 1949. Since Young's analysis provides a large amount of theoretical and empirical data, in the following analysis from Chapter 4 to Chapter 6, we

use a large number of his outstanding works as important archives for the theory of China's central banking system from 1927 to 1949 to make a more systematic evaluation.

# Chapter 4

## Central Bank, Sliver Standard and Fiat Money

**Abstract**: This chapter studies how China established its first modern central banking system from 1927 to 1937, filling a gap in the previous international research on the entire process of establishing China's first modern central bank. In Chapter 1, we discussed that China had more than two thousand years of free banking, and silver tael was used as a main currency standard since the 15th century. However, the three central banking reforms that happened in the 1920s and 1930s fundamentally changed the status of China's banking system. China, a country of using traditional and diverse metal standards, eventually established its first modern central bank in 1928. In 1933, the country abolished the traditional silver tael standard, establishing its Silver Dollar standard, which was designed by the Sino and Western financial specialists of the Nationalist Government based one a decade discussion. Initially, due to the 1929 gold standard plan proposed by the US financial specialist E. W. Kemmerer, the Silver Dollar standard would become a transition between the old silver tael standard and the future gold standard. However, due to the fragile internal financial condition and the 1934 US Silver Purchase Act, it became impossible for China to have sufficient silver to establish its Silver Dollar Standard, not mention the gold standard given that China was not a country that produced this scarce metal. Instead, from 1934 to 1935, after 3 rounds of Sino-Western negotiations, China was going to implement a fiat money system, Fabi, whose currency value was based on its exchange rates of the US dollar and the British pound. The reform was taken in November 1935, which ended China's two-thousand-year history of using metals as currency standards. The relatively stable political and economic conditions, along with the global trend of establishing a central banking system to strengthen the state power and the national financial system, made the birth of China's first modern central banking system inevitable. Based on first-hand references, the monographs of the authoritative scholars, and the empirical data, this chapter focuses on the study of the history of the establishment of China's first modern central banking institutions, providing an original in-depth synthesis and analysis of China's first modern central banking establishment process.

**JEL Classification:** B2, B53, E42, N15, N25, N45.

**Key words**: China, central banking, free banking, silver standard, Fabi

## 4.1 Introduction

This chapter studies how China established its first modern central banking system from 1927 to 1937. In Chapter 1, we have discussed that China had a more than two-thousand-year history of free banking and silver tael was used as a main currency standard since the 15th century. However, the three central banking reforms that happened in the 1920s and 1930s fundamentally changed the status of China's banking system. China, a country of using the traditional and diverse metal standards, eventually established its first modern central bank in 1928. In 1933, the country abolished the tradition silver tael standard, establishing its Silver Dollar standard, which was designed by the Sino and Western financial specialists of the National Government of the Republic of China (ROC), resulting from a decade discussion. Initially, due to the 1929 gold standard plan proposed by the US financial specialist E. W. Kemmerer, the Silver Dollar standard would become a transition between the old silver tael standard and the future gold standard. However, due to the fragile internal financial condition and the 1934 US Silver Purchase Act, it became impossible for China to have sufficient silver to establish its Silver Dollar Standard, not mention the gold standard given that China was not a country that produced this scarce metal. Instead, from 1934 to 1935, after 3 rounds of Sino-Western negotiations, with the participation of the Sino-Western politicians and economists, such as Soong Tzu-wen, Kung Hsiang-hsi, and A. N. Young, China was going to implement a fiat money system (i.e. Fabi) whose currency value was based on its exchange rates of the US dollar and the British pound. The reform was taken in November 1935, which ended China's long history of using metals as currency standards.

In 1927, the Chinese Nationalist Party (also called Kuomintang according to pronunciation with its abbreviation KMT or CNP) established the National Government of the Republic of China in Nanjing. One year later, its leader, Generalissimo Chiang Kai-shek unified China. The relatively stable political and economic conditions, along with the global trend of establishing central banking system to strengthen the state power and the national financial system, made the birth of China's first modern central banking system inevitable. Based on first-hand references, the monographs of the authoritative scholars, and the empirical data, this chapter focuses on the study of the history of the establishment of China's first modern central banking institutions, providing an original in-depth synthesis and analysis of China's first modern central banking establishment process.

Section 4.2 of this chapter demonstrates the political and economic background from 1927 to 1937. As the political and economic situation was relatively stable during those 10 years, that era is called the "Nanjing Golden Decade" by many scholars. Essential historic events and data will be provided in this section to demonstrate how and why that 10-year history became a Golden Decade. Besides, we will also show in this section that the relatively peaceful environment provided Chinese politicians and economists a sufficient condition to discuss what kind of monetary system China should adopt. Section 4.3 deals the topics of the establishment of China's first modern central bank, the Bank of China. Section 4.4 deals with the 1933 currency reform, a transition from the traditional silver tael standard to the new Silver Dollar standard. Section 4.5 discusses the 1935 fiat money reform. Section 4.6 is the conclusion.

## 4.2 Political and Economic Background, 1927-1937

In this section, we generally demonstrate the political and economic background of Nationalist China from 1927 to 1937. To perceive why the National Government desired to establish a central banking system, it is necessary to understand its historical background. Section 4.2.1 describes the political background from 1927 to 1937. Section 4.2.2 deals with the economic background of this period. Moreover, the relatively relaxed political environment and economic prosperity also provided people a relatively sufficient space to discuss economic policy issues. In the Golden Decade, relevant politicians and economists were providing their opinions and suggestions on how to establish a new banking system in China, especially the modern central banking system, to promote prosperity for the country. Section 4.2.3 deals with this topic.

### 4.2.1 The Political Background: The Establishment of the Nationalist Government

This section reviews the political background from 1927 to 1937, the establishment of the National Government. Section 4.2.1.1 is about a short review of the political background before the establishment of the National Government. Section 4.2.1.2 demonstrates the establishment of the National Government and Kuomintang's practice of Yat-sen's *The Three Principle of the People*.

**4.2.1.1 A short review of the political background before the establishment of the Nationalist Government.** Chinese politics before the establishment of the Nationalist Government was chaotic. As the political, economic, and social crises of the late Qing Dynasty continued erupting, the republicans launched the Wuchang Uprising on October 10, 1911.[340] Wuchang Uprising, as a part of the 1911 Republican Xinhai

[340] For more about the political background before the establishment of the National Government, see Chapter 1 of this thesis.

Revolution, overthrew the Manchurian Qing Dynasty's 268-year rule in the Han majority China. Subsequently, on January 1, 1912, due to *The Provisional Constitution of the Republic of China*, Sun Yat-sen, a republican leader and founder of the Kuomintang, was sworn in as the Provisional President of the Republic of China in Nanjing.[341] In February, Yuan Shikai, Prime Minster of the last modern western-style responsible cabinet of the Qing Dynasty and the leader of Beiyang Army of the court, persuaded Emperor Xuantong and the Qing royal family to abdicate, which marked the suspension of China's attempt to establish a constitutional monarchy. Later, Yuan Shikai moved the Republic of China's capital from Nanjing to Beijing, the former capital of Qing Dynasty in order to control the political situation of the whole China in his hands. In this way, the former military personnel of the Beiyang Army represented by Yuan Shikai began to rule China for 15 years. In 1916, Yuan Shikai announced that he would restore the imperial system, ascend the throne himself as the Emperor of China. His decision was opposed by elites from all walks of life across China. Yuan soon withdrew his plan of the new imperial system, restored the Republic's provisional constitution, and died soon of uraemia in the same year. After Yuan's death, the Beiyang Government was divided. In the early 1917, Duan Qirui, Prime Minister of the Beiyang Government, announced the abolition of *The Provisional Constitution of the Republic of China* and the Congress. Duan's controversial action led to the dissatisfaction of Kuomintang parliamentary members and its leader Sun Yat-sen. On July 17 of the same year, in the south China city Guangzhou, Sun Yat-sen established the Constitutional Protection Junta (also called the Military Government) to restore the provisional constitution which was the predecessor of the later National Government. During the rule of Beiyang Government, the Chinese Communist Party

[341] The Provisional Constitution of the Republic of China is written as "中華民國臨時約法" in Chinese.

(CCP) was established in Shanghai in 1921, gradually becoming an important political force during the period of the Republic of China on the Chinese Mainland. The CCP defeated the democratic elected government of the Republic of China led by the Chinese Nationalist Party during the Civil War from 1945 to 1949 and began a reign of terror of communist and totalitarian over Mainland China for more than 70 years.

**4.2.1.2 The establishment of the National Government and the Nationalists' practice of Yat-sen's *Three Principle of the People*.** China's political situation was gradually stabilizing with the gradual establishment of the National Government. After the establishment of the Military Government, Sun Yat-sun intended to use Guangdong Province as a southern base to restore the Provisional Constitution of the Republic of China.[342] On April 12, 1924, Sun Yat-sen published *The Nationalist Government's Outline for Founding the Nation*, which became one of the important principles of the Kuomintang and its Military Government.[343] Due to this book, China would achieve a constitutional order through the Period of Military Government, the Period of Political Tutelage through the Kuomintang led Party-State, and the Period of Constitutional Politics.[344] To achieve the goal of establishing a constitutional order, at the military level, Sun Yat-sen and his Kuomintang also organized their own army, the National Revolutionary Army, which later became the national military force fighting against the Japanese during the Second Sino-Japanese War (1937-1945).[345] Chiang Kai-shek was nominated as an important military official of the National Revolutionary Army. On May 1924, Chiang was nominated as the Superintendent of Republic of China Military

[342] See X. Li & Z. Li (2011, pp.125-187).
[343] See Y. Sun (1924).
[344] The Period of Military Government, the Period of Political Tutelage, and the Period of Constitutional Politics are written in Chinese as "軍政, " "訓政,", and "憲政" originally.
[345] See C. Wang (2011, p. 283).

Academy, who became the highest military leader of the National Government after Sun Yat-sen's death, also known as "Generalissimo Chiang." In March 1925, Sun Yat-sen died in Beijing when he was negotiating with the Beiyang Government in peace talks.[346] After Sun's death, the peace talks between the Nationalists and the Beiyang Government soon broke down.

In this situation, On July 1, 1925, the Chinese Nationalist Party officially established the National Government of the Republic of China to achieve the Period of Political Tutelage that the political party had promised to the Chinese people.[347] Wang Jingwei was nominated as the first President of the National Government, while the power of controlling the military issues was in the hand of Generalissimo Chiang Kai-shek. In the later Second Sino-Japanese War, Wang and Chiang became political enemies as Wang was leading *his* Nanjing National Government as a puppet regime of the Japanese, being against Chiang Kai-shek's legitimate National Government which withdrew to the southwest city Chongqing (as the Republic of China's wartime capital till now due to the ROC laws) from Nanjing due to the wars.

With the breakdown of the peace talks between the National Government and the Beiyang Government, in July 1926, the National Government began the Northern Expedition to unify China and eliminate the Beiyang Government.[348] On April 18, 1927, the National Government moved its capital to Nanjing. In the same year, the Nationalist Party and the Communist Party, which had originally cooperated in military and political affairs, split. The Communist Party began its military rebellion and gradually controlled

[346] See Luo *et al.* (2011, p. 78-106).
[347] See Luo *et al.* (2011, p. 503-507).
[348] For reference of the Northern Expedition and the establishment of the Nationalist Government, see T. Yang (2011, pp. 341-345, pp. 358-361) and Fairbank & Feuerwerker (1986, p. 10, pp. 111-115).

Mainland China after 1949. In 1928, the Northern Expedition of the National Government succeeded, ending the rule of the Beiyang Government in north China and unifying the whole China officially. In the same year, the National Government promulgated *The Provisional Constitution for the Period of Political Tutelage of the Republic of China*, officially starting to implement the Kuomintang led Party-State period that Sun Yat-sen had designed.[349] After the Northern Expedition, the Nationalist Government controlled most of the Chinese Mainland except some small areas (only 7 of 18 provinces) that were mostly occupied by Communist Party and the Japanese (especially in Manchuria).[350]

The following years were Chiang Kai-shek's leadership of the ROC National Government. Qiang became the *de facto* head of the National Government after it moved its capital to Nanjing in 1927. He served as President of the National Government from October 1928 to December 1931. From December 1931 to May 1946, he served as Chairman of the Military Commission of the National Government. On April 1938, he began serving as the Director-General of the Kuomintang. On May 20, 1948, Chiang Kai-shek was elected as the President of the Republic of China by the First National Assembly, becoming the first head of state in Chinese history to be democratically

[349] *The Provisional Constitution for the Period of Political Tutelage of the Republic of China* is written as "中華民國訓政時期約法" in Chinese.

[350] See Fairbank & Feuerwerker (1986, p. 150). In the middle and late years of the Nanjing Golden Decade, the northern territory of the Republic of China was gradually invaded by the Japanese. Japan launched the Mukden Incident in 1931, and gradually occupied Northeast China (Manchuria) in the following months. In 1932, the Japanese supported the establishment of Manchukuo (1932-1945) in northeast China. The investigation by the League of Nations identified it as the puppet regime of the Japanese. Therefore, some scholars believe that the Sino-Japanese War broke in 1931 and not 1937 (Gordon, 2003, p. 189). For a detailed description of this history, see Fairbank & Feuerwerker (1986, pp. 492-519). For more about the political and economic situation in Japan before the Second Sino Japanese War, see Chapter 11 of A. Gordon's *A Modern History of Japan: From Tokugawa Times to the Present* (2003, pp. 182-203). For wartime Japan, see Chapter 12 of the same book (pp. 204-225).

elected in a manner similar to the Electoral College of the US presidential election.[351] After the defeat of the Civil War in 1949, Chiang retired to Taiwan, serving as the Director-General of the Kuomintang and the President of the Republic of China until his death in Taipei on April 5, 1975.

The decade from 1927 to 1937 were a rare decade of relative peace during the era of the Republic of China on the Chinese Mainland. That period from 1927 to 1937 was called "the Nanjing Golden Decade."[352] As a result, the National Government was able to pursue its policies. The government and the Kuomintang adhere to Sun Yat-sen's *The Three Principles of the People*: *Chinese Nationalism*, *Government by the People* and *Minshengism*. *Chinese Nationalism* stands for equality among all ethnic groups in the Republic of China and the use of traditional Chinese morals as the basis for peace among all the Chinese ethnic groups.[353] *Government by the People* is about Sun Yat-sen's proposition of the separation of the constitutional five powers, namely, the separation of administrative, legislative, judicial, examination, and audit political institutions.[354] This political system was first initiated in 1925 when the National Government established. In 1946, the Constitutional National Assembly, which was elected through democratic procedures, adopted *The Constitution of the Republic of China* based on Sun's separation of the five powers.[355] After the government of the Republic of China retired to Taiwan in 1949, it continued to use the basic structure of this constitution till now. It is worth mentioning that *The Constitution of the Republic of China* and its amendments currently

[351] In 1996, the Republic of China on Taiwan elected Lee Teng-hui as the President of the Republic of China through direct election of the people. In this way, the Republic of China fully realized its constitutional system in its Free Area.
[352] See Fairbank & Feuerwerker (1986, pp. 116-167) and D. Ma (2012).
[353] See Y. Sun (1924/1927c).
[354] For Sun Yat-sen's entire theory of *Government by the People*, see Y. Sun (1924/1927a).
[355] For more about the adoption of the 1946 Constitution of the Republic of China, see section 6.2.1 in Chapter 6.

used in Taiwan still express the claim that Mainland China is the territory of the ROC. Therefore, once the Chinese Communist Party regime collapses, the Republic of China on Taiwan still has the constitutional possibility and responsibility to regain the Mainland China.

*Minshengism* is about Sun Yat-sen's proposals of economic policy, which can be literally translated as "the People's livelihood."[356] Sun Yat-sen's economic policy was neither a completely laissez-faire economic policy nor a Marxist communism proposal. In his view, a market economy can certainly promote economic development, but it requires state intervention to control capital and collect taxations (such as the land tax), avoiding a widening of the gap between the rich and the poor.[357] Thus, the establishment of the system of state-owned controlled by state capitals is an important tool for achieving social equality in Sun Yat-sen's thought. In the discourse of *Minshengism*, although Sun Yat-sen had no systematic banking theory, he emphasized the necessity to establish a modern central bank system for China. He advocated the introduction of foreign capital to develop the Chinese economy and a national central bank could play a role in financing the process of economic opening and development.[358]

Though Sun Yat-sen did not proposal any systematic theory of establishing a modern central banking institution, he still argued that it is necessary to issue banknotes to solve the financial shortage of the National Government. While he proposed that although the banknote reserves do not necessarily have to be 100% reserve, when the government receives tax revenue, the previous issued banknotes that were used for supporting the government expenditure should be destroyed so that there is no price

[356] For Sun Yat-sen's entire theory of *Minshengism*, see Y. Sun (1924/1927b).
[357] See Y. Sun (1924/1927b, pp. 30-35).
[358] See Tamagna (1942, pp. 48-49) and Y. Sun (1924/1927b, pp. 32-35).

inflation which distorts the economy.[359] Thus, Sun supported a 100% reserve system and opposed monetary inflation and price inflation. Sun's theories of 100% reserve and anti-inflation thought were accepted by the National Government when it designed the central bank system in the late 1920s. However, we will show in later analysis in Chapter 5 and Chapter 6 that although the Chinese and Western financial and economic experts agreed in principle with Sun Yat-sen's theories of 100% reserve and anti-price inflation argumentation, Generalissimo Chiang Kai-shek did not follow these two principles during the Second Sino-Japanese War and the Chinese Civil War, which eventually led to price hyperinflation, causing the collapse of the Chinese economy during the Communist Revolution. In section 4.3.1, we demonstrate the Nationalists' early central banking experiment from 1924 to 1927 in details. In the next section 4.2.2, we review the economic background of the Nanjing Golden Decade, 1927-1937.

### 4.2.2 The Economic Background: The Nanjing Golden Decade, 1927-1937

The relatively stable domestic political stability provided the necessary condition for the formulation of relatively laissez-faire economic policies and economic development, being conducive to entrepreneurship and economic development. During the Golden Decade, China's industries developed rapidly. Section 4.2.2.1 discusses this topic. Section 4.2.2.1 demonstrates the general background of the agricultural industry.

**4.2.2.1 The development of industries.** During the Golden Decade, China's industries were developing rapidly. At the same time, investment, commodity size, market size, and imports and exports were all growing. Transportation and urbanization were also evolving. Despite the limited data at that time, we can still find the promising

[359] For more about Sun Yat-sen's proposal of establishing banknote system, see Y. Sun (1912/1982).

phenomenon of China's economic growth during the Nanjing Golden Decade. However, relative to the development of industries, during this period, China's agricultural development lagged. About 50% of Chinese farmers were tenant farmers, who needed to pay their landlords up to 37.5% of rent. The government hoped that farmers would be able to purchase the lands of their landlords to free them from attachment to their landlords. Unfortunately, the land reform failed because the government was not determined to reform the land system and were hindered by the landlord class. Section 1.2.1.1 is about the rapid development of various industries. Section 1.2.1.2 is about the situation of agricultural industry during the Nanjing Decade.

***4.2.2.1.1 Rapid development of various industries.*** Despite the lack of comprehensive statistics, existing research has revealed that the Chinese industries were developing very rapidly during the Golden Decade. In the 1920s, the development of handicraft industry reached its peak and its output value was comparable to that of agricultural products.[360] Knitting, silk weaving, dyeing, wool textile, and other industries continued to develop in the 1920s and 1930s. A number of new industries also emerged, such as the electrical appliance industry, the motor industry, the fuel industry, the alcohol industry, and the saline-alkali industry. The development of electrical appliance industry and motor industry also led to the growth of handicraft.[361] In the 1930s, 93.5% and 89.6% of Chinese and foreign-invested industries had profits.[362]

Figure 4.1 below shows the gross value of output (GVO) and net value added (NVA) of China's industries (including Manchuria) from 1927 to 1937. To illustrate the industrial growth of the Golden Decade, we also add the corresponding data of 1912 and

[360] See C. Wu (2001, p. 298).
[361] See H. Huang (2007).
[362] See Z. Chen (2007).

1917 for comparison. Due to incomplete statistics at that time, statistics for other years are unknown. Taking the value of Fabi in 1933 and the corresponding indices as the benchmark units, in 1912, China's GVO was only C$119.7 million with its index 11.9. In 1917, the GVO data was only C$268.67 million with its index 26.7. In 1927, the GVO was C$670.1 million with its index 66.6. China's industrial GVO was growing every year since then and reached its peak in 1936, with a GVO of C$1227 million and its index of 122. In 1937, due to the outbreak of the Sino-Japanese War, the GVO index dropped to 96 (C$965.8 million). Nevertheless, China's industrial output value still increased by 44% in 1937 compared with 1927. In terms of NVA data, in 1912, China's NVA was only C$58 million with its index 15.7. In 1917, the NVA data was only C$118.3 million with its index 32. In 1927, the NVA was C$245.1 million with its index 66.3. China's industrial NVA was growing every year since then and reached its peak in 1936, with an NVA of C$499 million and its index of 135. In 1937, due to the outbreak of the Sino-Japanese War, the NVA index dropped to 112.3 (C$415.2 million). Nevertheless, China's industrial NVA still increased by 69.4% in 1937 compared with 1927. Therefore, it can be seen from the above data that the industry in the golden decade indeed achieved a certain growth.

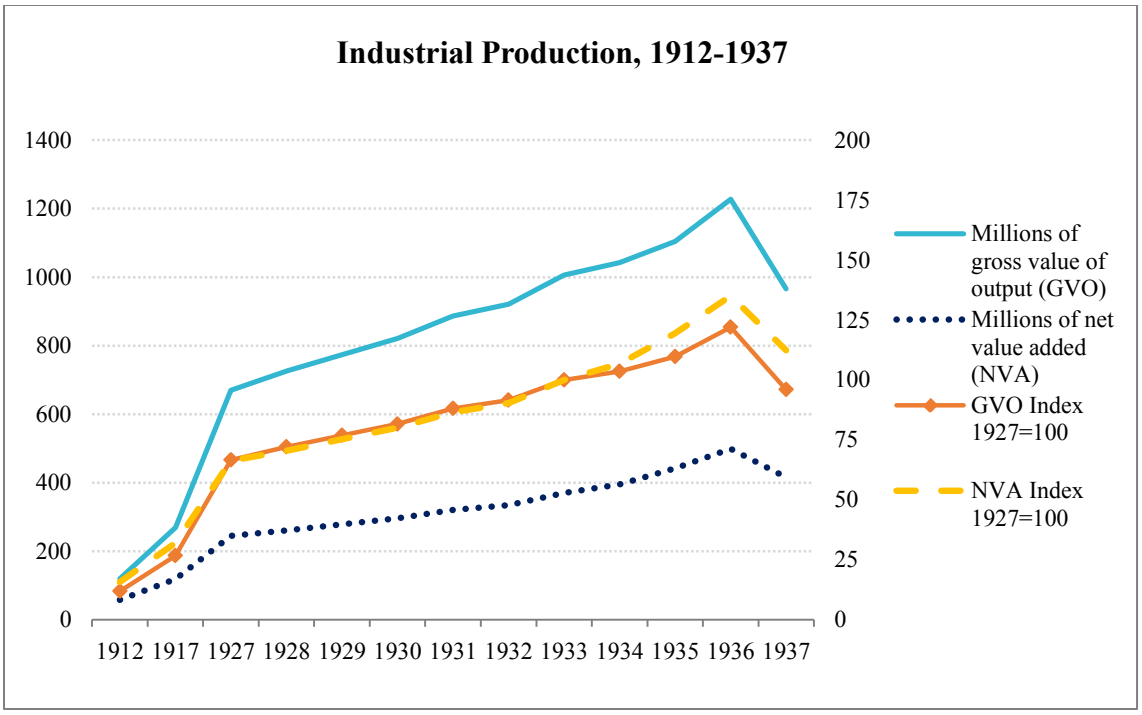


*Figure 4.1* Industrial production from 1912 to 1937.

*Sources*: GVO and NVA along with their indices from 1927 to 1936 are from A. Young (1971, p. 311), GVO and NVA indices of 1912, 1917, and 1937 are from J. Zhu (2012, p. 335).

*Notes*: Young's statistical data is based on 1927 and J. Zhu's is based on1933. We calculate the GVP and NVA data of 1912, 1917, and 1937 and their indices by unifying the statistical data base in 1933. Due to incomplete statistics at that time, statistics for other years are unknown.

***4.2.2.1.2 An Overview of investment, commodity size, market size, and imports and exports.*** During the Nanjing Golden Decade, foreign investment, commodity size, market size, and import and export in China all increased compared to previous periods. From 1911 to 1914, foreign capital invested in China reached 1.021 billion yuan, a proportion of 57.2% of the whole investment in China, which had an average annual growth rate of 5.8%.[363] The period from 1920s to 1930s was the most rapid period for foreign investment growth during the era of the ROC on Mainland China.[364] In 1931, foreign investment reached 242.5 million yuan, of which 1.4 billion was commercial investment, including 8,000 foreign banks, shops, hotels, and even various entertainment venues. Compared with 1920 and 1914, domestic capital investment increased from 1.786 billion yuan to 2.597 billion yuan.

From 1908 to 1920, the annual growth rate of commodities was 10.46%. From 1920 to 1936, the annual growth rate of commodities was 3.6%, of which the annual growth rate of industrial products was 7.55% (excluding price inflation).[365] From 1920 to 1936, China's domestic investment increased from 9.244 billion yuan to 16.806 billion yuan, an increase of 2.7%.[366] From a longer period of time, we can see it more clearly the degree of domestic investment growth in Nanjing Golden Decade. From 1887 to 1922, the annual growth rate of domestic investment was only 1.00% and the growth rate of consumption was only 0.67%. From 1922 to 1936, the annual growth of domestic investment was 1.45%, while the rate of consumption was 3.75%.[367]

[363] See Zheng (2005, p.560).
[364] For data of the foreign investment from 1920s to 1930s, see J. Zhu (2012, p. 334).
[365] See C. Wu (p.2001, 298)
[366] See D. Zhang (2005, p. 125).
[367] See D. Zhang (2005, p. 220).

Similarly, imports and exports were growing. Despite the lack of statistics from previous periods, China's exports tripled in the first 30 years of the 20th century, while Japan only doubled, with India having almost no growth.[368] Regardless of the Manchuria region, China's import quota was C$1,298 million in 1927 and the highest import quota in the period of Nanjing Decade was reached in 1931, which was C$2,002 million, an increase of 54%. The export value in 1927 was C$980 million and in 1929 it reached the highest export quota in the same period, which was C$944 million. The total value of imports and exports increased from C$2,278 million in 1927 to C$2,917 million in 1931. Although the total value of imports and exports fell to C$1,791 million in 1937 due to war issues, China's imports and exports had developed to a considerable extent in the years before the Second Sino-Japanese War began.[369]

***4.2.2.1.3 Development of transportation and urbanization.*** During this period, railway, shipping, and road transportation all developed (road transportation being the most significant).[370] China had no highways in 1913 and the total mileage of highways grew to 1,185 kilometers in 1922 and 96,078 kilometers in 1935, an increase of more than 80 times in 15 years.[371] In the 1930s, the urban population reached a growth rate twice that of the rate of the national population.[372] The provinces that the major cities Shanghai, Tianjin, Guangzhou, Wuhan, and Shenyang are located in, accounting for only about 10% of China's territory, had 36.3% of the national population and 84% of foreign trade of the whole country.[373]

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[368] See Du (2004, p. 157).
[369] For data of the import and export during the Nanjing Decade, see A. Young (1971, p. 492).
[370] See J. Zhu (2012, p. 336).
[371] See D. Zhang (2005, p. 125).
[372] See J. Zhu (2012, p. 337).
[373] See Cai (1954, p. 64).

**4.2.2.2 The development of the agricultural industry.** Compared to the development of industries, the situation of agriculture was quite poor. Despite the lack of systematic statistics, studies based on some statistics and evidence point out that China's agriculture was very underdeveloped at that time. In 1933, modern manufacturing, mining, and utilities accounted for only 3.4% of domestic products.[374] Four of five Chinese were farmers and they contributed 65% of domestic products.[375]

Although no systematic statistics are available, China's underdevelopment can be seen in the mortality rate. In the 1930s, China had the highest mortality rate in the world. The mortality rate was 2.5 times that of the United States and even higher than that of India at that time.[376]

In 1930, the Legislative Yuan passed the Land Law to reduce the burden on farmers by rents of up to 37.5%. However, the reform was opposed by landowners. 50% to 70% of the main crop rents were still paid by farmers, while half of the Chinese farmers were still tenant farmers, resulting in the reform's failure.[377] Economist A. N. Young believed that the reason for the failure of the agrarian reform was that the government sympathized with the landlord class and were unwilling to offend them.[378] Historian of the Chinese history L. E. Eastman considered that the cause of rural poverty was the unfavorable ratio between the rural population an food production.[379] However, from the capital theory of the Austrian school, the reason for poverty is that capital accumulation is underdeveloped. The lack of capital leads to production technology

[374] See Fairbank & Feuerwerker (1986, p. 151) and T. C. Liu & Yeh (1965, p. 66, p. 89).
[375] See Fairbank & Feuerwerker (1986, p. 151) and T. C. Liu & Yeh (1965, p. 66, p. 89).
[376] See Fairbank & Feuerwerker (1986, p. 151) and Buck (1964, p. 387).
[377] See Fairbank & Feuerwerker (1986, p. 151-152).
[378] See A. Young (1971, p. 389).
[379] See Fairbank & Feuerwerker (1986, p. 152).

stagnation and low labor prices, which cannot be transferred to higher-paying industries; and their marginal returns cannot be improved.[380] The land reform of the Republic of China government was not realized until its move to Taiwan in 1949.

From 1934 to 1936, the government adjusted the flood control facilities in agricultural areas and helped the farmers improve their production techniques.[381] However, only 4% of government revenue was used to promote the economic development of farms.[382] From 1936 to 1937, the survival of the peasants moderated. The clement weather resulted the best harvest in 20 years at that time, while the price inflation improved the farmers' nominal income.[383] In any case, in 1936 the Nationalist Government apologized for its ineffective agricultural policy.[384]

Figure 4.2 shows the generally declining agricultural prices index from 1931 to 1937. Due to the lack of statistics, there is no corresponding data for other years in the Golden Decade. However, if the 1931 agricultural price index was taken as 100, then the index fell continuously in the next few years. From 1932 to 1934, the annual index was decreasing 72, 61, and 56. After the currency reform in 1935, the index rose. The index in 1935 was 56 in 1935, 57 in 1936, and 60 in 1937. Therefore, from the perspective of falling prices or prices deflation, clearly, farmers did not benefit from the Golden Decade. From the above data, we can see that the agricultural situation in the golden decade was not prosperous. Only after 1935, the year of the currency reform, the prices were reflationary in agricultural industry and the farmers were receiving more profits. It was indeed a "golden decade" for the development of industry, but not for agriculture.

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[380] See Mises (1949/1998, pp. 669-680).
[381] See Fairbank & Feuerwerker (1986, p. 152).
[382] See A. Young (1971, p. 437, p. 439).
[383] See Fairbank & Feuerwerker (1986, p. 153).
[384] See Fairbank & Feuerwerker (1986, p. 153) and Holland & Mitchells (1937, p. 166).

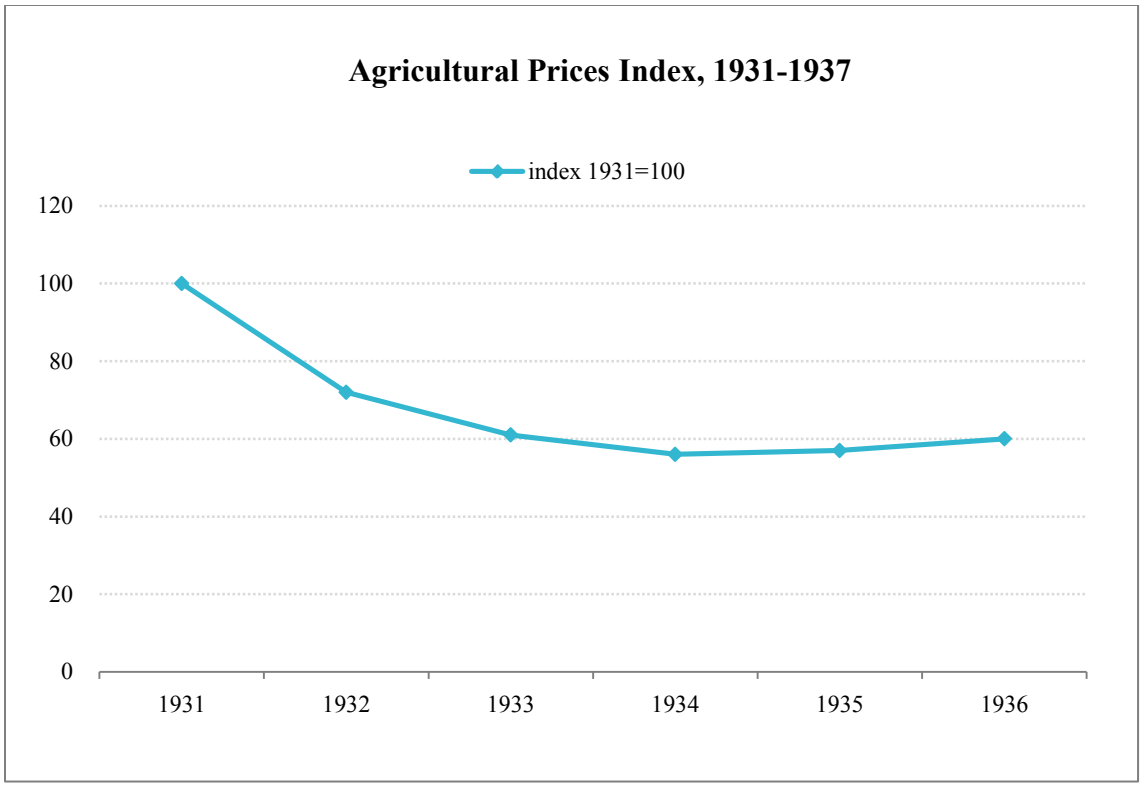


*Figure 4.2* Agricultural prices index, 1931-1937.

*Source*: A. Young (1971, p. 479).

*Notes*: Due to the lack of statistics, there is no corresponding data for other years in the Nanjing Golden Decade. 1927-1937.

### 4.2.3 The Background of the Big Discussion on Establishing a Modern Banking System

During the Golden Nanjing Decade, not only was Chinese politics relatively stable with the industrial economy developing, but China also had a relative free speech environment. At that time, from policy makers to economic scholars, the Chinese were discussing many issues of the topic of establishing a new currency and banking system, as all of them believed that it was necessary to establish a new and strong banking system to build the Chinese economy. As the leader of the Nationalist Government, Chiang Kai-shek's understanding of the currency system played a decisive role in the final decision of the National Government. Section 4.2.3.1 is about Chiang's position on monetary system. As the most important economic policy advisors and politicians of Chiang, Soong Tse-ven and Kung Hsiang-hsi also played important roles in the formulation of the National government's monetary policy. Section 4.2.3.2 introduces Soong Tse-ven and his 100% reserve central banking and anti-price inflation thoughts. Section 4.2.3.3 demonstrates Kung Hsiang-hsi and his monetary proposals. While other economists did not directly affect the final decision of the government, they also participated in the discussion of the currency system at that time. Section 4.2.3.4 deals with their argumentations.

**4.2.3.1 Qiang Kai-she's position on establishing a modern central banking system.** In the first place, it is essential to briefly outline Generalissimo Chiang Kai-shek's thoughts on central banking and fiat currency reform. As a believer in Sun Yat-sen's Three Principles of the People, Chiang Kai-shek (1887-1975) agreed with Sun Yat-sen's ideas on developing state capital and state-owned banks. In a speech before the 1935 fiat money reform, Chiang Kai-shek proposed that the issuance of banknotes

(through the central banking system) and the abolition of metal currencies such as gold and silver "were the trends in social evolution."[385] At a meeting of the National Government in 1941, he made it clear that the money policy was "exactly the monetary revolution advocated by Sun Yat-sen, the founding father of the Republic of China."[386] However, as Chiang Kai-shek was not an economist, but rather a politician and policy maker, to understand his monetary thoughts and policy propositions it is necessary to inspect the National Government's monetary policy. From section 4.3 to section 4.5 of this chapter, we will review the fiat money reform of the National Government. For more information about Chiang Kai-shek's currency proposition during the Second Sino-Japanese War, see Chapters 5 and Chapter 6 of this thesis.

**4.2.3.2 Soong Tse-ven and his 100% reserve central banking and anti-price inflation thoughts.** In 1894, T. V. Soong was born in a wealthy entrepreneurial family in Shanghai.[387] He went to study in the United States in 1912, received a bachelor's degree in economics from Harvard University in 1915 and then went to Columbia University for graduate studies. In 1917 he returned to China to do business. In 1923 he went to Guangdong Province to follow Sun Yat-sen' Nationalist Revolution. In 1924 at the invitation of Sun Yat-sen, Soong began to be responsible for the establishment of the Nationalist's central bank in Guangzhou till 1928. From 1928 to 1933 he was Minister of Finance of the National Government, also serving as the first governor of the Central Bank of China, who was also the first governor of China's first modern central bank. In 1940, Soong Tse-ven and the National's Government financial advisor Arthur N. Young went to the United States to seek the US government's wartime financial support for

[385] See J. Zhang (2001, p. 1158).
[386] See ACPBC (1991, pp. 181-182).
[387] For references of T. V. Soong's biography, see J. Wu (1992) and Kuo & Lin (2006).

China. He became Foreign Minister at the end of 1941 being based in the United States. After Soong returned to China, he served as Premier of the Republic of China from 1944 to 1947. During the Prime Minister's term, he experienced the issues of price inflation in the last two years of the Second Sino-Japanese War and the first two years of the Chinese Civil War. He worked hard to curb price inflation, but unfortunately failed and eventually resigned. Later, Soong also held some less important positions in the government. After the failure of the Republic of China government on the Mainland in 1949, Soong Tse-ven resigned and subsequently settled in New York City, USA. He died in San Francisco, California in 1971.

Soong Tse-ven's sister, Soong Ching-ling, was the wife of Sun Yat-sen, and his other sister, Soong Mei-ling, was the wife of Chiang Kai-shek. Hence, Soong Tse-ven and Chiang Kai-shek were not only political collaborators, but also in-law relatives. However, this does not mean that Soong and Chiang had completely identical views on economic policies. On the issue of monetary policy, T. V. Soong, like Chiang Kai-shek, advocated that China needed a unified national monetary system and to introduce the Western modern central banking system.[388] As for how to establish the central bank institution, Soong did not have a clear conclusion originally, but gradually evolved his monetary thought according to the development of the economic and political situation and the suggestions of other economists. The biggest difference between Soong Tse-ven and Chiang Kai-shek's monetary policy is that Soong opposed expansionary monetary and price inflation policy, advocating limiting currency issuance to curb price inflation. As early as 1924 to 1925, Soong criticized the case of price inflation caused by the over-

[388] References of Soong's thoughts of monetary policies see J. Zhang (2001, pp. 1104-1106), and J. Wu (1992).

issuance of banknotes in various provinces in the south China, supporting the 100% reserve policy. He believed that "the circulation of currency depends on its credit, and its credit is no goldsmithing but being based on the 100% reserve that of what people save."[389] In fiscal policy, he also advocated austerity, opposing the government's use of large amounts of expenditure for military spending. It can be said that these views of Song Ziwen have been implemented from the Golden Nanjing Decade to the term of his prime minister. Although Soong theoretically opposed price inflation policy, because the government's final decision-maker was Chiang Kai-shek, he was unable to implement his opinions. Instead, he was forced to help the Chinese government sort out as much as possible the fiscal and monetary policies with the development of the economic situation and Chiang Kai-shek's policy thinking. Largely, Soong Tse-ven was a Milton Friedman-like monetarist and a laissez-faire financial scholar and politician. In the following sections this chapter, and the related analysis in Chapter 5 and Chapter 6, we will further introduce Soong's monetary thoughts during the Second Sino-Japanese War and the Chinese Civil War.

**4.2.3.3 Kung Hsiang-hsi and his monetary proposals.** H. H. Kung was born in 1881 to a teacher's family in Shanxi Province. With the opening of the society in the late Qing Dynasty, he began to study in the U.S-style Christian primary schools and middle schools and was baptized as a Christian. He began to contact Western culture and learn English since that time.[390] In 1905, he graduated from Oberlin College in Ohio, USA. In 1907 he graduated with a master's degree in mineralogy from Yale University. After graduating, he returned to his hometown in Shanxi Province and started his own business

[389] See J. Zhang (2001, p. 1105).
[390] For references of H. H Kung's biography see, S. Wang (2006) and C. Shou (1987).

of western-style primary and secondary education. After the Xinhai Revolution broke out in 1911, while doing business, he subsidized Sun Yat-sen's Nationalist Revolution with money. Then gradually Kung became responsible for the financial affairs of the National Government. After T. V. Soong stepped down as Minister of Finance and Governor of the Central Bank in 1933, Kung took over these two positions. From 1935 to 1939, Kung successively served as the Premier of the National Government, becoming Generalissimo Chiang Kai-shek's most important financial policy assistant after Soong' stepping down in 1933 and one of the important promoters to assist Chiang Kai-shek's fiat money reform in 1935. In November 1944, a few months before the end of the Second Sino-Japanese War, Kung stepped down as Minister of Finance, and in July 1945 stepped down as Governor of the Central Bank of China. Kung left Chinese politics in 1947 and settled in the United States. He died in New York in 1967.

Like Chiang Kai-shek and Soong Tse-ven, Kung Hsiang-hsi also considered that the fiat money reform of the Nationalist Government inherited Sun Yat-sen's monetary thinking.[391] During the fiat money reform period, Kong argued that "if China wants to pursue financial stability and economic development, responding to its wartime necessity, it must abide by Sun Yat-sen's teachings of [paper currency revolution] and completely reform the currency system."[392] Unlike Soong, Kung did not deem that the government's policy of fiat money reform policy abandoned the 100% silver reserve standard. Kung said, "The unified issuance and centralized preparation of fiat currencies is to solve the outflow of silver [...] but not for monetary inflation, nor is it a banknote policy [without sufficient reserve], but a good policy for self-reliance in response to international trends

[391] For references of Kung's monetary thoughts during the Golden Decade, see J. Zhang (2001, p. 1160) and Zhuo (1986).
[392] See Zhuo (1986, p. 435).

and domestic conditions."[393] Therefore, although Kung's point of view acquiesced in his understanding of supporting 100% silver reserve, he also supported fiat money policy with fractional reserve, which is contradictory. During his term of Finance Minister and Governor of the Central Bank of China from 1933 to 1945, Chiang Kai-shek's request for additional currency was continuously acquiesced and released. Therefore, Kung did not have a very clear monetary theory and indulged Chiang Kai-shek's policy on currency abuse in practice. Therefore, Kung Hsiang-hsi was completely different from Soong Tse-ven's tight fiscal and monetary policies practically, although he himself theoretically was against expansionary monetary policy and price inflation. In Chapter 5 and Chapter 6, we will further discuss Kung's monetary policy propositions during the Second Sino-Japanese War and the Chinese Civil War.

**4.2.3.4 A short review of the arguments of the other economists and politicians who supported fiat money reform and/or 100% reserve.** Before and during the currency reform around 1935, other economists also put forward their opinions and suggestions on China's currency banking system and currency standard, although their voices did not directly affect China's currency reform as the monetary ideas and policies of Chiang Kai-shek, Soong Tse-ven, and Kung Hsiang-hsi. The opinions and suggestions of these economists on monetary policy were mainly divided into three groups. The first group of scholars supported various forms of the silver standard, the second group of scholars supported various forms of physical articles standard, and the third group of scholars were radicals in supporting the policy of non-exchangeable banknotes.[394] It is

[393] See Zhuo (1986, p. 435).
[394] Regarding the classification of the opinions of different scholars on the currency reform, we refer to the classification of the monograph of Ye, B. Li, & Zhong (2003). In the specific analysis, we include other scholars' monetary ideas at that time into this classification framework.

regrettable that in the literature we have found so far, no scholars of the Golden Decade were supporting the idea of returning to the traditional free banking silver standard or were influenced by the Austrian school supporting the modern Austrian position on free banking system.

Among the schools that supported silver standard, Shou Miancheng (1901-1966) advocated a non-exchangeable paper currency policy in future, which was called "Scientific Silver Dollar Standard" by him.[395] Considering China's national conditions, he believed that the central banking fractional reserve silver standard should be implemented at this stage, and opposed the gold standard. He argued that the value of gold was "unstable" and therefore cannot be used as a currency standard. As for the silver standard, he advocated that the government adjust the silver price and exchange rate or adjust the number of silver dollars in circulation keeping the prices of silver standard stable. In addition, the "Limited Silver Standard" of scholar Liu Zhendong (1898-1987) and the "Silver Correction Policy" of Huang Yuanbin (1893-1956) are essentially the same to what Shou Miancheng proposed. Both of them supported the central banking fractional reserve silver standard and non-convertible banknotes that is based on a silver standard and the price and output regulations of silver.[396] Also, in 1936, economist Cui Xiaocen supported a "Gold and Silver Mixed Standard" as the combination between the two metals "can bring about public confidence compared with fiat money standard."[397]

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[395] References of M. Shou's monetary theories and his Scientific Silver Dollar Standard (科學銀本位), see M. Shou (1936a, 1936b), J. Zhang (2001, pp. 1107-1122), and Ye, B. Li, & Zhong (2003, pp. 324-327).

[396] References of Liu Zhendong's Limited Silver Standard (有限銀本位), see Z. Liu (1930/1934), J. Zhang (2001, pp. 1113-1115) and Ye, B. Li, & Zhong (2003, pp. 327-330). References of Huang Yuanbin's Silver Correction Policy (銀物矯正策), see Y. Huang (1931, 1936), J. Zhang (2001, pp. 1115-1118), and Ye, B. Li, & Zhong (2003, pp. 330-334).

[397] See Cui (1936, p. 177). References of Cui Xiaocen's Gold and Silver Mixed Standard (金銀運用制度), see Cui (1936) and Ye, B. Li, & Zhong (2003, p. 365).

Among the schools that supported a physical-article standard, Liu Mianzhi (1872-1944) proposed the "Capability-based Standard."[398] He advocated the abolition of the metal currency standard, considering them as "sources of all evil" and causing war.[399] He advocated that individuals and institutions receive national currency vouchers from the government in accordance with a certain percentage of their property and income. In other words, the more income, the more money is obtained. This idea does not consider the actual circulation and the demand of money in the market. In fact, it is a system of unlimited banknotes without any reserve. Once implemented, it will inevitably cause price inflation, which is an exceedingly nonsensical plan.[400] Xu Qingfu (1879-1961) proposed the "Virtual Grain Standard," which advocated the abolition of the metal currency system as metal currency is the result of human greed, and suggested that grain can be used as the currency standard, which should be 100% reserve.[401] However, the Virtual Grain Standard needs to take the stability of food prices as a premise, and China's agricultural output and its prices at that time were unstable, making such a standard impossible to achieve. Yan Xishan (1883-1960), a politician of the National Government and Governor of Shanxi Province, also advocated the abolition of the metal currency standard and suggested the use of property securities as a 100% reserve currency standard.[402] Yan defined property security as a ticket that proves the market value of a

[398] References of Liu Mianzhi's Capability-based Standard (能力本位), see M. Liu (1927, 1928, 1930, 1933), J. Zhang (2001, pp. 1118-1125) and Ye, B. Li, & Zhong (2003, pp. 334-340).
[399] See M. Liu (1927, p. 50).
[400] Economist Liu Ziya (1894-1970) agreed with Liu Mianzhi's Capability-based Standard; see Z. Liu (1941) and Ye, B. Li, & Zhong (2003, pp. 341-342).
[401] For references of Xu Qingfu's Virtual Grain Standard (虛糧本位), see Q. Xu (1932a, 1932b, 1932/1936), J. Zhang (2001, pp. 1125-1130) and Ye, B. Li, & Zhong (2003, pp. 344-349).
[402] For references of Yan Xishan's "Property Securities Standard" (物產證券本位), see Yan (1934/1941, 1938), Y. Huang (1931, 1936), J. Zhang (2001, pp. 1130-1137), and Ye, B. Li, & Zhong (2003, pp. 349-353). Yan Xishan served as Premier of the Republic of China from June 1949 to March 1950. After Li Zongren left office in November 1949, he acted as the president of the Republic of China from November

person's property. However, to prove the market value of a person's property, one must return to China's traditional metal currency-price system at that time to calculate its price, which means that Yan's Property Securities Standard is superfluous. In addition, Yan's plan had the same features as Xu Qingfu's proposal. They both proposed the currency standard that is based on property, which would inevitably lead to over-issuance of banknotes as there is no issuance limitation in their proposals. Shanxi Province, which was governed by Yan Xishan, once enforced his currency reform plan, but the result was price hyperinflation. The quota of banknotes' issuance of Bank of Shanxi increased from 8.256 million yuan in 1935 to 18.269 million yuan at the end of 1936, which obviously runs counter to Yan Xishan's 100% reserve assumption.[403] In addition, scholar Hu Zhaonan advocated that the issuance of 20 billion yuan banknotes could solve all problems that China had at that time.[404] He argued that within 15 years, people can redeem the value of banknotes by the income of the developed industries that they had invested in. However, this is undoubtedly an extremely ridiculous point of view, because Hu did not consider the problem of price hyperinflation that could be caused by huge 20 billion-yuan banknotes in currency circulation.

Among the schools that supported non-exchangeable banknotes, Li Quanshi (1895-1979) argued that the institution of non-exchangeable banknote is "the ultimate civilization of human being's monetary institutions."[405] He considered that the value of money may depend on the cost of production or the amount of money.[406] In 1932, Tang

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1949 to March until Chiang Kai-shek returned to office. He died in Taipei in May 1960.

[403] See M. Chen (1980, p. 850).

[404] See Hu (1931).

[405] See Q. Li (1930a).

[406] For references of Li Quanshi's monetary theory, see Q. Li (1930a, 1930b, 1938), J. Zhang (2001, pp. 1138), and Ye, B. Li, & Zhong (2003, pp. 353-358). Li Quanshi's monetary views were different in the

Qingyong published an article supporting the abolition of silver tael and the establishment of central banking's silver dollar institution. Although Tang did not advocate 100% reserves, he believed that the currency reserves must be sufficient to ensure the credit of the currency and to curb price inflation.[407] In 1934, Chu Fucheng published a monograph, also advocating the abolition of metal currency, using paper money as a voucher for goods, and supporting the use of various goods, including metal, as a 100% reserve.[408] In June 1934, the US Congress passed the Silver Purchase Act, which authorized that the U.S government should purchase foreign silver with state machinery. The U.S purchase of silver led to price deflation in China (China's net exports exceed 300 million yuan) and the collapse of Chinese businesses (44 financial institutions closed down in Shanghai in 1934 and 104 in 1935).[409] Therefore, according to the development of the situation, Chinese scholars gradually proposed the abolition of the silver standard. In 1934, Zhao Lanping also proposed a non-convertible centrally-issued paper currency system, advocating that there should be sufficient currency reserves, but not necessarily 100%, so as to ensure the "free expansion and contraction of banknotes."[410] In addition, scholars such as Gu Yiqun (1900-1992) also supported non-exchange banknotes and central banking system.[411] Besides, scholars such as Ma Yinchu

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above-mentioned monographs. He argued that the value of money may depend on the cost of production in *The Value Theory of Money* (1930b), while deemed that the amount of money decides the value of it in *New Theory of Economics* (1938).

[407] For references of Tang Qingyong's argumentation, see Tang (1932, 1935) and J. Zhang (2001, pp. 1138-1140).

[408] For references of Chu Fucheng's monetary theory, see Chu (1934), J. Zhang (2001, pp. 1140-1143), and Ye, B. Li, & Zhong (2003, pp. 366-369).

[409] See Yu (1937, p. 102) and Ye, B. Li, & Zhong (2003, pp. 356).

[410] See L. Zhao (1936, pp. 15-16). For references of Zhao Lanping's monetary theory, see Zhao (1934/1939, 1936), J. Zhang (2001, pp. 1143-1145), and Ye, B. Li, & Zhong (2003, pp. 369-375).

[411] For references of Gu Yiqun's monetary theory, see Y. Gu (1933a, 1933b). For the other scholars who supported non-exchange banknotes and central banking system during the Nanjing Golden Age, see Y. Gu & Yao (1934), Y. Yang (1934, 1937), S. Zhang (1936), C. Gu (1934), Lewis & L. Zhang (1934). For the reviews of the monetary theories of the above authors, see J. Zhang (2001, pp. 1145-1153) and Ye, B. Li, &

clearly supported the abolition of the silver tael system and the establishment of central banking silver dollar system, who played important roles in promoting the National Government's central bank policy.[412]

It is worth to mention that, among the above scholars, in his monograph *Trends in Modern Currency Thoughts and World Currency Systems* (1938), Yao Qingsan (1911-1989) systematically introduced the monetary theories of western scholars from the ones who supported gold standard (i.e., G. Cassel, J. Kitchin, G. F. Warren, and F. A. Pearson), the ones who supported to stabilize price levels (i.e., I. Fisher, A. Salter, P. Einzig, H. Strakosch, and D. H. Robertson), and the Keynesian monetary theories represented by J. M. Keynes.[413] Especially, Yao Qingsan was probably the first Chinese economist during the Mainland period of the Republic of China who systematically introduced the Austrian school economics' monetary theories into China. In *Trends in Modern Currency Thoughts and World Currency Systems*, Yao introduced F. V. Wiesser, J. G. K. Wicksell, F. A. Hayek, and L. von Mises' business cycle theories. Due to these Austrian school scholars, prices including the prices of money is based on the marginal utility that the acting men value in his subjective value scales, interest rates are the result of acting

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Zhong (2003, pp. 359-375, pp. 385-389).

[412] For references of Ma Yin-chu's monetary theory, see Y. Ma (1928, 1935, 1936/1937) and Y. Ma & B. Huang (1932). The other scholars who clearly supported the abolition of silver tael system and the establishment of central banking silver dollar system during the Nanjing Golden Age, see Li Yiqiu (1928), Xu Yusun (1928), Qian Yi (1928), Jing Ru (1928), Dai Ailu (1930), Zhang Naiqi (1932). For the reviews of the monetary theories of the above authors, see J. Zhang (2001, pp. 1153-1156) and Ye, B. Li, & Zhong (2003, pp. 359-375).

[413] For references of Yao Qingsan's monetary theories see Yao (1935a, 1935b, 1935c, 1938). For the reviews of Yao's monetary theories, see J. Zhang (2001, pp. 1147-1149) and Ye, B. Li, & Zhong (2003, pp. 385-389). Interestingly, we found that Yao Qing-an is the grandfather of the 2015 Nobel Prize in Physiology or Medicine winner Tu Youyou. For reference of the relationship between Yao and Tu, see L. Shen (2011). Besides, Chen Zhenye (1934), Jiang Ting-fu (1936), Liu Juemin (1936), Ma Xian (1938), Wu Wenying (1938), and Mo Xuanyuan (1939) also introduced the western monetary theories but less systematically like Yao. For a short review of these references, see Ye, B. Li, & Zhong (2003, pp. 385).

men's time preference, and artificial low interest rates can distort production structures, thus causing the business cycle.

We have now finished the discussion of section 1 and the political and economic background from 1927 to 1937. In section 2, we will demonstrate the situation of China's central banking from 1927 to 1933.

## 4.3 Central Banking, 1927-1933

In this section, we review the Chinese central banking from 1927 to 1933. Section 4.3.1 is about the Nationalists' early central banking experiment from 1924 to 1927. Section 4.3.2 review the central-banking gold-reserve reform plan of the Kemmerer Commission in 1929. Section 4.3.3 demonstrates the establishment of the Central Bank of China in 1928.

### 4.3.1 The Prelude I: The Nationalists' Early Central Banking Experiment, 1924-1927

Before the establishment of the Central Bank of China in 1929, the National Government already had an early experiment of trying to establish its own central banking financing the activities of the Nationalist Government.[414] In August 1924, the Nationalists led by Dr. Sun Yat-sen established their first central bank in Guangzhou to finance its Northern Expedition (1926-1928). In the same month, Soong Tse-ven was

[414] For reference of this section, see Hong (2008, pp.57-60) and Shiroyama (2008, pp. 90-91). On January 20th, 1927, the National Government also opened a branch of its first central bank in Hankou City, issuing its own banknotes. However, both the monetary expansion and price inflation happened again. From April to May, the branch of the Central Bank issued banknotes of 25.20 million yuan. The banknotes of the Hankou branch were issued by the central bank, the Bank of China and the Bank of Communication. On April 17th, 1927, when the Hankou branch of the central bank decided to monopolize banknote issuance with the two commercial banks, price inflation immediately occurred. The price of grain rose from 10 yuan in silver per picul to 20 yuan per picul; the black market of the banknotes issued by the Hankou branch of the Central Bank, the Bank of China and the Bank of Communication occurred: one needed to pay 3,900 yuan to buy a product with its price of 1,000 yuan. For the references of the monetary expansion and price inflation of the Hankou branch of the central bank, see Hong (2008, p. 60) and Yu (1935, pp. 479-485).

nominated by Sun Yat-sen to prepare the functions of this central bank. Sun Yat-sen died on March 12th and the National Government was then led by Generalissimo Chiang Kai-shek *de facto*. One year later, on July 7th, 1925, Soong was nominated as the governor of the Central Bank of China as the National Government was officially established on July 1st of the same year. However, from August 1924 to July 1925, almost a year, Soong did not establish the framework of the central bank. As the Nationalists did not have sufficient money, the process of the preparation of establishing the central bank was not successful. Due to the constitution of the central bank, it would issue the banknotes of 10 million local yuan in silver which was a 100% silver reserve standard. The local yuan legally could be redeemed into silver. However, in order to deal with military expenditures, the final currency issue amounted to 35 million yuan, which was 25 million more than the original designed amount of issuance 10 million yuan in silver. Due to insufficient currency reserves, these currencies could not be converted into silver by 1928. Another problem was that this central bank was not a real central bank for all of China since its currency circulation was only limited in the area of Guangdong Province. When the National Government established its formal Central Bank of China in November 1928, the former central bank in Guangzhou ceased to work.

### 4.3.2 The Prelude II: The Central-Banking Gold-Reserve Reform Plan of the Kemmerer Commission in 1929

In section 4.2.3, our analysis has pointed out that in the Nanjing Decade, in addition to political stability and economic development, politicians and economists also discussed what kind of banking system that China should adopt. Among them, President Generalissimo Chiang Kai-shek and economists and financial politicians Soong Tse-ven

and Kung Hsiang-his had a direct influence on the decision-making of the banking institutions. Besides, the central-banking gold-reserve reform plan presented by the US backed Kemmerer Commission also played an important role of the establishment of the Central Bank of China. In February 1929, invited by the National Government, the monetary specialist and economic professor of Princeton University Edwin Kemmerer came to China to help design the monetary reform plan. After a nine-month hard working with his colleagues, the Kemmerer Commission submitted its *Project of Law for the Gradual Introduction of a Gold-standard Currency System of China* to the National Government. The Kemmerer project laid the foundation of the central banking reform of China in the period of the 1920s to the 1930s.[415] For more about the Kemmerer's plan, see Chapter 2 of this thesis.

The plan proposed that China would adopt a new gold standard called *sun* (孫), which is with no actual gold circulation and is equal to US $0.40.[416] *Sun* (孫) is after the surname of Sun Yat-sen. The price of *sun* in dollar is also the approximate price of silver dollar in the autumn of 1929. Kemmerer Commission believed that making a connection among the price of *sun*, silver dollar and gold would be easier for China to adopt a gold standard eventually.

Though *sun* was planned as a fiduciary silver coin, the Kemmerer Commission did not plan to unify the currency into silver standard, as the Commission planned gold standard as the ultimate standard for China. The reason why the Commission did not unify China's currency standard into a pure silver standard of 100% reserve is that the

[415] For references of the Kemmerer plan, see Kemmerer (1929), J. Zhu (2012, p. 340-341), A. Young (1971, p. 178-183), and Shiroyama (2008, p. 168).
[416] See J. Zhu (2012, p. 340) and A. Young (1971, p. 179).

Commission thought that China would eventually implement the gold standard, making it unnecessary to achieve the silver standard of 100% reserve, and that the *sun* currency was enough to solve the problem of currency issuance at that time.

### 4.3.3 The Establishment of the Central Bank of China in 1928

This section demonstrates the process of the establishment of the Central Bank of China in 1928. Section 4.3.3.1 demonstrates the adoption of Chinese Silver Dollar standard and the abolition of the traditional silver tael standard. Section 4.3.3.2 illustrates the establishment of the Central Bank of China in 1928. Section 4.3.3.3 is about the structure and functions of the CBC.

**4.3.3.1 The adoption of Chinese Silver Dollar standard and the abolition of the traditional silver tael standard.** In July 1928, the National Financial Conference decided to adopt the gold standard as the ultimate currency standard of China. And before the adoption of the gold standard, the conference decided to adopt the Chinese Silver Dollar as the basic currency unit instead of the silver tael in the transition between the old and diverse currency system and the future gold standard, while abolishing the silver tael standard.[417] In the currency reform plan decided by the conference, other subsidiary coins would also gradually be converted into silver dollars.[418]

**4.3.3.2 The establishment of the Central Bank of China in 1928.** Based on the policy suggestions from the Kemmerer Commission, after a few months of preparation, on October 6, 1928, the National Government established the Central Bank of China (CBC) in Shanghai, which started its operation on November 1, 1928. The Finance

[417] The Chinese Silver Dollar and the silver tael are written as "銀元" and "銀兩" respectively in Mandarin Chinese. The Chinese texts of "the adoption of Chinese Silver Dollar standard and the abolition of the silver tael standard" are written as "廢兩改元" in most of the literatures that involve this topic.
[418] For references of the establishment of the Central Bank of China, see (A. Young, 1971, p. 27; J. Zhu, 2012, p. 343; Tamagna, 1942, p. 122).

Minister T. V. Soong was nominated as the governor of the newly settled central bank.[419] On the opening ceremony of the Central Bank of China, Soong announced three purposes of the establishment of the Central Bank of China: the first purpose was to unify the currency system of China; the second, to unify the national treasury; the third, to regulate the finance of China.[420] Interestingly, the CBC continues to work as the central bank of the Republic of China on Taiwan today after the retreat of the ROC government and its people from the Mainland in 1949 because of the Chinese Communist Revolution. In 2007, in order to eliminate the confusion between the name of the Central Bank of China of the ROC on Taiwan and the People's Bank of China the central bank of the Communist China, the English name of the Central Bank of China was changed to "The Central Bank of the Republic of China (Taiwan)", and the abbreviation remained the previous CBC.

It should also be pointed out here that from the perspective of the nature and historical evolution of the central banks, as China's first modern central bank, the CBC did not evolve from a commercial bank, but was rather established by the state government. In contrast, the central banks of some countries, such as the Bank of England and the Bank of Spain, evolved from commercial banks.[421]

**4.3.3.3 The structure and functions of the CBC.** The National Government provided the Central Bank of China C$20 million capital as its currency reserves, aiming the CBC have the rights "to issue bank notes, to mint and circulate coins, to deal in

[419] See A. Young (1971, p. 27).
[420] See J. Zhu (2012, p. 343).
[421] For more about the historical evolution of the central banks from commercial banks, see Goodhart (1988). For the cases in Spain and Latin America, see Díaz Fuentes *et al.* (2017).

foreign exchange, and to handle the issuance and service of public loans."[422] In the original plan, the central bank would have 60% reserve in metals (silver, or gold coin, or bullion), and the rest 40% reserve was government bonds or commercial papers.[423] The Central Bank was also permitted to recruit business shares, which should be less than 49% of the whole capitals of the Central Bank.[424]

However, the CBC did not have a monopoly situation to issue currency. According to the laws issued by the National Government, the two commercial banks, the Bank of China and the Bank of Communications, were also be authorized by the CBC to issue banknotes, as the CBC was sharing its issuance of notes with the two commercial banks. However, as these two banks were not asked to share their legal reserves with the CBC, the CBC could not completely control the two commercial banks, not to mention to control the whole Chinese monetary system.[425]

Considering the strong sense of autonomy of Cantonese people, the former central bank of the National Government established in 1924 in Guangdong was still working as an independent local bank, issuing the named "Small Money" silver currency in Guangdong. "Small Money" was a typical currency in circulation in Guangdong since the 1890s of the Late Qing Dynasty.[426] The *Small Money* of the Nationalist Government inherited the old small money institutions in Guangdong.[427] The dollar of the "small money" represented "by five 20-cent depreciated coins that was worth around 70% to 75% of the ordinary silver dollar.[428]

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[422] See A. Young (1971, p. 27) and Shiroyama (2008, p. 169).
[423] See A. Young (1971, p. 27) and Tamagna (1942, p. 140).
[424] See J. Zhu (2012, p. 343).
[425] See Shiroyama (2008, p. 169).
[426] The original Chinese name of Small Money is written as "小洋" or "毫洋."
[427] See J. Zhang Nin (2007, p. 200).
[428] See A. Young (1971, p.28).

### 4.3.4 Performance of the CBC after the 1928 reform, 1928-1933

This section reviews the performance of the CBC after the 1928 reform during the period of 1928 to 1933. Section 4.3.4.1 is about the increase of the CBC's capital. Section 4.3.4.2 demonstrates the situation that more CBC local branches were opened. Section 4.3.4.3 illustrates the nationalization of China's banking system. Section 4.3.4.4 briefly shows other two reforms. Section 4.3.4.5 analyzes the status of currency issues and prices from 1927 to 1933.

**4.3.4.1 The increase of the CBC's capitals.** Since the Central Bank was established for the first time, its capital growth rate is naturally high. The assets, deposits and issued currency increased a lot after capitals of the Central Bank of China grew a lot. From 1928 to 1933, the total assets of the Central Bank increased nearly ten times. Its deposits increased by nearly seventy times and its currency issuance increased nearly seven times. The CBC's net income increased by sixty times.[429]

**4.3.4.2 More CBC local branches were opened.** The Central Bank of China also opened a lot of branches both in China and all around the world. Besides the headquarter of the Central Bank of China in Shanghai, the Central Bank opened its subsidiary banks in Nanjing, Hankou, Tianjin, Jinan, Xiamen and Hangzhou, and subbranches in other cities. To finance directly from Western countries, the CBC also opened its agencies globally in New York, Berlin, Geneva, London, Paris.[430]

**4.3.4.3 The nationalization of China's banking system.** The central banking of China started its nationalization of China's banking system in 1928.[431] In 1928, the National Government forced the Bank of China and the Bank of Communications to

[429] See J. Wu (2002) and J. Zhu (2012, p. 343).
[430] See J. Wu (2002) and J. Zhu (2012, pp. 343-344).
[431] See J. Zhu (2012, p. 343).

relocate their headquarters from Beiping (Beijing) to Shanghai, raising the shares of the official stocks in the two banks.[432]

However, as the National Government had to put more emphasis on the urgent fiscal problem of making the ends meet, and on unifying the separated central banking system before the North Expedition, more banking reform was delayed till the 1930s.[433] Besides, because bankers were in the opposition of the banking laws of the CBC, the general banking laws suggested by the Kemmerer Commission was to be delayed being executed until 1931.[434] However, although the final reform of the Silver Dollar standard as a transition plan to the gold standard was realized in 1933, the gold standard plan proposed by Kemmerer has never been realized despite the previous extensive discussion of it. And in 1935, China entered the era of fiat money standard till now.

**4.3.4.4 Other two reforms.** Though the Nationalist Government did not reform the monetary system completely in 1928, it was working as the central bank and did some other two reforms.[435] The first reform was to redeem the worthless bank notes issued by the previous Wuhan Nationalists (led by Wang Jingwei when he was the political opponent during the Northern Expedition) into the new currency system in the value of C$45 million. The second reform was to issue new currency equaling to C$7.25 million in the need of financing the North Expedition.

**4.3.4.5 The status of currency issues and prices, 1927-1933.** The performance of the central bank from 1927 to 1933 can also be judged by using two indicators, the

[432] Beiping (北平) was actually Beijing (北京). Literally in Chinese, as "Bei" means the north, "Jing" means capital, and "Ping" means safety or peace in Chinese, Beijing means "northern capital", and Beiping means "northern peace". After the Nanjing National Government established in 1927, it changed the name of Beijing into Beiping. After the Communist Party occupied the city in 1949, it changed the name of the city from Beiping back to Beijing. More about the history of Beijing from 1927 to 1949, see Kang (2015).
[433] See A. Young (1971, p. 28).
[434] See A. Young (1971, p. 266).
[435] See A. Young (1971, p. 28).

currency issues and the wholesale prices index. Figure 4.3 shows the situation of the monetary supply and the wholesale prices from 1927 to 1933. The monetary unit during this period was the Chinese Silver Dollar. Currency issuance plus currency deposits is the total money supply. The currency issuance in 1933 was 451,590,418 yuan, a 72.3% increase from 262,164,410 yuan in 1927. The average annual increase is about 9.5%. The currency deposits in 1933 were 1,579,824,899 yuan, an increase of 125.6% from 700,172,666 yuan in 1927. The average annual increase is about 14.5%. The total money supply in 1933 was 2,115,015,832 yuan, an increase of 119.8% from 962,337,076 yuan in 1927. The average annual increase was about 14%. From the trend of the statistical chart, we can see that 1931 was the highest peak of the newly added currency issuance and currency deposits, reaching 393,367,870 yuan and 1,213,334,120 yuan, respectively. As a result, the total money supply in 1931 reached 1,606,701,990 yuan, an increase of 67% from 962,337,076 yuan in 1927. The total money supply in 1932 was less than in 1931 and the total money supply in 1933 was more than that in 1932 and exceeded the previous years of the same period. As for the prices index, from 1927 to 1931, the prices index increased from 104.4 to 126.6. The fall in the prices index started a year later than the other three indicators in the figure. In 1932 and 1933, the prices index fell respectively at 112.5 and 103.9. Therefore, during this period, despite the currency issuance, prices remained stable overall, and there was no significant price inflation.

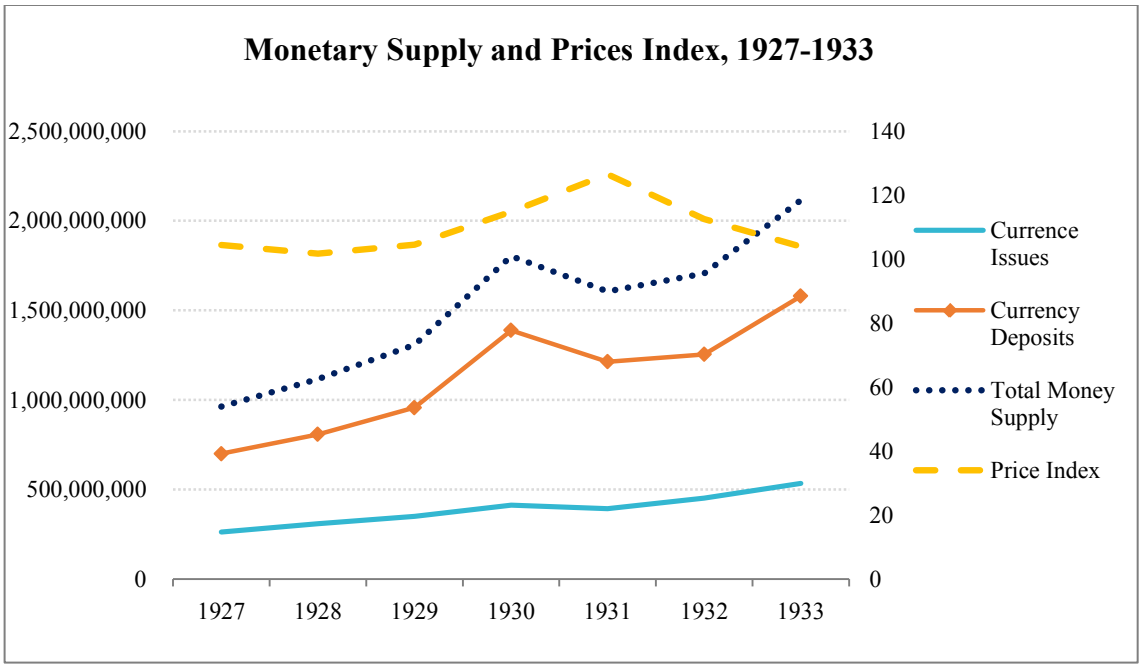


*Figure 4.3* Monetary supply and prices index, 1927-1933. Figure's currency unit is one million Chinese dollars (C$).

*Source*: Currency issues, currency deposits and total money supply from 1927 to 1933 is from K. Chang (1958, p. 376). Prices index from 1927 to 1930 (1926=100) was calculated by A. N. Young from the whole prices index of Shanghai, Tianjin and Guangdong Province. For the origin of the data, see A. Young (1972, p. 171). Prices index from 1930 to 1933 (1930=100) is the Shanghai wholes sale prices index, which is from K. Chang (1958, p. 371).

*Notes*: In order to enable prices index from the above two different sources to be displayed on the same statistical benchmark, we have processed the data from the above different sources according to the principle of proportionality based on their common data of the index in 1930.

Now we have finished the discussion of section 2, the situation of China's central banking from 1927 to 1933. In the next section 3, we will demonstrate the 1933 currency reform and the transition from silver tael standard to central banking Silver Dollar standard from 1933 to 1935.

## 4.4 The 1933 Currency Reform and the Transition from Silver Tael Standard to the Central Banking Silver Dollar Standard, 1933-1935

After we demonstrated the central baking reform in the late 1920s, we now review the continuous banking reform in 1933. In section 4.3.3, we mentioned that the National Government already decided to abolish the silver tael standard and accept the Chinese Silver Dollar standard as a transition before the adoption of the gold standard. However, as the National Government was busy with other urgent issues, like its fiscal balance problem and unifying the central banking system, it did not finish executing the silver standard currency reform until the 1930s. After a few years of waiting and preparation, in 1933, the National Government finally adopted the silver dollar standard and abolished the outdated silver tael standard.436 The Nationalists made several steps to implement the Silver Dollar standard. Section 4.4.1 deals with the topics of how the Chinese government adopted the Silver Dollar standard in the 1933 currency reform. Section 4.4.2 illustrates the performance of the new Silver Dollar standard.

### 4.4.1 The Process of Adoption the Silver Dollar Standard

This section demonstrates the process of adoption of the Silver Dollar standard. Subsection 4.4.1.1 is about the adoption of the Customs Gold Unit System (CGU). Subsection 4.4.1.2 introduces the government's policy of regulating foreign silver dollars

[436] See A. Young (1971, pp. 277-278) and J. Zhu (2012, pp. 347-350).

and forbid the export of gold. Subsection 4.4.1.3 illustrates how the government asked the private financial and banking societies to support the Silver Dollar standard policy. Subsection 4.4.1.4 review the process of the exchange from silver tael to Silver Dollar. Subsection 4.4.1.5 reviews the centralization of the coinage right's control. Subsection 4.4.1.6 is about the issuance of new Silver Dollar standard and the abolishment of silver tale standard.

**4.4.1.1 The adoption of the Customs Gold Unit System (CGU).** For gradually adopting gold standard, in the beginning of 1930, the National Government decided to adopt the Customs Gold Unit system as a transition towards the final gold standard, which could help the National Government receive more fiscal revenue due to the plan.[437]

Due to the official design, the CGU was hypothetically based on pure content of 60.1866 centigrams. However, the gold coins of CGU were never minted after its circulation. To keep government revenue stable, the exchange rate of the CGU into Silver Dollar notes was fixed before March 1934. The law of implementing the CGU required that these CGU notes be covered by a 100% cash reserve, which was to be in silver before 1935, and in silver and foreign exchange afterward.[438]

After the law was implemented, importers and exporters used CGU for transactions, and importers found it convenient to maintain customs duties by writing checks on the CGU accounts.[439] Therefore, CGU became a tool for import and export trade to avoid currency fluctuation caused by government currency reform.

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[437] See A. Young (1971, pp. 277-278), Tamagna (1942, pp. 140-142), and J. Zhu (2012, p. 341). The Customs Gold Unit is written as "海關金單位" in Chinese.
[438] See Tamagna (1942, p. 140).
[439] See Tamagna (1942, p. 140).

**4.4.1.2 To regulate foreign silver dollars and forbid the export of gold.** In May 1930, the National Government started to regulate foreign silver dollars and forbid the commercial export of gold, which led the decrease of gold price in China.[440] The embargo was enacted for dealing with the situation of the drastic slump of silver price during the administration of Financial Minster T. V. Soong. However, oddly enough, although both Soong and the foreign adviser of the National Government Arthur N. Young were against the embargo, it was approved by the National Government.[441] The result of the embargo was that the price of gold decreased in Chinese market, which caused the Central Bank of China bought gold in cheaper price and gained more than 5% profit by exporting it. [442]

Table 4.1 shows the balance of trade in merchandise, silver, and gold from 1928 to 1935. Despite the government's ban on commercial gold exports in 1930, from 1930 to 1935, gold exports continued to increase through the government transactions. From 1928 to 1935, China's imports of goods were always higher than its exports, which reflected the demand for foreign capital and products from China's economic development at that time. From 1928 to 1931, China's net import of silver was higher than that of exports, but its quota declined year by year. The net import quota in 1928 was C$166 million, in 1929

[440] See J. Zhu (2012, p. 347).
[441] See A. Young (1971, p. 257). In Young's report, he argued that "[t]he reasons for the embargo were not clear" (1971, p. 257). And meanwhile, due to Young, Minster Soong also claimed that he was also against the policy. It is a quite weird situation. Till now we have not found any direct evidence, but it would be quite impossible for Soong not knowing the reason why the embargo was planned and who made the decision of it, as his duty was dealing with all the financial and fiscal policies at that time. What we can infer from the situation is that it would be possible that Generalissimo Chiang Kai-shek, not Soong, made the decision of the embargo. And for avoiding a further argument with Young, Soong just told Young that he did not agree with the embargo without telling Young who made the decision. On another side, economist Zhu Jiaming criticized the implementation of the embargo of gold "started the precedent of China's regulating economy in the 20th century", as China had a relatively free banking institution before the 1930s currency reforms. More on Zhu's criticism on the embargo and the abolishment of China's free banking system, see J. Zhu (2012, pp. 350-532).
[442] See A. Young (1971, p. 257).

it was C$165 million, in 1930 it was C$104 million, and in 1931 it was C$71 million. However, from 1932 to 1935, due to the international market demand for silver, China's silver exports exceeded imports, with export quotas of C$10 million, C$14 million, C$257 million, and C$49 million, respectively. In terms of gold, the net import of gold in 1928 was C$9 million. From 1929 to 1935, there was a net export of gold. Although the government had a policy of prohibiting private gold exports in 1930, in order to obtain foreign exchange and maintain exchange rate stability, the government itself was still conducting silver export transactions. From 1929 to 1935, the net import quotas for gold were C$3 million, C$6 million, C$50 million, C$109 million, C$69 million, C$52 million, and C$39 million, respectively. While data on silver smuggling from 1928 to 1933 is not available, the estimated smuggled exports of silver in 1934 and 1935 were C$20 million and C$230 million, respectively. From the time the government's gold export ban was promulgated in 1930 to 1933, the net export smuggling quota of gold increased every year, which was C$123 million, C$179 million, C$190 million, and C$1,120 million.

## The Balance of Trade in Merchandise, Silver and Gold, 1928-1935

| Year | Excess of merchandise imports over exports | Silver exports | Gold exports | Estimated smuggled exports of silver | Estimated smuggled exports of gold |
|---|---|---|---|---|---|
| 1928 | 483 | -166 | -9 | -- | -- |
| 1929 | 550 | -165 | 3 | -- | -- |
| 1930 | 779 | -104 | 26 | -- | 23 |
| 1931 | 1087 | -71 | 50 | -- | 70 |
| 1932 | 955 | 10 | 109 | -- | 90 |
| 1933 | 733 | 14 | 69 | -- | 120 |
| 1934 | 495 | 257 | 52 | 20 | 60 |
| 1935 | 343 | 59 | 39 | 230 | 30 |

*Table 4.1* The balance of trade in merchandise, silver and gold, 1928-1935. Table's currency unit is one million Chinese dollars (C$).

*Source*: A. Young (1971), p. 258.

*Notes*: The date of the excess of merchandise imports over exports excludes Manchuria.

#### 4.4.1.3 Asking the support from the private financial and banking societies.

Only implementing the silver dollar standard policy was not enough to make it successful, the National Government also asked the public, especially the financial and banking societies to support the policy.[443] On July 7, 1932, the Financial Minster Soong made an official meeting with the personages of the Shanghai's financial and banking societies, explaining three principles of the policy of the abolishment of the silver tael standard and the adoption of the Silver Dollar standard.[444] The first principle was that China would abolish the silver tael standard and adopt of the new Silver Dollar standard to unify the currency system. Minster Soong made the official position of the adoption of silver dollar standard clear when he was meeting with the financial and banking personages from Shanghai, which helped them prepare and adopt the new currency system. The second principle was that the old currency represented by silver tael was still in circulation during the currency transition process. Under this principle, the National Government would not forbid the use of old currency system immediately after the adoption of the new Silver Dollar standard, which would help to stabilize the confidence of market. The third principle was that as far as the official price of new currency was made, the issuance of new currency would be executed immediately. However, the prices of the new Silver Dollar were not decided at that time.[445]

After this meeting, Soong (on July 22) and his Vice Minster Xu Kan (on July 15) separately met the personages from the financial and banking circles to discuss the new currency policy. Because of the commutation with these personages, the financial and banking societies had a strong public opinion on the policy of the abolishment of the

[443] See J. Zhu (2012, p. 347).
[444] See J. Zhang (2001, p. 1115).
[445] See J. Zhang (2001, p. 1115).

silver tael standard and adoption of the silver dollar standard, and only few people held the reservation of the new policy which were almost ignored by the society.[446]

**4.4.1.4 The exchange from silver tael to Silver Dollar.** After the National Government decided to use Silver Dollar to be instead of the silver tael in 1929, Chinese people were gradually exchanging from silver taels to silver dollars.[447] The Shanghai exchange rate of silver tael to Silver Dollar (C$) was between 72.01 and 72.69 taels per C$100 from 1921 to 1931, which was quite stable. However, in 1932, war and nature disaster caused the exchange rate of silver tael and Silver Dollar had a wider range of fluctuation around 8%, which was between 68 and 74 taels per C$100.[448] In 1929, the average monthly exchange rates of silver tael to Silver Dollar from 1929 to 1933 were 71.905 taels per C$100, 72.364 taels per C$100, 72.532 taels per C$100, 70.613 taels per C$100, and 71.4 taels per C$100, respectively. Due to the abolition of the silver tael standard in April 1933, the transaction price of Silver and silver Dollar in 1933 was only from January to April.

The fluctuating rate of silver tael and Silver Dollar made the dollar lose its use as an instrument of avoiding monetary risk and caused a huge loss for the individuals who held the dollars as their assets and taels as debt. For solving the fluctuation of exchange rate, in July 1932, Minster T. V. Soong nominated a committee to design the weight,

[446] See J. Zhang (2001, p. 1155).
[447] See A. Young (1971, pp. 184-185).
[448] The first reason of the wilder fluctuation of exchange rate was the Japanese invasion on Shanghai (the January 28 Incident, 一・二八事變) in the beginning of 1932 (A. Young, 1971, p. 184; Fairbank & Feuerwerker, 1986, p. 502), which caused the more necessities on silver dollars. After the fire between the Japanese Kwangtung Army and the National Revolutionary Army ceased on March 3 because of the international mediation, the exchange rate dropped to the levels below 70 (A. Young, 1971, p. 184). The second reason of the fluctuation of exchange rate was the huge loss of crops caused by floods that happened in central China. After the loss, people in south China had to use their silver dollars to buy crops from other places, which caused the price of silver dollars became more expensive and the price of silver taels cheaper, which corrected the exchange rates (A. Young, 1971, p. 184).

fineness of a new silver dollar, the new exchange rate between silver tael and silver, and to provide some suggestions on monetary policies, public understanding, and confidence on the currency reform. The financial advisor of the Kemmerer Commission Arthur N. Young recorded,

> [The committee] proposed a dollar weighing 26.6971 grams (412 grains) 0.800 fine, containing 23.493448 grams (362.56 grains) of fine silver. The latter figure was practically equal to the content of the old dollar less estimated minting charged of [1.75%]. *Taels* contracts would be converted to dollars at 71.15 Shanghai *taels* per C$100. To promote confidence, the government should assure the free import and export of silver; free coinage of silver, with a minting charge of [1.75%]; minting of silver bars 999 fine in ingots of C$1000; dismantling all mints but that at Shanghai; and creation of a public board to verify the mint's output. (A. Young, 1971, p. 185)

Therefore, the government decided to centralize the issuance of currency in Shanghai, which abolished the past practice of minting official currencies in different regions.

**4.4.1.5 The control of the coinage right.** From 1897 of the Qing Dynasty to 1933 of the Republic of China, the mints were localized and decentralized by the provincial and local mints.[449] In April 1929, the same year when China established its first modern central bank, inheriting the former local Shanghai Mint established in 1920, the National Government decided to establish the Central Mint.[450] In 1932, the Central

[449] See J. Zhu (2012, p. 347).

[450] The original Chinese name of Shanghai Mint and Central Mint are written as " 上海造幣廠" and "中央造幣廠", respectively. The foreign hands also helped the establishment of the Central Mint. In 1931, "three well-qualified Chinese exports sent some time in the Philadelphia Mint, … preparing to act as department heads on return to Shanghai" (Young, 1971, p. 184). In 1932, a well-skilled American minting technician, Clifford Hewitt (1869-1942) was present as a minting advisor to help China adopt a better and matured

Mint was finally built. On March 1, 1933, the Central Mint started to mint the new silver dollar currencies as circulation coins, meanwhile, the National Government regulated the provincial and local mintages and abolished some of them, which started the unification of the coinage right. As the Central Mint was set, the next step of the National Government was issuing the newly designed silver dollar *sun*.

**4.4.1.6 The issuance of new Silver Dollar standard and the abolishment of silver tale standard.** On March 8, 1933, the National Government enacted the coinage law, embodying the suggestions proposed by the monetary specialists. [451] Thus, the new silver dollar *sun* was prepared and was planned to be circulated.[452] A. N. Young recorded the essentials of the law,

> Coinage was free but not gratuitous, as a coinage charge of [2.25%] was fixed. The mint also would make C$1000 "A" bars 0.999 fine, and C$1000 "B" bars 0.880 fines, at a charge of [2.25%]. A refining charge might be added for certain kinds of silver tendered. Provision was made also for an advisory committee representing the public. (A. Young, 1971, p. 185)

On March 10, 1933, Financial Minster T. V. Soong declared the official exchange rate of 0.715 Shanghai *taels* per dollars.[453] On April 5, 1933, the Ministry of Finance announced the *Administrative Decree of Abolishing the Silver Tale and Adopting Silver Dollar*,

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minting technology. More about Clifford Hewitt and his life of a minting technician, See Hill (2013).

[451] See A. Young (1971, p. 185), J. Zhu (2012, p. 348), The name of the coinage law can also be literally translated as *Silver Standard Casting Regulations* which was "銀本位鑄造條例" in Chinese. For the law in Chinese, see Nationalist Government (1933b).

[452] The new Silver Dollar was not easy to be counterfeiting. "The new dollar coins had an attractive design with the head of Sun Yat-sen on one side and on the other a junk. To make the design harder to counterfeit, the junk was shown against rays of the sun and with three gulls flying overhead. The latter features were promptly criticized, on the ground that planes that had attacked. Shanghai in 1932. So, these features were at once removed. Counterfeiting of the dollars did not become serious. With the modern machinery of the new mint, the coins were the finest made in China and making facsimiles was not easy." (A. Young, 1971, p. 185-186). Also see J. Zhu (2012, p. 348).

[453] See A. Young (1971, p, 186).

ruling that all public and private payments, contract bills, and all transactions shall be converted to Silver Dollars, and silver tale shall not be used for the above purposes again.[454] The *Decree of Silver Dollar* also ordered that the people who had held silver tales may exchange for Silver Dollars in the offices of the Central Mint, the Central Bank of China and Bank of Communications.[455] On April 6, according to the *Administrative Decree*, China finally banned the transactions of silver taels, "and the existing contracts were to be settled at [0.715] per dollar."[456] Thus, China entered the era of central banking silver dollar and said good bye to the more than one-thousand-year long history of using silver taels since Song Dynasty. Besides, as the new silver dollar currency was called *sun*, the previous issued silver dollar *yuan-da-tou* (the surname of the former President of the Republic of China, Yuan Shi-kai) was abolished.[457]

### 4.4.2 Performance of the Chinese Silver Dollar, 1933-1935

In the last section 4.4.1, we have demonstrated the process of adoption the Silver Dollar Standard. This section analyzes the performance of the Chinese Silver Dollar, from 1933 to 1935. Subsection 4.4.2.1 discusses the moderate transition from the old silver tael to the new Silver Dollar standard. Subsection 4.4.2.2 is about the high-quality coinage. Subsection 4.4.2.3 demonstrates the high demand of the new issued Silver Dollars. Subsection 4.4.2.4 illustrates the status of currency issues and prices from 1933 to 1935.

[454] The name of the *Decree of Silver Dollar* in Chinese was "實行廢兩改元令." For the law in Chinese, see Nationalist Government (1933a).
[455] See A. Young (1971, p. 186) and J. Zhu (2012, pp. 348-349).
[456] See A. Young (1971, p. 186).
[457] See J. Zhu (2012, p. 348).

**4.4.2.1 A moderate transition from the old silver tael to the new silver dollar standard.** The transition from the old silver tael to the new silver dollar was "smooth".[458] Though the transition period was very short in 1933, the process was successful. Just in a few days, "exchange was quoted in dollars instead of *tales*". The planned exchange rate of 0.715 silver tael per dollar was implemented triumphantly, which was accepted generally.

**4.4.2.2 High quality coinage.** In the beginning, some foreign bankers and foreign businessmen were worrying about the new silver dollar system as Chinese government had history of tampering with coinage.[459] The test of the quality of the new Silver Dollar currencies was under the supervision of the ROC Central Mint: Lott Wei, Robert J. Grant, Clifford Hewitt, and three other Chinese technicians who were well trained at the Philadelphia Mint. Young commented that "Repeated tests turned up no coins below standard. Some flight of capital was reported, but it was not of much consequence."[460]

**4.4.2.3 High demand of the new issued Silver Dollars.** The new issued silver dollars were also in huge demand.[461] From March 1933 to October 1935, C$133 million in dollars and C$56 million in bars were minted.[462] Though the Nationalist government started to nationalize silver on November 3, 1935, the mint of silver dollars continued till the end of this year. From October to December 1935, C$5 million more dollars were

[458] For reference of this section, see A. Young (1971, p. 186).
[459] For reference of this section, see A. Young (1971, p. 186).
[460] See A. Young (1971, p. 186).
[461] See A. Young (1971, p. 186).
[462] The "B" bars of C$1000 each were the most popular bars minted from 1933 to 1935 (A. Young, 1971, p. 186). The minted C$56 million bars were mostly the "B" category.

minted. C$5 millions of "B" bars were made after the 1935 currency reform till June 1936.[463]

**4.4.2.4 The status of currency issues and prices, 1933-1935.** During the three years of implementation of the Silver Dollar, the situation of currency issues and prices had been relatively stable. The performance of the central bank from 1933 to 1935 can also be judged by using two indicators, the currency issues and the wholesale prices index. Figure 4.4 shows the situation of the monetary supply and the wholesale prices during that period. The monetary unit during this period was the Chinese Silver Dollar. Currency issuance plus currency deposits is the total money supply. The currency issuance in 1935 was 867,984,374 yuan, a 62.3% increase from 535,190,933 yuan in 1933. The average annual increase is about 27.4%. The currency deposits in 1935 were 2,324,341,889 yuan, an increase of 47.1% from 1,579,824,899 yuan in 1933. The average annual increase is about 21.3%. The total money supply in 1935 was 3,192,326,263 yuan, an increase of 50.9% from 2,115,015,832 yuan in 1933. The average annual increase is about 22.85%. For the prices index, from 1933 to 1935, the prices index decreased from 103.9 to 96.4, which inherited the downward trend in prices from 1928. According to scholars' research, the main factors of price deflation was from the outflow of silver caused by the 1934 US Silver Purchase Act and the competitiveness of the economy at the time.[464] Therefore,

[463] A. Young (1971, p, 186) argued there are two years why the Nationalist Government continued minting silver dollars and the silver bars after the 1935 currency reform. The first reason was that the continuing coinage should be kept occupied "the planned early issuance of minor coins", which was good for the working conditions for the minting machines in future use. The second was reason was that the Nationalist Government wanted to calm the "public attachment to silver" and show to the public that the silver dollars would not be evaluated after the 1935 currency reform.

[464] For the references of price deflation during that period, see Friedman (1992), Friedman & Schwartz (1963, p. 483, pp. 489-491), Rawski (1989, p.15, pp. 312-400;1993), Silber (2019, pp. 38-89), and Richardson (2019/2020).

during this period, despite the currency issuance, prices remained stable overall, and there was prices deflation at that time.

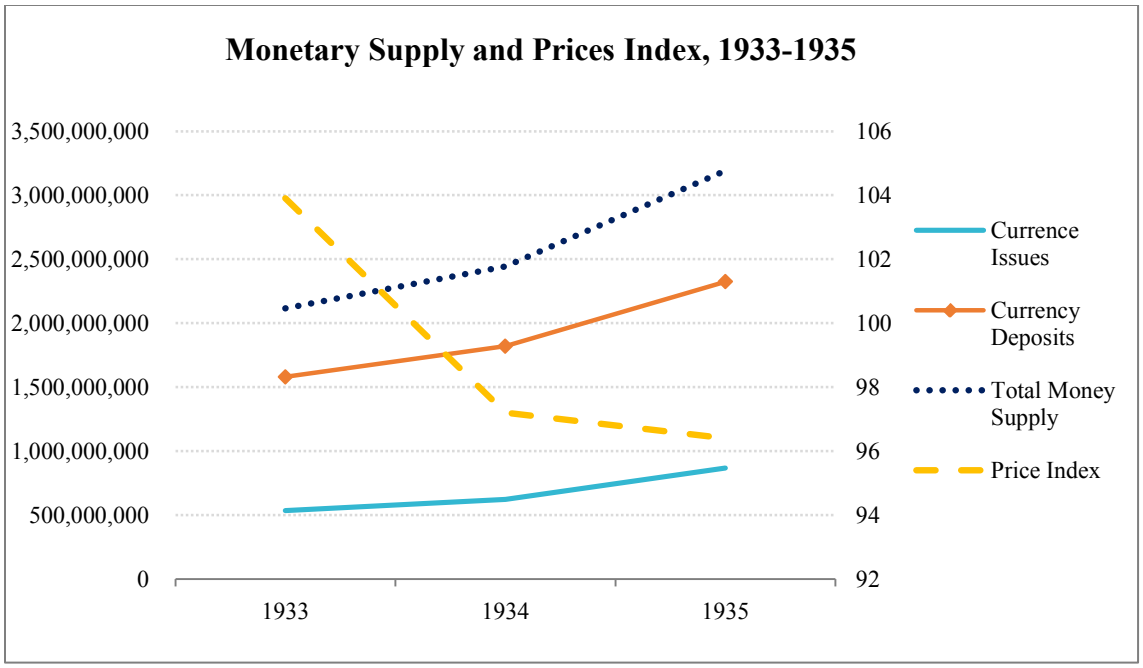


*Figure 4.4* Monetary supply and prices index, 1933-1935. Figure's currency unit is one million Chinese dollars (C$).

*Source*: Currency issues, currency deposits and total money supply from 1933 to 1935 is from Chang (1958, p. 376). Prices index from 1933 to 1935 (1930=100) is the Shanghai wholesale prices index, which is from Chang (1958, p. 371).

## 4.5 The 1935 Reform and the Establishment of Fiat Money System, 1935-1937

After reviewing the 1933 silver standard currency reform, in this section, we discuss the 1935 currency reform. As the 1935 reform was tightly connected with the US silver purchase in the 1930s, we will review the international and diplomatic background of the 1935 currency reform in section 4.5.1. In section 4.5.2, we show the process of the currency reform. Section 4.5.33 deals with the performance of banking system from 1935 to 1937, before the outbreak of the Second Sino-Japanese War.

### 4.5.1 The Prelude: The International and Diplomatic Background of the 1935 Currency Reform

The 1934 US Silver Purchase Act and the related international and diplomatic actions of financing China directly influenced the 1935 currency reform of adopting fiat money system. As we have demonstrated in the previous section 4.3 and section 4.4, the National Government's aim of the currency reform was to adopt gold standard and give up silver standard completely in future. China's most important reason for allowing the United States to buy silver was to gain foreign exchange to stabilize prices and financial order, while the United States also wanted to buy silver, to stabilize its prices, which seems like a solution for each. However, it did not work for China. The collapse of China's silver standard caused by the US silver purchase and international economic fluctuation in the middle 1930s accelerated the process of leaving the silver standard, making the National Government and Chinese economy face a very difficult and complicated situation of what currency reform policies should be adopted to welcome a modern banking system in future.

**4.5.1.1 The 1934 US Silver Purchase Act.** Globally, since the 16th century, silver was produced in America and was demanded in Asia being intermediated by Europe. Thus, historically, China was a country that imported a lot of silver.[465] However, as the output of silver was not sufficient, Chinese people relied a lot on the import of silver from foreign countries, especially from the late 1800s to the first half of the 20th century. Economist Zhu Jiaming described China's general import and export situation of silver from the late 18th century to 1929:

> From 1888 to 1931, China imported 1.037 billion ounces of silver, most of which was imported from 1900 to the 1930s. Since 1918, China became a net importer of silver. Between 1928 and 1929, China became the biggest importer of silver around the world. In 1929, when the global economic crisis happened, the consumption of silver of China was 40% [of worldwide silver consumption] (J. Zhu, 2012, p. 353, own translation)

However, since 1932, China became an exporter of silver. The global fluctuation of economy and currency exchange rate, the demand of silver in western countries made the silver of China be exported more to the western countries. Especially, the 1934 US Silver Purchase Act made the situation of the exhaustion of silver more serious in China, which played a very important role of influencing the currency reform in 1935.[466]

Historically, the United States also consumed a lot of silver. In the 1930s, 32% of the world's silver was produced in United States. 66% of the world's silver were the capitals owned by the United States.[467] This huge demand of silver in the United States implied that if there had some sudden fluctuation or drastically drop of economy, the

[465] See J. Dai (2005) and J. Zhu (2012, p. 353).
[466] See J. Zhu (2012, p. 354-355) and J. Zhang (2001, p. 211).
[467] See J. Dai (2005, p. 291).

price of would also be impacted. The Great Depression in 1929 made the price of silver in America drop sharply.[468] The price of silver dropped from US$58 cents in 1928 to US$0.38 in 1930, and to US$0.25 in 1932.[469]

The drop of silver and the economic recession made many Americans believed that it was necessary to expand money supply to raise the price of silver and stimulus the economy. Thus, purchasing the silver from foreign countries became the national policy of the United States. In the middle stage of the Great Depression, and under the pressure of the silver interest group in the US Congress, on June 19, 1934, President Franklin D. Roosevelt signed the Silver Purchase Act of 1934, ordering the Secretary of the Treasury to purchase silver overseas till the price of silver was US$1.29 per ounce, or till the price of the silver reserve of the Treasury realized one quarter of the price of gold reserve.[470]

However, the 1934 Silver Purchase Act broke what the United States promised in the London Silver Agreement of July 22, 1933, which was signed by the US, China, India and other six countries.[471] The purpose of the London Silver Agreement was "mitigating fluctuations in the price of silver" and its "effective stabilization," providing some methods "for limitations on sales of silver by governments."[472] According to the Agreement, China undertook not to "sell silver resulting from demonetized coins" during the four years of 1934 to 1937, while "the United States and four other countries agreed to buy from their respective production 35 million ounces yearly," and the "American

[468] For more about the Great Depression in United States, see Rothbard (1973).
[469] See J. Zhu (2012, p. 357).
[470] See J. Zhu (2012, p. 358), A. Young (1971, pp. 278-280), Shiroyama (2008, pp. 153-156), and ACPBC (1991, pp. 114-117).
[471] See (J. Zhu, 2012, p. 358), A. Young (1971, pp. 202-203), and ACPBC (1991, pp. 111-114). The London Silver Agreement of July 22, 1933 in Chinese is "1933 年國際白銀協定", or "1933 年世界白銀協定".
[472] See A. Young (1971, p. 203).

share was later set at about 24.4 million ounces."[473] The London Agreement strengthened the faith of the Chinese government to stabilize the silver price, resulting in China's adoption of silver standard in the winter of 1933.[474]

However, the 1934 Silver Purchase Act made the plan of stabilizing the silver price in international level become impossible. Moreover, the Silver Act was a flagrant violation of the London Agreement previously agreed by the US government. Influenced by the Act, in the end of 1934, the world price of silver saw year-on-year rises of 26.7%, and in May 1935, the world price of silver reached to the peak of $US 0.81 per ounce.[475]

The Chinese economy was also influenced by the silver purchase.[476] The stocks in the banks at Shanghai fell from C$563 million at the end of July to C$335 million at the end of 1934.[477] The interest rate of native banks rose from around 6% to 16% per annum. Small banks and small business were also facing bankruptcy. On February 4, 1935, the Central Bank stated that "seven small banks, three other financial companies, 58 factories, and 99 stores" were facing business failure, while Shanghai Stock Exchange also had fallen by around 50% in 4 years since its high in the mid-1931.[478] The national and local governments were also facing the drawn of money.

While the Americans believed that the silver purchase could increase China's external purchasing power and stimulus the Sino-US trade quota, Chinese banking sectors was strongly against the Silver Purchase Act. The Bankers Associations of China wrote a letter to President Roosevelt, clearly expressing its object to the Act, arguing that

[473] See A. Young (1971, p. 203).
[474] See J. Zhu (2012, p. 358).
[475] See J. Zhu (2012, p. 358).
[476] See A. Young (1971, p. 220-223) and Adviser Chamber of People's Bank of China [ACPBC] (1991, p. 117-119).
[477] See A. Young (1971, p. 221).
[478] See A. Young (1971, p. 221).

the Act would result in the increase of silver price and the financial crisis in China due to the lack of silver.[479]

The US government used its coercive power to artificially stimulate the international silver market through the Silver Purchase Act, which struck the Chinese monetary system and forced China to give up its silver standard, exploring the possibility of establishing a new monetary system. Another point we should argue is, it would be unfair to fully blame the depression on the American Purchase Act, as China started entering its depression in 1931 after the peak of the increasing prices of silver and exchange.[480] We may argue that this price deflation partly was the nature consequence of the previous economic bubble, and the price deflation might help the economy of China to go back to the nature interest rate and recover from the economic boom and bust.[481]

After the incident of the Silver Purchase Act, the Chinese government had to negotiate with the US government to discuss if there had the possibility of saving China's monetary system. During the whole negotiation process, China was in a very difficult and unfavorable situation. In the next section 4.5.1.2, we demonstrate the complicated international relationship among China, Japan, the US and the UK concerning of China's currency reserve system.

**4.5.1.2 The complicated relationship among China, Japan, the United States, and the United Kingdom, concerning of the issues of China's currency reserves.** Theoretically, before abolishing the silver standard, China should have "prepare[d] sufficient reserves other than silver, whether its new currency was linked to gold or to

[479] See J. Zhu (2012, p. 359).
[480] See A. Young (1971, p. 220).
[481] On more details of the theory of in defense of deflation after the economic boom and bust, see Bagus (2015).

foreign currencies such as the US dollars or the pound sterling."[482] Thus, China had to get the foreign reserves from the related foreign countries. However, the complicated international and diplomatic situation concerning of China's currency reserves in the 1930s made the reserve-getting process become very difficult and complicated.

In the perspective of the National Government, the currencies of Japan, the US, and the UK were the main possible solutions of adding China's currency reserves before the abolishment of the silver standard.[483] The complicated international and diplomatic relationships among China, Japan, the US, and the UK were adding uncertainty of the international cooperation of helping China's banking reform.

Considering the funding aid, the attitude of these countries was contradictory. On one hand, they wanted to aid China for their own interest, regarding "China as a potential market for their exports" and investments; on another hand, due to the high foreign debt level that the National Government had, they doubted if it was possible for China to successfully reform its monetary system.[484]

On the Japanese side, their diplomatic policies were also contradictory.[485] The Japanese were occupying China (the Manchurian Incident in 1931 started Japanese occupation on Manchuria).[486] On September 18, the Japanese Kwantung Army blew up a short section of the railway, slandering that it was the Chinese National Revolutionary Army who were responsible for the explosion. The military conflict started and Japanese quickly occupied Shenyang, the capital of Liaoning Province in Manchuria, one day after

[482] See Shiroyama (2008, p. 170). Economist Borg (1964, pp. 75-76) also holds the same opinion as Shiroyama.
[483] See Shiroyama (2008, p. 170).
[484] See Shiroyama (2008, p. 170).
[485] See Shiroyama (2009, p. 170) and Fairbank & Feuerwerker (1983, pp. 504-519).
[486] See Shiroyama (2009, p. 170) and Fairbank & Feuerwerker (1983, pp. 499-503).

the Manchurian Incident. Three months later, the Japanese army occupied the whole Manchuria. The hawks were getting more power that that time. On, January 28, 1932, a group of Kwangtung Army invaded Shanghai. This was the famous January 28 Incident (一·二八事變). The fire between the Japanese Kwangtung Army and the National Revolutionary Army ceased on March 3 because of international mediation. However, the relationship between China and Japan was still very tense.

While Japan was occupying China, the Japanese still wanted peace talks with China.[487] While Japan was trying to occupy the whole Manchuria, it still did not want to confront the Nationalist China and did not wanted to be isolated from international society. In April 1934, Japanese government claimed that it had the responsibility to keep peace in East Asia, willing to see the "national integrity, restore order and achieve unification."[488] However, so that there would be less competition in China from other powers, Japan wanted China to achieve all these goals by its own efforts and not to rely on foreign aids. In this sense, Japan was against any foreign aid to China, including military and financial aids. Another reason why Japan was reluctant to welcome foreign aids to China was that it was also recovering from the economic regression in the 1930s, which made Japan impossible to provide aids to China and compete with other western powers.[489]

As the United States and the United Kingdom did not want to provoke Japan in the early 1930s, along with the inner disagreements, the loans to China was not implemented. The difficult situation did not stop the National Government of China to ask the foreign aids to reform its monetary system.

[487] See Shiroyama (2008, p. 170) and Fairbank& Feuerwerker (1983, pp. 509-519).
[488] See Shiroyama (2008, p. 170).
[489] See Shiroyama (2008, p. 171) and Fairbank & Feuerwerker (1983, pp. 493-498).

**4.5.1.3 The continuous negotiation and the foreign financial aids.** "Since the US Silver Purchase Act was the main factor roiling China's money markets, China hoped the United States would absorb Chinese silver in exchange for US dollars or gold."[490] However, the diplomatic negotiation between China and the US was not very successful. Though the diplomatic situation of getting foreign aids was tough, the Nationalist Government continued to work on this issue.[491] After three negotiations, by selling more silver to the US, it successfully received the US dollars as financial aids to support its monetary system. However, the silver selling made China leave the silver standard. Thus, the Nationalist Government finally "chose" fiat money system as a substitution, as under the circumstances the only option that the Nationalist Government could think of was fiat currency (if they wanted to maintain and construct its newborn central banking system).

***4.5.1.3.1 The first international negotiation.*** The first international negotiation started in 1934.[492] In September 1934, China's financial minster H. H. Kung asked the US Secretary of State Cordell Hull by message if it was possible for China to get gold in exchange of silver stabilizing the monetary system and making the currency system based on gold. After a few times of bargain, China proposed a price US$0.50 per ounce of silver, which was equal to C$0.37, however, the US senator thought the price was high and rejected the proposal.

***4.5.1.3.2 The second international negotiation.*** The second international negotiation started in January 1935.[493] As the economic situation became quite unstable at that time due to the fluctuation of monetary system, on January 31, the general

[490] See Shiroyama (2008, p. 171).
[491] See Shiroyama (2008, pp. 171-173), A. Young (1971, pp. 223-237) and ACPBC (1991, pp. 158-178).
[492] See Shiroyama (2008, pp. 171-173), A. Young (1971, pp. 223-225), and ACPBC (1991, pp. 119-132).
[493] See Shiroyama (2008, pp. 171-173) and ACPBC (1991, pp. 132-141).

manager of the Bank of China, T. V. Soong sent a message to the US federal government telling that Chinese monetary system would collapse in June making China under the control of Japan. In February 5, China's financial minster H. H. Kung sent a new plan to the US for purchasing the silver of China.

> According to the plan drawn up by the Chinese government, China would offer 200 million ounces of silver the first year, although it retained the right to make adjustments in the amount of up to 50 million ounces. In addition, in order to cope with the transition in the monetary system, the Chinese government asked for a government loan of US$100 million and the equivalent amount of long-term credits against the future delivery of silver. If the United States agreed, China would peg its currency to the US dollar. (Shiroyama, 2008, p. 173)

At this time, the National Government clearly understand that it was better not to put all the eggs in one basket and planned to ask for many foreign aids to establish its financial system in case the US unilateral aids became impossible. H. H. Kung argued that it would be possible that Japan, Great Britain, the US, and France issued a multinational loan set up in 1920s.[494] However, the British Government rejected helping China, considering that the huge debt that the Nationalist Government had would made it risky to issue loans to China. Kung later turned his eyes to Japan to see if they could be a helping hand or not.

The negotiation between China and Japan was not very successful.[495] Kung realized the large loan that Japan intended to issue to China had the intention to control the Chinese economy, especially the north part of the country. Besides, Japan was also trying to sow discord between China and the US, suggesting that "China and Japan

[494] See Shiroyama (2008, p. 173).
[495] See Shiroyama (2008, p. 174).

should unite in protesting the US silver purchase policy."[496] Kung also believed that the western powers knew that Japan may be a threat to China's sovereignty, but they did not want to take the risk to help China. Kung said, "The Western Powers will not oppose Japan in this circumstance, because they have never taken a risk to rescue China."[497]

In February of 1935, in the US part, though the Treasury Department wanted to provided aids to China, the State Department refuted the proposal, with President Roosevelt not supporting either of the two departments.[498] After a few negotiations inside the Federal Government of the US, the Secretary of State Cordell Hull compromised, saying that "if a group of other countries agree to support China's plan, the United States would possibly support China."[499]

After several international negotiations, the British government finally agreed to help China.[500] First, the British government responded the US multiple aid proposal, worrying about the risk of issuing loans to China. It seems that the British government softened its position.[501] However, a similar situation happened on the British side: the British Treasury wanted to help China to stabilize its currency system, but the Foreign Office was more cautious to issue the loan.[502] In the end, on March 8th, 1935, the British government informed China it would like to provide the aids if it could be cooperated and provided by the United Kingdom, France, the United States, and Japan. On March 18, the Chinese Nationalist Government replied the UK, agreeing with the multiple loan plan.

[496] See Shiroyama (2008, p. 174).
[497] See Shiroyama (2008, p. 174) and ACPBC (1991, p. 161).
[498] See Shiroyama (2008, pp. 174-175).
[499] See Shiroyama (2008, p. 175).
[500] See Shiroyama (2008, pp. 175-176), ACPBC (1991, pp. 162-163), and A. Young (1971, pp. 228-229).
[501] See ACPBC (1991, p. 162).
[502] See Shiroyama (2008, p. 175).

Unfortunately, the hope of the multiple loan plan was soon gone.[503] The Japanese were not willing to issue the loan altogether with the other Western Powers. The US Government abandoned the plan as it did not want criticism its' Silver Purchase Act. France also left the plan as Japan and the US would not participate. In the China part, as the Chinese government realized this loan plan would leak out the crucial information of Chinese economy to Japan, it decided not to apply this loan plan but directly ask the loans from Great Britain, the US, and France.

***4.5.1.3.3 The third international negotiation.*** In September of 1935, the third international negotiation started.[504] In order to obtain assistance from Western countries, the National Government conducted three negotiations with Western countries in just one year or so. It is seen that the National Government believed that foreign assistance was important to stabilize China's domestic economic situation. In the meeting with the chief economic adviser to the UK government Frederic Leith-Ross, T.V. Soong suggested that China should abandon silver standard and back the *yuan* with a foreign currency. This was the *first* proposal of establishing a fiat money system in China since this international negotiation. During the several meetings with Leith-Ross, both Soong and Kung expressed that it was necessary for China to reform its monetary system with foreign aids. However, the British government was very sensitive to the issue that if China could manage its own monetary system. After knowing the situation of China's banking system, Leith-Ross gave few strong suggestions and criticisms on China's central banking system. First, he strongly criticized that Chinese government did not make the Central Bank as independent as possible, suggesting that "the governor and deputy governor of the

[503] See Shiroyama (2008, p. 176).
[504] See Shiroyama (2008, pp. 177-178), A. Young (1971, pp. 229-237), and ACPBC (1991, p. 170-178).

Central Bank be nominated by the government but have a long tenure in office, as five years" and that the other members of the board of the Central Bank should also be elected by the shareholders.[505] Second, Leith-Ross suggested that banks and public should have the rights to purchase from the Central Bank. Third, Leith-Ross opposed the Nationalist Governments proposal of the conversion of the internal debt with foreign loans, waring that his proposal would "only add to China's balance-of-payment burdens" and he encouraged Chinese people to purchase long-term bonds.[506]

In fact, before Leith-Ross's visit to China proposing his monetary policy suggestions, the Nationalist had already drafted their monetary reform plans in June.[507] Some of them were the same as what Leith-Ross proposed later. The Nationalist Government responded to Leith-Ross's proposal on October 11th in a new memorandum, accepting his suggestion as the monetary reform policies. First, the Nationalist Government agreed that China would open "the ownership and management of the Central Bank to the public".[508] Second, the Nationalist Government agreed that China would not make the conversion of the internal debt with foreign loan. Third, the National Government promised to balance its budget in 18 months. Fourth, the National Government would hire a foreign advisor for the Central Bank. Fifth, the National Government promised to issue long-term loans to consolidate its existing short-term bonds. Obviously, some top officials of the National Government itself already realized the existing problems of the management of the Central Bank before Leith-Ross's trip. Thus, if these proposals were not being executed in future, the persons who should be

[505] See Shiroyama (2008, p. 179).
[506] See Shiroyama (2008, p. 180).
[507] See Shiroyama (2008, pp. 178-179) and A. Young (1971, pp.229-231).
[508] See Shiroyama (2008, p. 180).

responsible for the monetary failure were not the foreign specialists, but the Chinese top politicians themselves.

Meanwhile in the September and October of 1936, Chinese people also felt very uncertain about the future of the monetary system.[509]

> [The] rumors of a government devaluation of the *yuan*, spurred people to exchange their cash not only for foreign currencies but also for basic commodities. September 1935, when they reached 6.4 percent below the level of the year before. … By October, the skittishness of the financial market had reached alarming proportions. Anticipating a devaluation, large groups of speculators, many of them said to be closely connected with politics, were actively purchasing foreign currencies. The value of the *yuan* dropped in relation to foreign currencies. (Shiroyama, 2008, p. 181)

As the financial system of China was collapsing, the Nationalist Government continued to talk with the US asking for silver purchases as the aids.[510] On October 26, Ambassador Alfred Sao-ke Sze told the US government that to stabilize the Chinese monetary system, China could offer the US 50 million ounces of silver at 65 cents per ounce for delivery within 2 months and another delivery of an extra 50 million ounces of silver in the next 4 months. Besides, the US government could also have the option of taking another 100 million ounces in the following 6 months. The Secretary of the Treasury Morgenthau accepted this proposal from Ambassador Sze. After the talks between Morgenthau and President Roosevelt, on November 2nd, Morgenthau told Ambassador that President

[509] See Shiroyama (2008, p. 181) and A. Young (1971, pp. 232-233).
[510] See Shiroyama (2008, pp. 181-182) and A. Young (1971, pp. 233-237).

Roosevelt had approved that US would purchase 100 million ounces of silver with the following conditions,

> (1) that the proceeds would be used only for currency stabilization, (2) that the Chinese government would establish a currency stabilization committee that would include America bankers, and (3) that the new currency would be linked to the dollars and China would agree to make it convertible at a level of America's own choosing. (Shiroyama, 2008, pp. 182-183)

As the US government dealt purchasing China's silver, the Nationalist Government immediately started its monetary reform plan on November 3, 1935.[511]

### 4.5.2 The 1935 Currency Reform: Establishing a Fiat Money Central Banking System

On November 3, 1935, Minister of Finance Kung Hsiang-his announced the final monetary reform plan.[512] The reform had the following 6 articles,

> 1. As of November 4, 1935, banknotes issued by the Central Bank, the Bank of China, and the Bank of Communications [*shall be full legal tender*] (*fabi*). Payment of taxes and the discharge of all public and private obligations shall be affected by legal tender notes. [*No use of silver dollars or bullion for currency purposes shall be permitted*]; in order to prevent the smuggling of silver, any contravention of this provision shall be punishable by confiscation of the whole amount of silver seized. Any individual found in illegal possession of silver with

[511] See Shiroyama (2008, p. 183) and A. Young (1971, p. 237).
[512] Shiroyama (2008) has translated the law and its articles from Chinese into English. For more details of the Chinese text of the law of central banking reform, see ACPBC (1991, pp. 181-182). For references of the announcement of the reform, see ACPBC (1991, pp. 1878-1880), Shiroyama (2008, p. 184), and A. Young (1971, pp. 237-239).

the intention to smuggle it shall be punished in accordance with the law governing acts of treason against the state.

2. Banknotes issued by banks other than the Central Bank, the Bank of China, and the Bank of Communications, whose issue was previously authorized by the Ministry of Finance, shall not exceed the amount in circulation on November 3, 1935. [*The outstanding banknotes of these banks shall gradually be retired and exchanged for Central Bank banknotes within a period to be determined by the Ministry of Finance*]. All reserves held against the outstanding banknotes, together with all unissued or retired notes from these banks, shall be handed over at once to the Currency Reserve Board [see article 3]. Notes previously authorized and in the process of being printed shall also be handed over to the board upon delivery from the printers.

3. A currency Reserve Board shall be formed to control the issuance and retirement of legal tender banknotes and to keep custody of reserves against outstanding banknotes. Regulations governing the board shall be separately enacted and promulgated.

4. As of November 4, 1935, banks, firms and all private and public institutions and individuals holding standard dollars, other silver dollars, or silver bullion shall hand over the same to the Currency Reserve Board or banks designated by the board in exchange for legal tender notes, at face value in the case of standard silver dollars, and in accordance with the net silver content in the case of other silver dollars or silver bullion.

5. All contractual obligations expressed in terms of silver shall be discharged by the payment of legal tender notes in the nominal amount due.

6. For the purpose of keeping the exchange value of the Chinese dollar stable at its present level, the Central Bank, the Bank of China, and the Bank of Communication shall buy and sell foreign exchange in unlimited quantities. (Shiroyama, 2008, p. 184)

According to this plan, the Central Bank of China (CBC) would be the banker's bank, monopolizing the issuance of banknotes through fiat money system. Besides, the currency reform plan also set a currency reserve board to make the CBC independent from the Nationalist Government. This is the *first* time in the history of China that the central government made a law trying to monopolize the whole currency system through central banking and fiat money. Globally, it was a time of creation of central banks, a time that only found resistance among Austrian economists like Hayek who had doubts on central banking.

Though all the central banks around the world are parts of government and it is very hard to keep them independent, the plan still emphasized the importance of the independence of banking system from daily government policies. The plan and the thoughts of making the CBC independent was the result of the monetary specialists from both the Chinese and internationally. However, whether this plan could work or not should be examined in detail (see Chapter 5 and Chapter 6 of this thesis). In the next section, we will present the applications and performances of the 1935 reform.

### 4.5.3 The Applications and Performances of the 1935 Currency Reform

**4.5.3.1 The nationalization of silver.** For making the CBC become the banker's bank, the first step of the application of the 1935 currency reform was to nationalize the silver reserves in China.[513] However, the Nationalist Government found that both the Chinese and foreign commercial banks in China were against the nationalization of silver, as "silver was worth two-thirds more in the United States."[514] The commercial banks all had a huge amount of silver reserve,

> At the time of the reform, the three government banks [(the Central Bank, the Bank of China and the Bank of Communications)] held about 130 million ounces of silver at Shanghai, and other banks there held about 100 million. A further 100 million was in banks in other parts of China. Thus, total bank holdings were about 330 million ounces. Of this amount, foreign banks held 43 million. (A. Young, 1971, p. 240)

As the commercial banks had a huge reserve of silver, the free exchange of silver was good for the benefit of the bankers. For making the bankers feel satisfied, the Nationalist Government then introduced a new policy that if the Chinese banks submitted their silvers, it would back them as banknotes, and the Fabi (60% of the government payments) and government securities (40%) as bonds, stocks, and debentures. Besides, the Chinese banks could continue to receive the interest from the government securities.[515] For solving the disagreement with the foreign banks, the Nationalist Government provided a different proposal. The Nationalist government would provide a mutual exchange of deposits for the foreign banks instead of providing them the deposit of securities,

[513] See Shiroyama (2008, pp. 185-186), A. Young (1971, p. 240-241).
[514] See Shiroyama (2008, p. 185).
[515] See Shiroyama (2008, p. 185), A. Young (1971, p. 240), and ACPBE (1991, p. 207).

providing the foreign banks a 5% per annum interest rate benefit than the interest rate for the Chinese commercial banks.

It seemed to be a good deal for the bankers, however, if the bankers and the Western governments analyzed the situation thoroughly, they might work together to be against the nationalization of silver (Generalissimo Chiang Kai-shek knew almost nothing about economics and already had a very bad track record of abusing his power in monetary policies). Besides, the higher interest rate for the western banks was also not fair for the Chinese economy. If the Nationalist Government really wanted the Central Bank being independent from the other governmental administrations, then the discrimination of interest rates already broke the rule of law of the market. Finally, some of the foreign banks were forced to submit their silver to the Nationalist Government. One example is the Hong Kong Shanghai Bank submitted its silver under the pressure of the British Government.[516] This was also not fair for the foreign banks who made their efforts to make benefit in the previous decades. This also was an invasion on the private properties of the foreign banks in China.

**4.5.3.2 The issuance of fiat money banknotes and the performance of prices.**

As the silver nationalization was settled, the central banking system started to issue banknotes in the form of Fabi.[517] As what the Currency Reform Plan announced by Minster of Finance Kung said, the Central Bank of China, the Bank of China, and the Bank of Communications all would have the privilege monopoly to issue the fiat money banknotes, Fabi. It was a shared monopoly of banknote issuance among the three state banks. After Kung's announcement, the amounts of the new issued banknotes were rising.

[516] See Shiroyama (2008, p. 186).
[517] See Shiroyama (2008, p. 186-187) and Tamagna (1942, pp. 144-145).

According to Young's statistics, "Note issues of the government banks grew from C$488 million on November 2, 1935, to C$1,680 million on June 30, 1937, an increase of C$1,192 million."[518]

The annual data for the three years from 1935 to 1937 can better reflect the situation. Figure 4.5 shows the situation of currency issuances before after the 1935 currency reform. The currency issues in 1935 were C$868 million, and in 1936 were C$1,633 million, an increase of 88.1% over the previous year. In 1937, due to the outbreak of the Second Sino-Japanese War, the currency issue was C$1,640 million, an increase of 0.4% over the previous year. The currency deposits also increased significantly after the 1935 currency reform: it increased from C$2,324 million in 1935 to C$2,708 million in 1936, an increase of 16.5%. However, due to war, currency deposits declined in 1937, reaching C$2,019 million, a 25.4% decline from the previous year. As the total money supply was the result of currency issues plus currency deposits, the total money supply in 1935 was C$ 3,192 million, and C$ 4,816 million in 1936, an increase of 50.9% over the previous year. The total money supply in 1937 was C$3,659 million, a decrease of 24.1% from the previous year. In Figure 4.5, we find that the trends of the three indicators of currency issues, currency deposits, and total money supply were the same from 1935 to 1937. Their trend was also the same from 1926 until the currency reform of 1935.

However, in terms of the prices index, the statistical data in Figure 4.5 shows an upward trend after the 1935 currency reform, which was the reverse of the situation of price deflation since 1931. For the analysis of the prices index before the 1935 currency reform, see section 4.3.4.5 and section 4.4.2.4 of this chapter. After the currency reform,

[518] See A. Young (1971, p. 251).

the prices index increased from 96.4 in 1935 to 108.6 in 1936, and then to 189.5 in 1937. The wholesale prices index of 1937 more than doubled since 1935. Therefore, price inflation caused a loss in the value of money in the hands of the people. "Due to the currency devaluation, now [people] have to pay more than C$100 to buy the imported products which could be bought in the price of C$100 in the best."[519] The lower income class suffered from this inflation.

[519] See J. Zhu (2012, p. 394).

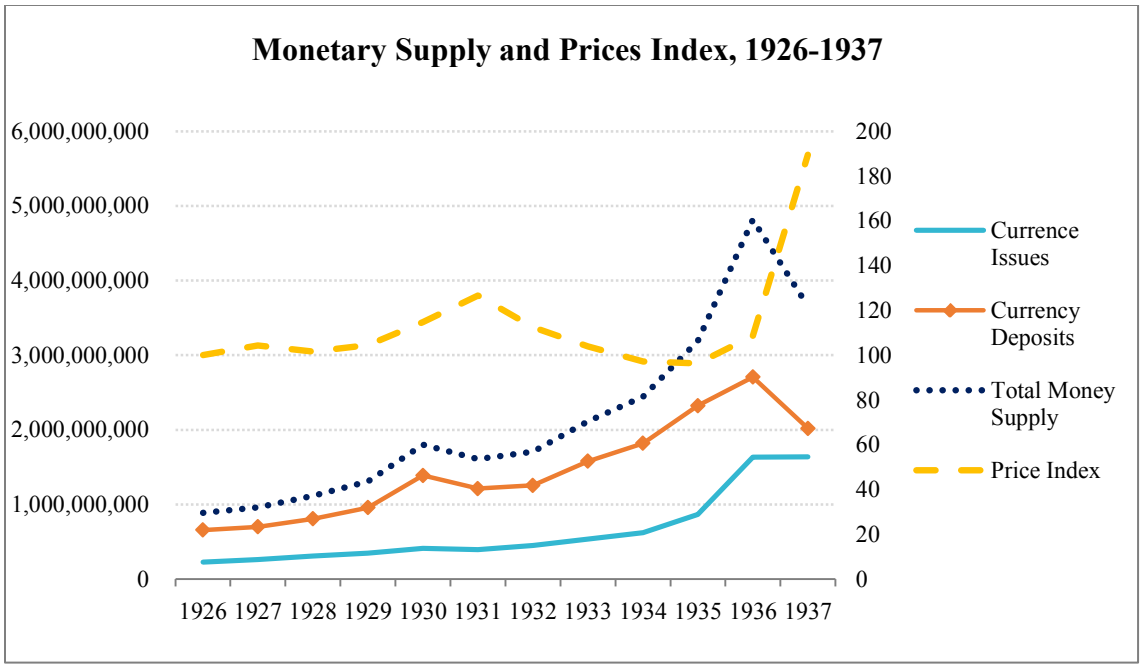


*Figure 4.5* Monetary supply and prices index, 1926-1937. Figure's currency unit is one million Chinese dollars (C$).

*Source*: Currency issues, currency deposits, and total money supply from 1927 to 1937 is from K. Chang (1958, p. 376). Prices index from 1927 to 1930 (1926=100) was calculated by A. N. Young from the whole prices index of Shanghai, Tianjin and Guangdong Province. For the origin of the data, see A. Young (1972, p. 171). Prices index from 1930 to 1937 (1930=100) is the Shanghai wholesale prices index, which is from K. Chang (1958, p. 371).

*Notes*: In order to enable prices index from the above two different sources (A. Young, 1971, p. 171; K. Chang, 1958, p. 371) to be displayed on the same statistical benchmark, we have processed the data from the above different sources according to the principle of proportionality based on their common index data in 1930.

**4.5.3.3 Industries and agricultural industry.** Figure 4.1 above shows the gross value of output (GVO) and net value added (NVA) of China's industries (including Manchuria) from 1927 to 1937. In 1927, the GVO was C$670.1 million with its index 66.6. China's industrial GVO was growing every year since then and reached its peak in 1936, with a GVO of C$1,227 million and its index of 122. In 1935, the year of the currency reform, the GVO was C$1,104 million, which continued the previous growth momentum. In 1937, due to the outbreak of the Sino-Japanese War, the GVO index dropped to 96 (C$ 965.8 million). However, China's industrial output value still increased by 44% in 1937 compared with 1927. In terms of NVA data, in 1927, the NVA was C$ 245 million with its index 66.3. China's industrial NVA was growing every year since then and reached its peak in 1936, with an NVA of C$ 499.1 and its index of 135. In 1935, the year of the currency reform, the NVA was C$552 million. In 1937, due to the outbreak of the Sino-Japanese War, the NVA index dropped to 112.3 (C$415.2 million). However, China 's industrial NVA still increased by 69.4% in 1937 compared with 1927.

Figure 4-2 above shows (see section 4.2.2.2) the prices index from 1931 to 1937. From 1931 to 1934, the index fell. After the currency reform in 1935, the index rose. The index in 1935 was 56 in 1935, 57 in 1936, and 60 in 1937. Thus, the prices were reflationary in agricultural industry, who were receiving more profits while the price that they paid was more or less the same level.[520]

As 75% to 80% of the Chinese families relied on agriculture for living before the Second Sino-Japanese War in 1937, the recovery and growth in agriculture was very important for the recovery of the economy of China.[521] In 1936, except the three

[520] See Shiroyama (2008, pp. 195-196).
[521] See A. Young (1971, p. 299).

provinces Sichuan, Henan, and Guangdong that suffered from natural disasters, most of the areas in China received a great harvest.[522] Comparing with the average output value in 1933 and 1935, the agriculture grew C$1,700 billion, which was 40% higher than the average output in 1933 and 1935.[523] Thus, both the agriculture and the industry recovered and grew after the 1935 currency reform due to the increased prices.

**4.5.3.4 The sales of silver.** For stabilizing the exchange rate, the Nationalist Government had to executive commitments of selling silver to the United States.[524] Though the Nationalist Government was hesitating that if the sale of silver would make people panic of the uncertain future of currency system and lied to the public that it would keep the silver standard, after a few diplomatic negotiations, the Nationalist Government started to sell its silver reserve.[525] It sold 50 million ounces of silver between December 21st, 1935 and January 7th, 1936. In May 1936, the Nationalist Government agreed to sell 75 million ounces in eight months. In July 1937, 62 million ounces were planned to be sold to the United States. Altogether, the Nationalist Government sold 187 million ounces of receiving US$94 million to stabilize the stability and exchange rate of Fabi. Including the previous silver sale to the United Kingdom and the later one after the breaking out of the Second Sino-Japanese War, the Nationalist Government sold in total 362 million ounces and received US$157 million.

The sales of silver helped China receive foreign banknotes to stabilize the economy and financial system in the short times. However, we still must point out that this policy may be problematic. First, the sales of silver were based on coercion, which

[522] See J. Zhu (2012, p. 393).
[523] See J. Zhu (2012, p. 393).
[524] See A. Young (1971, pp. 241-245).
[525] See A. Young (1971, p. 241).

invaded the private property rights of many Chinese citizens, Chinese bankers, and foreign bankers. Second, the sales along with the monetary reform destroyed the spontaneous use of silver in Chinese economy and caused the inconvenience of exchanges of products in market. Lastly, the monopolization of the issuance of currency may have caused the Nationalist Government to abuse its power and issue unlimited paper money which could destroy the Chinese economy. The later hyperinflation in the Communist Revolution proved this hypothesis (the detailed analysis of this topic will be provided in chapter 5 and chapter 6 of this thesis).

**4.5.3.5 The stabilization of exchange.** For managing the new currency system, the stabilization of Fabi was also an important task of the Nationalist Government.[526] However, the United States, the United Kingdom, and Japan all insisted that it would be better for China to peg Fabi only to their own currency systems, threatening that Chinese currency stability would be unstable if China did not do this. The Nationalist government withstood the pressure and informed these countries that China would like to link Fabi to each of the countries.

The first reason that why the Nationalist Government avoided to peg Fabi to a single currency was that it did not want to make conflicts with other Western powers. Minister of Kung argued,

> It would cause jealousy and suspicion among countries whose currency was not selected as a basis for China's currency and therefore would tend to make China's international position more difficult. (Shiroyama, 2008, p. 188)

[526] See Shiroyama (2008, pp. 189-192) and A. Young (1971, pp. 245-252).

For refuting the threat from the US side, Kung also made a very excellent argument when he was negotiating with the US government, making the US government clear that the plan would damage the interest of the US itself. He said,

> In managing the currency reform, we have carefully left the relationship of the yuan to foreign currencies unclear. One reason for that arrangement is to avoid opposition to any specific linkage. If we agree to link with the US dollars, is the US government ready to help us to explain to the Japanese government? (Shiroyama, 2008, p. 189)[527]

The second reason that why the Nationalist Government avoided to peg the yuan to a single currency was that the Nationalist Government wanted the Chinese financial market "as open as possible."[528] They thought the whole currency stabilization process was made by the governmental manipulation on currency system, which was not based on the true free market purchase of currencies; but at least the top politicians like Minister of Finance Kung and Ambassador to the US Alfred Sao-ke Sze realized the problems and insisted that the Chinese yuan (Fabi) should be open to be exchanged to any of the above three currencies (the US dollar, the British pound sterling, and the Japanese yen). In this sense, the Nationalist Government kept its independence of the currency exchange policy making and adopted the concept of free currency exchange, at least in the issue of letting Chinese *yuan* be exchanged not only in one limited currency unit.

The foreign exchange rates in the next few years were stabilized after the new planned exchanged rate on November 4th, 1935.[529] On that day, the Central Bank

[527] Shiroyama (2008) has translated the speech of Kung from Chinese into English. For more details of the Chinese text of the law of central banking reform, see ACPBC (1991, p. 246).
[528] See Shiroyama (2008, p. 189).
[529] See A. Young (1971, p. 237).

announce publicly the selling rates of yuan were 14-3/8 pence and US$0.29-1/2.Though the exchange rate had some fluctuation in some period, generally speaking, the rate remained stable.[530] Figure 4.6 shows the foreign exchange rates from 1927 to 1937. From 1935 to 1937, the exchange rate of Chinese yuan to US Dollar to were relatively stable. The lowest annual exchange rates from 1935 to 1937 were US$0.295, US$0.3025, and US$0.3025, respectively. And the highest rates were US$0.4213, US$0.2944, and US$0.2944.

[530] See A. Young (1971, pp. 247-252).

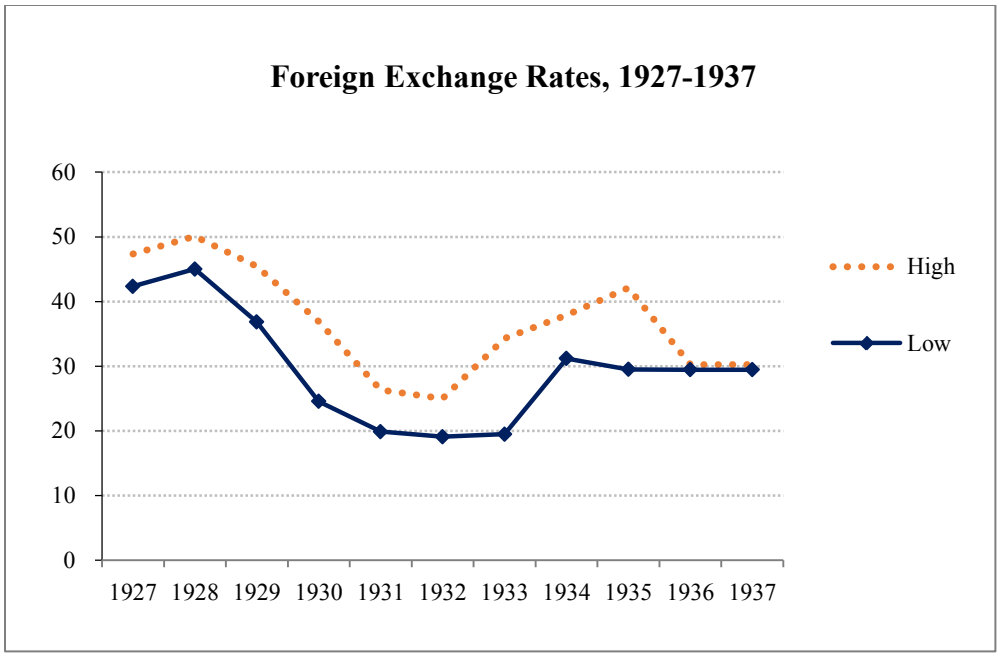


*Figure 4.6* Foreign exchange rate from Chinese dollar to US dollar. Unit: US Dollar (cents per C$).

*Source*: Young (1971, p. 469).

There are few reasons why the exchange rates were stabilized. The first was that China was continually receiving the foreign banknotes which maintained the exchanged rates. Secondly, the Nationalist Government communicated with the public sufficiently to let people trust that the new currency system would work. The third reason was that Chinese yuan was not pegged to a certain currency, which also made the market of yuan become relatively open. The fourth reason was that the Nationalist Government did not forbid the free convertibility of currency. All these four reasons made the public and market have strong faith in Fabi at that time which aided the maintenance of the currency exchange rate. The free convertibility of currency was not the only means of achieving the stable exchange rate, but also the aim of the monetary policy of the Nationalist Government. We will analyze this in the next section.

**4.5.3.6 The maintenance of the convertibility of currency.** The maintenance of the convertibility of currency was also the important policy after the currency reform.[531] The free convertibility of currency was also the policy of the Nationalist Government. However, it was not easy to maintain this free convertibility as some people worried that the free convertibility contradicted the stability of exchange rate.[532] Thus, inside the Nationalist Government, there was an argument if China should permit the free convertibility of currency.

T.V. Soong expressed his objection on foreign exchange control when he was meeting Leith-Ross. Soong "believed that the effect of any exchange restrictions would be to accelerate the flight of capital."[533] From the perspective of economic theory, Song's point is reasonable. For Soong and some other monetary specialists, the restriction of

[531] See Shiroyama (2008, pp. 188-192) and A. Young (1971, pp. 243-244).
[532] See Shiroyama (2008 p. 188).
[533] See Shiroyama (2008, p. 192).

capital would damage the credibility of the currency, causing more and massive capital flee quickly, thus destroying the new monetary system.[534] The opinions of Soong and other monetary specialist maintained the policy of free currency convertibility.

**4.5.3.7 The control of government budget and the balance of payments.** The Nationalist Government clearly knew that the controlled budget, the restriction of the issuance of currency, and the balance of payments would make people trust the new monetary system after the 1935 currency reform.[535] The 1936 national budget set the goal that the Nationalist Government would control the total expenditures which would not exceed the ones of the previous years.[536] However, the truth is that things were not going as planned. Figure 4.7 shows the situation of expenditures, revenues, and deficits from 1927 to 1937. After the currency reform in 1935, all three statistical indicators increased. Expenditures from 1935 to 1937 were C$941 million, C$1073 million, and C$1117 million, respectively, with an average annual growth rate of 9%. Between 1935 and 1937, the revenues were C$745 million, C$817 million, and C$870 million, respectively, with an average annual growth rate of 8.1%. Therefore, the deficits from 1935 to 1937 were C$196 million, C$256 million, and C$297 million, respectively, with an average annual growth rate of 23.1%. The fiscal deficit as a percentage of expenditure was almost the same as the growth rate of fiscal expenditure during the three years. Obviously, after the currency reform, the government failed to reduce the fiscal deficit at a macro level.

[534] Besides Soong, the chief of the management office of the Central Bank of China, Demao Xi and the foreign monetary advisor of the Nationalist Government Arthur Young (1936) also expressed their disagreement on capital control. For the reference of Xi's opinion, see Shiroyama (2008, pp. 192-193). For Young's opinion, see A. Young (1936). For more details of the theory on the danger of capital control and the theory of the mobility of the investor, see Mises (1949/1998, pp. 514-517).
[535] See Shiroyama (2008, pp. 194-195) and A. Young (1971, pp. 257-260).
[536] See Second Historical Archives of China [SHAC] (1994, pp. 458-459).

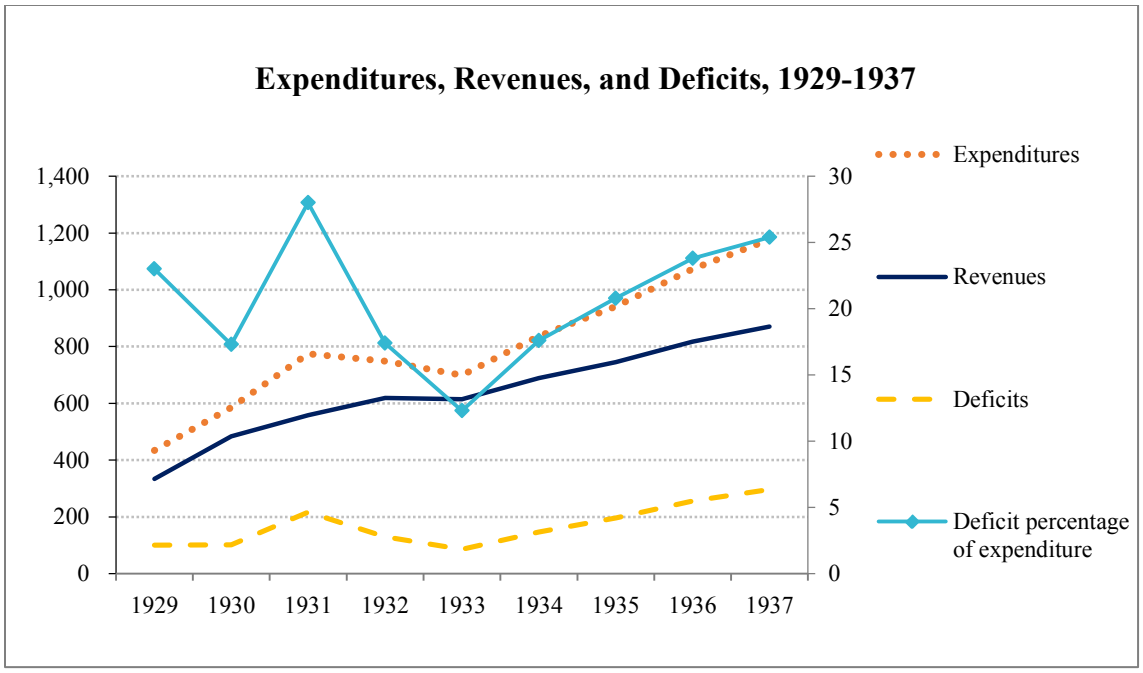


*Figure 4.7* Expenditures, revenues, and deficits, 1929-1937. Figure's currency unit is one million Chinese dollars (C$).

*Source:* A. Young (1971, p. 38).

**4.5.3.8 The reform of coinage.** Having strong control through monopolizing the currency, the Nationalist Government was also reforming and monopolizing the coinage.[537] Following the coinage reform in the early 1930s, the Nationalist Government approved the coinage plans "for issuing pure nickel 20-, 10-, and 50-cent coins, together with 1- and ½-cent coppers" recommended by Arthur Young and his colleagues.[538] From February to the end of July 1937, the Shanghai Mint was producing these new currencies. The mint produced "about 200 million nickel coins of a total value of about C$21 million, and about 600 million copper coins valued at about C$6 million."[539]

**4.5.3.9 The reform of reginal currencies and the decrease of traditional native banks.** This monopolization and nationalization of the currency was just a part of the currency reform, as the Nationalist Government did not monopolize the whole currency system (it was not possible for the to control the whole monetary system). On another hand, the Nationalist Government was also reforming and controlling the local banking system.[540] Despite Manchuria and the other occupied areas controlled by the Japanese, the Nationalist Government started to set down its central banking systems and issued Fabi in the Sichuan, Guangdong, and Shanxi provinces from 1934 to 1938. However, the outbreak of the Second Sino-Japanese War in July 1937 stopped the centralization of banking system of the Nationalist Government. This was obviously against the purpose of the goals of the monetary policy of the Nationalist Government. However, this provided the opportunity of the local banks to survive despite the banking

[537] See A. Young (1971, pp. 252-254).
[538] See Young, (1971, p. 253)
[539] See A. Young (1971, p. 253).
[540] See A. Young (1971, pp. 254-256).

centralization, which maintained the local and free banking institutions of China at least in a short time.

After the 1935 currency reform, the conditions of the traditional native banks, the modernly local and the free banking were worse after the 1935 currency reform.[541] The native banks played a very important role for thousand years before the western style modern banking system was introduced in China. Members of the native banks were strictly local, which could provide more credit rating between the borrowers and the lenders. However, because of the rise of modern private banking (1928 to 1937) and the 1935 currency reforms, the numbers old traditional native banks were disappearing. They lost much business to the modern banks.[542]

> The depression hit [the native banks] hard and many failed. From 1927 to 1937, the number at Shanghai fell from 540 to 77 at [Guangdong]. The total number in 1937 was estimated at 800, a drop of perhaps half from 1927. (Young, 1971, p. 266)

The modern local banking and the free banking developed tremendously from 1928 to 1937.[543] Some of them were even issuing bank notes playing the function of free banking. From 1928 to 1937, 124 new banks were established; there were 164 modern local banking and free banking with 1597 branches in 1937.[544] The deteriorating conditions of local banks and the establishment of a new banking system had created a stark contrast. After the 1935 central banking reform, the free-banking system was abolished coercively, and the rest of the modernly local banking system was gradually controlled by the central

[541] See A. Young (1971, pp. 262-267) and ACPBC (1991, pp. 230-238).
[542] See A. Young (1971, p. 265). The "native bank" is written as "錢莊" in Chinese.
[543] See A. Young (1971, p. 264).
[544] See A. Young (1971, p. 265).

banking system. The new banking system and its regulation may have brought some new positive factors to the development of China's banks. However, considering that the old banking system served the local financial needs, we cannot generalize that the old banking system must be inefficient for serving local finance.

**4.5.3.10 The increased Chinese silver and funds in foreign countries.** The Chinese Silver and Funds in Foreign Countries also increased a lot after the 1935 currency reform.[545] In a confidential letter that the CBC sent to the Finance Minister Kung on May 7th, 1937, the Central Bank highly praised the increased Chinese Silver and capitals in foreign countries, appraising that the financial situation was stable both inside China and globally. The letter said,

> Enclosed herewith the cash position summary of the three largest banks as of April 30, 1937, including our accounts with the Federal Reserve Bank of New York, the quantity of our saved silver available for exchange abroad and in Hong Kong, and funds we save in New York and London banks, totaling US$169,725,174.94. Compared with the numbers in March, this figure shows an increase of US$13,213,957.1. (ACPBC, 1991, p. 276, own translation)

The confidential letter also appraised that the financial situation was stable both inside China and globally. It said,

> We are optimistic that as long as the total balance available for foreign exchange continues to grow, our currency is sound, which has been proved in the last few calmly months. According to repeated confirmations received over the last few days, the U.S. government will not change her gold policy. The U.S. dollar has shown some improvement against the pound, and the price of all commodities

[545] See ACPBC (1991, pp. 276-283).

have increased. As far as our currency is concerned, we have a very wide margin of protection between the highest and the lowest [amount of our currency], unless there is a drastic monetary change in the major financial centers such as New York and London, which seems unlikely at this time. However, we are still cautiously watching all [the financial] developments in the United States and Europe and will report to you at any time. (ACPBC, 1991, pp. 276-277, own translation).

The confidential letter shows the relatively stable financial situation in the Republic of China at that time, and foreign investors' confidence in China. The relatively stable financial situation was also tightly related with the relatively stable currency policies after the 1935 currency reform.

**4.5.3.11 The recovered international trade, the more paid foreign debts and the increased foreign investment.** Trade recovered after the 1935 currency reform.[546] Figure 4.8 shows the foreign trade condition from 1927 to 1937. For the general description of the foreign trade during the Golden Decade, see section 1.2.1.2. In 1935, China's imports were C$919 million and were C$941 million in 1936, an increase of 2.4% over 1935. China's imports in 1937 were C$953 million, an increase of 0.01% over 1936. In 1935, China's exports were C$576 million and were C$706, million in 1936, an increase of 22.7% over 1935. China's exports in 1937 were C$838 million, an increase of 18.69% over 1936. Obviously, the increase in exports was higher than the increase in imports, which reflected the development of China's industry. The average annual growth rate of total foreign trade in these three years was 9.5%.

[546] See A. Young (1971, pp. 325-329), Shiroyama (p 196), and J. Zhu (2012, p. 393).

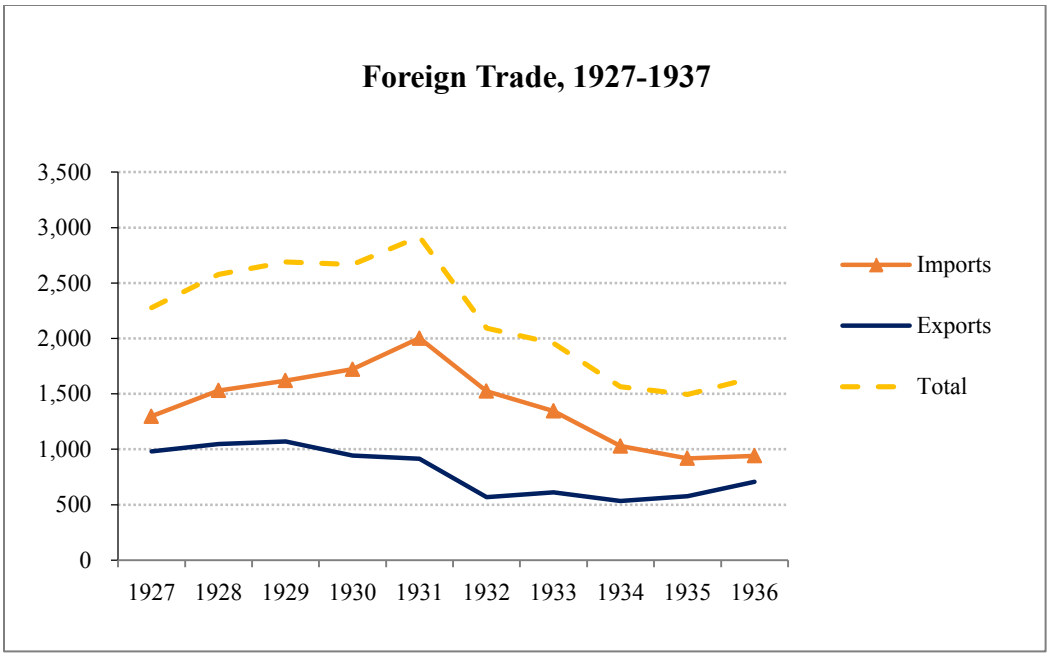


*Figure 4.8* Foreign trade, 1927-1937. Figure's currency unit is one million Chinese dollars (C$).

*Source*: A. Young (1971, pp. 494-494).

*Notes*: The data of foreign trade does not include Manchuria.

Though the foreign trade recovered after the 1935 currency reform, which was related with the reformed and the more stable central banking system giving investors and consumers' confidence, we still must point out that the relatively stable fiscal policy and the relatively peaceful domestic conditions also played their role in strengthening the investors and consumers' confidence and making the recovery of foreign trade possible. Besides, we also have to argue that the trade conditions might be improved more significantly if the Nationalist Government could eliminate more trade barriers such as tariffs as tariffs were more decisive for trade than currency given that the currency system was just born needing a stable economic and foreign trade situation to support it.

Because of the more stable economic situation after the 1935 currency reform, the foreign investment had also increased significantly.[547] The Nationalist Government was making a big effort to attract foreign investment after the 1935 currency reform.[548] One example was that the more paid foreign debts under the new central banking system attracted more trust from foreign investors. It seems that the new central banking system was helpful for China paying back more loans. One person who was close to a British financial official praised the efforts that the Nationalist Government made for improving the investment situation. He said,

> "London bankers were impressed by China's resuming service on the railways loans. … China has come almost with one bound into the ranks of the credit-worthy nations, and in the circumstances, it is perhaps natural that some support should be given to the idea of raising further large sums for reconstruction purposes in this country." (Shiroyama, 2008, p, 196)

[547] See A. Young (1971, pp. 360-386), Shiroyama (2008, p. 196), and J. Zhu (2012, p. 394).
[548] See A. Young (1971, p. 360-361) and Shiroyama (2008, p. 196).

Obviously, for foreign bankers, China's ability to pay foreign debt is more impressive than the new currency situation. Despite the lack of statistics on external debt payments at the time, in 1928, the remained railway debt was US$183 million. In 1937, two years after the currency reform, the remained rail debt was only US$226 thousand! Table 4.2 shows some paid debts after the 1935 currency reform.

## Some paid debts after the 1935 currency reform

| Time | Who | Amounts and Events |
|---|---|---|
| From 1936-1937 | The investors in the London market | The Chinese bounds Reached a 20-year high in the London Market |
| In the spring of 1936 | The British government | £1.1 million for the railway connected with Shanghai and Ningbo |
| In July 1937 | The British government | £3 million for a railway in Guangdong |
| In 1937 | The US Import and Export Bank | $1.5 million loan to China (in the condition of buying locomotives |
| In 1937 | Thomas Lamont, the President of Morgan and Company | Announced a new organization for investments in China |
| In April 1937 | Pan American Airlines | Started the cross-Pacific fights between San Francisco and Shanghai |
| In May 1937 | ITT, American telephone company | Opened the direct wireless telephone service between Shanghai and San Francisco |

*Table 4.2* Some paid debts after the 1935 currency reform.

*Source*: Shiroyama (2008, pp. 196-197).

*Notes*: Table is organized by the thesis's author based on the above reference.

**4.5.3.12 The public reaction to the currency reform.** Generally speaking, the China's public supported the currency reform.[549] The local press, the local areas (not only limited in Shanghai, but also in both the North and South China), and the technical markets were all very supportive. Though in some areas the fear of fiat money caused the rise of prices, but it "did not prove serious."[550]

## 4.6 Conclusion

This chapter studies how China established its first modern central banking system from 1927 to 1937. In section 4.2, we review the general political and economic background during this 10-year period. We conclude that it can be said that the Nationalist Government gradually established a stable political system before and after 1927 when it set down its capital in Nanjing. The relatively stable political institution also promoted the economic development of the Republic of China at that time. At the same time, generally speaking, due to the relatively peaceful domestic environment, the National Government was able to gradually implement policies of economic construction. From 1927 to 1937 was called "Gold Age" or "The Nanjing Golden Decade." Our research finds that during the Golden Decade, although the rural economy in China was not relatively advanced and prosperous, due to the relatively stable politics, the urban economy, industrial economy, and modern banking system developed rapidly. In addition, coupled with a relatively free speech environment, politicians and economists at the time discussed extensively what kind of banking system China should establish. All this laid the foundation for the gradual establishment of China's first modern central banking

[549] See A. Young (1971, p. 245).
[550] See A. Young (1971, p. 246).

system. Section 4.2.1 and section 4.2.2 study the political and economic background, respectively.

A relatively free social environment may not only be conducive to economic development, but also conducive to the generation of various social science ideas. At that time, from policy makers to economic scholars, the Chinese were discussing many issues of the topics of establishing a new currency and banking system as all of them believed that it was necessary to establish a new and strong banking system to build the Chinese economy. As the leader of the National Government, Chiang Kai-shek's understanding of the currency system played a decisive role in the final decision of the National Government. Section 4.2.3.1 is about Chiang's position on monetary system. Though Chiang did not have sufficient economic knowledge, he firmly believed that the issuance of banknotes through central banking system and the abolition of metal currencies such as gold and silver were the trends in social evolution. He also legitimized his proposal by claiming that the monetary revolution that he was managing was also advocated by Sun Yat-sen, the founding father of the Republic of China. However, Chiang's claim was not exactly what Sun Yat-sen proposed. Though Sun did not propose any systematic theory of establishing the modern central banking institution, he still argued that it was necessary to issue banknotes to solve the financial shortage of the National Government, but that the banknote reserves do not necessarily have to be 100%. While on the contrary, our research finds that Chiang never showed any strong interest in supporting a 100% reserve banking system. From the analysis of the following Chapters 5 and 6, we see that Chiang Kai-shek's vague currency concept had buried an indefinite bomb for his next series of erroneous currency decisions.

As the most important economic policy advisors and politicians of Chiang, Soong Tse-ven and Kung Hsiang-hsi also played important roles in the formulation of the National government's monetary policy. Section 4.2.3.2 introduces Soong Tse-ven and his 100% reserve central banking and anti-price inflation thoughts. Soong was Chiang Kai-shek's brother in law. However, as an economist who once studied at Harvard University and Columbia University in the United States, Soong, who had economic theory and international vision, obviously did not agree with Chiang Kai-shek's thinking in currency policy. On the issue of monetary policy, T. V. Soong, like Chiang Kai-shek, advocated that China needed a unified national monetary system and the introduction of the Western modern central banking system. As for how to establish the institution of the central bank, Soong did not have a clear answer initially, but gradually evolved his monetary thought according to the development of the economic and political situation and the suggestions of other economists. The biggest difference between Soong Tse-ven and Chiang Kai-shek's monetary policy is that Soong opposed expansionary monetary policy and price inflation, advocating limiting currency issuance to curb price inflation. It is worth mentioning that Soong's 100% reserve proposal and the 100% gold standard reserve plan proposed by Edwin K. Kemmerer in 1929 complemented each other. Soong also supported Kemmerer's plan at that time. In fiscal policy, he also advocated austerity for fiscal policy, opposing the government's use of large amounts of expenditure for military spending. Because the government's final decision-maker was Chiang Kai-shek, although Soong theoretically opposed price inflation policy, he was unable to act upon his convictions. Instead, he was forced to help the Chinese government sort out as much as possible the fiscal and monetary policies with the development of the economic

situation and Chiang Kai-shek's policy thinking. Generally speaking, Soong Tse-ven was a Milton Friedman-like monetarist and a laissez-faire financial scholar and politician. From the understanding of the gold standard and 100% reserve, perhaps Soong may be the most libertarian among the financial policy makers of the National Government.

Section 4.2.3.3 demonstrated Kung Hsiang-hsi and his monetary proposals. Like Chiang Kai-shek and Soong Tse-ven, Kung also considered that the fiat money reform of the Nationalist Government inherited Sun Yat-sen's monetary thinking. After 1933, Kung became Chiang's most important financial assistant instead of Soong. Unlike Soong, although Kung's point of view acquiesced in his understanding of supporting 100% silver reserve, he also supported fiat money policy with fractional reserve, which is contradictory. Kung did not have a very clear monetary theory and indulged Chiang Kai-shek's policy on currency abuse in practice. Therefore, Kung Hsiang-hsi was completely different from Soong Tse-ven's tight fiscal and monetary policies practically, though he himself theoretically was against expansionary monetary policy and price inflation.

Before and during the currency reform around 1935, other economists also put forward their opinions and suggestions on China's currency banking system and currency standard, though their voices did not directly affect China's currency reform as the monetary ideas and policies of Chiang Kai-shek, Soong Tse-ven, and Kung Hsiang-hsi. The opinions and suggestions of these economists on monetary policy were mainly divided into three groups. The first group of scholars supported various forms of the silver standard, the second group of scholars supports various forms of physical articles standard, and the third group of scholars were radicals in supporting the policy of non-exchangeable banknotes. It is regrettable that in the literature we have found so far, no

scholars of the Golden Decade were supporting the idea of returning to the traditional free banking silver standard or were influenced by the Austrian School supporting the modern Austrian position on free banking system. Section 4.2.3.4 deals with their arguments. It is worth mentioning that, among the above scholars, Yao Qingsan systematically introduced the monetary theories of western scholars from the ones who supported gold standard (i.e., G. Cassel, J. Kitchin, G. F. Warren, and F. A. Pearson), the ones who supported to stabilize price levels (i.e., I. Fisher, A. Salter, P. Einzig, H. Strakosch, and D. H. Robertson), and the Keynesian monetary. Especially, Yao Qingsan was probably the first Chinese economist during the Mainland period of the Republic of China who systematically introduced the Austrian School of Economics' monetary theories into China. In *Trends in Modern Currency Thoughts and World Currency Systems*, Yao introduced F. V. Wiesser, J. G. K. Wicksell, F. A. Hayek, and L. von Mises' business cycle theories.

Section 4.3 reviews the central banking institutions from 1927 to 1933. In section 4.3.1, we demonstrate that National Government already had a failed central banking experiment in 1924 in Guangdong Province due to expansionary monetary policy and price inflation. Section 4.3.2 briefly reviews the 1929 Kemmerer project as we have analyzed systematically in Chapter 2. The plan proposed that China would adopt a new gold standard called *sun*, which had no actual gold circulation and was equal to US $0.40. Kemmerer Commission believed that making a connection among the price of *sun*, silver dollar, and gold would be easier for China to adopt gold standard eventually. Though *sun* was planned as a fiduciary silver coin, the Kemmerer Commission did not plan to unify the currency into the silver standard as the Commission planned the gold

standard as the ultimate standard for China. The reason why the Commission did not unify China's currency standard into pure silver standard of 100% reserve is that the Commission was considering that China would eventually implement the gold standard, making it unnecessary to achieve the silver standard of 100% reserve because the currency *sun* was enough to solve the problem of currency issuance at that time.

Section 4.3.3 demonstrates the establishment of the Central Bank of China in 1928. In July 1928, the National Financial Conference decided to adopt the gold standard as the ultimate currency standard of China. Before the adoption of gold standard, the conference decided to adopt the Chinese Silver Dollar as the basic currency unit instead of the silver tael in the transition between the old and diverse currency system, and the future gold standard, while abolishing the silver tael standard. In the currency reform plan decided by the conference, other subsidiary coins would also gradually be converted into silver dollars. Although the Austrian School does not agree with central bank institutions, it agrees with the 100% gold standard, and, from an objective point of view, Edwin Kemmerer and the National Government's plan to reform the monetary system was indeed detailed and rigorous. Thus, their efforts in the process of currency reform cannot be completely and simply neglected.

Section 4.3.4 analyzes the performance of the CBC from 1928 to 1933. During that period, China's banking system was in a process of nationalization. The CBC's capitals were increasing, more CBC local branches were opened, and other reforms were also adopted. Section 4.3.4.5 studies the situation of the monetary supply and the wholesale prices from 1927 to 1933. The total money supply in 1933 was 2,115,015,832 yuan, an increase of 119.8% from 962,337,076 yuan in 1927. The average annual

increase was about 14%. During that period, 1931 was the highest peak of the newly added currency issuance and currency deposits. As a result, the total money supply in 1931 reached 1,606,701,990 yuan, an increase of 67% from 962,337,076 yuan in 1927. The total money supply in 1932 was less than in 1931, and the total money supply in 1933 was more than that in 1932 and exceeded the previous years of the same period. As for the prices index, from 1927 to 1931, the prices index increased from 104.4 to 126.6. In 1932 and 1933, the prices index fell respectively to 112.5 and 103.9. Therefore, during this period, despite the currency issuance, prices remained stable overall and there was no significant price inflation. From 1931 to 1933, China was even in an era of price deflation. Our statistic results cooperate with the investigation of Milton Friedman, Thomas G. Rawski, and William L. Silber on price deflation phenomenon during these years.[551]

Section discusses 4.4.1 the process of adoption the Silver Dollar standard. It should be said that the policies adopted by the National Government during this period were orderly. For gradually adopting the gold standard, in the beginning of 1930, the National Government decided to adopt the Customs Gold Unit (CGU) system as a transition towards the final gold standard, which helped the National Government receive more fiscal revenue due to the plan. CGU became a tool for importing and exporting trade to avoid currency fluctuation caused by government currency reform. Besides, price regulation and the ban on gold and silver were also adopted. In May 1930, the National Government started to regulate foreign silver dollars and forbid the commercial export of gold, which led the decrease of gold price in China. The result of the embargo was that the price of gold decreased in the Chinese market, which caused the Central Bank of

[551] For the references of price deflation during that period, see Friedman (1992), Friedman & Schwartz (1963, p. 483, pp. 489-491), and Rawski (1989, p.15, pp. 312-400;1993).

China to buy gold in cheaper prices and gained more profit by exporting it. Although the government had a policy of prohibiting private gold exports in 1930, in order to obtain foreign exchange and maintain exchange rate stability, the government itself was still conducting silver export transactions.

Obviously, a government's policies can hardly be advanced without the support of public opinion. Therefore, during this period, the National Government focused on dialogue with the financial sector, benefiting financiers and entrepreneurs from supporting its currency reform. Because of the commutation with these personages, the financial and banking societies had a strong public opinion on the policy of the abolishment of the silver tael standard and adoption of the silver dollar standard, and only few people held the reservation of the new policy which were almost ignored by the society.

During the period from 1933 to 1935, the fluctuating rate of silver tael and Silver Dollar made the dollar lose the use as an instrument of avoiding monetary risk and caused a huge loss of the individuals who held the dollars as their assets and the taels as the debt. For solving the fluctuation of exchange rate, in July 1932, Minster T. V. Soong nominated a committee to design the weight and fineness of a new silver dollar, the new exchange rate between silver tael and silver, and to provide some suggestions on monetary policies, public understanding, and confidence on the currency reform. Therefore, the government decided to centralize the issuance of currency in Shanghai, abolishing the past practice of minting official currencies in different regions. Moreover, the government also controlled the right ofcoinage. On March 1$^{st}$, 1933, while the Central Mint started to mint the new silver dollar currencies as circulation coins, the National

Government regulated the provincial and local mintages and abolished some of them, starting the unification of the coinage right.

After adopting the above policies, the National Government finally carried out currency reform. On March 10th, 1933, Financial Minster T. V. Soong declared the official exchange rate of 0.715 Shanghai taels per dollars. On April 5, 1933, the Ministry of Finance announced *the Administrative Decree of Abolishing the Silver Tale and Adopting Silver Dollar*, ruling that all public and private payments, contract bills, and all transactions shall be converted to Silver Dollars, and silver tale shall not be used for the above purposes again. The decree also ordered that the people who had held silver tales may exchange for Silver Dollars in the government offices and the government banking institutions. Thus, China entered the era of central banking silver dollar and said goodbye to the more than one-thousand-year long history of using silver taels since the Song Dynasty.

In section 4.4.2, we reviewed the performance of the Chinese Silver Dollar, 1933-1935. Though the transition period was very short in 1933, the process was successful. Just in a few days after the beginning of the transition, exchange was quoted in dollars instead of taels. Besides, the coinage also had a high quality as both the Chinese (who had studied coinage issues in the US previously) and the West were participating in the process. There was a high demand of the newly issued Silver Dollars. The newly issued silver dollars were also in huge demand. From March 1933 to October 1935, C$133 million in dollars and C$56 million in bars were minted.

The performance of prices is also an important indicator of the effectiveness of currency reform. The monetary unit during this period was the Chinese Silver Dollar. The

total money supply in 1935 was 3,192,326,263 yuan, an increase of 50.9% from 2,115,015,832 yuan in 1933. The average annual increase is about 22.85%. For the prices index, from 1933 to 1935, the prices index decreased from 103.9 to 96.4, which inherited the downward trend in prices from 1928. According to scholars' research, the main factors of price deflation was due to the outflow of silver and the competitiveness of the economy at the time. Therefore, during this period, despite the currency issuance, there was smooth price deflation at that time.

Section 4.5 discusses the 1935 currency reform and the establishment of the fiat money system from 1935 to 1937. In the beginning of this section we have pointed out that the 1934 US Silver Purchase Act and the related international and diplomatic actions of financing China directly influenced the 1935 currency reform of adopting fiat money system. The Great Depression in 1929 made the price of silver in America dropped sharply. The drop of silver and the economic recession made many Americans believed that it was necessary to expand money supply to raise the price of silver and stimulate the economy. Thus, purchasing the silver from foreign countries became the national policy of the United States. On June 19$^{th}$, 1934, President Franklin D. Roosevelt signed the Silver Purchase Act of 1934, ordering the Secretary of the Treasury to purchase silver overseas till the price of silver was US$1.29 per ounce, or till the price of the silver reserve of the Treasury realized one quarter of the price of gold reserve. However, the 1934 Silver Purchase Act broke what the United States promised in the London Silver Agreement of July 22, 1933, which was signed by the US, China, India, and six other countries. The purpose of the London Silver Agreement was to mitigate fluctuations in the price of silver and its effective stabilization providing some methods for limitations

on sales of silver by governments. According to the agreement, China undertook to not sell silver resulting from demonetized coins during the four years from 1934 to 1937, while the United States and four other countries agreed to buy from their respective production 35 million ounces yearly, and the American share was later set at about 24.4 million ounces. The London Agreement strengthened the faith of the Chinese government to stabilize the silver price, resulting in China's adoption of the silver standard in the winter of 1933. The 1934 Silver Purchase Act made the plan of stabilizing the silver price in international level become impossible. Moreover, the Silver Act was a flagrant violation of the London Agreement previously agreed by the US government. Influenced by the act, in the end of 1934, the world price of silver saw year-on-year rises of 26.7% and in May 1935, the world price of silver reached to the peak of $US 0.81 per ounce.

Besides, the Chinese economy was also influenced by the silver purchases. The stocks in the banks at Shanghai fell from C$563 million at the end of July to C$335 million at the end of 1934. The interest rate of native banks rose from around 6% to 16% per annum. Small banks and small business were also facing bankruptcy. On February 4$^{th}$, 1935, the Central Bank stated that seven small banks, three other financial companies, 58 factories, and 99 stores were facing business failure, while Shanghai Stock Exchange also has fell by around 50% in 4 years since its high in the mid-1931. The national and local governments were also facing the lack of money. Besides, we find that the research of Milton Friedman, Thomas G. Rawski, William L. Silber, and Gary Richardson all argued that 1934 Silver Act had a negative influence on China's price deflation phenomenon during these years.[552] Price deflation based on the spontaneous market activities might be

[552] For the references of price deflation during that period, see Friedman (1992), Friedman & Schwartz (1963, p. 483, pp. 489-491), Rawski (1989, p.15, pp. 312-400;1993), Silber (2019, pp. 38-89), and

helpful for an economy to recover from previous economic bubble. However, the US government's coercive silver purchase distorted the economic order of China at time. Thus, generally the 1934 Silver Purchase Act was negative for China. Subsection 4.5.1.2 analyzes the 1934 Silver Act and its consequences.

During that period, for the topic of the aids to China, Japan, the US and the UK also had several diplomatic negotiations with China during that period. After three negotiations from September 1934 to September 1935, by selling more silver to the US, China successfully received the US dollars as the financial aids to support its monetary system. However, the silver selling made China leave the silver standard. Thus, the Nationalist Government finally "chose" the fiat money system as a substitution, as under the circumstances, it was the only option that the Nationalist Government could think of (especially if they wanted to maintain and build their newborn central banking system).

Section 4.5.2 reviews the laws and decrees of the 1935 currency reform. Section 4.5.3 provides an in-depth analysis of the applications and performances of the 1935 currency reform. The following policies were also taken during that period: the maintenance of the convertibility of currency, the control of government budget and the balance of payments, and the reform of coinage. Besides, due to the reform, regional currencies and traditional native banks were decreasing. During that period, industries and agricultural industry were growing. The international trade was also recovering, while more foreign debts were paid, and more foreign investment entered China.

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Richardson (2019/2020). The book review of Richardson on Silber's *The Story of Silver* proposed a chain of events: 1) the Silver Purchase Act (1934) doubled the price of silver and brought deflation to China; 2) the crisis caused a communist insurrection that further weakened the country; 3) this weakness was exploited by Japan to complete the invasion of China; 4) The United States helped China with embargoes on Japan; 5) Japan's response was the bombing of Pearl Harbor; and 6) The United States entered World War II and the Communists ended up taking power in China. And all because Roosevelt had the idea of restoring the Silver Standard, as an alternative to the Gold Standard that he had abandoned the previous year, and incidentally securing the support of the senators from the West, where the silver mines were.

The situation of the issuance of fiat money banknotes and the performance of prices can shed light on the consequence of the reform. Subsection 4.5.3.2 deals with this topic. The total money supply in 1935 was C$3,192 million and C$4,816 million in 1936, an increase of 50.9% over the previous year. The total money supply in 1937 was C$3,659 million, a decrease of 24.1% from the previous year. However, in terms of the prices index, the statistical data shows an upward trend after the 1935 currency reform, which was the reverse of the situation of price deflation since 1931. The prices index increased from 96.4 in 1935 to 108.6 in 1936 and to 189.5 in 1937. The wholesale prices index of 1937 more than doubled since 1935. Therefore, price inflation caused a loss in the value of money in the hands of the people and the low-income class suffered from this inflation.

Although it can be said that from 1933 to 1935, the Chinese government's currency reforms advanced smoothly, relevant scholars have different views on the evaluation of the 1935 currency reform. Arthur N. Young, who was deeply involved in the proposal of the National Government's monetary policy, had an obviously positive opinion. He considered that "The abolition of the tael accomplished a real and useful simplification of the currency". Besides, he also believes that currency reform promoted the modernization of China's currency minting, claiming that "the existence of a modern mint with qualified personnel cleared the way for basic coinage reform." Thus, he thought that "After the 1935 currency reform, the mint was in position to concentrate on making token coins for use under the managed currency standard."[553] In March 1937, the Chairman of Bank of China T. V. Soong, who also deeply involved in the policy making of economic and financial issues, arguing that despite China's successful currency

[553] See A. Young (1971, p. 187).

reforms before 1935 "There are no grounds for suggesting that China has left all her difficulties behind." He believes that there was no evidence that in the 18 months before the currency reform, "the whole outlook in the country, politically, financially and commercially, changed completely and for the better future."[554] Japanese scholar T. Shiroyama, who studied the history of modern Chinese economics, had a more complicated view.[555] Though she praised that silver was functioning as a safeguard against the government monetary interference till 1931, she also argued that the monetary system stopped working when it was facing the fluctuation of silver in the 1930s, especially in June 1934. Thus, she doubted if the free banking system was still working and proposed an effective central banking to solve the problem. However, she pointed out that as Chinese people, especially from the financial and banking sectors were in contradiction. On one hand, these individuals were worrying about the arbitrary note issuance by the government; on another hand, they also believed that currency and credit control were necessary. She suggested more studies should be made on the contradiction of Chinese public opinion.[556] Professor Zhu Jiaming, a well-known Chinese economist who assisted the Chinese Communist Party regime's Prime Minister Zhao Ziyang in carrying out market-oriented reforms in mainland China in the 1980s, believes that the fiat currency reform had the following characteristics. First, the reform of the fiat currency destroyed China's entrenched old banking system, ending the silver-based currency system since the middle of the Ming Dynasty. Second, the reform ended China's long "backward, diverse and chaotic" currency system. Third, the reform made China achieve the transition from the gold standard to the silver standard, and eventually

[554] See Shiroyama (2008, p. 197).
[555] See Shiroyama (2008, p. 169).
[556] See Shiroyama (2008, p. 169).

became the fiat money paper currency standard, and "cut off the possibility of implementing the gold standard again." Fourth, the reform replaced metal money with credit money and "realized the modernization of China's monetary system." Fifth, the reform integrated China and the world's monetary system, making China become a part of the world financial system. However, on the other hand, Zhu argued that the reform "fundamentally destroyed the traditional basis of China's laissez-faire economy," which in turn led to the subsequent occurrence of national capitalism, hyperinflation, and even communism.[557] He says,

> China's laissez-faire tradition was fundamentally shaken and subverted [because of the 1935 fiat money reform], thus laying a foundation for the state ownership in China's history in the 20th century. The fiat money reform was even the foundation of Chinese communism and its public ownership. (J. Zhu, 2012, p. 414, own translation)

The 1935 central banking reform seemed to improve the economic and financial performance; however, it was the more restricted fiscal and monetary policies of the Nationalist Government and people and the financial cycle's help made the improvement possible. Besides, the relatively stable economic situation in the National Government ruled area was also a key factor of the improved economic and financial performance. In this sense, we have to point out that it was the strong desire of improving the banking and economic situation, the understanding of the importance of a more restricted fiscal and monetary policies, and some correct and applied policies (more limited government deficit, more limited credit expansion, etc.) that helped Nationalist Government achieve a more stable financial system. However, the 1935 central banking reform also had some

[557] See J. Zhu (2012, pp. 412-414).

negative impacts. Due to the increased price, the declining purchasing power hurt the people who had lower salaries, which might cause a business boom and bust in the future. Finally, the destroyed native banking and free banking might also destroy the spontaneous economic orders in local areas. From the perspective of the Austrian School, the destruction of China's free banking system is sympathetic. However, from the perspective of historical trends at that time, the establishment of the central bank system was almost inevitable. Although the central bank system is a manifestation of the expansion of government power, this does not mean that the central bank system is a communist system, let alone that the reasons for the subsequent Communist Revolution can be attributed to the establishment of the central bank system. Finally, it must be observed that the international environment at that time was towards the central bank system. Edwin Kemmerer and other "money doctors" established a central bank system based on the 100% gold standard in Europe, Asia, and Latin America, which became a major trend in the banking system at that time. Another major contribution of this chapter is that our research fills a gap in the previous international research on the entire process of establishing China's first modern central bank.[558]

[558] One example is the working paper of University of Geneva (Flores Zendejas, Lopez Soto, Sanchez Amador, 2020). While they forget about the creation of the central bank in China in the interwar period (probably due to lack of information), this paper revealed something important: the creation of these institutions was intended to make countries attractive to foreign investment and it was not successful.

# Part 3

## Central Banking and Wartime, 1937-1949

# Chapter 5

## Central Banking in the 2nd Sino-Japanese War

**Abstract**: This chapter analyzes the conditions of China's first modern central banking institutions during the Second Sino-Japanese War. China established its first modern central banking in 1928, along with its 1933 silver-standard reform and its 1935 fiat-currency reform. Due to the 1935 banking reform plan, the Chinese National Government would establish a modern central reserve banking system which was planned to fully control the currency issuance. However, the outbreak of the Second Sino-Japanese War in 1937 delayed the ongoing central banking reform. Based on quantitative analysis and an original synthesis of archives and previous research, this chapter studies China's central banking institutions during the Second Sino-Japanese War, 1937-1945. In order to understand the wartime banking structure in China, it is crucial to review the relevant historical backgrounds. This is due to the complicity of the wartime China as the country was separated into Free China, Japanese-occupied China (along with Manchukuo) and Communist-occupied area. In the beginning of the analysis, this chapter provides the political and economic background during the Second Sino-Japanese War, along with an analysis of the disappearing local, private, and spontaneously free banking systems. Secondly, this chapter deals with the background of the wartime banking policy. In the later sections, we discuss the process of the wartime expansionary monetary policy and price inflation and provide an in-depth discussion of the possible causes of the wartime price inflation, along with its consequences.

**JEL Classification:** B2, B53, E42, N15, N25, N45.

**Key words**: China, central banking, Second Sino-Japanese War, wartime inflation, Fabi

## 5.1 Introduction

This chapter analyzes the conditions of China's first modern central banking during the Second Sino-Japanese War. In Chapter 4, we have demonstrated the establishment of China's first modern central banking in 1928, along with its 1933 silver-standard reform and its 1935 fiat-currency reform. Due to the 1935 banking reform plan, the Chinese National Government led by the Kuomintang (KMT, also called the Chinese nationalist Party) would establish a modern central reserve banking system which was planned to fully control the currency issuance. However, the outbreak of the Second Sino-Japanese War in 1937 delayed the ongoing central banking reform. Based on quantitative analysis and an original synthesis of archives and previous research, this chapter studies the Central Bank of China (CBC) and its institutions of the Republic of China (ROC) during the Second Sino-Japanese War, 1937-1945. Due to the complicity of wartime China, it is crucial to review the relevant historical backgrounds to understand the wartime banking structure in China.

Section 5.2 provides the political and economic background during the Second Sino-Japanese War. In sub-section 5.2.1, we review the complicated political background during that period, the Japanese aggression on China and the Chinese fight for liberty and their homeland. The Japanese invaders established its puppet Manchukuo (literally State of Manchuria, 1932-1945) in the northeast China (Manchuria) while set another puppet government Wang Jingwei regime (Occupied China, 1940-1945) to rule north China and the middle and lower reaches of the Yangtze River. On the side of wartime Free China, the National Government withdrew its capital from Nanjing to Chongqing, a southwest city in China during the wartime, who mainly ruled southwest and northwest China. The Chinese Communist Party (CCP) also established its separate regime (Communist-occupied area) around a northwest Chinese town Yan'an while

nominally became a part of wartime Free China. The complicated political background also resulted in a specific wartime economy in Free China. Sub-section 5.2.2 reviews the economic background of the wartime Free China.

Section 5.3 deals with the background of the wartime banking policy. Sub-section 5.3.1 demonstrates the policy of strengthening the government banks' supervision and control. Section 5.3.2 is about the mandatory conversion policy of silver and silver dollars to Fabi. Section 5.3.2 demonstrates the unrealized plan of central reserve bank and the financial and credit shortage due to the disappearing local, private, and spontaneously free banking institutions.

Section 5.4 discusses the process of the wartime price inflation, 1937-1945. Sub-section 5.4.1 demonstrates the first stage of price inflation from 1937 to 1939. Sub-section 5.4.2 analyzes the second stage of price inflation from 1940 to 1945.

Section 5.5 is a discussion of the possible causes of the wartime price inflation, along with its consequences. From sub-section 5.5.1 to sub-section 5.5.13, we analyze in detail the topics of wartime price inflation and its consequences on people's life; wartime military expenditure; the government's taxation and fiscal policy; the expansion of private credit; interest rate policy; bank's saving policy; the government sales of bonds, gold, foreign reserve along with the Sino-U.S.-British Stabilization Funds as the helping hand; agricultural harvest; the reduction of people's confidence on Fabi; the trade and currency wars between Free China and the Japanese-occupied areas (Occupied China and Manchukuo); and the currency war between the Communists and the National Government.

Section 5.6 is the conclusion of this chapter.

## 5.2 Political and Economic Background during the Second Sino-Japanese War, 1937-1945

To understand the inflation issues and the performance of the Central Bank of China, it is essential to review and comprehend the special political and economic background of China during the Second Sino-Japanese War from 1937 to 1945. This section deals with this topic. Section 5.2.1 is about the Japanese occupation and the Chinese fights for liberty during the war, along with a review of the background of the CCP's separate regime. Section 5.2.2 demonstrates the general economic conditions of Free China during the war, along with a short review of the intensifying price inflation in section 5.2.2.6 before the in-depth analysis of the wartime price inflation in section 5.3.

### 5.2.1 The Japanese Occupation and the Chinese Fights for Liberty and Their Homeland, along with the Background of the CCP's Separate Regime

In this section, we will review the Japanese occupation and the Chinese' fights for liberty. Section 5.2.1.1 deals with the background of the Second Sino-Japanese War and the founding of Manchuria. Section 5.2.1.2 demonstrates the process of the war and the Japanese controlled Wang Jingwei's Regime. Section 5.2.1.3 is about CCP's separatist regime during the Second Sino-Japanese War.

**5.2.1.1 The background of the Second Sino-Japanese War and the founding of Manchuria.** In modern history, the relationship between China and Japan was generally calm before 1895. During the Ming Dynasty (1368-1644), Japanese pirates invaded China's coastal areas. However, that was not the beginning of Japan's modern military aggression against China. Japan's official invasion in China started from the first Sino-Japanese War in 1895. In the war, the Western-style modern navy of Chinese Qing Dynasty (1644-1911) was defeated by the Japanese navy. The Qing

Empire had to sign the Treaty of Shimonoseki with Japan, paying JP¥361 million (worth about US$5 billion in 2015) and ceded the Taiwan island to Japan. Due to this deal, Korea, as a subsidiary state of the Chinese Empire, also declared independence. Korea gradually came under Japanese control after the First Sino-Japanese War and the Korean peninsula was completely annexed by Japan in 1910.[559]

In 1901, in order to consolidate her authoritarian rule, the Chinese *de facto* ruler Empress Dowager Cixi declared war against eight foreign countries including the United Kingdom, the United States, France, Germany, Russia, Japan, the Austro-Hungarian Empire, and Italy. Defeated by these countries, China and the eight countries signed Boxer Protocol. According to the Boxer Protocol, Japan started in 1901 stationing troops in Beijing and Tianjin in north China. This is the origin of Japan's invading troops in the Chinese Mainland before the Second Sino-Japanese War. Historians generally believe that the reason why Japan was able to defeat the Qing Empire in the war was that while the Meiji Restoration of Japan, which began in 1860, allowed Japan to gradually establish a Western constitutional monarchy and develop Japan's market economy, Japan's national military strength was enhanced by mimicking Prussian militaristic politics.[560] Militarism had laid the seeds of destruction for Japan's constitutional democracy and laid the foundation for Japan's militarization and totalitarianism in the 1930s.[561] Clearly, although the Qing Dynasty gradually reformed its political and economic institutions after its failure in the Opium War in 1840, the reform process was not very smooth. Emperor Guangxu, who was dedicated to modernizing China and establishing a Chinese constitutional monarchy, was under

[559] For the modern history between China and Japan before 1895, see section 1.2 in Chapter 1, Gordon (2003, pp. 115-126) and Fairbank & K. Liu (1980, pp. 101-109, pp. 130-141, pp. 269-273).
[560] For more about the general conditions of the Meiji Revolution era, see Gordon (2003, pp. 61-137). For the development of Japanese industries and the state-owned enterprises in the Meiji era, see T. C. Smith (1955), For the constitutional political institutions of the Meiji Era, see Akita (1967). For the development of political thoughts of the Meiji era, see Pittau (1967). For the theoretical and historical origin of Nazism, see Mises's *Omnipotent Government* (1944/2011).
[561] See Gordon (2003, pp. 182-203).

house arrest in 1898 by Empress Dowager Cixi for her personal political ambition.[562] The emperor was allegedly murdered by his aunt and adoptive mother Empress Dowager Cixi in 1908.[563] The dictatorship of Cixi laid the seeds for the destruction of the Manchurian dynasty and the Chinese monarchy.

In 1912, the last Emperor of the Qing Dynasty Puyi abdicated. The abdication edict announced that the newly established Republic of China was Qing's legal successor, inheriting the legitimacy, sovereignty, and diplomatic relationship of the Qing Dynasty. The ROC was the *first* constitutional republic in Asian history. However, changes in the political system did not mean that the country would become stronger in an instant. The military strength of the newly born Republic of China was still insufficient to defeat Japan in a short time. Japan's power in north China, especially its military's presence in north China, gradually expanded with the signing of the *Twenty-One Demands*, a treaty between China and Japan in 1915 and the subsequent treaties.[564] In 1928, the National Government was gradually winning the battles in the Northern Expedition, and the Beiyang government steadily retreated.[565] Zhang Zuolin, the last supreme leader of the Beiyang government, was killed by the Japanese troops stationed in north China during a train journey from Beijing to Manchuria.[566] This marked the expansion of the Japanese ambition. On September 18, 1931, the Japanese army in China blew up a railway in Manchuria, saying that it was done by the Chinese army, and immediately occupied the entire territory of northeast China (Manchuria), all within three months. This even is called the September 18th Incident. One year later, Japan

[562] For Emperor Guangxu's reform efforts in 1898, see Wakeman (1977, pp. 199-224).
[563] See Zhong (2008), S. Zhao (2004), and Su (2011).
[564] Despite pressure from domestic public opinion, the Yuan Shikai administration did not sign the Twenty-One Demands eventually. However, its follow-up treaty still caused damage to China's sovereignty and further formed Japan's semi-colonial rule over some territories in north China. For more about the Twenty-One Demands, See Fairbank & K. Liu (1980, pp. 92-99) and Gordon (2003, pp. 173-181).
[565] For more about the Northern Expedition, see section 4.2.1.2 in Chapter 4 of this thesis.
[566] See Fairbank & K. Liu (1980, pp. 113-114) and Gordon (2003, p. 187).

established its puppet regime Manchukuo (literally the State of Manchuria). Puyi, the last emperor of the Qing Dynasty, was selected by the Japanese as the puppet emperor of Manchukuo until its fall when the Japanese surrendered in 1945.[567]

**5.2.1.2 The process of the war and the Japanese controlled Wang Jingwei Regime.** After the Xi'an Incident in December 1936, the Chinese National Government decided to cooperate with the Chinese Communist Party to resist Japan.[568] On July 7, 1937, the Japanese army seemed to concoct another version of the September 18th Incident of 1931, which was called the Marco Polo Bridge Incident. The Japanese army that garrisoned in the Beiping (Beijing) area pretexted that one Japanese soldier was missing during a military exercise (although the Japanese soldier was found afterwards), so the Japanese began to attack the Chinese army. Although it is still uncertain whether this incident was planned by the Japanese army or not, Japan finally started a total war of aggression against China. At the end of July, the Japanese army occupied the entire Beijing and Tianjin area.[569] On July 17, Generalissimo Chiang Kai-shek delivered his

[567] See Gordon (2003, p. 189).

[568] Zhang Xueliang is the son of Zhang Zuolin, the last leader of the Beiyang government. In 1928, Zhang Xueliang announced that the northeast China (Manchuria), would fly the flag of the National Government, which helped the Nationalists complete its Northern Expedition and the reunification of China. Zhang Xueliang was subsequently appointed the senior general of the National Government. The cause of the Xi'an Incident was that Zhang Xueliang was persuaded by the CCP that the Chinese government must cooperate with the anti-government CCP warlords to resist Japan in order to win the Japanese aggressors. Therefore, Zhang Xueliang and his men detained Generalissimo Chiang Kai-shek in Xi'an on December 16, 1936. During the detention, Chiang Kai-shek initially promised Zhang Xueliang to fight against Japan together. On the 26th, Chiang Kai-shek was escorted by Zhang Xueliang and returned to Nanjing, the capital of the Republic of China, ending the Xi'an Incident. Although the National Government officially started to cooperate with the CCP to resist Japan in 1937, historical facts show that the CCP did not sincerely resist the Japanese during the Second Sino-Japanese War but continued to expand its territory and accumulate its strength during the war. This action helped the CCP to finally overthrow the governance of the democratically and constitutionally elected Republic of China government in Mainland China in the Chinse Civil War (1945-1949). After the 1949 Communist Revolution, the Chinese Communist Party carried out several political campaigns on the Chinese Mainland, including the Great Leap Forward, the Cultural Revolution, and the June 4th, 1989 Tian'anmen Massacre. As a result, Mainland China has become a catastrophe, at least tens of millions of people have lost their lives in various political movements, and traditional Chinese character values, morals, religion, ethics and pro-market culture have been destroyed. The indirect consequences of Zhang Xueliang's illegal detention of the government leader of China can be regarded as one of the culprits and ethnic sinners of the 20th century communist history in China. For literature on the Xi'an Incident and its influences, see Fairbank & K. Liu (1980, pp. 609-613), Garver (1993), T. Wu (1984), and Zhang Xueliang's own memoir (1989).

[569] For more about the Marco Polo Bridge Incident and the succeeding Japanese occupation, see Fairbank

famous Lushan statement, emphasizing that "there is no distinction between east and west China, north and south; and regardless of age and gender, there is the responsibility of all the Chinese individuals to guard their homeland and fight against the Japanese aggression to the end."[570] On July 30, Chiang delivered another speech saying that he would lead the Chinese people fight the war to the end.[571] Subsequently, in order to stabilize the defensive front, the main force of the Chinese army retreated to Shanghai area to defend. The Battle of Shanghai that began on August 13 was very fierce.[572] Because of the Japanese reinforcements, the 80,000 Chinese troops that initially had the advantage (the original Japanese army was only 12,000) gradually lost their defense against the Japanese.[573] In the following three months, about 270,000 Chinese troops, or 60% of the members of the National Government's defense forces, were killed or injured, compared with only 40,000 casualties on the Japanese side.[574] On December 12, 1937, the Chinese capital Nanjing, fell into the hands of the Japanese. In the following 7 weeks at least 42,000 Chinese people were brutally killed by the Japanese, known as the infamous Nanjing Massacre.[575] Subsequently, Japan gradually occupied the entire north China. In the summer of 1938, the military situation deteriorated, and China's wartime capital moved from Hankou to Chongqing for the first time, and Free China decided to continue fighting.[576] Finally, although Free China had several victories on the battlefield, it retreated to the southwestern region with

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& K. Liu (1980, pp. 547-551) and Gordon (2003, pp. 204-207).
[570] See J. Wu and Cao (2011, p.20).
[571] See Fairbank & K. Liu (1980, pp. 550-551).
[572] The original name of the Battle of Shanghai in Chinese is "淞滬戰役."
[573] See Fairbank & K. Liu (1980, p. 551).
[574] See Fairbank & K. Liu (1980, p. 552).
[575] There are still no conclusions about the specific death figures of Nanjing Massacre. So far, the government of the Republic of China on Taiwan and the Chinese Communist Party on the Chinese China all claim that at least 300,000 people were killed in Nanjing Massacre, but this number has not been confirmed from a rigorous perspective as yet. For the reference, see Fairbank & K. Liu (1980, p. 552).
[576] See A. Young (1971, p. 207).

Chongqing as its wartime capital.[577] In northwestern China, due to the government and the CCP's announcement of cooperation and joint resistance against Japan, the CCP nominally cancelled its separatist regime, so the National Government also nominally had dominion over northwest China.[578]

During the Japanese occupation of north China, several puppet governments were established. In 1940, the Japanese unified all its previous puppet governments under Wang Jingwei's Nanjing National Government. Thus, Wang Jingwei's Nanjing National Government nominally ruled the Japanese occupied areas in North China and some parts of South China. However, the actual effective rule of Wang Jingwei regime was limited to parts of South China. Wang Jingwei himself died in a medical treatment in Nagoya, Japan in 1944 at the age of 61. In August 1945, Japan surrendered, and the Wang Jingwei regime was dissolved.[579] Scholars believe that Wang Jingwei's Nanjing National Government was similar to the Vichy government in France during the Second World War.[580] Considering that Chiang Kai-shek and Wang Jingwei were political opponents in the early days of the National Government (see section 4.2.1.2 in the previous chapter), and that the CCP was trying to thwart any Nationalist's actions in the Second Sino-Japanese War, although Wang Jingwei in contemporary Mainland China and Taiwan's historical circles are generally negatively evaluated, but some conversations and letter contents of Wang Jingwei at the time showed that he was willing to bear the stigma of "traitor" in order to protect the Chinese people in Occupied China as much as possible.[581] Therefore, the evaluation of Wang Jing-wei by the

[577] See J. Wu and Cao (2011, pp. 39-207) and Fairbank & K. Liu (1980, pp. 566-575).
[578] See Fairbank & K. Liu (1980, pp. 611-613).
[579] For more about the Wang Jing-wei regime, see J. Wu and Cao (2011, pp. 208-295).
[580] See Boyle (1972).
[581] One example among the most critical post-1949 criticism of Wang Jingwei's performance in the war is the reference in the previous footnote (J. Wu and Cao, 2011, pp. 208-295). This document was published in 2011, at which time the CCP and the Kuomintang had reached a political reconciliation, so in the literature, there are more positive comments on the National Government's leadership in the Second Sino-Japanese War and its active resistance to the Japanese invaders. This description is completely different

Mainland Chinese and Taiwanese historians may require a new approach that is separate from the political ideology of both the Kuomintang and the CCP.

After the Pearl Harbor incident and the outbreak of the Pacific War in 1941, China officially declared war on Japan. At this point, China's War of Resistance officially became part of the Second World War.[582] Although the Chinese army was outdated, it resisted until 1945, the end of the Japanese surrounding. The United States, the Great Britain, France, the Soviet Union and other countries all provided military assistance to Free China. The United States provided Flying Tigers led by General Claire Chennault supporting Free China in Yunnan Province which was near Myanmar to fight against the Southeast Asia's Japanese army.[583] In fact, in early 1945, before the Japanese surrender, the Chinese army had begun a strategic counterattack because of the Allied restraint of Japanese military forces in Asia and the patient resistance of the Chinese military and civilians.[584] Japan surrendered on August 15, 1945, and China won the War of Resistance. Japan initially only wanted to win the war in three months and did not expect that the Chinese people could resist the Japanese invaders with their tenacious will for 8 years.[585] The Chinese showed a strong love for freedom and a determined will of defending their own nation during the war. Due to the hard work

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from the political propaganda of the Chinese Communist Party's claim that the Kuomintang was "faking it being resisting the Japanese while was truly fighting against the Communists" (RCLH, 2002, p. 77, p. 235, p. 377). The CPP occupied Mainland China in 1949, while the Republic of China government retreated to Taiwan island. On the Taiwan side, the mainstream of the historical circles still believes that Wang Jingwei was a traitor due to his operation of the puppet regime during the Second Sino-Japanese War. This comment has not changed much in Taiwan's academic circles even after the complete democratization of Taiwan since 1987. In recent years, scholars from Mainland China and Taiwan have conducted academic research on modern Chinese history. Their conclusion is still a negative attitude towards Wang Jingwei's actions in the Second Sino-Japanese War. For the representative reference of the negative evaluation of Wang Jingwei performance in the the Second Sino-Japanese War by both the Mainland Chinese and the Taiwanese historians, see J. Wang & K. Wu (2016). In recent years, there also have been some studies that affirmed Wang Jingwei's contribution to the protection of the Chinese people in the Occupied China during the war. For related references, see S. Lin (2000), K. Wang (2001), Z. Y. Li (2014) and Y. Hsu (2018).

[582] See Y. Shi, Jin, & J. Shi (pp. 1-6).

[583] See Y. Shi, Jin, & J. Shi (pp. 414-479) and Coble (2007).

[584] See Y. Shi, Jin, & J. Shi (pp. 504-565).

[585] See C. Ho & D. Li (2014).

during the Second-Sino Japanese War, the unequal treaties signed between China and Western countries were abolished after the war.[586] In the same year, the Republic of China joined the United Nations, became a permanent member of the Security Council, and became one of the top five powers in the world along with the United States, the United Kingdom, Soviet Union and France. This lasted until 1971 when the CCP regime replaced the seat of the Republic of China in the UN.

**5.2.1.3 The CCP's separatist regime during the Second Sino-Japanese War.** Although the CCP officials claimed that it actively resisted Japan during the Second Sino-Japanese War, historic evidence does not support this opinion. During the war, Mao Zedong called on the CCP to preserve its strength and expand its territory.[587] When meeting with Japanese Prime Minister Takataaka Tanaka in 1972, Mao even publicly thanked Japan and expressed his gratitude to Japanese invasion in China during the Second Sino-Japanese War. He even said, "without Japan's aggression against China, ... [the CCP] cannot develop and finally gain power. [...] if we don't have your help [to fight against the Chinese National Government during the Second Sino-Japanese War], I cannot see you in Beijing today."[588] Objective statistics also support this claim. The number of CCP troops rose from more than 40,000 in the early days of the War of Resistance to more than 1.2 million in the end of the war.[589] During the war, the CCP expanded its territory by cracking down the Japanese and attacking the army of the National Government.[590] The CCP-occupied area expanded from 130,000 square meters before the war to more than 800,000 square meters at the end of the War of Resistance, and its population expanded from 1.4 million to over 2 million.[591]

[586] See Y. Shi, Jin, & J. Shi (pp. 479-503).
[587] See Fairbank & K. Liu (1980, pp. 678) and Van Slyke (1967, p. 159).
[588] See Mao (1961/1999), Li Zhisui (1994, p. 543) and Barmé (2005).
[589] See Fairbank & K. Liu (1980, p. 613 and p. 710) and Lewis (1970, p. 110).
[590] See Y. Ho (1955).
[591] Regarding the square meters of the CCP base areas before the War of Resistance, see Fairbank & K.

Throughout the war, the CCP army continued to launch various attacks on government forces.[592] During the War of Resistance, the CCP only had two general-level soldiers die, while government forces lost more than 206 generals when fighting against the Japanese.[593] Therefore, the claim of Taiwanese historians and politicians that the CCP did not really resist the Japanese invasion, but actively developed its base is supported by evidence.[594] After the Second Sino-Japanese War, the CCP blatantly violated the *Constitution of the Republic of China* that was adopted in 1946 through the constitutional procedures and democratic voting, relying on the strength accumulated during the Second Sino-Japanese War to launch a civil war. They then launched a number of appalling political campaigns after stealing Mainland China in 1949.[595] In the next section 5.2.2, we will demonstrate the economic background from 1937 to 1945.

### 5.2.2 The Economic Background, 1937-1945

The outbreak of the Second Sino-Japanese War not only changed the political conditions of the whole China, but also modified the economic conditions in Free China, as the areas of Free China led by the National Government were much smaller than its controlled territory before the war. In this section, we will review the general economic background during the wartime. Before a detailed analysis of the wartime price inflation in section 5.4 and section 5.5, a brief review of China's overall economic situation at the time would help us clarify the conditions and the dilemma faced by the Chinese first modern central banking system.

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Liu (1980, pp. 678). Regarding the square meters of the CCP base areas before the end of the war, see K. Jiang (2009, p. 683).

[592] See Y. Ho (1955).

[593] See Ho (1955).

[594] For the memories of the former military generals of the Republic of China on the content of the Second Sino-Japanese War, see Hau (2011), Ho (1972), and Wang Wen-hsieh (2015).

[595] In this sense, the hypocrisy of the CCP's utopian myth that it "liberated the Chinese people" written in its regime constitution is evident.

**5.2.2.1 The migration and increasing funds for economic construction.** Though Free China was facing a tough military situation as we have demonstrated in section 5.2.1, there was a migration and increase of funds which was supporting the economic constriction during the wartime. These increasing funds included more deposits, bank credit, and foreign aids that were supporting the economic construction.

***5.2.2.1.1 The increasing deposits in Free China.*** The deposits were increasing in Free China due to the migration of funds.[596] Figure 5.1 below shows the conditions of government bank, commercial, and provincial bank deposits from 1937 to 1945. The data that we collect include the current government bank deposit (GBD), the fixed GBD, the savings of the GBD, the total GBD, the commercial and provincial banks all deposits, and total deposits of all banks. Because the magnitude of the change in the value was large, in order to show the trend and the change of data, all data in the statistical chart is logarithmic. To demonstrate in text, we use the original data sans logarithm. Due to the lack of statistics at that time, there is no complete data on fixed and savings deposits in the commercial and provincial banks.[597] In 1937, total deposits of all banks were C$3,306 million.[598] In 1938, total deposits of all banks were C$4,153 million, which was a 25% increase over 1937. In 1945, total deposits of all banks were C$537,912 million, which was a 16,170.8% increase over 1937. The fixed deposits of commercial banks were also increasing.[599] In the example of Bank of China, in 1936, the amount of the fixed deposits was C$450 million, and the current deposits were C$366 million. In 1938, the amount of the fixed deposits was C$485 million, which

[596] References of the increase of deposit see J. Zhu (2012, pp. 406-407), K. Chang (1958, p. 191), A. Young (1965, p. 163), Shou (1944, p. 71), and Current Affairs Research Association, [CARA] (1940/1957, p. 71, pp. 304-305).
[597] See K. Chang (1958, p. 191).
[598] References of the total deposits from 1937 to 1945, see K. Chang (1958, p. 191); also see A. Young (1963, p. 163).
[599] References of the data of fixed deposits can also be found in J. Zhu (2012, p. 406) and CARA (1940/1957, pp. 304-305).

raised 7.8% more than the year of 1936, and the current deposits were C$460 million, which raised 25.7% more than the year of 1936.

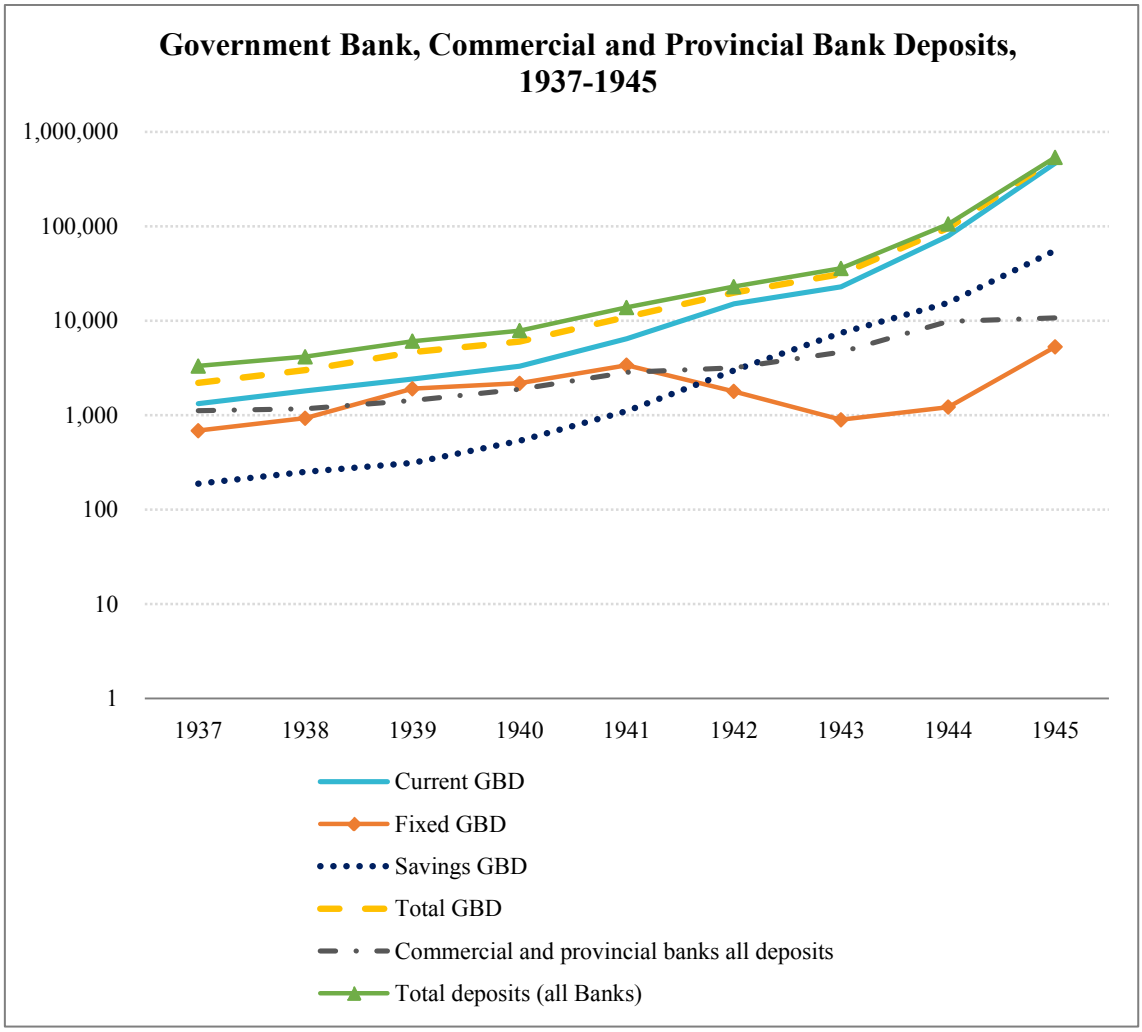


*Figure 5.1* Government bank, commercial and provincial bank deposits, 1937-1945. Figure's currency unit is one million Chinese dollars (C$).

*Source*: K. Chang (1958, p. 191).

*Notes:* The data that we collect include the current government bank deposit (GBD), the fixed GBD, savings of the GBD, and the total GBD, the commercial and provincial banks all deposits, and total deposits of all banks. Because the magnitude of the change in the value was large, in order to show the trend and the change of data, all data in the statistical chart is logarithmic. In our subsequent analysis, we will use the original data for analysis. Due to the lack of statistics at that time, there is no complete data on fixed and savings deposits in the commercial and provincial banks.

***5.2.2.1.2 The increase of credit to support the economic construction.*** The funds that were provided to different industries were also increasing.[600] Table 5.1 below shows the amounts of the loans that the Joint Committee of the Four Government Banks provided to the National Government for different sectors, including food and agriculture, salt, communications, industry, and mining, etc.[601] In table 5.1, the data from 1937 to 1949 ranges from September 1937 to December 1939. Data for 1945 are statistics from January to December 1945. Due to the lack of data, the balance at end of 1945 in the chart is the data for the entire year of 1945. In the period of September 1937 to December 1939, the annual loans authorized to these sectors were C$636 million. In 1938, the amount was C$642 million, which was a 16% increase in the period of September 1937 to December 1939. In 1945, the annual loans authorized to these sectors were C$42,358 million, which was a 6,560 % increase by in the period of September 1937 to December 1939. By the end of 1938, the amount of total agricultural loans in Free China was around C$25 million.[602] According to other statistics from Arthur N. Young, by the end of 1938, the amount of accumulated agricultural loans was around C$56 million, which was 31% higher than the amount C$24 million in 1937. Besides the above data, the government provided a total of more than C$9 million for the migration, the construction, and the liquidity of factories and enterprises.[603] The government provided C$4 million and the bank paid the rest (C$5 million) which was guaranteed by the government itself.

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[600] References of this paragraph see CARA (1940/1957, pp. 304-305), J. Zhu (2012, p. 406), and A. Young (1965, p. 335) and Tsao *et al.* (1946, pp. 608-610).

[601] According to the customary terminological usage, the full name of the Joint Committee of the Four Government Banks (四聯總處) in Chinese is "中央銀行、中國銀行、交通銀行、中國農民銀行聯合總辦事處四聯總處", whose abbreviation in Chinese could be written as "貼放委員會", "四聯總會"or "四行聯合辦事處." References of the loans that the Joint Committee of the Four Government Banks provided to government for different sectors, see A. Young (1965, p. 335) and Tsao et al. (1946, pp. 608-610).

[602] References of the agricultural loans, see Shou (1944, p. 71) and J. Zhu (2012, p. 407).

[603] References of the loans for the migration, construction and liquidity of factories and enterprises, see CARA (1940/1957, pp. 305) and J. Zhu (2012, p. 406).

## Advances through the Joint Committee of the Four Government Banks, 1937-1945

| *Period* | *Loans authorized* | *Balance at end of period* | *Food and agriculture* | *Salt* | *Communications* | *Industry and mining* | *Commodity purchase and price stabilization* |
|---|---|---|---|---|---|---|---|
| 1937 to 1939 | 636 | - | 16 | 52 | 21 | 30 | 17 |
| 1940 | 642 | 435 | 66 | 247 | 21 | 147 | 137 |
| 1941 | 1551 | 1227 | 207 | 879 | 176 | 158 | 155 |
| 1942 | 2012 | 1865 | 238 | 420 | 263 | 918 | 434 |
| 1943 | 9512 | 10282 | 741 | 1014 | 1444 | 6639 | 767 |
| 1944 | 28999 | 32211 | 901 | 4695 | 909 | 23822 | 1970 |
| 1945 | 42358 | 74855 | 2927 | 15519 | 4653 | 37436 | 5707 |

*Table 5.1* Advances through the Joint Committee of the Four Government Banks, 1937-1945. Table's currency unit is one million Chinese dollars (C$).

*Source*: A. Young (1965, p. 335).

*Notes*: In the chart, the data from 1937 to 1949 ranges from September 1937 to December 1939. Data for 1945 is statistics from January to December 1945. Due to the lack of data, the balance at end of 1945 in the chart is the data for the entire year of 1945.

***5.2.2.1.3 Foreign aids.*** During the war, foreign aids also increased.[604] Figure 5.2 below shows the conditions of foreign aids of credits and lend-lease to Free China from 1937 to 1945. These aids included military, supplies, nonmilitary purchases, currency stabilization, motor truck purchase, lend-lease, etc. The Soviet Union, France, United States, and Great Britain were all providing aid to Free China. The total amount of aids of all these years to China was US$634.5 million. Among them, the total amount of the US loan and lend-lease aids reached US$251 million, accounting for 39.56% of the total foreign aids. In the following section 5.2.2.4, we analyze in detail the exchange stabilization funds provided to China by the US and the UK. These aids helped China stabilize the exchange rate, boosted people's confidence, and delayed the decline of Fabi's value. In section 5.5.9, we analyze how foreign reserve aids were used to stabilize the Chinese dollar Fabi.

[604] References of the foreign aids to Free China during the Second Sino-Japanese War, see A. Young (1965, pp. 97-117, pp. 344-346), J. Zhu (2012, pp. 404-405), Hong (2008, pp. 421-434), and Fairbank & Feuerwerker (1986, pp. 576-579). For more about the US aids to China, see A. Young (1965, pp. 102-105, pp. 109-112) and Hong (2008, pp. 421-434). For more about the military aids from the western countries, see Fairbank & Feuerwerker (1986, pp. 576-579).

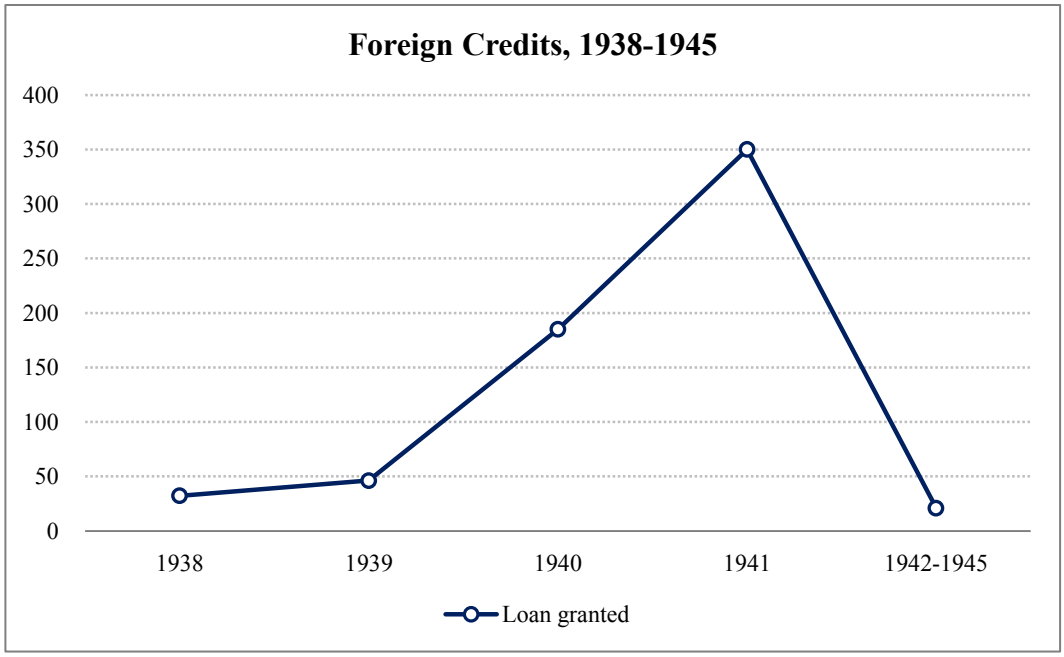


*Figure 5.2* Foreign aids (credits and lend-lease) to China, 1937-1945. Figure's currency unit is one million Chinese dollars (C$).

*Source*: A. Young (1965, pp. 344-345).

*Notes*: These aids included military, supplies, non-military purchases, currency stabilization, motor truck purchase, lend-lease, etc. The Soviet Union, France, United States, and Great Britain were all providing aid to Free China.

**5.2.2.2 The increase of enterprises and factories in Free China.** Although China was in a very unfavorable situation on the battlefield against the Japanese invaders, the Chinese people, the National Government, and the military had strong confidence in the War of Resistance, showing a tough will of beating the Japanese aggressors. Moreover, as essential materials, machines, and personnel that had been migrated from the Japanese-occupied areas to inner China, the economic strength of Free China was enhanced. Because of the war, many enterprises and factories migrated to the rear areas in Free China.[605] Figure 5.3 below shows the increase of factories (left axis) and the capitalization of new plants in 1937 currency (right axis) during the Second Sino-Japanese War. Though there is no data on the total numbers of Chinese factories at that time, as of the end of 1938, in total, there were 404 factories migrated from the war area to the rear areas of Free China.[606] Factories being defined by official definition as ones that use power machinery and employ at least 30 workers.[607] Moreover, the numbers of the newly built or restored factories were 104 in total.[608] In 1936 and before, there were 300 new opened factories in Free China. Due to the reduced territories of Free China caused by the war, the numbers were reduced to 63. In 1938, the numbers of newly opened factories were 209, which increased by 231.7% compared with 1937. In 1944, one year before the end of the Second World War and the Second Sino-Japanese War, the numbers of newly opened factories were 3,419, which increased by 61.9% compared with 1937. Before the end of the war, the number of new factories in each year after 1937 was higher than in 1937. The capitalization of new factories was also increasing. Although the 1944 data were C$549 thousand, which was

[605] For more of the migration of enterprises and factories in Free China during the Second Sino-Japanese War, see CARA (1940/1957, p. 305) and J. Zhu (2012, pp. 406-407).
[606] See CARA (1940/1957, p. 305) and J. Zhu (2012, p. 406). The original references lacked data of the total numbers of Chinese factory at the time.
[607] See Fairbank & Feuerwerker (1986, pp. 593).
[608] The original references lacked data of the total numbers of Chinese factories at that time. For more of the migration of enterprises and factories, see J. Zhu (2012, p. 406) and Sheng (1940).

about half of the amount C$1,049 in 1943, the 1944 data was still 771.4% higher than the C$63 thousand in 1937.

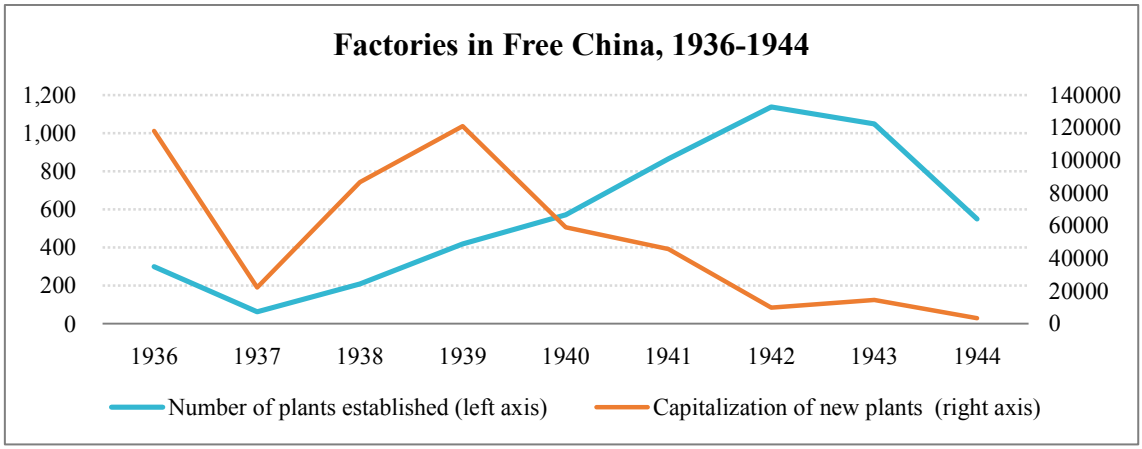


*Figure 5.3* Factories in Free China, 1937-1944. Unit of the currency of the capitalization of new plants in the figure is one million Chinese dollars (C$).

*Source*: Fairbank & Feuerwerker (1986, pp. 593).

As entrepreneurship is the driving force of the market economy, though China was suffering from the brutal wartime, the increased industrial enterprises and factories showed the positive aspect of the economic construction of Free China during the Second Sino-Japanese war.[609] Meanwhile, agricultural production was also growing during the wartime. In the next section 5.2.2.3, we will demonstrate the conditions of agricultural production in Free China.

**5.2.2.3 The growing agricultural production in Free China.** While the industrial economy was growing, the performance of agricultural was also positive.[610] In 1937, China's agricultural economy accounted for about four-fifths of the total economy, which was about C$778,477 million.[611] Table 5.4 below shows the agricultural production indexes from 1931 to 1945.[612] Since 1940, rice production reduced for six consecutive years. Rice production in 1945 was only 87% in 1937. However, wheat, sweet potatoes, and cotton were generally growing or were retaining the relatively same level of 1937. Wheat production in 1945 increased by 30% compared to 1937. Sweet potatoes production in 1945 increased by 44% compared to 1937. Cotton production in 1945 increased by 47% compared to 1937. Livestock production in 1941 decreased by 13% compared to 1937.

[609] More about the theory of entrepreneurship as the driving force of an economy, see Mises (1949/1998, pp. 245-261) and Klein (2010).
[610] References of the agricultural conditions in this paragraph, see A. Young (1965, pp. 22-23, p. 300), K. Chang (1958, pp. 377-378) and Maddison (2003, p. 172).
[611] See A. Young (1965, p. 22). Due to Maddison (2003, p. 172), China's GDP in 1937 was US$295,937 million (calculated at the price of the US dollar in 1990). Excluding price inflation factor, China's GDP in 1937 was about US$32,605 million dollars. According to the average exchange rate of the US dollar against Fabi in December 1937 (see A. Young, 1965, p. 360), China's GDP in 1937 was about C$973,096 million. Thus, China's agricultural economy accounted for C$778,477 million (of GPD in 1937). We must note that, given the lack of statistical data at the time and the limitations of statistics itself, our statistical results can only reflect the general situation of China's agricultural economic output in 1937, which may not accurately reflect the economic output.
[612] Reference of the agricultural data from 1937 to 1945, see A. Young (1965, p. 300) and K. Chang (1958, pp. 377-378).

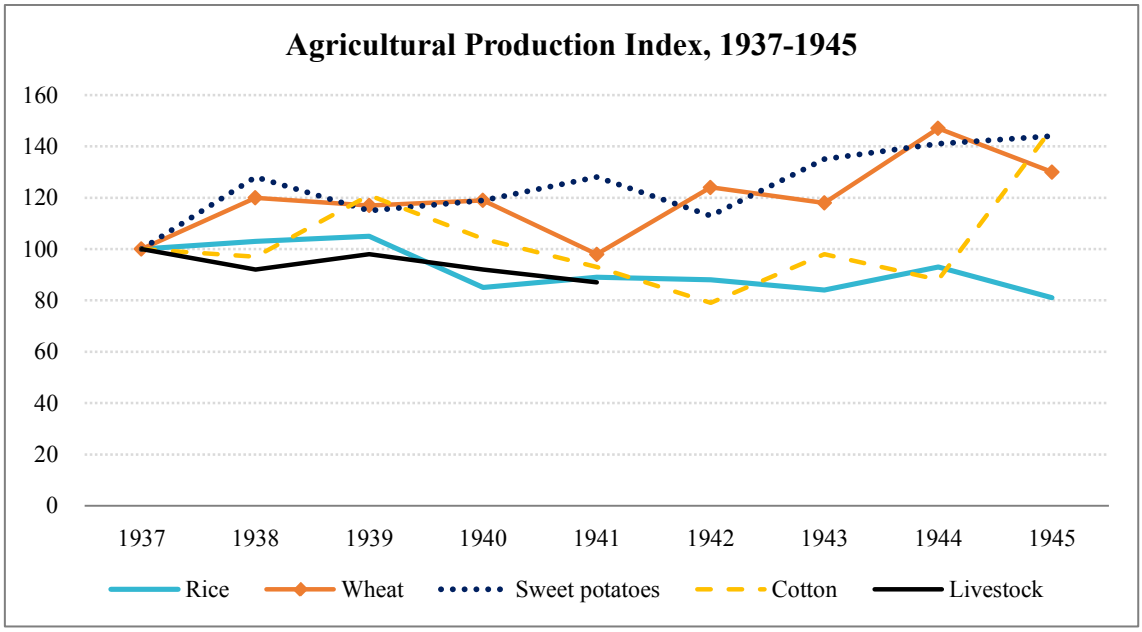


*Figure 5.4* Agricultural production index, 1937-1945. Unit: 1937=100.

*Source*: A. Young (1965, p. 300).

**5.2.2.4 Exhausted foreign exchange reserves and exchange stabilization.** At the beginning of 1939, the Chinese government's own foreign exchange reserves were also exhausted, causing the dropping of exchange rates and instability of the monetary and financial system. After that, from 1939 to 1944, the United States and the United Kingdom provided a total of US$134 million in funds to stabilize the exchange rate. These funds also played an essential role in China's wartime financial and economic stability. In this section 5.2.2.4, we will generally review the exhausted Chinese foreign exchange reserves and the exchange stabilization movement from the US and the UK.

***5.2.2.4.1 The exhausted foreign exchange reserves.*** In just two years after the start of the war in 1937, the government's foreign exchange reserves were almost exhausted.[613] The declining foreign exchange reserves made the National Government challenging to maintain the exchange rate. After the beginning of the war, the government decided to maintain the original exchange rates of British 14.5d. and US$0.30.[614] Therefore, the central bank had to supply unlimited foreign exchange in Shanghai and other cities according to this exchange rate. As a result, foreign exchange reserves started plunging. Before the outbreak of the Second Sino-Japanese War, the Chinese government had about totaled the equivalent of US$378.9 million in foreign exchange.[615] Just six months after the outbreak of the war, it lost half of its foreign exchange reserves.[616] One year after the war began, in the spring of 1938, foreign exchange reserves were reduced to less than US$100 million.[617] At the beginning of 1939, the Chinese government's own foreign exchange reserves abroad were exhausted.[618] Figure 5.5 below shows the exchange rate during the Second Sino-

[613] For more references, see J. Zhu (2012, pp. 404-405).
[614] See A. Young (1965, p. 131) and J. Zhu (2012, p. 404).
[615] See A. Young (1965, p. 132) and J. Zhu (2012, p. 405).
[616] See A. Young (1965, p. 198).
[617] See A. Young (1965, p. 206).
[618] See A. Young (1965, p. 214) and J. Zhu (2012, p. 404).

Japanese War. We can see that from 1937 to 1945, China's Fabi was depreciating relative to the US dollar, while the official exchange rate was always higher than the market exchange rate, which reflected the overvaluation of the official exchange rate and also reflected the market confidence in Fabi was not as strong as the official exchange rate shows.

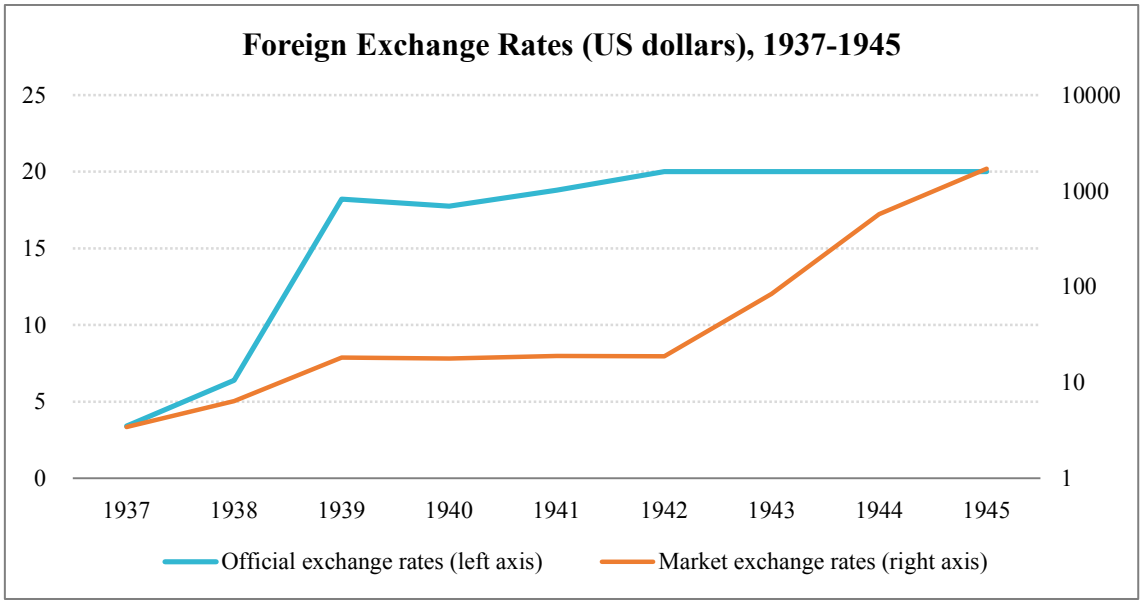


*Figure 5.5* Foreign exchange rates (US dollars), 1937-1945. Unit: One Chinese dollar (C$) per US dollar (US$).

*Sources*: Source: K. Chang (1958, p. 382).

*Notes*: Data for all years are taken from December of that year. Since only official exchange rate data was available in 1937, in order to show statistical trends in the chart, we used the official exchange rate data of that year to place it in the statistical item of market exchange rate. Since the market exchange rate data was only available from 1938 to 1940, in order to show the trend of the data, we used the market exchange rate data at this stage to place it in the statistical item of official exchange rate.

***5.2.2.4.2 Exchange stabilization.*** Subsequently, the government had to rely on stabilization funds to maintain foreign exchange reserves.[619] Before the foreign exchange reserves were exhausted in early 1939, the government had begun to take measures to stabilize foreign exchange reserves and exchange rates.[620] The stabilization funds of foreign exchange was a relatively right solution.[621] Because although the average prices of Fabi rose by 40% in the middle of 1938, the average price of foreign currencies doubled. In June 1937, the average prices of US$1 and UK£1 were respectively C$3.35 and C$16.6. Nevertheless, according to the lowest exchange rate in June 1938, the value of these two currencies rose to nearly C$6 and C$30 respectively. Since the exchange rate of the free market was higher than the general price level, theoretically, as long as China was buying and selling foreign exchange, it could save the exchange rate without much cost (because through the free market, China could spend less foreign exchange and earn back more Fabi).[622] In early June, Bank of China's Pei Tsu-yee[623] proposed this plan, and President of Bank of China T. V. Soong and the US financial advisor A. N. Young recommended the plan to Minister of Finance H. H. Kung, who later agreed on it.[624] T. Pei and the British financial expert Cyril Rogers were supervising the operation.

Beginning in June 1938, the government began to stabilize exchange rates through stabilization funds.[625] On June 13, 1938, the day before the start of the exchange stabilization, as the Chinese military lost Kaifeng (the Capital of Henan Province) and other unfavorable military rumors, the exchange rates had fallen to a low

[619] See A. Young (1965, p. 206).
[620] See A. Young (1965, p. 207).
[621] For the foreign exchange rates at that time in this paragraph, see A. Young (1965, p. 207).
[622] Reference of stabilization funds in this paragraph, see A. Young (1965, p. 207).
[623] More about Pei, see Prial (1982). Pei Tsu-yee (貝祖貽) is the father of the famous Chinese architect I. M. Pei (貝聿銘, 26 April 1917 – 16 May 2019). I. M. Pei always held the nationality of the Republic of China before his death showing his loyalty of the Free China.
[624] See A. Young (1965, p. 207).
[625] See A. Young (1965, p. 207).

of the British 9.125d., and US$0.1675.[626] From June 1938 to April 1939, China sold a total of about US$12 million in foreign exchange reserves through Bank of China, making the foreign exchange reserves stable between 8-9d. and US$0.155-0.17, which sustained the public's morale.[627] The British-Sino foreign exchange stabilization from April to August 1939 further stabilized the exchange rate.[628] According to the agreement, the UK would provide China with a stabilization fund of approximately £10 million (US$47 million), while China paid a preferential interest rate of 2.75% to the UK for repayment of loans. Due to the agreement, the Chinese government committed to stabilizing interest rates. By July 17, the stabilization fund provided a total of £10.7 million. Subsequently, despite the factors of the stabilization fund withdrawal, the deterioration of the Second Sino-Japanese War, and the 50% decline of exchange rate from July 17 to August 18 (due to the pessimistic market before the Nazi's Invasion of Poland on September 1, 1939), the overall exchange rate remained relatively stable. This was partly caused by the decline of exchange rates in Western currencies.[629] Therefore, though Free China was facing an unfavorable situation on the battlefield, the leveling fund stabilized the market and the confidence of the Chinese people. In December 1940, after a long period of negotiations, the United States and the United Kingdom decided to provide China with a total of US$100 million and £10 million pounds of loans. Half of them were to be used to stabilize the exchange rate and half to purchase materials.[630] In the summer of 1941, China, the United States, and the United Kingdom jointly established a new Stabilization Broad with US$100 million funds to

[626] See A. Young (1965, p. 208).
[627] See A. Young (1965, p. 210). In a memorandum on October 23, 1938, A. Young also supported the further exchange stabilization funds. On January 14, 1939, with the authorization of the National Government, to stabilize the market confidence, Young published a spokesman's stateman in the press in the provisional capital Chongqing, expressing his support for the government's previous stabilization, urging for further stabilization measures. For related content, see A. Young (1965, pp. 208-209).
[628] References of this stabilization operation, see A. Young (1965, pp. 210-223)
[629] See A. Young (1965, p. 223).
[630] See A. Young (1965, p. 232).

stabilize the exchange rate of Fabi.[631] Since the United States had military bases and military expenditures in China, after consultations, the expenses of the United States and China's arrears against the United States were offset; finally, China did not owe money to the Americans.[632] In 1944, China repaid the principal and interest of the British stabilization fund totaling £2.25 million.[633] From the first phase of 1939 to 1941, the United States and the United Kingdom provided a total of US$34 million in the stabilization fund to China, and in the second phase from 1941 to 1944, there was a US$100 million stabilization fund. Adding two phases, China received a total of US$134 million stabilization funds.

**5.2.2.5 Fiscal deficits.** In 1939, one year after the war began, the government's fiscal deficit rose sharply.[634] Figure 5.6 below shows the government budget, expenditure, revenue, and deficits conditions from 1929 to 1945. For the analysis of the government's fiscal conditions from 1927 to 1937, see section 4.5.3.7 in Chapter 4. Our analysis here focuses on the government's financial situation from 1937 to 1945. And by listing the data from 1929, it is obvious that the government's fiscal situation has gradually deteriorated since 1937. In June 1938, the government's fiscal deficit rate reached 75%.[635] Subsequently, in the mid-1938, through transactions with the public, the government recovered C$499 million by selling foreign exchange and recovered C$255 million by selling public debt, reducing the deficit to C$777 million and the deficit rate to 37%.[636] However, due to war factors, government spending continued to increase. In 1945, the government's fiscal deficit increased by 51,054% compared to

[631] See A. Young (1965, p. 249-255).
[632] For more about the military expenditures of the US in China during the wartime, see A. Young (1965, pp. 269-274, p. 279).
[633] See A. Young (1965, p. 279).
[634] See A. Young (1965, pp.12-21).
[635] See A. Young (1965, p. 206).
[636] See A. Young (1965, p. 206).

1937. The National Government adopted the method of issuing new currency to make up for the fiscal deficit and fiscal expenses, which led to wartime price inflation.

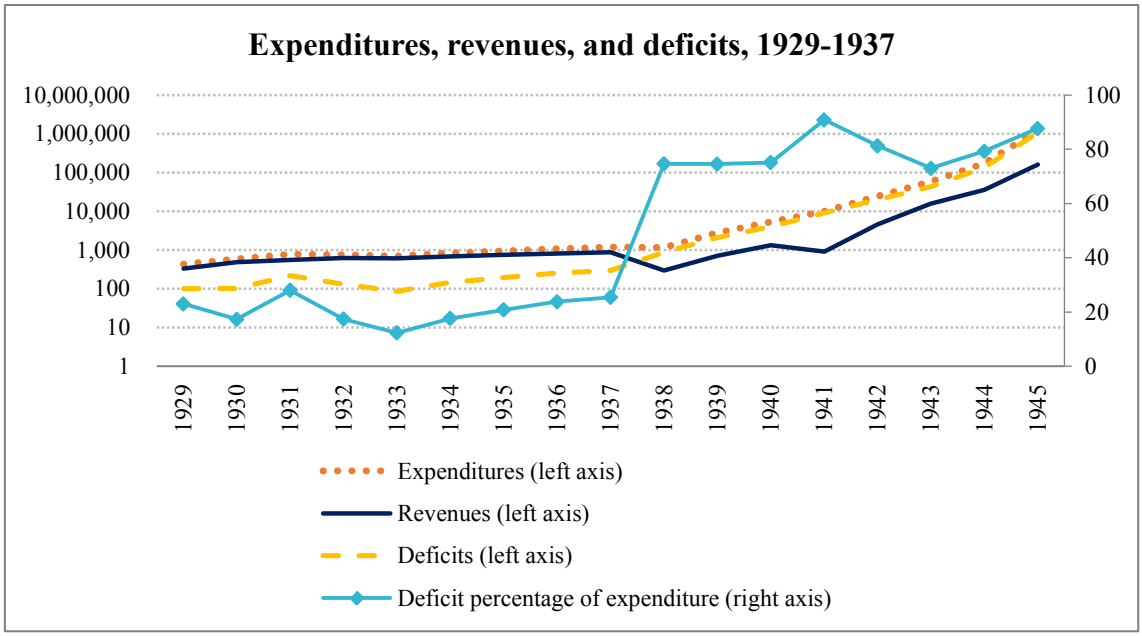


*Figure 5.6* Expenditure, revenue and deficits, 1929-1945. Figure's currency unit is one million Chinese dollars (C$).

*Sources*: Data from 1929 to 1937, see A. Young (1971, p. 38). Data from 1938 to 1945, see A. Young (1965, p. 12).
*Notes*: Data for 1938 was selected from the data on the second half of that year.

**5.2.2.6 The intensifying price inflation.** At the beginning of the war's first year, the rate of price inflation rose by 40%.[637] Despite this, due to the government's policy of exchange stabilization fund and foreign exchange, the foreign exchange regulation policy, and the silver sale policy, the public still had strong confidence in Fabi.[638] In section 5.2.2.4, we stated that the exchange rate did not significantly reduce in 1938 (one year after the war's start) which was partly due to the policy stabilization fund. However, price inflation was inevitable due to war factors. The currency issue in 1945 increased by 62,820.7% compared to 1937. The annual wholesale price in 1945 increased by 162,629.5% compared to 1937. In the next section, we will provide a more detailed analysis of price inflation during the period of the Second Sino-Japanese War.

## 5.3 Background of the Wartime Banking Policy and Conditions: A More Centralized Banking Policy

Besides the relatively more pro-Free China economic conditions, the National government was also made some measures to enhance its power in Free China during the wartime. The first measure was strengthening the government bank supervision and control. Our analysis of this measure is in section 5.3.1. The second measure was the mandatory conversion of silver and Silver Dollars to Fabi (fiat money). Our analysis of this measure is in section 5.3.2. Besides, in section 5.3.3, we will also demonstrate the conditions of the local, private, and spontaneously free banking institutions.

### 5.3.1 Strengthening the Government Banks' Supervision and Control

In 1939, the National Government enacted *The Outline of the Methods for Strengthening the Central Financial Institutions in Wartime* to strengthen the government bank supervision and control, formalizing the new joint office Joint

[637] See A. Young (1965, p. 206).
[638] See A. Young (1965, p. 206).

Committee of the Four Government Banks which was in the request of the outline.[639] The new joint office integrated the decision-making power of the Central Bank, the Bank of China, the Bank of Communications and the Farmers Bank of China, being responsible for guiding the operations of wartime financial and economic institutions, and for formulating wartime financial decisions.[640] Generalissimo Chiang Kai-shek served as the Chairman of the Joint Office, making the final banking decision.[641]

It would be more proper to have someone who knew and understood the financial system very well to be in charge of the position as the Chairman of the Joint Office instead of Generalissimo Chiang Kai-shek, as the pros and cons of government economic regulations must be analyzed under specific historical conditions by the persons who had the knowledge of economic theories. In China during the war against the Japanese aggression, it was clear that a central bank that had a restraint on currency issuance and respected the rules of the market's prices had less negative impacts on the market than a central bank that proliferates currency, as well as been more conducive to the protection of private property rights and enhanced national defense.[642] However, Chiang Kai-shek didn't have any clear monetary thoughts while he was making the final decision of currency issuance, ignoring the advice of Chinese and foreign monetary specialists such as T. V. Soong, H. H. Kung, and A. N. Young. Besides, evidence and records had shown that Chiang's monetary policies caused the chaos and financial

[639] The Outline in Chinese is "戰時健全中央金融機構辦法綱要." See J. Zhu (2012, p. 406).
[640] See J. Zhu (2012, p. 406).
[641] See J. Zhu (2012, p. 406).
[642] The Austrian school economics has a negative attitude towards the central bank, arguing that the central bank should be gradually replaced by the free banking system in reforms. The analysis in this chapter does not involve discussing the banking theory of the Austrian school. From the specific political, economic, and military situation in China at the time, it became clear that a constrained central bank must be better than an unconstrained central bank. For how the Austrian school criticize the central banking system, see Mises (1912/2009) and Huerta de Soto (2006).

fluctuation before the outbreak of the Second Sino-Japanese War in 1937.[643] The later section 5.5 deals with the negative consequences of the wartime central banking policy.

### 5.3.2 The Mandatory Conversion of Silver and Silver Dollars to Fabi

After the outbreak of the Second Sino-Japanese War in 1937, the National Government continued to apply its policy of mandatory conversion of silver and Silver Dollars to Fabi.[644] To fight against the Japanese aggressors, the withdrawn silver and Silver Dollars were used to purchase arms internationally and to stabilize the government revenue.[645]

As the National Government had the ability to use generally accepted bank notes for expenditures all over the country [which] gave it a great advantage over regional dissenters who had no such opportunity, it was not accurate to say that the conversion was completely mandatory.[646] The conversion had some voluntary elements. As, generally speaking, the Chinese people in Free China supported the National Government to fight against the Japanese aggression, they accepted the price inflation caused by the more printed banknotes and placed their faith in Fabi. Most of the citizens' acceptance and faith in Fabi stabilized the political, economic, and military conditions in the wartime, which helped the National Government fight against the Japanese. An alternative option was to issue more government bonds to avoid price inflation. However, though the general acceptance of Fabi helped the National Government a lot during the wartime, the economic damage caused by the more printed banknotes in the post war era was very serious. The postwar financial problems and the related issues are analyzed in Chapter 6.

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[643] More details of Chiang's disability in financial issues, see section 4.1.3. in Chapter 4 and section 6.2.4.1 of Chapter 6.
[644] See J. Zhu (2012, p. 286).
[645] See J. Zhu (2012, p. 286).
[646] See A. Young (1971, p. 281).

### 5.3.3 The Unrealized Plan of the Central Reserve Bank and the Disappearing Local, Private, and Spontaneously Free Banking Institutions

The outbreak of the Second Sino-Japanese War shelved making the Central Bank of China a central reserve bank.[647] Previously in Chapter 4, we discussed the plan of establishing the Central Reserve Bank. The plan was approved on June 25, 1937 by the Legislative Yuan after few modifications from the original Kemmerer Plan.

> Voting rights were given to the government's shares to provide for greater control; the period for withdrawal of notes other than of the Central Bank was fixed at four instead of two years; reserves against notes and sight deposits were reduced from 40 to 35 per cent; and the provision for temporary government borrowing was set at one-fourth instead of one-sixth of the previous fiscal year's revenue. But the essential elements of the committee's plan were approved. (A. Young, 1971, p. 276)

However, just two weeks after the plan of establishing a Central Reserve Bank was approved, the Second Sino-Japanese War broke out on July 7, 1937, which laid aside the further execution of the Central Reserve Bank.

Some opinions argued that if the Central Reserve Bank plan could be executed, it would have helped China a lot to improve its financial and economic situations, especially the improvement and modernization of the credit system (i.e. the agricultural credit and the real estate mortgage).[648] In the perspective of improving the functions of a central reserve bank, it is quite understandable to say how the Central Reserve Bank would benefit China. However, unfortunately, because of the Second Sino-Japanese War outbreak, there was no time for the National Government to uniformize the currency issuance; meanwhile the old banking systems had been destroyed, and the new

[647] See A. Young (1971, p. 276), J. Zhu (2012, p. 401).
[648] See A. Young (1971, p. 276), J. Zhu (2012, p. 401).

Fabi system didn't have obvious effects on improving the financial and economic performance. Before the Second Sino-Japanese War outbreak, the monetary system was not completely monopolized by the National Government, which means that it could not bring the benefits that the Kemmerer Plan proposed. In this sense, if the local, private, and spontaneously free banking systems were not destroyed by the new central banking system after the 1935 currency reform, China would still have the chance to use its the local, private, and spontaneously free banking to provide sufficient credits. On the other hand, other perspectives argued that a centralized banking institution could help China avoid the chaotic old banking institutions when facing a severe movement such as the Japanese aggression.[649]

In a pragmatic way, the new central banking system might provide China some funding to improve the financial and economic performance if it could completely monopolize the financial market. However, considering that there could have a time lag between the negative consequences of the abolition of the local, private, and spontaneously free banking systems, and the potentially positive effects that the fiat money system might bring to the financial and economic system, the local, private, and spontaneously free banking systems should be kept in some certain degrees to provide sufficient the credits and financial supports that the central banking could not do in the short run. Besides, considering that the immaturity of the fiat money system, the competition among the central banking system and the local, private, and spontaneously free banking systems might also improve the performance of the central banking system. Finally, because of the removal effect that the 1935 central banking reform brought, we also must analyze the unseen consequences of the local, private, and spontaneously free banking systems' abolition.

[649] D. Ma & L. Zhao (2020).

The cost of abolishing the local, private, and free banking systems was extremely damaging and disastrous, especially that there was not enough time and space for the National Government to establish a new monetary system completely in the short run as China was gradually entering the war time against the Japanese occupation. In this sense, we conclude that whether the National Government really wanted a central reserve banking system or not, it should have kept the local, private, and spontaneously free banking systems working to provide enough credit for the Chinese economy (at least in the short run). In this section, we have demonstrated the background of the wartime banking policy and conditions. In the next section 5.4, we will demonstrate the process of the inflation during the Second Sino-Japanese War.

## 5.4 The Process of the Wartime Price Inflation, 1937-1945

In this section we demonstrate the process of the wartime price inflation from 1937 to 1945. Section 5.4.1 deals with the first stage of price inflation, which was from 1937 to 1939. Compared to the second stage, the growth of price inflation in this stage was relatively mild. We also provide our original integration of the possible causes of why the price inflation was relatively not severe based on the previous research of other scholars. Section 5.4.2 deals with the second stage of wartime price inflation from 1940 to 1945. In this period, compared with the previous stage, the price inflation was growing more rapidly. The in-depth analysis of the causes and consequences of the second stage of price inflation is provided in section 5.5.

### 5.4.1 The First Stage of Price Inflation, 1937-1939

From 1937 to 1939 was the first stage of price inflation.[650] Figure 5.7 below shows the values of note issue in terms of prewar prices. In order to enable price indices from different sources to be displayed on the same statistical chart, in the statistic chart,

[650] See Fairbank & Feuerwerker (1983, pp. 585-587) and J. Zhu (2012, pp. 407-408).

we have processed the data from different sources according to the principle of proportionality. In the next sections of this chapter, we will also use the data in figure 5.7 to demonstrate the price inflation issues during the Second Sino-Japanese War. Due to the huge difference of the different data, we use logarithms to evaluate and express all the listed statistic items. All data in figure 5.7 has been evaluated by logarithms. To demonstrate in text, we use the original data. Comparing the later stage (1940-1945), the price inflation grew slower in the first three years of the war. The Free China's price index in 1937, 1938 and 1939 was 189.5, 247.6, and 415.9, respectively. The average annual price increase during this period was 49.4%. Based on the references from figure 5.7, if we assume the price index in 1947 was 100, prices increased 31 points from 1937 to 1938, 89 points from 1938 to 1939, and 293 points from 1939 to 1940. The annual note issue from 1937 to 1940 was C$1,640 million, C$2,310 million, C$4,290 million, and C$7,870 million, respectively. The annual growth rate of note issue from 1937 to 1940 was 40.9%, 85.7%, and 83.5%, respectively.

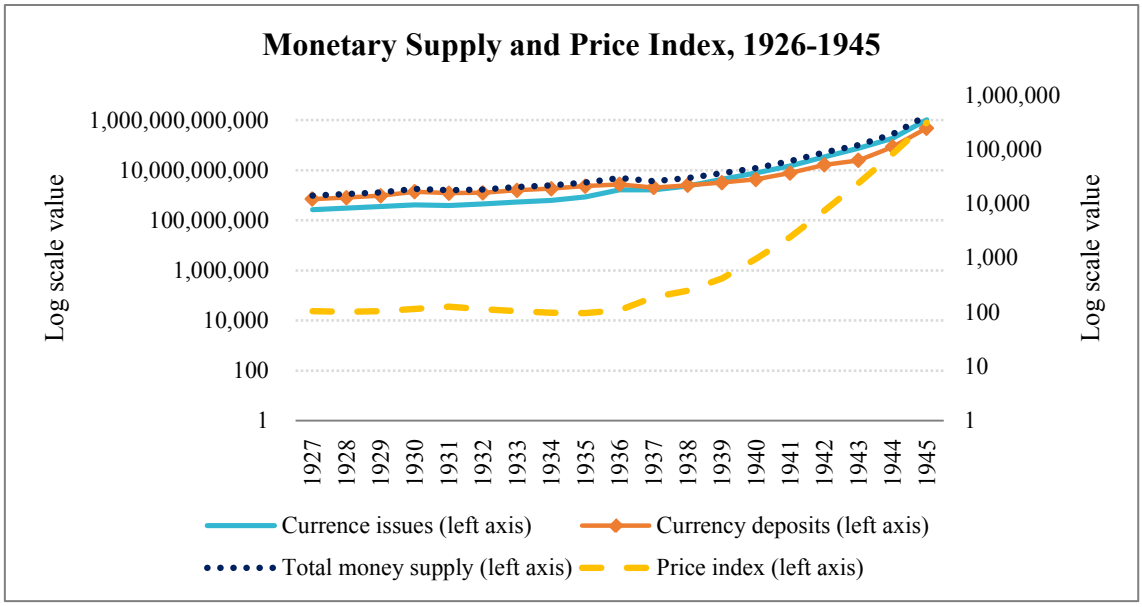


*Figure 5.7* Monetary supply and prices index, 1926-1945. Figure's currency unit is one million Chinese dollars (C$).

*Source*: Currency issues, currency deposits and total money supply from 1926 to 1945 is from K. Chang (1958, p. 376). Prices index from 1926 to 1937 (1930=100) is the Shanghai wholes sale prices index, which is from K. Chang (1958, p. 371). Prices index from 1937 to July 1945 (1930=100, adjusted by the thesis' author) is the whole Free China index, which is from K. Chang (1958, p. 371).

*Notes*: In order to enable price indices from different sources to be displayed on the same statistical chart, we have processed the data from different sources according to the principle of proportionality in the static chart. Due to the huge difference of the different data, we use logarithms to evaluate and express all the listed statistic items. All data has been evaluated by logarithms.

Theoretically and general speaking, common people are very sensitive about food price, as food price affects the basic quality of life and currency purchasing power. Fortunately, during the first three years of the war, the common Chinese people and consumers suffered less from price inflation as the "prices of consumer goods rose more slowly than those of producer goods."[651] The food price rose only a modest 8.5% in Chongqing during the first two years of the war.[652] Figure 5.8 below shows the prices of food and the prices of other living products in the wartime provisional capital Chongqing from 1937 to 1945. Due to the huge difference of the different data, we use logarithms to evaluate and express all the listed statistic items. To demonstrate in text, we use the original data without logarithms. From 1937 to 1939, the growth rate of the prices of good and clothing were lower than the growth rate of the prices of metal and products, building martials, fuel and light, and other products. We can see from figure 5.8 that the indices of all the categories listed below, including food, clothing, metals, products, building materials, fuel and light, and miscellaneous (other products) were all increasing. A general index of the wholesale prices of groups of commodities in Chongqing from 1937 to 1945 was provided by the original source in this figure. As the trend of the growth of these indices are very similar due to the statistic result in the figure, we use the general index to describe the general situation of prices in Chongqing during the wartime. In the figure, price index of the period February-June 1937 was 1. The annual general price indexes were 1.15 and 1.6 relatively in 1937 and 1938, which had a very smooth growth rate. Price index in 1939 was only 3.16, which increased compared to the previous years. However, compared to the 1940 price index 11.3, the growth of price index in 1939 was also very smooth. Both figure 5.7 and figure 5.8

[651] See Fairbank & Feuerwerker (1983, p. 585).
[652] See Fairbank & Feuerwerker (1983, p. 585).

show that the price inflation process from 1937 to 1939 was different from the second stage of price inflation from 1940 to 1945.

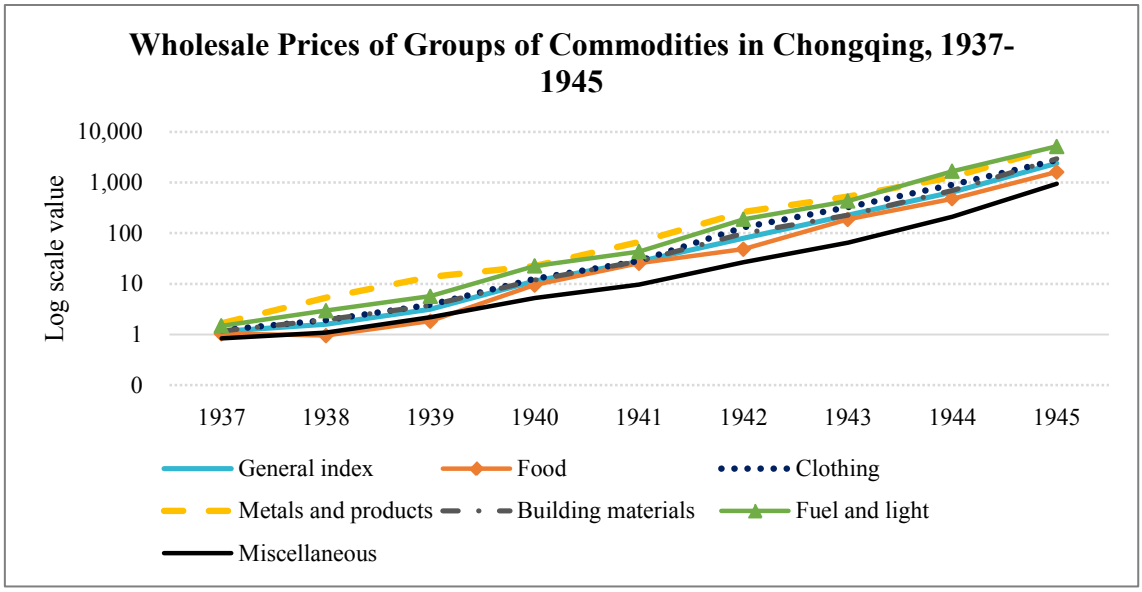


*Figure 5.8* Wholesale prices of groups of commodities in Chongqing, 1937-1945.

*Sources*: A. Young (1965, p. 353). Price index of the period February-June 1937=1.

*Notes:* Due to the huge difference of different data, we use logarithms to evaluate and express all the listed statistic items. All data has been evaluated by logarithms.

Treating the prices in Chongqing as the example, there are some explanations for why the prices grew gradually from 1937 to 1939. The **main** reason why the prices of food grew slower than prices of cloths and other daily necessities was that the 15 provinces in Free China had an 8% higher harvest rates in agriculture than the prewar average production.[653] The growth of the production of food hedged the growth of the monetary issuance.

Due to this explanation, it was normal for prices to start rising slowly in the first three years of the war in Free China. However, as the monetary expansion gradually increased, the increase of food prices in the later period, and the effect of wage-stickiness, the quality of life of common people would become worse and the purchasing power of their money would certainly decline (see section 5.5.1 of this chapter).

The **second** explanation for why prices were growing slower in the first three years of the was people's trust and faith in Fabi and their support on the National Government fighting against the Japanese. By buying the government bonds, the issuance of Fabi was reduced which eased the fiscal pressure on the burden of the National Government.[654] The Chinese bond market was not altered by internal wars, but by the external ones, especially the Second Sino-Japanese War.[655] Table 5.2 below shows the conditions of the wartime government bonds. Before the outbreak of the Second Sino-Japanese War, in 1936, the National Government issued 5 different types of government bonds, valued at C$1,460 million. These bonds consolidated the previous bonds that had issued both by the Beiyang government and the National Government, which were named as Consolidation bonds A, B, C, D, and E (hereafter CBA to CBE in table 5.2). Another statistic result also shows that the annual bond sales covered 1.5%, 1.9%, 10%,

[653] See Fairbank & Feuerwerker (1983, p. 585).
[654] See K. Chang (1958, pp. 257-258) and J. Zhu (2012, p. 407).
[655] See C. Ho & D. Li (2014).

and 1.5% of the government deficit from 1941 to 1945 respectively.[656]

[656] K. Chang 1958 (p. 258).

## Six Major Chinese Domestic Government Bonds, 1936-1942

| *Name* | *Purpose* | *Issue date* | *Amount (millions)* | *Interest rate* | *Price data availability* |
|---|---|---|---|---|---|
| CBA | To swap six bonds and loan certificates | March 1936 | 150 | 6% | Mar. 1936-Dec. 1942 |
| CBB | To swap five bonds and loan certificates | March 1936 | 150 | 6% | Mar. 1936-Dec. 1942 |
| CBC | To swap nine bonds and loan certificates | April 1936 | 350 | 6% | Apr. 1936-Dec. 1942 |
| CBD | To swap eight bonds and loan certificates | April 1936 | 550 | 6% | Apr. 1936-Dec. 1942 |
| CBE | To swap five bonds and loan certificates | April 1936 | 260 | 6% | Apr. 1936-Dec. 1942 |

*Table 5.2* Six major Chinese domestic government bonds, 1936-1942. Figure's currency unit is one million Chinese dollars (C$).

*Source:* C. Ho & D. Li (2014).

*Notes:* Our table is a simplified version of the eleven major Chinese domestic government bonds from 1921 to 1942 based on the above reference.

Here, we also need to emphasize the influence of price fluctuations on human beings' subjective psychological reactions. Although the newly issued banknotes will generally reduce the purchasing power of the money that many people hold, it does not mean that the currency will rise *mechanically*.[657] In order to resist the Japanese aggression, many sellers in Free China subjectively did not want to increase the prices of their products. Besides, to a certain extent, the public debt policy of the National Government indeed eased the increase of prices at that time. Although we are not in favor of the expansionary monetary policy of the National Government, as the increased currency issuance could cause economic discoordination, we still have to point it out that the purchase of public debt was conducive to the stability of prices, considering that the Fabi had already become an almost completely monopolized currency at that time in Free China, meaning that there was no other fiscal and monetary alternative in the short term.

The **third** reason was the National Government's sale of foreign exchange and international trade. The government's sales in Shanghai as well as the presence of American and British industrial raw materials and products partly stabilized prices in Free China.[658] Due to the gold export ban before the outbreak of the war (see section 4.4.1.2 in Chapter 4), the Chinese government were mainly collecting gold in the first 4 years of the war. About US$21.5 million gold and US$9.5 million silver were collected and exported from 1937 to 1941.[659] The gold sale was more evident in the second stage of price inflation from 1940 to 1945. We will analyze the gold sale of that stage in section 5.5.7. Figure 5.9 below shows the comparison of the domestic, import and export whole prices in Chengdu, a city of Free China, during the war time. Due to the huge difference of the different data, we use logarithms to evaluate and express all the

[657] See Mises (1949/1998, p. 576).
[658] See Fairbank & Feuerwerker (1983, p. 587) and J. Zhu (2012, p. 408).
[659] See A. Young (1965, p. 282).

listed statistic items. All data has been evaluated by logarithms. We can see from figure 5.9 that the indices of all the categories listed below. The indices include domestic goods, import goods, and export goods. A general index of the wholesale prices of the commodities in Chengdu from 1937 to 1945 was provided by the original source in this figure. As the trend of the growth of these indices are very similar due to the statistic result in the figure, we use the general index to describe the general situation of prices in Chongqing during the wartime. In the figure, price index of the period July 1936-June 1937 was 1. The annual general price indices were 1 and 1.45 respectively in 1937 and 1938, which had a very smooth growth rate. Price index in 1939 was only 3.33, which increased compared to the previous years. However, compared to the 1940 price index 10.33, the growth of price index in 1939 was also very smooth. We can also find the same trend of the increasing prices of the other listed items in figure 5.9. Figure 5.7, 5.8 and 5.9 all show that the price inflation process from 1937 to 1939 was different from the second stage of price inflation from 1940 to 1945.

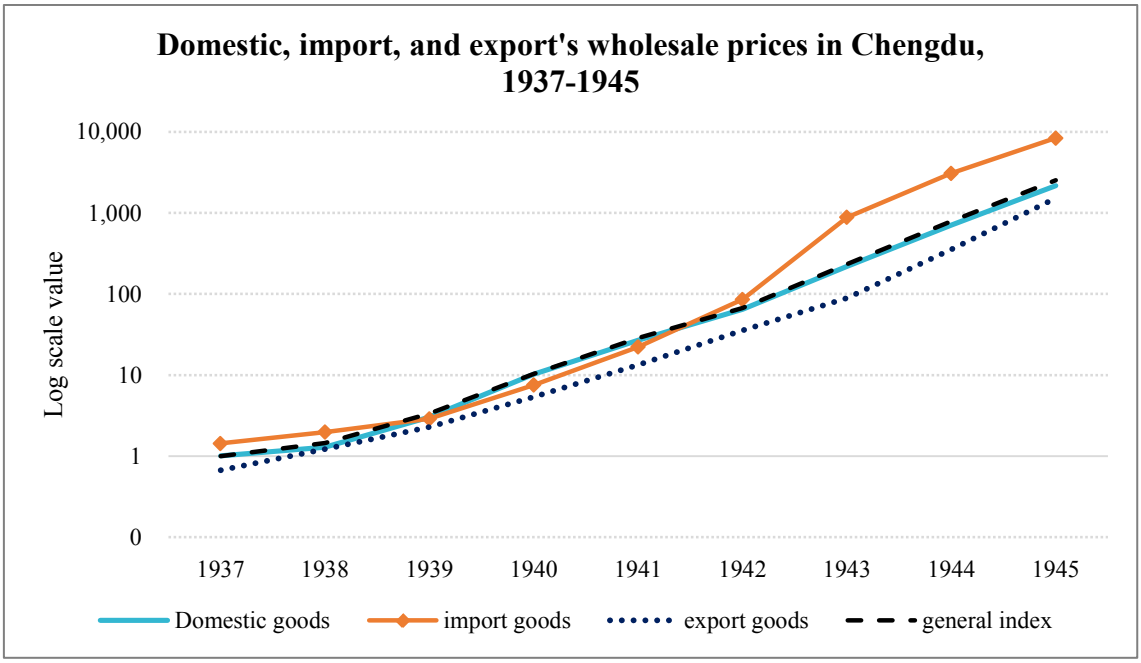


*Figure 5.9* Domestic, import, and export's wholesale prices in Chengdu, 1937-1945.

*Source*: A. Young (1965, p. 354).

*Notes*: Due to the huge difference of different data, we use logarithms to evaluate and express all the listed statistic items. All data has been evaluated by logarithms (July 1936-June 1937=1).

The sale of foreign goods in China indeed eased the increase of prices at that time. However, there still were some problems with these sales. The first problem was that the foreign-exchange reserves soon became exhausted and thus this method was no longer available.[660] Secondly, since the sales had the character of dumping, we must consider whether these sales would lead to economic and currency discoordination in the exporting countries. Behind the dumping of US and British goods was the expansionary monetary policy of these two countries; so, expansionary monetary policy and price inflation might appear in these countries in long run. As these exporting countries exchanged their products for Fabi, they would eventually use Fabi for the purchase of Chinese goods, which would lead to the return of it to China. Therefore, even if there was no subsequent civil war between the National Government and the Communist Party, the hidden danger of temporary price inflation was still likely to become a reality in future.

The **fourth** reason was the difficulties of carrying cash in the beginning of the war made the cash spending slower which also slowed down the growth rate of prices. Though there is no statistic data available on this issue, recorded evidence demonstrates that Chinese people were facing difficulties of taking their cash to Free China when they were migrating.[661]

The **fifth** reason was that businessmen would like to hold cash as they were worrying about if the banks could have the ability to pay them in cash.[662] The entrepreneurs' cash holding activities and their wait-and-see attitude reflected the sensitivity of entrepreneurs to market uncertainty. However, considering the expansionary monetary policy in the second stage of price inflation (1940-1945), the cash holding measure of entrepreneurs in the first stage became invalid.

[660] See Fairbank & Feuerwerker (1983, p. 587)
[661] See J. Zhu (2012, p. 408).
[662] See J. Zhu (2012, p. 408).

The **sixth** reason was the use of metal currency as a replacement for Fabi. More than a year after the start of the war, price inflation did not occur a lot, which was also related to factors such as the replacement of some Fabi. Besides, Free China's people were also storing currency and banks had the necessity to hold Fabi in response to emergencies. Thus, not all the issued new banknotes were entering into the market for circulation.[663] Moreover, as the banking industry was damaged by the war, many businesses had to be conducted in Fabi, which also increased Fabi's value.[664] Therefore, even in Occupied China, Fabi had higher credit than the Japanese puppet currencies.

Therefore, despite the combination of the above factors that led to the slower increase of price, the increased issuance of Fabi resulted in a more serious price inflation in the second stage (1940-1945). Under the leadership of Chiang Kai-shek, it seems that the National Government did not want to restrain money printing. The economists who warned the danger of expansionary monetary policy and price inflation were dismissed.[665] Though some economists who knew the importance of the restriction on fiscal spending and money printing (e.g., like T.V. Soong) remained serving the National Government, their voices were not heard. Obviously, Chiang Kai-shek did not fully understand monetary theory, which led to more mismanagement of monetary policies. In the next section 5.4.2, we will analyze the second stage of price inflation (1940-1945).

[663] See A. Young (1965, p. 207).
[664] See A. Young (1965, p. 207). In April 1939, despite the availability of the Sino-British Stabilization Fund, the price of Fabi was 109% higher than the pre-war level, and prices rose by about 50% in ten months (A. Young, 1965, p. 212). This shows the instability of people's confidence on the wartime currency valuation.
[665] See Fairbank & Feuerwerker (1983, p. 587).

### 5.4.2 The Second Stage of Price Inflation, 1940-1945

The situation of price inflation became worse since 1940 till the end of the Second Sino-Japanese War in 1945.[666] The restriction on monetary issuance before the war had already sown damaging seeds.[667] As we have demonstrated in section 5.3 on the general background of the expansionary monetary policy, before the outbreak of the Second Sino-Japanese War in 1937, the Central Bank of China had already failed to keep the 60% cash reserves and 40% bank guarantees rules. The outbreak and the process of the war made the execution of the monetary policy even less possible. On September 8, 1939, the National Government issued *the Outline of Financial Consolidating Measures*, declaring that the 60% cash reserves and 40% bank guarantees rules were no longer valid and the four big banks could print money with the receipt of the loans from the Ministry of Finance.[668] This means that the restriction on monetary issuance, as one of the core parts of the 1929 Kemmerer Plan was completely abolished. In 1940, the monetary policy became even worse. The Central Bank of China monopolized all the issuance of Fabi which caused price inflation.[669] Figure 5.7 above shows the monetary supply and price index from 1926 to 1945. In section 5.3.2.1, we already analyzed the first stage of wartime price inflation, 1937-1939. Here we focus on the analysis of the second stage of wartime price inflation. In order to enable price indices from different sources to be displayed on the same statistical chart, we have processed the data from different sources according to the principle of proportionality. Due to the huge difference of different data, we use logarithms to evaluate and express all the listed statistic items. All data has been evaluated by logarithms. In the text analysis, we use the original data without logarithms to demonstrate the situation. In

[666] See J. Zhu, 2012, p. 407-410).
[667] See J. Zhu (2012, p. 408).
[668] The original name of this outline in Chinese is "鞏固金融辦法綱要." See J. Zhu (2012, p. 408).
[669] See J. Zhu (2012, p. 408).

1940, the National Government issued C$7,870 million. Along with the currency deposits, the total monetary supply (TMS) in that year was C$12,185 million. The TMS in 1939 was C$7,504 million. The TMS in 1940 was 87.5% higher than the previous year. TMS in 1941 was C$50,791 million, which was 316.8% higher than the previous year. The annual growth rate of TMS from 1942 to 1945 were 316.8%, 97.27%, 174.6%, and 447.7% respectively. From figure 5.7, it is obvious that the second stage of wartime price inflation represented a much higher annual growth rate of TMS. In the side of price index, in 1940, the wholesale prices index was 969.6 (1926=100). The wholesale price index from 1941 to 1945 were 2,449.4, 7,371, 23,702.5, 81,642.3 and 308,372.4, respectively. From figure 5.7, it is obvious that in the second stage of wartime price inflation, general prices in each easy were going much higher than the previous year. Along with the data on the TMS, the tendency in the second stage was from price inflation towards price hyperinflation. In the next section, we analyse the cause of the wartime price inflation, along with its consequences.

## 5.5 A Discussion of the Possible Causes of the Wartime Price Inflation, along with its Consequences

In this section, we will analyze the possible causes of the wartime price inflation (especially in the second stage of price inflation since 1940) and its consequences. As the related policies of the National Government, people's psychological reaction on price inflation, and the Japanese and Communist's economic and monetary actions could all have impacted price inflation in Free China, in this section we will briefly analyze all the related factors in detail. In each subsection in section 5.5, we will provide the hypotheses of the possible causes of the wartime price inflation that were argued by scholars and we will use empirical data and evidence to exam these hypotheses. Section 5.5.1 to section 5.5.10 are about the possible policy

failures of the National Government that led to the wartime price inflation. These policies included the over-issuance of banknotes, military expenditure, the increased taxation on common people, the government's fiscal policy, the failed control of the expansion of private credits, interest rate policies, bonds and gold sales, and the reduction of foreign reserves. Section 5.5.9 discusses whether agricultural harvest was one of the causes of the wartime price inflation. Section 5.5.11 demonstrates people's psychological confidence on Fabi. Section 5.5.12 to section 5.5.13 are about how the Japanese's and the Communists' trade war and currency wars affected the price inflation in wartime Free China.

### 5.5.1 Wartime Price Inflation and its Consequences on People's Life

This section deals with wartime price inflation and its consequences on people's life. Section 5.5.1.1 will briefly review the wartime price inflation process that we have demonstrated. Section 5.5.1.2 illustrates how the wartime price inflation affected people's lives negatively.

**5.5.1.1 The over issuance of Fabi.** Section 5.4 along with figure 5.7 above has demonstrated the process of the wartime price inflation, 1937-1945. In the first stage of price inflation from 1937 to 1939, compared with the later stage from 1940 to 1945, both monetary expansion and price inflation grew slower in the first three years of the war. The Free China's price index in 1937, 1938 and 1939 was 189.5, 247.6 and 415.9, respectively. Based on the references from figure 5.7, if we assume the price index in 1937 was 100, then prices increased 31 points from 1937 to 1938, 89 points from 1938 to 1939, and 293 points from 1939 to 1940. The annual note issue from 1937 to 1940 was C$1,640 million, C$2,310 million, C$4,290 million and C$7,870 million, respectively. The annual growth rate of note issue from 1939 to 1940 was 40.9%, 85.7%, and 83.5% respectively. The situation in the second stage of wartime price inflation was

more severe than the first stage. In 1940, the National Government issued C$7,870 million. Along with the currency deposits, the total monetary supply (TMS) in that year was C$12,185 million. The TMS in 1939 was C$7,504 million. The number of it in 1940 was 87.5% higher than the previous year. TMS in 1941 was C$50,791 million, which was 316.8% higher than the previous year. The annual growth rate of TMS from 1942 to 1945 were 316.8%, 97.27%, 174.6%, and 447.7%, respectively. From figure 5.7, it is obvious that the second stage of wartime inflation represented a much higher annual growth rate of TMS. In the side of price index, in 1940, the wholesale prices index was 969.6 (1926=100). The wholesale prices index from 1941 to 1945 were 2,449.4, 7,371, 23,702.5, 81,642.3 and 308,372.4, respectively. From figure 5.7, it is obvious that the second stage of wartime price inflation was going much higher than the previous stage. Along with the date of the TMS, the tendency in the second stage was from price inflation towards price hyperinflation.

**5.5.1.2 Wartime price inflation's consequences on people's life.** Dynamically speaking, the consequences of the policy mistakes of the National Government were becoming more and more serious when the war was in process. This section demonstrates how the wartime price inflation policy gradually dried the quality of people's life. We use the related indices and cases to demonstrate this. Figure 5.10 below shows the impacts of price inflation upon salaries and entrepreneurial accounting loss from 1937 to 1943 in wartime Free China. This figure shows the indices of the salaries of Free China's teachers and public servants (including the salary indices of college teachers, middle school teachers, primary school teachers, primary school teachers, and government officials), the salary indices of labors of provisional capital Chongqing, the salary indices of soldiers, industrial production indices (including production goods index, consumer goods index, and exported goods index), and Free

China's indices of cost of living. Due to the huge difference of different data, we use logarithms to evaluate and express each index in this figure. In the text demonstration, we use the original data without logarithms. The annual indexes of cost of living were 110, 142, 282, 118, 293, 629 and 1830, respectively.[670] The annual indices of the salaries of Free China's teachers and public servants were 88, 96, 120, 213, 532, 942 and 3,095, respectively.[671] The annual indices of the salary indices of labors of provisional capital Chongqing were 100, 124, 95, 76, 78, 75, and 69, respectively.[672] The annual indexes of the salary indexes of labors of provisional capital Chongqing were 100, 93, 64, 29, 21, 10, and 57, respectively.[673] Compared with the increasing cost of living, the actual income of Chongqing workers was decreasing, while the salary of soldiers also had a decreasing trend in general. Though the industrial production indices (including production goods index, consumer goods index, and exported goods index) were growing during the wartime, compared with Free China's cost of living, the increasing prices of these products lagged behind the cost of living.[674] Thus, the value of industrial production was actually depreciating and the entrepreneurs were suffering from their loss. From the Second World War to the Chinese Civil War, the deteriorating price inflation forced some university professors to engrave fake college stamps to get government subsidies, and some professors committed suicide because of poor living.[675] From figure 5.10, we perceive that the index of Free China's cost of living was growing much faster than the salaries of Free China's teachers and public servants. Compared with the increasing cost of living, the actual income of Chongqing workers and Chinese soldiers was decreasing, while the factual value of industrial production

[670] See A. Young (1965, p. 321).
[671] See A. Young (1965, p. 321).
[672] See P. Yang (1963, p. 138).
[673] See D. Wu (1945, pp. 34-35).
[674] See P. Yang (1963, p. 146).
[675] See P. Yang (1963, p. 144).

was actually depreciating. Entrepreneurs were suffering from wartime expansionary monetary policy and price inflation.

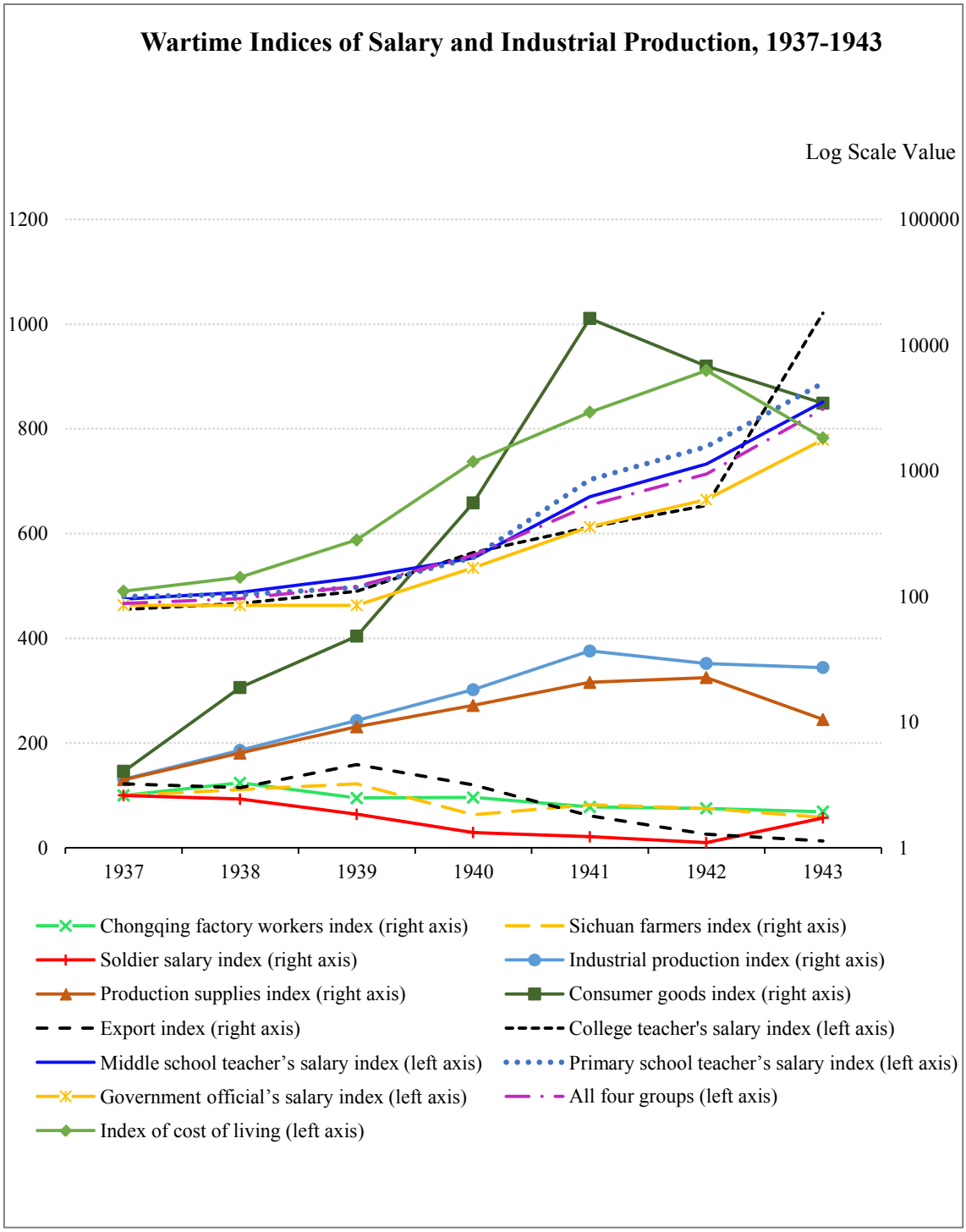


*Figure 5.10* Wartime indices of salary and industrial production, 1937-1943.

*Sources*: For college teacher's salary index, middle school teacher's salary index, primary school teacher's salary index, government official's salary index, and the index of the all above four groups (1936-1937=100), see A. Young (1965, p. 321). Indices above are for December of each year. For Chongqing factory workers index (1937=100), see P. Yang (1963, p. 138). For Sichuan farmers index soldier salary index (1937=100), see D. Wu (1945, pp. 34-35). For industrial production index (1938=100), see P. Yang (1963, p. 146).

*Notes*: Due to the huge difference of different data, we use logarithms to evaluate and express each index in this figure.

### 5.5.2 Wartime Military Expenditure

The wartime military expenditure played an important role of the wartime Free China's monetary expansion. In section 5.2.2.5, we have already demonstrated the wartime fiscal conditions of Free China. In this section, we focus on the wartime military expenditure issue. Figure 5.11 below shows the military expenditure as a percentage of fiscal expenditure during the Second Sino-Japanese War. Due to the huge difference of different data, we use logarithms to evaluate and express each index in this figure. In the text demonstration, we use the original data without logarithms. We find the annual military expenditure played an important proportion of the government fiscal expenditure during the wartime. The annual fiscal expenditures were C$20.91 million, C$11.69 million, C$27.97 million, C$52.88 million, C$100.03 million, C$245.11 million, C$588.16 million, C$1,716.8 million and C$12,150.89 million from 1937 to 1945 respectively. The military expenditures were C$13.68 million, C$6.98 million, C$16.01 million, C$39.12 million, C$66.17 million, C$152.16 million, C$429.39 million, C$1,387.26 million, and C$6,843.67 million from 1937 to 1945 respectively. The bank advances were C$11.95 million, C$8.53 million, C$23.1 million, C$38.34 million, C$94.43 million, C$200.81 million, C$408.75 million, C$1,400.9 million, and C$10,432.57 million from 1937 to 1945 respectively.[676] The financial advances were mainly supported by additional currency issuance.[677] Based on the data on wartime fiscal deficits, we calculate that the ratios of military expenditure to fiscal expenditure were 66.4%, 59.7%, 53.7%, 74%, 66.2%,62.1%, 73%, 76.3%, and 87.3% from 1937 to 1945 respectively. We calculate that the average annual military expenditure during the Second Sino-Japanese War was 68.8%. From figure 5.11, we find that the trend of increasing fiscal expenditure, military expenditure, and fiscal deficit was almost the

[676] See Lu & Q. Fang (1991, p. 555, p. 557).
[677] See J. Li (2007).

same during the wartime, while both price inflation and wartime military expenditures were also shown an increasing trend. As military expenditures were mainly financed by financial advances, and financial advances were mainly supported by additional currency issuance, we conclude that military expenditures were mainly supported by new issued banknotes. Therefore, the biggest use of the government's new issued banknotes was to pay for war costs. In the previous section 5.5.1, we have pointed out that the additional currency led to a decline in the wage levels of people in Free China and led to an increase in the cost of living and the cost of production of enterprises. Therefore, we conclude that although the issue of additional currency during the war did temporarily resolve the issue of military expenditures, it had a very serious negative impact on the wartime economy, which would inevitably bring many difficulties to the post-war economic reconstruction. The empirical result of our research matches as the same of what economic theory teaches us on how war could distort the economy causing wartime price inflation.[678]

In summary, the cost of living and consumer goods price indices were generally higher than other indices during the war, especially from 1940 to 1943, both of which were higher than the wage indices of the four major occupation categories (including the salary indices of college teachers, middle school teachers, primary school teachers, primary school teachers, and government officials) in the statistics. It can be seen that because of the rising cost of living and the increasing price of consumer goods, both the ordinary people and entrepreneurs' production and living conditions were worsening due to wartime price inflation.

[678] For the theory of war and wartime central banking expansionary monetary policy and price inflation, see Salerno (1995).

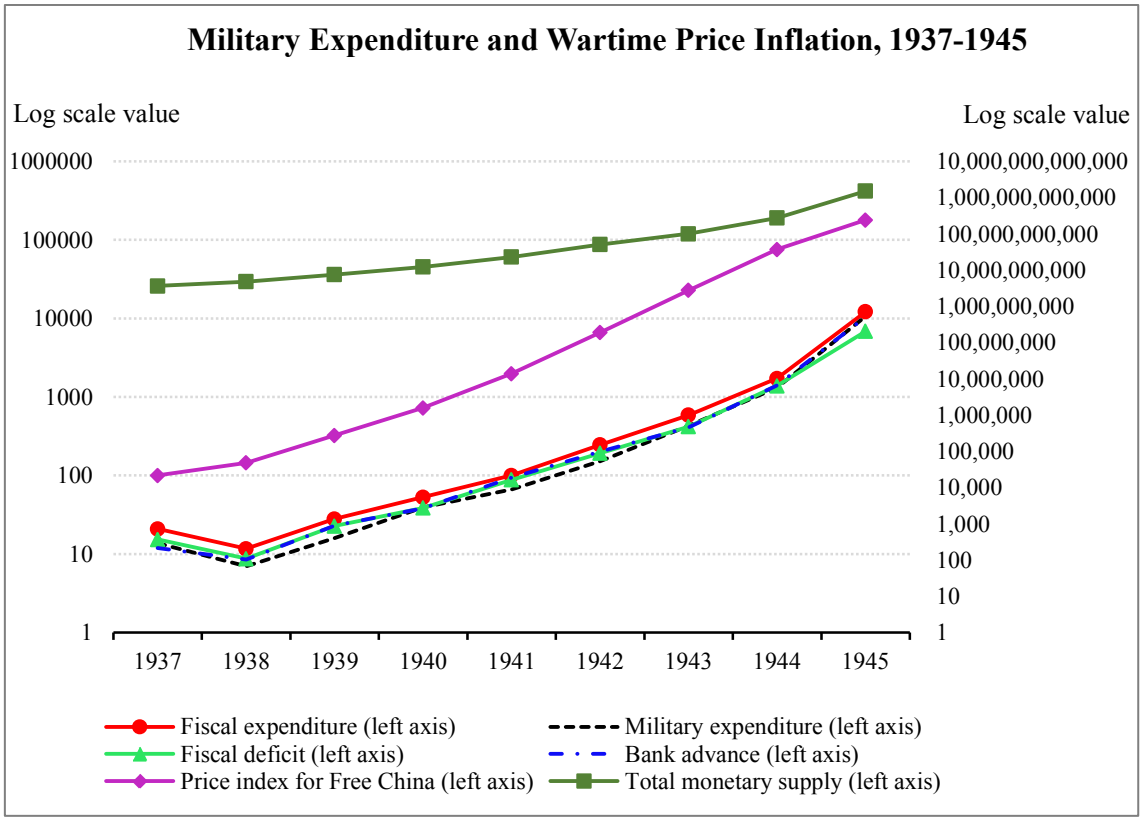


*Figure 5.11* Military expenditure and wartime price inflation, 1937-1945. Figure's currency unit is one million Chinese dollars (C$).

*Sources*: Lu & Q. Fang (1991, p. 555, p. 557).

*Notes*: Due to the huge difference of different data, we use logarithms to evaluate and express each item in this figure.

### 5.5.3 The Government's Taxation and Fiscal Policy

The wartime taxation just covered a very small portion of the government expenditures, which did not have an impact on suppress the wartime price inflation. In section 5.2.2.5, by showing the statistic result of figure 5.6, we have demonstrated the wartime fiscal condition. In order to demonstrate the relationship between the wartime price inflation and Free China's fascial situation, we repeat some of the previous conclusion in this section. In 1939, one year after the war began, the government's fiscal deficit rose sharply. Figure 5.6 above in section 5.2.2.5 shows the government budget, expenditure, revenue and deficits conditions from 1929 to 1945. By listing the data from 1929, it is obvious that the government's fiscal situation has gradually deteriorated since 1937. In June 1938, the government's fiscal deficit rate reached 75%. Subsequently, in the mid-1938, through transactions with the public, the government recovered C$499 million by selling foreign exchange and recovered C$255 million by selling public debt, reducing the deficit to C$777 million and the deficit rate into 37%. However, due to war factors, the government spending continued to increase. In 1945, the government's fiscal deficit increased by 51,054% compared to 1937. The National Government adopted the method of issuing new currency to make up for the fiscal deficit and fiscal expenses, which led to wartime price inflation. However, taxation was not enough to cover the wartime government deficit. The government expenditures totaled C$2,626,343 million during the wartime, while only C$158,470, or 6% of the amount of expenditures were covered by taxation.[679] The above empirical analysis shows that wartime taxation just covered a very small portion of the government expenditures, which did not have an impact on suppress the wartime price inflation.

[679] See K. Chang (1958, p. 244).

In section 4.2.2.2 of Chapter 4, we have analyzed that the government was relying on direct taxes like the land tax and the salt tax during the Nanjing Decade from 1927 to 1937, during which period a modern indirect taxation system was not established to help the government to collect more taxes. The same story repeated itself during the wartime. Only 2.1% or the wartime revenues were derived from direct taxes, which impeded the possible money income of the agricultural classes.[680] The National Government started to collect land taxation through central government's institutions in July 1941. However, it was still a direct tax, which was less efficient than indirect in money.[681]

Though taxation was just a small part of the government's revenue to pay its wartime expenditure, it already reduced the incomes of common people and entrepreneurs. Along with the increasing wartime consumption that we have analyzed in section 5.4.1 (also see figure 5.8. and figure 5.9 above) and speculation, the taxation caused an increase of price of consumption during the wartime.[682] Thus, taxation was a double-edged sword to the stability of prices in Free China. If the National Government avoided to collect taxation from the consumption side and tried to collect indirect tax, it would probably be useful to suppress the general trend of wartime price inflation and not hurt common people's life and enterprises' production. Besides, the more taxation charged on common people, the less products that would be produced.[683] Thus to establish an efficient and just taxation system was a tough job, which was failed by the wartime Free China.

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[680] See K. Chang (1958, p. 245).
[681] See Fairbank & Feuerwerker (1983, p. 586). For more about wartime Free China's taxation system, also see A. Young (1965, pp. 22-31).
[682] See K. Chang (1958, pp. 244-245).
[683] This is also demonstrated by the theory of Laffer Curve. For more about an alternative taxation system which is more efficient and brings less burdens on common people and entrepreneurs, see Mitchell (1996, 2008). However, we must mention that the above economic theories in this footnote deals with about peace time economic construction. The wartime taxation system is not only a theoretical issue, but also an empirical one given that every war has its specific patterns to be dealt with.

### 5.5.4 The Expansion of Private Credit

The National Government failed to control the expansion of private credit. Though the 1935 currency reform established a fiat-money fractional reserve central banking system, the previous existed private, local, and spontaneously free banks still could issue credits in Free China's currency Fabi. Figure 5.12 below shows the expansion of private credit. Due to the huge difference of different data, we use logarithms to evaluate and express each statistic item in this figure. To demonstrate in the text, we use the original data. From figure 5.12, we find that private credits of government banks, private credits of commercial and provincial banks, rural credits, and advances to the government were all increasing during the wartime. The amount of increase of private credits of government banks in 1938 was C$225 million, which jumped into C$121,661 million in 1945. The percentage increase of previous year also had a climbing trend. In 1939 it was 392%, which became 899% in 1945. As the government took some measures to suppress the increase of private credits in 1940, the previous year's percentage increase decreased to 25.3% in 1940. The amount of increase of private credits of commercial and provincial banks in 1938 was C$102 million, which jumped into C$7,947 million in 1945. The percentage increase of previous year also had a climbing trend. In 1939 it was 160%, which became 258% in 1945. The amount of increase of rural credits in 1938 was C$32 million, which jumped into C$2,411 million in 1945. The percentage increase of previous year also had a climbing trend. In 1939 it was 147%, which became 233% in 1945. The amount of increase in advance to the government in 1938 was C$143 million, which jumped into C$645 million in 1945. The increase of private credits in price levels were also increasing during the wartime. The percentages of annual increase were 27%, 68%, 133%, 153%, 201%, 222%, 244%, and 278% from 1938 to 1945 respectively, which

demonstrates that the government failed to suppress prices inflation though control private credits.[684]

[684] See K. Chang (1958, p. 249).

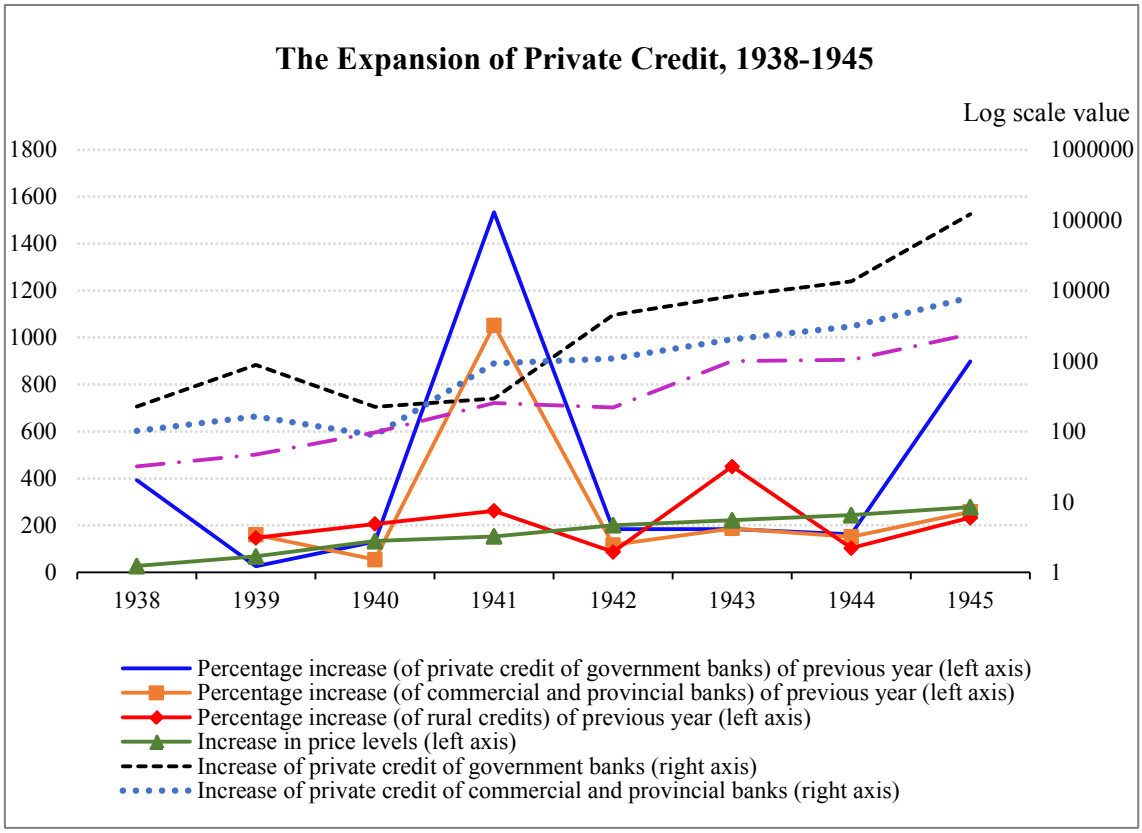


*Figure 5.12* The expansion of private credit, 1938-1945.

*Source*: K. Chang (1958, p. 249).

*Notes*: Due to the huge difference of different data, we use logarithms to evaluate and express each statistic item in this figure.

### 5.5.5 Interest Rate Policy

The increased interest rate did not help to suppress the increase of price. Figure 5.13 below shows the wartime annual average market interest rates per month and the indices of Free China's wholesale price index from 1937 to 1945. Due to the huge difference of different data, we use logarithms to evaluate and express the item of price index in the figure. In the text demonstration, we use the original data without logarithms. In figure 5.13, we have the data on interest rates from five Free China cities including Chongqing, Guiyang, Kunming, Xi'an and Lanzhou. The interest rates of all these cities all had a climbing trend during the wartime. Take, for example, Free China's wartime capital Chongqing. The annual interest rates from 1937 to 1945 were 1%, 1.2%, 1.3%, 1.5%, 1,9%, 2.8%, 6%, 9.3%, and 10.1%, while the annual price index jumped severely from 189.5 in 1937 to 308,372.4 in 1945, the year the Second-Sino Japanese War ended.[685] The statistic result shows that the increasing interest rate, as a common tool for modern central banks to suppress bank credit expansion and price inflation, did not help to suppress the increase of Chinese wartime prices.

[685] See K. Chang (1958, p. 254).

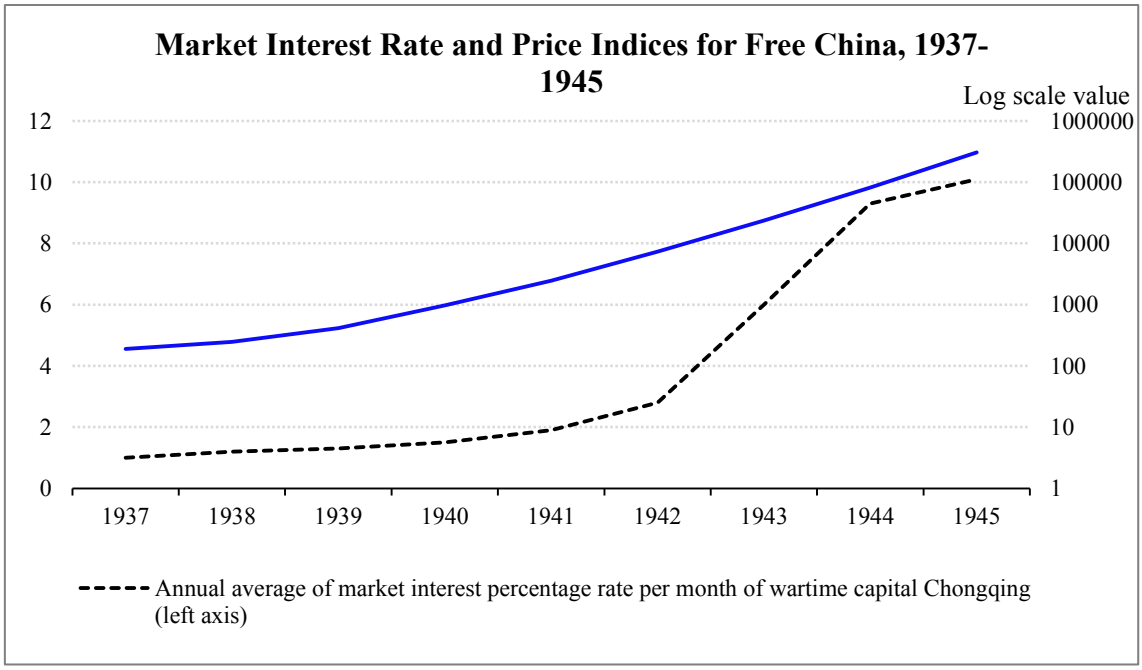


*Figure 5.13* Market interest rate and price indices of Free China, 1937-1945.

*Source*: K. Chang (1958, p. 254).

*Notes*: Due to the huge difference of different data, we use logarithms to evaluate and express the price indices of Free China in this figure.

### 5.5.6 Bank's Saving Policy

The government failed to use banks' savings to suppress the wartime price inflation. Figure 5.14 below shows the relationship among the government banks' total savings, the government banks' percentage ratio of savings to total deposits, the commercial and provincial banks' ratio of total loans to total deposits, and wholesale price index during the wartime. Due to the huge difference of different data, we use logarithms to evaluate and express the data on government bank's total savings and government banks' percentage ratio of savings to total deposits in this figure. To demonstrate in the text, we use the original data without logarithm. The government banks' total savings are defined as a combination of ordinary savings, government savings schemes, and the sales of U.S. dollars certificates and gold saving deposits of the government banks. The data on government banks' total savings and the government banks' percentage ratio of savings to total deposits were only available from 1940 to 1945. The government banks' total savings were increasing from 1940 to 1945, which were C$533 million, C$1,104 million, C$2,976 million, C$7,387 million, C$15,456 million and C$55,693 million in these years respectively. While at time same time period, the government banks' percentage ratio of savings to total deposits remained in a similar status, which were 8%, 10%, 15%, 24%, 16%, 16%, and 11% respectively. From 1937 to 1945, the commercial and provincial banks' ratio of total loans to total deposits had an increasing trend, which were 67%, 73%, 71%, 60%, 70%, 98%, 110%, 84%, and 151% respectively.[686] The wholesale prices were increasing during the wartime, which presents that the government failed to use bank's saving to suppress the wartime price inflation.

[686] K. Chang (1958, pp. 256-257).

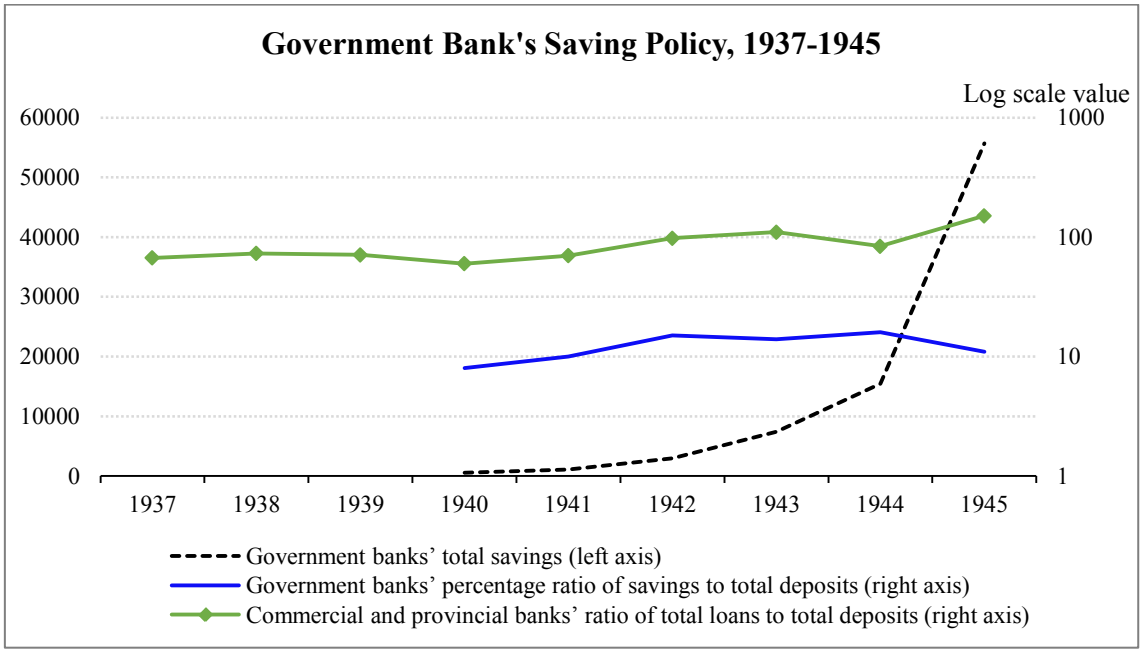


*Figure 5.14* Government bank's saving policy, 1937-1945. Figure's currency unit is one million Chinese dollars (C$).

*Sources*: For the data on government banks' total savings, see K. Chang (1958, p. 256). For the data on government banks' percentage ratio of savings to total deposits, see K. Chang (1958, p. 257).

*Notes*: Due to the huge difference of different data, we use logarithms to evaluate and express the data of government banks' total savings and government banks' percentage ratio of savings to total deposits in this figure.

### 5.5.7 Sales of Bonds

The government also tried to use the sales of bonds to restrain the wartime price inflation. Table 5.2 above in section 5.4.1 shows the conditions of the wartime government bonds. Before the outbreak of the Second Sino-Japanese War, in 1936, the National Government issued 5 different types of government bonds, which valued in total at C$1,460 million. These bonds consolidated the previous bonds that had issued both by the Beiyang government and the National Government, which were named as Consolidation bonds A, B, C, D, and E (hereafter CBA to CBE in table 5.2). Another statistic result also shows that the annual bond sales covered 1.5%, 1.9%, 10%, 1.5% from 1941 to 1945, respectively. While at time same time period, prices were increasing annually, which presents that the government's sales of bonds did not have a significant impact on suppressing the wartime price inflation.

### 5.5.8 Sales of Gold

From 1940 to 1945, the Chinese government tried to sale gold to stabilize the prices. Figure 5.15 shows the relationship between the sales of U.S. dollar certificates and gold savings deposits. Due to the huge difference of different data, we use logarithms to evaluate and express the data in this figure. To demonstrate in text, we use the original data without logarithms. The annual sales were C$5 million, C$6 million, C$446 million, C$1,910 million, C$4,042 million, and C$9,956 million from 1940 to 1945, respectively.[687] However, the statistic result shows that the sales of gold also did not help to suppress the wartime price inflation.

[687] K. Chang (1958, p.256).

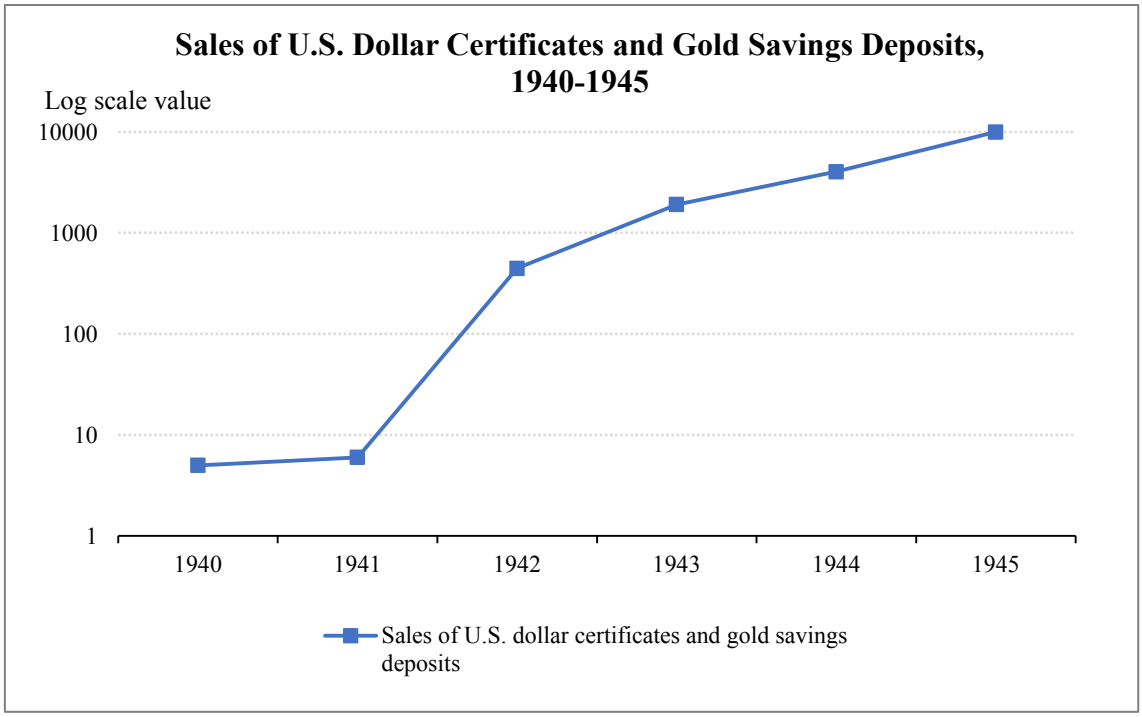


*Figure 5.15* The sales of US dollar certificates and gold savings deposits, 1940-1945. Figure's currency unit is one million Chinese dollars (C$).

*Source*: K. Chang (1958, p. 256).

*Notes*: Due to the huge difference of different data, we use logarithms to evaluate and express the data in this figure.

### 5.5.9 The Sales of Foreign Reserve and the Sino-U.S.-British Stabilization Funds as the Helping Hand

In section 5.2.2.1.3 we introduced the general condition of the wartime foreign aids (see figure 5.2 above). The kinds of aids included military, supplies, nonmilitary purchases, currency stabilization, motor truck purchase, lend-lease, etc. The Soviet Union, the United States, Great Britain, and France were all providing aids to Free China. The total amount of aids of all these years to China was US$634.5 million. In this section, we analyze the results of the sales of foreign reserve and the Sino-U.S.-British stabilization funds as the helping hand to stabilize the Chinese currency Fabi. Section 5.5.9.1 is about the early attempt to stabilize Fabi from 1937 to 1937. Section 5.5.9.2 demonstrates the three Sino-U.S.-British stabilization funds as the helping hand from 1939 to 1945.

**5.5.9.1 The early attempt to stabilize Fabi before 1939.** The National Government also failed to manage foreign currency reserves causing a huge reduction of it. Foreign reserves would be a useful tool to be sold as to stabilize the exchange rate therefore stabilize the Chinese currency Fabi. In May 1937, the government had C$830 million ($250 million) silver and gold reserves.[688] This amount might be not enough to be sold to stabilize the exchange rate of Fabi given that the ongoing war expense. In August 1937, the government sold about US$ 40 million foreign exchanges.

Theoretically, during the war time, if other conditions stay the same, foreign exchange will become scarcer, which means that the foreign currencies could exchange for more domestic currencies. In this sense, the National Government should allow Fabi devaluated naturally during the war time. However, after the war started, the National Government insisted on the previous exchange rate of C$1 for US $0.30 in the

[688] K. Chang (1958, p. 287).

Shanghai International Settlement before the war time, which caused the exchange rate of foreign currencies became much higher in the black market than the official rate.[689] After the outbreak of the Second Sino-Japanese War, the Chinese government soon consumed nearly US$100 million to stabilize its Fabi in one month, which was two-fifths of its total foreign exchange reserve.[690] Because of the unbalance between the official rate and the unofficial rate, the Japanese were also using Fabi to get more China's foreign currency reserves. In the beginning of 1939, the foreign currency reserves of the National Government were exhausted.

**5.5.9.2 The Sino-U.S.-British stabilization funds as the helping hand, 1939-1945.** Though later during the wartime, the United States and the Great Britain provided totally around US$1,000 million foreign currency reserve, the National Government still allowed the foreign currency exchange in an unnaturally lower rates, which caused the continuous loss of the foreign currencies.[691] And all the foreign reserves of the three-time management exhausted quickly. In 1939, the Sino-British Exchange Stabilization Found provided £10 million in the next two years through the Central Bank of China and some other commercial banks both in Free China, Hong Kong, India, and Australia.[692]

In April 1941, a new Stabilization Board of China, the U.K., and the U.S. was established instead of the previous one that was settled in 1939. Before the Pacific War, the Board provided totally US$90 million foreign exchange to China, including US$70 million from the U.S. side and £5 million for the British side.[693] The Board totally sold

[689] The Shanghai International Settlement in Chinese is "上海租界." Though Shanghai was occupied by the Japanese, the Shanghai International Settlement was still a relatively free land before the outbreak of the Pacific War. Thus, the National Government could still exchange its Fabi in the Shanghai International Settlement. See J. Zhu (2012, p. 405).
[690] See K. Chang (1958, p. 288).
[691] See J. Zhu (2012, p. 404).
[692] See K. Chang (1958, p. 291).
[693] See K. Chang (1958, p. 295).

US$28 million to stabilize Fabi. However, as the Chinese government feared the potential foreign intervention from the Board and the outbreak of the Pacific War, the Board ceased its activities in 1944.

After the outbreak of the Pacific War in December 1941, the British aid was cut off as Hong Kong was occupied by the Japanese, being unable to provide the financial sponsors to Free China. However, the U.S. still did its efforts continuing to support Free China. Statistics shows that in the end of 1945, the Central Bank of China held foreign exchange worth about US$140 million, the gold and silver taken from the Japanese and the Occupied China worth US$60 million, along with the American loans, the repayment of American military expenditures, and the Central Bank's own assets, which totaled about US$900 million. This is the biggest amount of the foreign reserves that the ROC government held before the 1949 Communist Revolution.[694]

Table 5.3 below shows the official and market exchange rates compared with the retail price indices from 1937 to 1945. From 1937 to 1940, the Chinese government held an artificial low and fixed interest rate, which was C$1 for US$1. Since 1941, the Chinese government finally devalued the Chinese dollar Fabi, setting C$5.6 for US$1. The official rate was set as C$5.95 for US$1 from 1943 till the end of the war in 1945.[695] Though the market rate was much lower than the official rate, to maintain people's psychological trust in Fabi, the government chose to lose a small amount of foreign exchange.[696] In the side of market exchange rates, it was increasing during the wartime, which were 1.01, 1.82, 3.98, 5.23, 14.5, 25, 170, 870, and 392 from 1937 to 1945, respectively.[697] Though as we have demonstrated, the U.S. and the U.K. thrice provided the Chinese government foreign aids, totaling around US$1,000 million, the

[694] See K. Chang (1958, pp. 302-303).
[695] See A. Young (1965, p. 264).
[696] See K. Chang (1958, pp. 302).
[697] See A. Young (1965, p. 264).

value of Fabi was constantly decreasing during the wartime while the prices were also increasing. The foreign reserve aids did not help China to stabilize the wartime inflation. From table 5.3 below we can also see that because the constant increase in prices led to the depreciation of Fabi, the exchange rate of Fabi to the US dollar continued to rise during the war. Therefore, although the difficult situation during the war allowed Free China to obtain a certain amount of foreign exchange, price inflation itself offset some of the prices that can be stabilized by foreign exchange, which shows the difficulty of Free China's financial situation during the war.

## Official and Market Exchange Rates along with Price Indices, 1937-1945

| Year | Official rate for US$ | Average market exchange rate for US$ (June 1937=1) | Price indices (the first half of 1937=1) |
|---|---|---|---|
| 1937 | 1.00 | 1.01 | 1.18 |
| 1938 | 1.00 | 1.82 | 1.76 |
| 1939 | 1.00 | 3.98 | 3.23 |
| 1940 | 5.6 | 5.23 | 7.24 |
| 1941 | 5.95 (from August 18) | 8.65 (November) | 19.77 |
| 1942 | 5.95 (from July 10) | 14.5 | 66.2 |
| 1943 | 5.95 | 25 | 228 |
| 1944 | 5.95 | 170 | 755 |
| 1945 | 5.95 | 870 | 2,593 |

*Table 5.3* Official and market exchange rates along with price indices, 1937-1945.

*Source*: A. Young (1965, p. 254).

### 5.5.10 The Agricultural Harvest

In section 5.2.2.3, we have analyzed the growing agricultural production in the wartime Free China. In 1937, China's agricultural economy accounted for about four-fifths of the total economy, which was about C$778,477 million.[698] Figure 5.4 above in section 5.2.2.3 shows the agricultural production indices from 1931 to 1945.[699] Since 1940, rice production reduced for six consecutive years. Rice production in 1945 was only 87% in 1937. However, wheat, sweet potatoes, and cotton were generally growing or maintaining the relatively same level of 1937. Wheat production in 1945 increased by 30% compared to 1937. Sweet potatoes production in 1945 increased by 44% compared to 1937. Cotton production in 1945 increased by 47% compared to 1937. Livestock production in 1941 decreased by 13% compared to 1937. The poor harvest also partly caused the increase of price in a very short period during the wartime. In 1940 agricultural production fell 10% below that of 1939 and declined an additional 13% per the next year.[700] The agricultural industry could be improved if the National Government could make the trade among Free China and other Western countries. A free trade policy can import more food and to strengthen Free China, which might also help to solve the problem of the rising price of food partly. During the wartime, details could make a difference. If the decision making of the National Government could be more overall, the loss of the war could be reduced as much as possible.

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[698] See A. Young (1965, p. 22). Due to Maddison (2003, p. 172), China's GDP in 1937 was US$295,937 million (calculated at the price of the US dollar in 1990). Excluding inflation factor, China's GDP in 1937 was about US$32,605 million dollars. According to the average exchange rate of the US dollar against Fabi in December 1937 (see A. Young, 1965, p. 360), China's GDP in 1937 was about C$973,096 million. Thus, China's agricultural economy accounted for C$778,477 million (of GPD in 1937). We must note that, given the lack of statistical data at the time and the limitations of statistics itself, our statistical results can only reflect the general situation of China's agricultural economic output in 1937, which may not accurately reflect the economic output.

[699] Reference of the agricultural data from 1937 to 1945, see A. Young (1965, p. 300) and K. Chang (1958, pp. 377-378).

[700] See Fairbank & Feuerwerker (1983, p. 586).

### 5.5.11 The Reduction of People's Confidence on Fabi

In section 5.5.1, we have analyzed in detail the wartime price inflation and its consequence on Free China people's life. The uprising price make people gradually losing their confidence in Fabi, causing both the farmers and businessmen started to hoard their products to overcome the difficulties and speculate to sell their products in the assumed higher prices in future.[701] Food prices in the wartime capital Chongqing during 1940 and 1941 consequently shot up nearly 1,400% and industrial, transport, and other workers, as a result, demanded and received substantial wage boosts.[702] Hoarding and speculation in price inflation are the normal reactions of people dealing with the currency problem. If the final decision maker of the National Government Generalissimo Chiang Kai-shek had the knowledge of business cycle, Free China would have avoided to issue too much Fabi.

The mismanagement of price hyperinflation caused a lot of problems in the second stage of price inflation. However, after the war ended in 1945, Chinese people were still suffering from the price inflation spiral started in 1937, causing more serious consequences.

### 5.5.12 The Trade War and Currency War Between Free China and the Japanese-occupied China

The Japanese occupation made the economy of the Japanese-occupied areas (Wang Jingwei regime and Manchukuo) separately from Free China. The economy of the Occupied China (Wang Jingwei regime) was controlled in the hands of the Japanese due to a treaty between Japan and the Wang Jingwei regime.[703] The Japanese control of Occupied China's trade and monetary issues were included in this treaty. The outbreak of Pacific War also caused a short time value fluctuation of the prices of Fabi in

[701] See Fairbank & Feuerwerker (1983, p. 586).
[702] See Fairbank & Feuerwerker (1983, p. 587).
[703] See Tamagna 1940 (pp. 332-337).

Occupied China. From January to June 1939, Shanghai's price index rose by only 21.1%, and due to the concerns about the outbreak of Pacific War, the index rose 58.6% in the second half of the year. However, this factor is only temporary for fluctuations in currency values in Occupied China. There are other complex reasons.[704] More factors that related with Occupied China and Free China's monetary issues should be analyzed in detail. This section deals with the trade war and currency war between Free China and the Japanese-occupied areas. Section 5.5.12.1 briefly introduces the general trade conditions of the wartime Free China. Section 5.5.12.2 deals with the topic of the trade ban between the Free China and the occupied areas. Section 5.5.12.3 analyzes how the Japanese occupation caused the reduction of Fabi's circulation. Section 5.5.12.4 Japan's expansionary monetary policy on Occupied China. Section 5.5.12.5 demonstrates the Japan's creation of fake Fabi and its use of Fabi to get foreign currencies.

**5.5.12.1 The general trade conditions in Free China, 1937-1945.** Due to the war factor, while some international trade data is available before the outbreak of Pacific War in December 1941, compared with the previous period the Nanjing Decade (1927-1937), there's no complete data of the imports and exports of the wartime Free China, especially the lack of data after 1941 the outbreak of Pacific War.[705] The imports of wartime Free China were inelastic, which included cereals, raw cotton, and petroleum as the main items.[706] Due to the 1935 currency reform and the currency devaluation exports recovered to 87% of imports, which was still 70% of that of 1928 due to war factor and Great Depression.[707] While in the side of exports, China only exported a few agricultural products and mineral ores, which were not significant in the

[704] See A. Young (1965, pp. 218-219).
[705] For the general economic background in the Nanjing Decade, see section 4.2.2 in Chapter 4.
[706] See Chou (1963/1969, p. 159).
[707] See K. Chang (1958, p. 322).

global market at that time.[708] From August 1937 to July 1938, the export trade in Free China were only 41% of the whole China compared with the previous period. In July 1938, the government issued an order which only allowed 10% of the total exports to be sold by the merchants, with the remaining 90% being sold to the government as an obligation.[709]

On the other hand, although no specific statistics was available, evidence shows that in order to purchase export goods, the Chinese government relied on printing currency to make up for its fiscal deficit. The Chinese government must purchase goods like tungsten, tin, tea, and tung oil and ship them to the Soviet Union, the United States, the United Kingdom, and Germany in order to repay their purchase loans and trades. Therefore, these goods cannot increase the foreign exchange supply of the market. Since the central government in the wartime capital Chongqing did not fully control the government of Yunnan Province, the local authority insisted on exporting tin for foreign exchange. The agencies that purchased export goods must pay locally at a certain price to maintain production. The shortfall of funding was maintained by the additional banknotes that were newly printed. Therefore, the government's foreign trade policy has also caused price inflation to a certain extent.[710]

**5.5.12.2 The trade ban between the Free China and the Occupied China.** The trade ban between Free China and Occupied China not only also caused the trade difficulties, but also affected the wartime price inflation. The factories in Free China were far away from providing the sufficient products that the people there needed, meaning that the lack of products comparing to the more printed Fabi was also one of the reasons of the wartime price inflation. Though the National Government gradually released the trade ban after July 1939 step-by-step, the lack of sufficient products in

[708] See Chou (1963/1969, p. 159).
[709] See K. Chang (1958, p. 328).
[710] See A. Young (1965, pp. 212-213).

Free China remained as a critical problem.[711] Fighting against Japanese didn't mean the trade ban was necessary. Free trade between Free China and Occupied China could also be a way to release the tension between the two sides, enhancing the connection between the Chinese in Free China and Occupied China.[712] Though Japan also had the intention of banning trade between the two sides, people could still trade by smuggling. If the National Government allowed free trade between the two sides, the negative effects caused by the Japanese ban on trading could also be reduced a lot.

**5.5.12.3 The reduction of Fabi's circulation area caused by the Japanese occupation.** The reduction of the circulation area of Fabi caused by the Japanese occupation also partly caused Free China's price inflation.[713] During the war period, Japan gradually controlled one third of the Chinese territories including Manchuria. After the 1937 Marco Polo Bridge Incident, Japan established at least 20 banks in the Japanese-occupied areas (Manchukuo and Occupied China of Wang Jingwei regime). Before the Victory over Japan Day on September 2, 1945, in Occupied China and Manchukuo, 155 pro-Japan currencies were issued, which was a huge variety. These currencies became the substitutions for Fabi in occupied areas. The Japanese occupation caused the reduction of Fabi's circulation in the whole China, both in the free area and the occupied ones.

Japan compulsorily collected Fabi in Occupied China. Besides, Japan also forced the Chinese people in Occupied China to convert their Fabi to the Japanese puppet currencies. The Chinese person who had more than C$60 would be executed.[714] As we have mentioned in Chapter 4, Chinese people and banking sectors were generally

[711] See Fairbank & Feuerwerker (1983, p. 586).
[712] For more about the theory of free trade, See Mises (1949/1998, pp. 737-741, pp. 741-749).
[713] See J. Zhu (2012, pp. 401-402).
[714] See J. Zhu (2012, p. 403).

and strongly support the 1935 fiat money currency reform.[715] Thus by coercion and threat, the Japanese cancellation of Fabi deprive the rights of the Chinese people who wanted to use Fabi, which distorted the economic coordination in Occupied China.

**5.5.12.4 Japan's expansionary monetary policy and price inflation in Occupied China, along with Manchuria.** In Occupied China and Manchuria, the over issuance of currencies caused the problems of price hyperinflation.[716] Because of the over issuance, the Japanese manipulated currencies were devaluating quickly.

> It is estimated that in November 1938, the amount of Japanese military yen issued in Central China and South China was 30 million yen. By the end of 1941, the circulation of Japanese military yuan was from 600 million yen to 1.2 billion yen. As a result of the over-issuance of currency, the Japanese manipulated currency quickly devalued. This can be clearly seen from its exchange rate with gold. … In May 1942, [the exchange rate] was 21,000 yen. In late January 1944, it was 102,100 yen.… Taking the wholesale price index of 1936 as 100, by 1941, the index in Shanghai rose to 1099.3, and the index in the North China rose to 450.2. … and the Japanese currency quickly devalued. This is evident from its comparison with gold. In May 1942, it was 21,000 yuan. In late January 1944, it was 102,100 yuan. The wholesale price index in 1936 was one hundred. By 1941, Shanghai had risen to 1939.3 and in northern China it had risen to 45.25. (J. Zhu, 2012, p. 403, own translation)

To demonstrate the price inflation situation in Japanese-occupied areas, we choose two currencies to compare. The first is the Manchukuo Yuan (MCB) that was issued in the Japanese puppet state Manchukuo (Manchuria). The second is Wang Jingwei regime's Federal Reserve Bank Dollars. Figure 5.16 below shows the currency issues of

[715] See section 4.5.3.12 in Chapter 4.
[716] J. Zhu (2012, p. 403).

Manchukuo Yuan from 1936 to 1944. In 1936, Manchukuo issued banknotes of MCB¥274,691 million. In the next few years, every year Manchukuo issued more banknotes compared with the previously year. In 1944, one year before the end the Second Sino-Japanese War, it issued more than MCB¥7,709,251 million, which was 2706.5% higher than the amount in 1936. The price indices were also increasing during these years. The price index was 100 in 1936 in Changchun, the capital of Manchukuo. It increased into 358.3 in 1944.[717] Figure 5.17 below shows the currency conditions of Wang Jingwei Regime from 1938 to 1945. As we have demonstrated in section 5.5.12.3, the Japanese-occupied areas had at least 155 currencies. To analyze the currency conditions of the Wang Jingwei Regime, we choose a representative and official currency of it, the Federal Reserve Bank Dollars (FRB), to analyze. In 1938, Wang Jingwei Regime issued banknotes of FRB$20 million. In the next few years, every year Wang's regime issued more banknotes compared with the previously year. In 1945, the last year of the Second Sino-Japanese War, it issued more than FRB$142,399 million, which was 711,895% higher than the amount in 1938. The price indices in north China were also increasing during these years. Due to the lack of data, price indices of north China in 1937, 1938, 1944, and 1945 are not available. The price index was 100 in 1939 and it jumped into 1,176.67 in 1944.[718] The statistics results show that the in Japanese-occupied areas, both the Wang Jingwei Regime and Manchukuo had a very severe tendency of wartime price inflation caused by the over-issuance of currency. The wartime price inflation policy destroyed the monetary value, causing both the loss of the people's banknotes and the public's psychological panic. However, in another perspective, the chaotic monetary and economic condition in Japanese-occupied areas

[717] See P. Yang (1963, p. 55) and Research Group of the Northeast Materials Regulatory Commission [RGNMRC] (1948, p. 37, pp. 154-155).
[718] See P. Yang (1963, p. 56) and G. Wu (1958, pp. 45-47).

also made the Japanese invaders difficult to manage occupied areas, becoming a positive element of Free China to resist during the wartime.

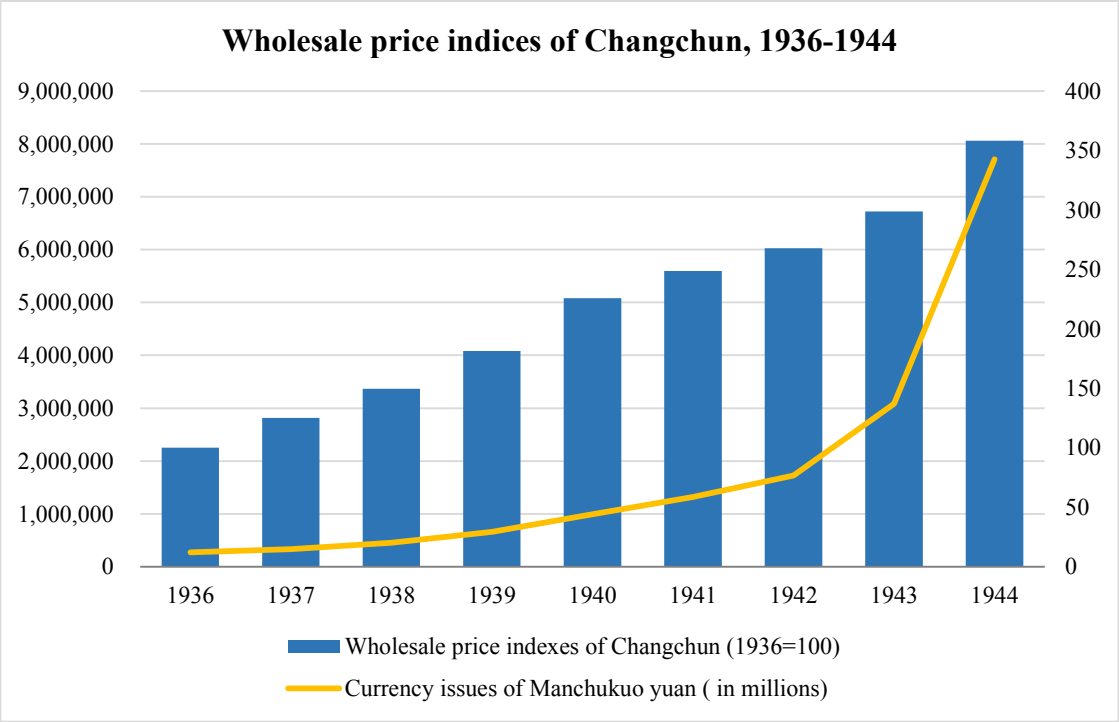


*Figure 5.16* Currency conditions in Manchuria, 1936-1944. Figure's currency unit is one million Manchukuo Yuan (MCB¥).

*Sources*: P. Yang (1963, p. 55), and RGNMRC (1948, p. 37, pp. 154-155).

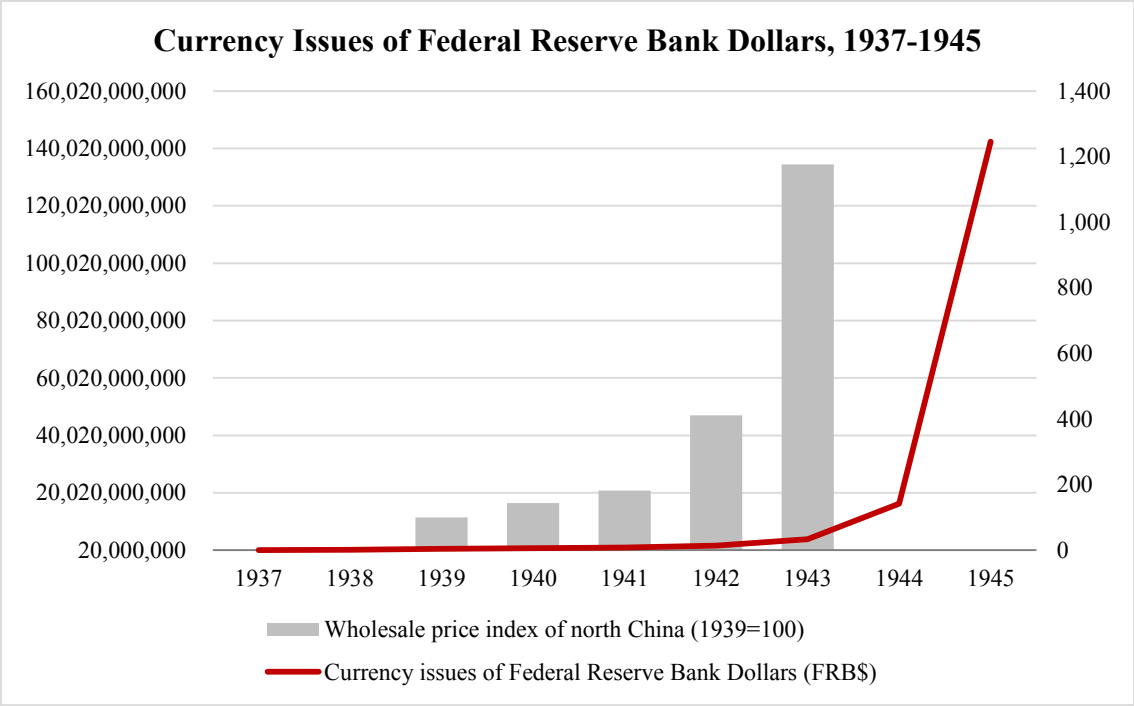


*Figure 5.17* Currency issues of Federal Reserve Bank Dollars, 1938-1945. Figure's currency unit is one Federal Reserve Bank dollar (FRB$).

*Sources*: Data on currency issues of federal reserve bank dollars and the wholesale price indices of north China from 1938 to 1945, see P. Yang (1963, p. 56) and G. Wu (1958, pp. 45-47).

*Notes*: Data on 1933 is the monthly data on March 1933 when the issuance of Federal Reserve Bank Dollars was initiated. Data on 1944 is the monthly data on October 1944; data on 1945 is the monthly data on October 1945. Due to the lack of data, price indices in 1937, 1938 1944, and 1945 are not available.

**5.5.12.5 Japan's creation of fake Fabi and its use of Fabi to get foreign currencies.** Japan also created fake Fabi trying to cause price inflation and to distort the economy in Free China. Japan counterfeited C$4 billion, which was 22.7 times the number of Fabi issued by the National Government in 1937. The National Government took some countermeasures too. First, it forbade the circulation of fake Fabi in Free China. Second, the National Government cooperated with the United States to create fake Japanese puppet currencies, undermining the economic stability in the occupied areas. Besides, the National Government also used their fake Japanese puppet currencies to buy some urgent products.[719]

The Japan's creation of fake Fabi not only caused the currency discoordination in Free China, but also lifted a stone only to drop on its own feet. The National Government's countermeasures of creating the fake Japanese puppet currencies also distorted the economy in occupied areas. In the perspective of the National Government, it was a way to fight against Japanese in the sense of a currency way. However, the innocent Chinese also suffered from the economic discoordination caused by fake Japanese puppet currencies.

Japan was also using Fabi as a tool to get foreign currencies.[720] From May 1939 to July 1941, Japan temporarily allowed the circulation of Fabi in Occupied China, and later used exchanging Fabi for foreign currencies in the official rates. Then, Japan used the foreign currencies to buy products to control the import. The foreign currencies brought by the export in Occupied China were also controlled by Japan. After the outbreak of Pacific War, the international trade was almost ceased. Then, Japan bought the Chinese strategic supplies (which were bought by China by using its own foreign

[719] See J. Zhu (2012, p. 404). The monetary manipulation was also used in the Spanish Civil War. For a short analysis of the comparison between the monetary manipulation in the Chinese Civil War and the Spanish Civil War, see the introduction of this thesis.
[720] See J. Zhu (2012, pp. 403-404).

currencies) with foreign exchange to expel the burden of foreign currencies to the side of China.

The Japan's tricks on manipulating Fabi and foreign currencies caused economic discoordination in Occupied China. Besides, by using government coercive power, Japan was also trying to destroy the stability of China's foreign currency reserve system by buying the Chinese strategic supplies. Ordinary people in Free China suffered from the economic discoordination caused by currency wars.

### 5.5.13 The Currency War between the Communists and the National Government

This section deals with the currency war between the Communists and the National Government. Section 5.5.13.1 demonstrates the currency war between the Communists and Free China. Section 5.5.13.2 analyzes the price inflation in the Communist-occupied area.

**5.5.13.1 The currency war between the Communists and Free China.** The Communists were also making some efforts trying to destroy Fabi. In the Communist-occupied area (COA), which was around one third of the Chinese territories at that time, Fabi was allowed to be circulated in the beginning of the war. Later for controlling COA, the CCP authority established its own banking system and currencies, gradually forbidding the use of Japanese puppet currencies and limiting the use of Fabi.

At the beginning of the Second Sino-Japanese War, in 1937, Fabi could still be circulated in COA. In June 1938, the CCP established its subsidiary currency, Guanghua Bi.[721] The initial exchange rate was 1:1 with Fabi. During this period, the increase of price in COA was consistent with the price inflation in Free China. At first, Fabi, CCP currency, and other local currencies all circulated at the same time in COA. There were no less than hundreds of currencies in COA. Some local currencies could

[721] Guanghua Bi in Chinese is "光華幣."

not even circulate to other COA district due to the monopoly of local authorities in COA, while COA only had 800,000 square meters, along with its population of 2 million in maximum before the end of the War of Resistance. The chaotic currency situation showed CCP's incompetence of currency management. At the end of 1940, the CCP currency accounted for 80% of the COA currency circulation while Fabi was for 20%. Since the winter of 1940, due to the CCP's continuous attack on government forces in order to expand the scope of its rule, the conflict between government force and Communist force expanded. Before 1941, the circulation of CCP currencies were very small and it was using Fabi as its alternative domestic currency, prohibiting the circulation of Japanese puppet currencies. On January 30, 1941, the CCP banned the use of Fabi in the COA. In February 1941, the CCP officially issued its own currency, Bianbi.[722] Since then, Bianbi became the only legally used currency in the COA. To suppress price inflation, the CCP issued Commercial Circulation Coupons from June 1944 to August 1945.[723] Based on the above analysis, we argue that CCP made three changes to its monetary system in the short period of 8-year wartime, which is sufficient to demonstrate its lack of understanding of currency issues and indicate that the CCP's insecurity and its lack of confidence of its rule given the uncertainty of its economic and financial status. This uncertainty cannot even be discussed to the same extent with the currency problems in the Japanese-occupation areas and Free China.

**5.5.13.2 Price inflation in the Communist-occupied area.** On the other hand, the COA also had a serious problem of price inflation. Figure 5.18 below shows the price inflation condition in the Communist-occupied area, along with a comparison of

[722] Bianbi in Chinese is written as "邊幣."

[723] References of the currency conditions of Communist-occupied area and the currency war between the Chinese government and CCP separatist regime that are used in this paragraph, see Gao (1993), Wei (1987), J. Li (1987), Fan (2009), and Lu & Q. Fang (1991, pp. 709-716). For the excerpts of archives of the financial and fiscal conditions of the wartime Communist-occupied area, See Financial and Economic History Compilation Group of the Shan-Gan-Ning Border Region [FEHCGSR] (1981/2016a, 1981/2016b) and Jia (1988).

wartime Free China and Occupied China. Due to the huge difference of different data, we use logarithms to evaluate and express the data in this figure. In text, we use the original data to demonstrate without logarithms. Due to the data in the COA, we choose the price indices of the capital of the COA Yan'an to demonstrate the COA's price inflation condition. In 1937, the price index in the Communist-occupied area was 100. The annual price indices were going up every year during the Second-Sino Japanese War: 143, 237, 500, 2,200, 9,900, 119,900, and 1,690,712 from 1938 to 1945, respectively.[724] The statistic results show that the Communist-occupied area was also suffering from the wartime price inflation. The statistic result of figure 5.17 below shows that the Communist-occupied area had more severe condition of price inflation than the case in Free China and Occupied China. In 1940, price inflation increased in the COA as CCP issued ore banknotes due to its increased military conflict with the government.[725]

[724] See Schran (1976, p. 184).
[725] See J. Li (2007).

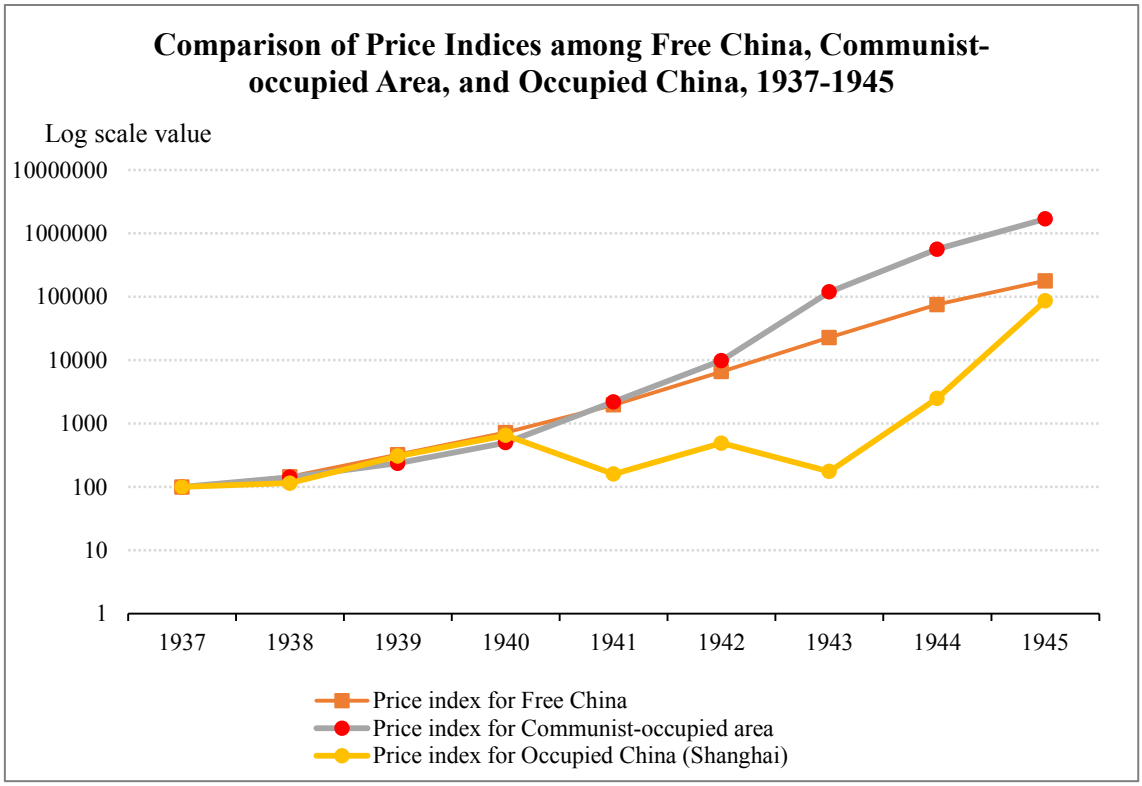


*Figure 5.18* Comparison of price indices among Free China, Communist-occupied area, and Occupied China, 1937-1945.

*Sources*: For price index for Free China (1937=100), see A. Young (1965, p. 356). For price index for Communist-occupied area from 1937 to 1944 (1937=100), see Schran (1976, p. 184). For price index for Communist-occupied area in 1945, see FEHCGSR (1981/2016, p. 135). For price index for Occupied China (1937=100), see A. Young (1965, p. 357).

*Notes*: Due to the huge difference of different data, we use logarithms to evaluate and express the data in this figure. We choose the price indices of the capital of the COA Yan'an to demonstrate the COA's price inflation condition. The price index for Communist-occupied area in 1945 was calculated based on the ratio of the 1944 to 1945 data from FECCGSR and the 1944 data from Schran. The data of Occupied China is the wholesale prices in Shanghai (each December from 1937-1944, the data for 1945 is the data of August 1945).

What the Communists did on either forbidding the Japanese puppet currencies or limiting the use of Fabi was also the institutional aggression on people's right of choosing the currencies that they preferred. The trade between the COA and Free China was limited by the Communist coercion on limit using Fabi. Though the Japanese puppet currencies and Fabi had their own problems, obviously, it should be the Chinese citizens who make the decision of whether these currencies should be adopted, not the Communist authority by using coercion.

## 5.6 Conclusion

To understand the inflation issues and the performance of the Central Bank of China during the Second Sino-Japanese War from 1947 to 1945, it is essential to review and comprehend the special political and economic background of China during the war. Section 5.2 reviews the political and economic background during the Second Sino-Japanese War. The analysis in section 5.2.1 points out that, in terms of politics, the disputes between China and Japan had been planted as early as the First Sino-Japanese War of 1895, and Japan's stepwise aggression against China meant that a formal war between the two countries was inevitable in future. Similarly, the Chinese Communist Party (CCP) maintained its separatist regime substantially during the Second Sino-Japanese War. Although the CCP did not actively resist the Japanese invaders throughout the war compared to government forces led by the Kuomintang, it launched some sporadic offensives against government forces in the late 1940s. The National Government of the Republic of China, the Japanese-occupied areas (Wang Jingwei regime of Occupied China and Manchukuo), and the CCP's separatist regime fought against each other in a short period of 8 years, which was quite similar to China's Three Kingdoms hegemony in the 3rd century. Hence, it is precisely this chaos and warfare in politics and military that trigged the government to over-print banknotes to cover its

military expenditures, which led to price inflation and the decline of the quality of life of people and the losses in entrepreneurial production and sales activities.

The analysis in section 5.2.2 points out that, despite the factors of war and price inflation during wartime, China's economy still had some positive aspects. This section conducts a detailed quantitative analysis of the relevant content. Our quantitative analysis from section 5.2.2.1 to section 5.2.2.3 show that Free China's deposits and credit that supported the economic construction, foreign aids, numbers of enterprises and factories, and agricultural production were all increasing during the wartime. These are the positive factors of the economic growth in Free China. However, due to war, the economy of Free China also encountered some negative factors, such as the exhausted foreign exchange reserves, fiscal deficits and the intensifying price inflation. From section 5.2.2.4 to section 5.2.2.6 we deal with these topics. Our analysis shows that through foreign aid (especially the banknotes and gold acquired from the United States and the United Kingdom), Free China gradually acquired more foreign exchange reserves. Before the outbreak of the Second Sino-Japanese War, the Chinese government had about totaled the equivalent of US$378.9 million in foreign exchange. At the end of 1945, the Central Bank of China held foreign exchange worth about US$140 million, the gold and silver taken from the Japanese and the Japanese-occupied areas worth US$60 million, along with the American loans, the repayment of American military expenditures, and the Central Bank's own assets, which totaled about US$900 million. This is the biggest amount of the foreign reserves that the ROC government held before the 1949 Communist Revolution.

However, the measure of exchange stabilization has not helped Free China curb price inflation due to fiscal deficits and escalating price inflation. Section 5.4 deals with the process of the wartime inflation. We found that although the currency issuance

and price inflation during the wartime both increased, the increase rates showed two different trends. In the first stage, that is, from 1937 to 1939, the price increase had a relatively moderate trend. The average annual price increase during this period was 49.4% while the note issue annual growth rate from 1937 to 1940 was 40.9%, 85.7%, and 83.5% respectively. We found that among them, increased agricultural production, people's trust in Fabi, the government's sale of foreign exchange and foreign trade, common people's less cash expenditures caused by the inconvenience of carrying cash in the early stage in the war, entrepreneur's cash holdings due to uncertainty, the use of metal currencies were the factors of why price inflation was relatively mild in the first three years of the Second-Sino Japanese War. Section 5.4.1 deals with the wartime price inflation in the first stage.

The monetary expansion and price inflation show a different and harsher pattern in the second stage of price inflation from 1940 to 1945. Section 5.4.2 generally describes the process of price inflation. The annual growth rate of total money supply from 1940 to 1945 were 316.8%, 97.27%, 174.6%, and 447.7%, respectively while on the side of price index, the wholesale prices index from 1940 to 1945 (1926=100) were 969.6, 2,449.4, 7,371, 23,702.5, 81,642.3, and 308,372.4 respectively. Statistics shows that the price inflation in the second stage is very different from the three-year increase in the first stage, which was a price hyperinflation.

So why is the second stage of price inflation so different from the first stage? In section 5.5, combined with historical events and the statistics itself, we have made an original systematic quantitative analysis of the various causes of wartime price inflation (especially the second stage of price inflation). We point out that the most direct cause of price inflation during wartime was the issuance of Fabi. The cost of living and consumer goods price indexes were generally higher than other indexes during the war,

especially from 1940 to 1943, both of which were higher than the wage indexes of the four major occupation categories (including the salary indices of college teachers, middle school teachers, primary school teachers, primary school teachers, and government officials) in the statistics. It can be seen that because of the rising cost of living and the increasing price of consumer goods, both the ordinary people and entrepreneurs' production and living conditions were worsening due to wartime price inflation. Moreover, due to the wartime expansionary monetary policy and price inflation, people gradually lost their confidence in Fabi. We argue that the reduction of people's psychological confidence on Fabi also caused the increase of prices. Besides, through statistic results, we also conclude that the government's taxation and fiscal policy, the expansion of private credits were also the triggers of wartime price inflation. While the policies of the increase of interest rate, the increase of bank's saving, the sales of gold and foreign reserves all together were not valid to suppress the wartime price inflation. Besides, the statistics result shows that the generally increasing agricultural production during the wartime was not related with price inflation.

Our analysis in section 5.5 not only discusses the impact of the National Government's own policies on price inflation, but also discusses the impact of trade wars and currency wars between Free China, the Japanese-occupied areas (Occupied China and Manchukuo), and the Communist-occupied area on price inflation in these three regions. Although no specific statistics were available, evidence shows that in order to purchase export goods, the Chinese government relied on printing currency to make up for its fiscal deficit, which also partly caused the increase of price. During the wartime, insufficient supply of factory products also led to rising prices in Free China. These two were all related to the fact that most of the industries were in Occupied China and Manchuria. Besides, the reduction of the circulation area of Fabi caused by the

Japanese occupation also partly caused Free China's price inflation. At the same time, the Japanese-occupied areas (Occupied China and Manchukuo) and the Chinese Communist Party fought currency wars with Free China to destroy or distort the financial order of Free China in this way.

Japan tried to obtain foreign currency by issuing fake Fabi, while the Chinese Communist Party forced Fabi out of the Communist-occupied area through three currency reforms. At the same time, our research also points out that there was wartime price inflation in both Free China, the Communist-occupied area, and the Japanese-occupied areas (Occupied China and Manchukuo). Therefore, in any of these three regions, their economies were affected by wartime expansionary monetary policy and price inflation. On the side of Free China, we conclude that although the issue of additional currency during the war did temporarily resolve the issue of military expenditures, it had a very serious negative impact on the wartime economy, which would inevitably bring many difficulties to the post-war economic reconstruction. The empirical result of our research matches as the same of what economic theory teaches us on how war could distort the economy causing severe wartime price inflation. From another perspective, our analysis also points out that there was controversy as to whether the continuous nationalization of banks and the government's gradual control of the local, private, and spontaneously free banks during the wartime were conducive to resisting Japanese aggression and stabilizing the financial order of free China. While at the same time, China failed its 1935 currency reform plan to establish a central reserve banking institution as local, private, and spontaneously free banking institutions still existed. Moreover, we also point out that the central banking system in the wartime did not complete the central bank's comprehensive monopoly of currency issuance banking system established in 1935. The reform of the entire banking system had not

advanced or retreated, which had brought uncertainty to the post-war central banking system and even to post-war economic construction throughout China. We also point out that it was not the opinions of Chinese and foreign financial and economic experts such as T. V. Soong, H. H. Kung, and A. Young that China's central banking system should adopt an aggressive currency issuance policy instead of issuing government bonds and tightening (military) expenditures during the war, but the final decision of the National Government leader Chiang Kai-shek. Although Chiang Kai-shek led the victory of Free China in the military side, his status as an economic layman brought vicious wartime price inflation to Free China. In addition, this central planning decision-making system also brings hidden dangers to future post-war economic reconstruction. In any case, after all, Free China won the war in 1945. However, facing the problems of price inflation, economic reconstruction, and reconciliation between the National Government and the Chinese Communist Party at the end of the war, the stability of the post-war banking system became an unavoidable issue. This topic will be discussed in the next chapter of the thesis.

# Chapter 6

## Hyperinflation, the Collapse of China's First Modern Central Banking System and the Communist Revolution, 1945-1949

**Abstract:** This chapter analyzes the conditions and the collapse of China's first modern central banking institutions during the Chinese Civil War. Although China established its first modern central bank in 1928, along with its 1933 silver-standard reform and its 1935 fiat currency reform, due to the outbreak of the Second Sino-Japanese War, the banking reform ended. Because China passed its first democratically created Constitution in 1946, becoming the world's largest democratic country at the time, the post-WWII China was originally expected to establish a stable banking system. However, during the following Chinese Civil War period, not only the central banking experiment failed by a huge price inflation and a chaotic economic order, but the government of Republic of China was also defeated militarily by the Chinese Communist Party. This chapter provides a quantitative, qualitative, and synthetic analysis of the collapse of China's first modern central banking system and its price hyperinflation during the Chinese Civil War. Based on the above political background, this chapter not only provides a brief description of the Chinese economy during the Chinese Civil War, but also an in-depth analysis of the process and the reasons why two currency systems, the Fabi and the Gold Yuan Notes, collapsed successively during the Civil War. This chapter also synthesizes the economic, political, and social consequences of the wartime expansionary monetary policy and its price hyperinflation. The massive issuance of currency and its subsequent price hyperinflation in response to military expenditures later became the biggest feature of China's economy during the Civil War. We point out that President Chiang Kai-shek and the government of the Republic of China must bear the ultimate responsibility for the collapse of the monetary system and price hyperinflation as they ignored all the suggestions of the Chinese and foreign economists who opposed the payment of military spending through excessive monetary expansion policy. An original evaluation of the economic and monetary policy debates during the Civil War is provided in this chapter. Besides, we also point out that the Marshall Plan for China, which arrived lately in 1948, was useless to stabilize the Chinese economy and its monetary system. The chapter concludes by pointing out that the Chinese Civil War and the collapse of China's first central banking system has had a profound impact on the contemporary cross-strait relationship among the Communist Chinese Mainland and the Republic of China on Taiwan.

**JEL Classifications**: B2, B53, E42, N15, N25, N45.

**Key words**: central banking, Chinese Civil War, hyperinflation, Fabi, Gold Yuan Notes

## 6.1 Introduction

This chapter provides a quantitative, qualitative, and synthetical analysis of the collapse of China's first modern central banking system and its price hyperinflation during the complicated and chaotic Chinese Civil War. Section 6.2 demonstrates the political and economic background of the Chinese Civil War. Section 6.2.1 is regarding the 1946 Constitution of the Republic of China and the Chinese Civil War. On December 25, 1946, the National Constituent Assembly passed *the Constitution of the Republic of China*, which was the first time in Chinese history that a constitution through constitutional and democratic procedures was enacted. From November 1947 to January 1948, the first time in the entire history of China, millions of Chinese people voted for their own representatives of the first National Assembly and the members of the first Legislative Yuan. The Republic of China became the largest democracy in the world at the time. The National Assembly elected Chiang Kai-shek as the first democratically elected President of the ROC. On May 20, Chiang Kai-shek was sworn in office. However, due to military failure and mismanagement of the economy and price hyperinflation, the Chinese Communist Party occupied the majority of the Chinese Mainland in 1949, and the government of the free Republic of China had to withdraw itself to Taiwan in the same year till now.

Section 6.2.2 provides a brief description of the Chinese economy during the Chinese Civil War. Among all the economic features, the massive issuance of currency in response to military expenditures later became the biggest feature of China's economy during the Civil War, resulting price hyperinflation. However, the responsibility for the failure of the ROC government's monetary policy must be upon their shoulders, because the various measures proposed by Chinese and foreign economists during the Civil War to deal with price hyperinflation were never adopted.

Our analysis in section 6.2.3 and 6.2.4 provide an original evaluation of the economic and monetary policy debates during the periods of Fabi and Gold Yuan Notes respectively.

Section 6.3 systematically reviews the process of Fabi's price hyperinflation from 1945 to 1948. In section 6.3.1, we have pointed out that the previous issued Fabi and its price inflation during the Second Sino-Japanese War promoted price inflation during the Chinese Civil War. This understanding is very important because it helps us realize that the Civil War's price hyperinflation during was not a static and short-term process, but a dynamic economic phenomenon linked to the expansionary monetary policy and price inflation in the previous wartime. Section 6.3.2 shows the data of Fabi's monetary expansion and its price hyperinflation during the Civil War. Section 6.3.3 to 6.3.8 deals with each of the above topics respectively. Here, it needs to be emphasized again our conclusion in section 6.3.7 that the failure of international cooperation is an important reason for the collapse of Fabi. Since the Marshall Plan for China was not approved until 1948, it became an empty check. Section 6.4 provides an analysis of the possible consequences of the Civil War's Fabi price hyperinflation from 1945 to 1948. Empirical evidence and statistics show Fabi's price hyperinflation distorted entrepreneurial production, ordinary people's life (especially the purchasing power of the banknotes that they held), and social orders.

Like section 6.3, section 6.5 systematically reviews the process of Gold Yuan Notes' price hyperinflation from 1948 to 1949. In section 6.6, we point out that Gold Yuan Notes' expansionary monetary policy and its price hyperinflation also distorted the economic, political and social orders like Fabi.

Section 6.7 is the conclusion.

## 6.2 Political and Economic Background during the Chinese Civil War, 1945-1949

This section reviews the political and economic background during the Chinese Civil War. Section 6.2.1 demonstrates the 1946 Constitution of the Republic of China and the Chinese Civil War. Section 6.2.2 deals with the economic conditions during the Civil War. Section 6.2.3 and section 6.2.4 separately review the economic and monetary policy debates during the period of Fabi (1945-1948) and the period of Gold Yuan Notes (1948-1949).

### 6.2.1 The 1946 Constitution of the Republic of China and the Chinese Civil War

This section reviews the political background during the Chinese Civil War. Section 6.2.1.1 demonstrates the 1946 Constitution of the Republic of China as an attempt to constitutional democracy. Section 6.2.1.2 briefly reviews the process of the Chinese Civil War.

**6.2.1.1 The 1946 Constitution of the Republic of China: an attempt in constitutional democracy.** Despite the complicated situations in the Second Sino-Japanese War (1937-1945), China entered another chaotic period after 1945. On August 15, 1945, Japan surrendered to the Republic of China (ROC). The Chongqing Negotiations between the National Government and the Chinese Communist Party (CCP) reached the "Double Ten Agreement," a consensus on the nationalization of the military and the constitutional democracy, which once brought a glimmer of hope for peace to the Chinese people.[726] The CCP even participated in the early drafting of the formal constitution of the ROC.

On December 25, 1946, the National Constituent Assembly (NCA) passed *the Constitution of the Republic of China*, [727] which was the first time in Chinese history a

[726] References of the Chongqing Negotiations, see Fairbank & Feuerwerker (1986, pp. 423-424) and C. Wang (2000, pp. 28-58).

[727] Although the study of the long-term institutional influence of the 1946 Constitution of the ROC on Mainland China and Taiwan is not the focus of this thesis, due to the lack of relevant research, we argue

constitution through constitutional and democratic procedures was enacted.[728] From November 1947 to January 1948, the first time in the entire history of China, millions of Chinese people voted for their own representatives of the first National Assembly and the members of the first Legislative Yuan. The two direct elections made the Republic of China became the largest democracy in the world at the time. The 461 million Chinese people directly authorized their legislative representatives (an average of 600,000 people elected a member of one member of the Legislative Yuan).[729] From March 29 to May 1, 1948, with the enormous prestige of leading the country for the eight-year fight against the Japanese invaders, the National Assembly elected Chiang Kai-shek as the first democratically elected President of the ROC. On May 20, Chiang Kai-shek was sworn in office.

**6.2.1.2 The Chinese Civil War.** On the surface, everything seemed to be moving towards a positive and peaceful direction. It seemed that Sun Yat-sen's

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that the annotation should be marked to attract the attention of later scholars. For the original texts of the *Constitution of the Republic of China*, see National Constituent Assembly (1947). For other references of the National Assembly, see F. Li (2009). The work of designating the formal constitution of the Republic of China dates back to 1912 when the ROC was just established. References of the history of the formulation of the ROC constitution, see C. Chang (1947, 1948), J. Zhang & X. Zeng (1979), Z. Jing (1984), D. Zheng (2003a, 2003b), B. Lv (2013), Y. Han (2014), T. Wang (2014), and Fairbank & Feuerwerker (1986, pp. 741-742). References of the formulation process of the *Constitution of the Republic of China*, see Secretariat of the National Constituent Assembly (1946), C. Chang (1947, 1948), National Constituent Assembly (1947), J. Zhang & Zeng (1979), Z. Jing (1984), D. Zheng (2003a, 2003b), B. Lv (2013), Y. Han (2014), T. Wang (2014), Fairbank & Feuerwerker (1986, pp. 741-742), D. Zheng (2003a, 2003b), and Y. Han (2014). For more about the voting process of the representatives of the National Constituent Assembly, see Secretariat of the National Constituent Assembly (1946) and Z. Jing (1984). H. Lee (2000) argues that though during the voting process, some cases of voting fraud appeared, overall, the election was going smoothly, and the final National Constitutional Convention was held successfully. Thanks to Jason Li, Tyler Xiong, Alan Bi, and Chao Pan for inspiring the author in this part of the discussion.

[728] The Constitution of the ROC has so far been used in the Taiwan Area of the Republic of China. The reason why Taiwan adopted *the Constitution of the Republic of China* was because Taiwan was already the territory of the ROC when *the Constitution* was enacted. It was not until 1949 that the Nationalists failed the Civil War that Taiwan and Mainland China were separated and became two *de facto* countries. For more about the elected Taiwan's representatives of the NCA and its representatives of the First National Assembly to Nanjing, see Secretariat of the National Constituent Assembly (1946, pp.17-18, pp. 64-65) and S. Li (2016). For the topic of the Taiwanization of the Constitution of the Republic of China, see T. Wang (2014). Based on the above references, we can conclude that in view of the fact that the 1946 Constitution of the Republic of China was produced through the constitutional procedure of the whole Chinese people, the Republic of China is still the legitimate China.

[729] For the population of China in 1948, see The Washington Post (1947) and The Canberra Times (1947).

Minshengism (Government for the People) was achieved in China.[730] However, the mutual distrust between the ROC government and the CCP gradually escalated the short-term ceasefire between the two sides into a civil war and the CCP withdrew from the constitution creation process. Internationally speaking, the US government sent General George Marshall's mission from 1946 to 1947 to regulate the conflicts between the Chinese government and the Communist Party but ultimately failed.[731] In July 1946, the CCP's army was officially and publicly separated from the government and replaced its name by the Chinese People's Liberation Army (PLA).[732]

As the conflict between the government and the Communist Party intensified, in May 1948, the National Assembly enacted the "Temporary Provisions Effective During the Period of National Mobilization for Suppression of the Communist Rebellion."[733] The pass of this act means that the Chinese Civil War started officially. In the beginning of the Civil War, the government initially won some victories on the battlefields, but after 1948, mainly due to the government's wrong military strategy, the military situation turned sharply, and the government troops were facing successive failures.[734] On October 1, 1949, the CCP Chairman Mao Zedong announced the

[730] See Y. Sun (1924).
[731] See Fairbank & Feuerwerker (1986, p. 758), C. Wang (2000, pp. 505-566, pp. 128-136), and X. Han & K. Jiang (2011, p. 8225).
[732] For more about the process of the Civil War, see Fairbank & Feuerwerker (1986, pp. 723-788), C. Wang (2000). Mao (1947/1991, 1948/1991), Z. Zhu & Tao (2000), Chassin (1966), Y. Jiang (2013), Party History Research Center and S. Yan (1999).
[733] The full name of the Temporary Provisions in Chinese is "動員戡亂時期臨時條款." For more about the Temporary Provisions Effective During the Period of National Mobilization for Suppression of the Communist Rebellion, see C. Chang (1947, 1948), J. Zhang & X. Zeng (1979), D. Zheng (2003a, 2003b), B. Lv (2013), and Fairbank & Feuerwerker (1986, pp. 741-742).
[734] For more about the wrong war strategies of Chiang, see Fairbank & Feuerwerker (1986, pp. 774-775, pp.778-779, pp. 780-787) and Z. Zhu & Tao (2000, p. 65, pp. 72-79, pp. 81-82, p. 94, p. 95, p. 98, pp. 100-101, p. 120, p. 122, pp. 162-192pp. 282-283, pp. 427-455, , pp. 600-619, pp. 709-731). Due to the above references, Chiang Kai-shek also liked to intervene in the combat plans without acquainting with the frontline military situations, rushing to issue operational orders, and leading to military defeats. F.A. Hayek, the Nobel laureate in economics in 1974, argues that central planning is challenging to carry out due to the lack of necessary knowledge (Hayek, 1937a, 1945). We consider that the Hayekian view can also be applied to military issues. It is difficult for the rear military chiefs who lack first-hand frontline military information to make accurate judgments about the war situation. We argue that Chiang Kai-shek made a mistake on this issue, who thought that he could fully grasp the frontline war situation when he was in the rear office.

establishment of the so-called People's Republic of China in its new capital Beijing, formerly known as Beiping.[735] At the end of April 1950, the PLA completely controlled the whole Mainland China and the ROC along with the Nationalists retreated to Taiwan island and other small islands nearby.[736] The Communist Revolution succeeded and Chiang Kai-shek had to announce his temporary departure from the presidency due to his political and military failures on January 21, 1949.[737]

In 1950, Chiang Kai-shek announced the reinstatement of the President of the Republic of China in Taipei. In 1971, the Republic of China, a founding and permanent member of the United Nations, withdrew from the United Nations due to CCP factors. In 1972, Chiang Ching-kuo, the son of Chiang Kai-shek, became Premier of the Republic of China, and subsequently carried out the Hayekian market-oriented economic reform in Taiwan. Chiang Kai-shek died in his presidency in 1975. In 1979, Chiang Ching-kuo was elected President of the Republic of China. In 1987, one year before his death, he announced the lifting of 38-year martial law due to the rebellion of the Chinese Communist Party and the restoration of political democratization. In 1996, the Republic of China held direct presidential elections in Taiwan, Penghu, Kinmen, and Matsu. Chiang Ching-kuo's disciple Lee Teng-hui was elected as the first directly elected President of the Republic of China. Thus, the complete political democratization in Chinese history was achieved in the Free Area of the Republic of China. Sun Yat-sen's *Three Principle of the People* was realized in the Taiwan Area of the Republic of China.[738] In 2000, the Democratic Progressive Party presidential candidate Chen Shui-bian was elected President of the Republic of China. The Kuomintang's 72-year control

[735] See Fairbank & Feuerwerker (1986, p. 785) and Z. Zhu & Tao (2000, pp. 673-689).
[736] References of the Communists' final attack on the ROC armies, see Fairbank & Feuerwerker (1986, pp. 782-785) and Z. Zhu & Tao (2000, pp. 689-717).
[737] For Chiang Kai-shek's temporary departure of presidency, see Y. Li & Z. Zhang (1995, p. 375), Z. Zhu & Tao (2000, pp. 445-507), Hong (2008, p. 550), and K. Chang (1958, p. 84). For Chiang's official biography, see Qin (1978). For the autobiography of Chiang's political rival Li Zongren during the Civil War period Nationalists, see Z. Li (1979).
[738] For a brief evaluation of Sun Yat-sen's theory, see section 4.1.1.2 of Chapter 4.

of the Republic of China's central government since 1928 and its 51-year rule of Taiwan since the Communist Revolution in 1949 ended. Subsequently, the Kuomintang and the Democratic Progressive Party continued to take turns, and Taiwan not only achieved economic liberalization, but also achieved a stable two-party system.[739]

After 1949, the Republic of China on Taiwan gradually became an economically successful market economy country since the 1970s, and after the direct presidential election in 1996, it became the first fully constitutional and democratic country in Chinese history, ranked among the developed countries in the world. At the same time, under the leadership of the Chinese Communist Party, Mainland China has experienced major historical events such as the Great Leap Forward (1958-1962), the Cultural Revolution (1966-1976), the economic reforms since 1978, and the June 4th Tiananmen Massacre in 1989. It is difficult to make a brief and sloppy evaluation of the results of the Chinese Communist Party ruling in Mainland China. However, it can be said that the result of the Chinese Civil War from 1945 to 1949 was a watershed in a very historical development of China, and the achievements made by the Republic of China on Taiwan are undoubtedly a positive asset that the Chinese on both sides of the Taiwan Strait should be proud of.

### 6.2.2 Economic Conditions during the Chinese Civil War

This section briefly reviews China's economic conditions doing the Chinese Civil War. Section 6.2.2.1 demonstrates the Civil War's general economic condition. Section 6.2.2.2 introduces the short period of economic stability from August to December 1945. Section 6.2.2.3 reviews the issues of monetary expansion, military

[739] For the politics of the Republic of China on Taiwan since 1949, see Chao $ Myers (1994), T. S. Wang (2014), Jain (1963), T. W. Lee (1996), T. I. Wang & I. C. Liu (2004). About Chiang Ching-kuo's political democratization reform in Taiwan and his resume, see Taylor (2009) and J. Zeng & Liang (2006). Regarding the economic theory of Chiang Ching-kuo's economic advisor, Sho-Chieh Tsiang (a Hayekian economist who led the reform of Taiwan's economic liberalization), see H. Han (2015), T. Liu (2013). For the history of Taiwan under Japanese occupation (1895-1945), see Lamley (1997).

expenditure, price hyperinflation, and taxation. Section 6.2.2.4 deals with the topic of the destruction of agriculture by the Civil War.

**6.2.2.1 The general economic condition: an exhausted economy and the difficulties of rehabilitation and reconstruction.** The overall situation of China's economy was not satisfactory months before the end of the war. During that period, savings and consumer goods were used to maintain Chinese people's most basic survival. The taxation of the government and the army and the problem of deserters increasingly troubled Free China. In addition, 50 million demobilized soldiers needed to be housed. Millions of acres of farmland could not be produced because of the destruction of the war. The transportation lines in the country, especially in south China, had been severely damaged, and railways and other facilities needed to be rebuilt. The countryside and the urban factories needed people, funds, and equipment for postwar reconstruction.[740]

Therefore, the government was facing a very difficult postwar reconstruction effort. However, as we pointed out in section 6.2.1.1, the escalating military conflict between the government and the Chinese Communist Party made the postwar peaceful economic reconstruction impossible. At the same time, the government's reliance on printing banknotes to pay military expansion of the Civil War also caused price inflation and market discoordination. Coupled with the war factors, China's economy was driven into total failure by war, monetary expansion, and price inflation. We will specifically analyze the consequences of these two factors on the Chinese economy and banking system from sections 6.3 to section 6.6.

The Chinese government overestimated the economic stability factors that might occur after the end of Second Sino-Japanese War. It was overly optimistic of the

[740] See K. Chang (1958, p. 67).

strong productivity of the recovered Manchuria and Taiwan and the foreign exchange reserves of US$900 million reserves with 900 tales of gold reserve accumulated at the end of the Second Sino-Japanese War.[741] After the end of Second Sino-Japanese War, the Chinese government adopted China's traditional laissez-faire economic policy, and almost everything about production control, foreign exchange restrictions, and foreign trade regulations were eliminated. There were also some opinions which claimed that because the Chinese government was backward in technology at the time, it was difficult to control the economy even if the government took measures.[742] For the opinions of Chinese and Western economists on China's economic and monetary policy during the Civil War period, see the following section 6.2.3 and section 6.2.4. Regarding the escalation of military conflicts and price inflation caused by indiscriminate currency issuance in response to wars, see sections 6.3 to section 6.6. In section 6.2.2.2 to section 6.2.2.5, we will briefly outline some characteristics of the Chinese economy during the Civil War. These characteristics were closely related to wartime price inflation, so their specific analysis will be presented in section 6.3 to section 6.6.

**6.2.2.2 A short period of economic stability from August to December 1945.** From the end of the Second Sino-Japanese War in August 1945 to the end of 1945, the economic situation of the Republic of China showed signs of profitability in the short term. Section 6.2.2.2.1 demonstrates the recovering economy and financial system. Section 6.2.2.2.2 analyzes the decreasing of prices during that period.

***6.2.2.2.1 The recovering economy and financial system.*** The end of the Second Sino-Japanese War provided China a very precious opportunity to recover its economy which was distorted during the wartime. The more economic aids provided by

[741] See J. Zhu (2012, p. 424) and K. Chang (1958, p. 68).
[742] See K. Chang (1958, p. 68).

the United States, the more imported products, the recovery of production, and people's longing for a better life in the postwar time all provided sufficient conditions for the recovery of the economy.[743] After the war, the United States provided about US$2 billion in rehabilitation and military supplies to China.[744] China's imports in 1945 were US$494.2 million, 15% less than the 588.2 million dollars in 1937.[745] However, in 1946, China's imports were US$895 million, an increase of 81.1% over 1945.[746] In 1946, in Shanghai, China's financial and economic center, the registration numbers of new opened factories were 1992, reaching the numbers of 9258 in 1947, setting a historical record. In 1947, the number of spinning machines recovered to 90% before the war. The number of factories and workers in the paper industry had doubled before the war.[747] In 1947, the numbers of spinning machines recovered to 90% before the war.[748] In 1947, the number of factories and workers in the paper industry doubled before the war, and the output increased by more than one third.[749]

At the beginning of the end of the war, the National Government was also very confident in the recovery of economy.[750] However, the wrong war strategy and wrong economic policies made the further recovery of economy impossible. Based on our discussed in section 6.2, if the Chinese government could solve its problems with the Communists either through in a peaceful negotiation or successfully eliminating the Communists in a very short time, the recovery of the Chinese economy, or even a freer, more capitalist and a more prosperous China would have emerged.

[743] References of the recovering economy and financial system, see C. Wang (2000, pp. 305-306), P. Yang (1963, p. 71), J. Zhu (2012, pp. 424-425), and K. Chang (1958, pp. 67-69, pp. 222-239, pp. 384-385).
[744] See P. Yang (1963, p. 71) and J. Zhu (2012, p. 424).
[745] See K. Chang (1958, pp. 384-385).
[746] See K. Chang (1958, pp. 384-385).
[747] See C. Wang (2000, p. 305).
[748] See C. Wang (2000, p. 305).
[749] See C. Wang (2000, p. 306).
[750] References of this paragraph see J. Zhu (2012, p. 424) and K. Chang (1958, p. 68, p. 222).

***6.2.2.2.2 The decreasing price in short run, along with the performance of agricultural industry.*** The price was also decreasing in late 1945.[751] The price started falling in the last week of August, which is in the same month when Japan declared its surrender on August 15. In Shanghai, the price of gold dropped by 90% and in the wartime capital Chongqing by 60%, while Fabi appreciated by 100% against the US dollar according to the market rate in Chongqing. The wholesale price index in Chungking dropped from 179,500 in August to 122,600 in September 1945 and fell again to 118, 417 in October. Meanwhile, the Shanghai index in terms of Fabi fell from 43,200 in August to 34, 508 in September.[752]

There are several reasons why the prices were decreasing in the short run after the end of the Second Sino-Japanese War.[753] The first was that the agricultural harvest was relatively good in 1944 and 1945.[754] From 1944 to 1945, the total receipts of rice and wheat in China were 2,869 metric tons, an increase of about 6.5% from 2,682 metric tons from 1941 to 1942.[755] The second was that a large amount of hoarded goods in the wartime were sold on the market instantly, causing a decrease in price.[756] Many people had different anticipation of the economy in the immediate run in the postwar era, believing that it would benefit them more to sell the products that they had hoarded during the Sino-Japanese War.[757] The third reason was that ceasefire provided people an emotional release, anticipating a better economic condition and anticipating a more controlled price.[758]

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[751] References of the decreasing price in the late 1945, see K. Chang (1958, p. 69), Chou (1963/1969, p. 23), and J. Zhu (2012, p. 425).
[752] See K. Chang (1958, p. 69).
[753] References of this paragraph see A. Young (1965, pp. 24-27), C. Wang, 2000 (pp. 309-316), K. Chang (1958, p. 69), and J. Zhu (2012, p. 425).
[754] See J. Zhu (2012, p. 425) and A. Young (1965, p. 25).
[755] See A. Young (1965, p. 25).
[756] See K. Chang (1958, p. 69) and J. Zhu (2012, p. 425).
[757] See J. Zhu (2012, p. 425) and K. Chang (1958, p. 69).
[758] See K. Chang (1958, p. 69) and J. Zhu (2012, p. 425).

The decreasing price showed that though the economic rehabilitation and reconstruction was arduous, the economy was gradually recovering step-by-step, and people's faith in the future was also growing. This condition was a very precious chance for the Chinese government made some pro-recovery policies, as the entrepreneurs were starting new businesses and hired more workers, and the common people were reorganizing their life in a normal situation. If China caught up this precious opportunity to make the improved economic situation better, China could have achieved much prosperity and could have avoided the later tragic Civil War between the government and the Communists.

**6.2.2.3 Monetary expansion, military expenditure, price hyperinflation, and taxation.** The biggest feature of China's economy during the Civil War was the massive issuance of currency in response to military expenditures and the resulting price hyperinflation. In 1945, the central banking system issued C$1.03 trillion. In 1947, one year before the abolishment of Fabi, the amount of the issued Fabi was C$33.19 trillion, which was 3,216.25% of the amount in 1945. As a result, the price level in 1947 was 6337.34% of the amount in 1945.[759] In 1946, military spending accounted for 60% of total expenditure.[760] In 1947, military spending was 55% of total expenditure.[761] As the government already had a severe condition of the deficit, it had no choice but to borrow the money from the Central Bank to pay the military expansion, which caused price inflation.[762]

In 1948, the collapse of Fabi made the Chinese government decide to issue new currency Gold Yuan Notes in response to the increasingly collapsed Fabi system. As the government had no other method to pay the expense of the Civil War, the

[759] All the related data of military expenditures can be seen in Figure 6.1 below.
[760] See K. Chang (1958, pp. 71-72).
[761] See K. Chang (1958, pp. 71-72).
[762] The Deficit of the National Government in 1945 was C$1,106,698 million, in 1946 was C$4,697,802 million, in 1948 was C$29,329,512 million. See K. Chang (1958, p. 374).

original quota of GY$2 billion was also cancelled and the government started to printing more Gold Yuan Notes to pay the war expense after *the Amended Measures for the Issuance of Gold Yuan Notes* decree was enacted.[763] Since then, the amounts of the issued Gold Yuan Notes started to increase rapidly. In November 1948, the issued amount of it was GY$3.39 billion, and in April 1949 it was GY$679.456 billion.[764] From August 1948 to the Fall of Shanghai in May 1949, the issuance of the Gold Yuan Notes has increased by more than 19,9423%.[765] After breaking through the initially agreed issuance quota, the face value of Gold Yuan Notes was also increasing. In March 1949, the government issued the banknote's face value of GY$5,000 and GY$10,000; in April, the newly issued banknote's face value was GY$100,000; in May, the newly issued currencies' face value was GY$500,000 and GY$1 million.[766] Hence, the issuance of Gold Yuan Notes led to price hyperinflation. If the price index in Shanghai of Gold Yuan Notes in August 1948 was 100, then the price index of it in April 1949 was 20,957,009.[767]

The National Government had a huge debt problem since the victory of the Second Sino-Japanese War in 1945. As we have mentioned before, the Chinese government had to a considerable expense of its military force to resist and exterminate the Communists' expansion and to restore its military force in the former Japanese-occupied areas. In 1946, military spending accounted for 60% of total expenditure. In 1947, it was 55% of total expenditure.[768] Until the government of the Republic of China moved to Taiwan in 1949, the Chinese government's military expenditure in response to the Civil War was never less than half of its annual financial support. On one hand,

[763] The original name of the degree in Chinese was "修正金圓券發行辦法." For the references of the decree, see ACPBC (1991, p. 610) and Hong (2008, p. 541).
[764] See Hong (2008, p. 543) and D. Liu (1992, pp. 284-285).
[765] The original name of the Fall of Shanghai was "上海淪陷."
[766] See Hong (2008, p. 542).
[767] See K. Chang (1958, p.373).
[768] See K. Chang (1958, pp. 71-72).

the direct tax policy that continued from the ancient Chinese dynasties to the period of the Second Sino-Japanese War continued. According to our calculation, from 1945 to 1947, the proportions of government direct tax revenue to government fiscal revenue were 16.7%, 8.9%, and 14.3% respectively.[769] Due to war factors, there are no relevant statistical data for 1948 and 1949, from which we can speculate that with the deepening of the Civil War since 1948, the war had serious negative impact on government revenue. On the one hand, the government's tax revenue was restricted, but on the other hand, direct taxes also increase the burden on the taxed Chinese people. Even adding the revenue from the sales of government bonds, from 1945 to 1948, government revenue accounted for 52.8%, 38.0%, 32/4%, and 34.8% of fiscal expenditure respectively.[770] Almost all of the government's fiscal and military expenditures were solved by printing new banknotes. Therefore, the severe degree of deterioration of China's economy and price inflation during the Civil War can be imagined. For the specific discussion between the relationship between the Civil War's taxation and price inflation, see section 6.3.4.

**6.2.2.4 From the abundant foreign exchange reserves to its depletion.** On March 4, 1946, the Central Bank of China officially opened the foreign exchange market. In the beginning, when the foreign exchange market was opened, the exchange rate of Fabi to the US dollar was C$2020 to US$1. In the same month, on the black-market, the exchange rate of Fabi to the US dollar was C$2006 to $1.[771] Though the Chinese government had several foreign reserve crises during the Second Sino-Japanese War, with the foreign assist, especially the US one, and the foreign reserves that the National Government received from the former Japanese-occupied areas, the National

[769] Our statistical results are calculated based on K. Chang's (1958, p. 158) government direct tax revenue and total revenue from 1945 to 1947.
[770] See K. Chang (1958, p. 158).
[771] See Figure 6.10 below.

Government accumulated a considerable amount of money.[772] After the war, the National Government had US$900 million reserves with 900 tales of gold reserve.[773] However, as the Civil War deepened, the government's foreign exchange reserves gradually dried up. In 1946 alone, the government's foreign reserve situation deteriorated. The consumption of government's reserve of gold and foreign exchange was very high and by November 1946 it had consumed foreign exchange of $450 million.[774] In August 1946, in the black-market, the US dollar was C$2,909 and in February 1947 it was C$12,657, rising more than three times. In March 1946, as the Secretary of State, George Marshall proposed his "Marshall Plan of China", expressing that United States would give China a loan of US$500 million.[775] Although the finally arrived to China in 1948, there was still no way to change the Chinese government's defeat in the Civil War, whether militarily or economically.

**6.2.2.5 The destruction of agriculture by war.** In section 6.2.2.2.2 above, we have pointed out that within a few months after the end of the Second Sino-Japanese War, agricultural production resumed. However, as the Civil War progressed, the agricultural situation deteriorated. Price hyperinflation also gradually caused the decline of the purchasing power of farmers.[776] The prices of various industrial products were increasing much quicker than the increase in the prices of agricultural products. This phenomenon means that the farmers' actual money income and purchasing power money were declining. This situation lasted from the period of the Second Sino-Japanese War (1937-1945) to the time after the war. Whether it was before and after the war, the prices of agricultural products were always lower than the prices of industrial

[772] See J. Zhu (2012, p. 424), and K. Chang (1958, pp. 259-261).
[773] See J. Zhu (2012, p. 424).
[774] See P. Yang (1963, p. 75).
[775] See Hong (2008, p. 507).
[776] Reference of this paragraph see G. Wu (1958, pp. 174-179), Hong (2008, pp. 527-528), P. Yang (1963, pp. 140-141), and X. Fang (1948).

products. The price difference between agricultural products and industrial products was around three times before the war and after.[777] As the price hyperinflation reduced the purchasing power of urban populations, the output of agricultural products was also decreasing (see Figure 6.13 below in this chapter).[778] The yield of tea in 1946 was 82% lower than the average yield of it from 1933 to 1937.[779] The yield of eggs was reduced by 6.7% in 1946 compared to 1936.[780] The price of tung oil in 1946 was only 50% of its price before the Second Sino-Japanese War.[781] The ratio of price indices of finished products to raw materials that related to agricultural industry were always more than one during the Civil War period, which means that although agricultural industry was also facing price inflation, compared the degree of price inflation of other industries, the Chinese farmers were facing a *de facto* loss during the Civil War period. In the next section 6.2.3, we analyze the economic and monetary policy debates during the period of Fabi, 1945-1948. In the next section 6.2.3, we review the economic and monetary policy debates during the period of Fabi, 1945-1948.

### 6.2.3 Economic and Monetary Policy Debates During the Period of Fabi, 1945-1948

This section reviews the economic and monetary policy debates during the period of Fabi (1945-1948) in the Chinese Civil War. Though only four years long, as the developing economic crisis and Civil War's price hyperinflation, the Chinese economists, policy makers, and the foreign monetary experts all provided their suggestions on the stability of Chinese central banking and monetary institutions.

**6.2.3.1 Yang Peixin and his proposals of privatization, anti-inflation, and democratization to stabilize the economy and monetary system.** As a financial

[777] See G. Wu (1958, pp. 174-179) and P. Yang (1963, p. 140).
[778] See Figure 6.13.
[779] See X. Fang (1948).
[780] See X. Fang (1948).
[781] See X. Fang (1948).

journalist, during the Civil War time, Yang wrote two books from his first-hand materials and authoritative sources of data, forming a systematic analysis. His first book *China's Economic Trends* was written in 1946 after the end of the Second World War and the Second Sino-Japanese War, focusing on China's economic and monetary conditions of 1945, proposing his warnings and predictions of central banking hyperinflation, as well as criticizing the bureaucratic-capitalist system, and finally calling for privatization to reduce government size and power to prevent hyperinflation.

***6.2.3.1.1 Being against the Nationalist's centrally planned economy.*** In terms of economic policy, Yang opposed the National Government's centrally planned economy (which regulates the prices, the sales, and the buying of products) and expansionary monetary policy, advocating a postwar economic privatization and eliminating state-owned capitals and enterprises.[782] He criticized the government planned economy and the nationalization of private enterprises, which led to corruption and money wasting and caused state privilege and the state monopoly of the economy.[783] He assumed that the planned economy was conducive to the government's printing of banknotes to support the interests of the state- relevant enterprises, resulting in issuing more and more banknotes, and leading to inflation. Thus, Yang not only advocates the abolition of the planned economy, but also the abolition of the inflationary policies, believing that inflation must stop as soon as possible.

***6.2.3.1.2 Anti-inflation proposal.*** Besides, Yang argued that the decline of prices in the short run after the end of the Second Sino-Japanese War was a normal economic phenomenon (as the war pressure on the increase of prices disappeared), pointing out that the public was opposed to expansionary monetary policy and

[782] The original Chinese texts of centrally planned economy in P. Yang's description is "統制經濟."
[783] P. Yang deems that the National Government's planned economy is "the invention of Italy and the German fascists" and the reason why the National Government proposed this policy is that it found it was "profitable", which can help the government get more financial support (P. Yang, 1963, p. 12, own translation).

predicting that if the government could it's expansionary monetary policy "prices will rise again in the next two years."[784] Yang also analyzed the government's gold and foreign exchange policy in 1945 deeming that "gold and foreign exchange policy have become the only means for the government to stabilize prices."[785] Thus, he believed that the gold and foreign exchange policy could only be effective in the short term. Yang advocated that the government should solve its fiscal deficits through the issuance of government bonds instead of printing new paper money as he considers that the expansionary monetary policy had caused various political and economic problems as above.

Yang demonstrated his understanding of the negative effects of rising prices caused by inflation. He points out that expansionary monetary police and price inflation caused a disequilibrium in the monetary economy.

> "Inflation deprives the purchasing power of soldiers, civil servants, teachers, and employees, making the goods impossible to be sold out. This has created a phenomenon: on one hand the market has a lack of materials, while people have no money to buy products - this is a Chinese-style overproduction - which can be called a wartime financial crisis." (P. Yang, 1946, p. 51, p. 123, own translation)

Therefore, he believed that inflation could lead to a disequilibrium between the supply of products/currency and the demand of products/currency.

In *The Theory of China's Inflation* (1948), regarding price inflation, Yang profoundly pointed out that the issuance of Fabi was the basis of price inflation, making Fabi become a currency of an indefinite issue (as the Chinese currency before the

[784] See P. Yang (1946, p. 15), own translation.
[785] See P. Yang (1946, p. 8), own translation.

issuance of Fabi all could be exchanged for silver).[786] He also believed that moderate price inflation is conducive to economic prosperity, while price hyperinflation will lead to a decline in real wage rates.[787] Moreover, Yang criticized the government's tax and inflation policies of indiscriminate currency issuance created a polarization between the rich and the poor, depriving the wealth of common people.[788] He criticizes that in the war of resisting the Japanese, the government's taxation on 99% of the poor and the public rather than on 1% of the bureaucratic capital class was actually exploiting the common Chinese people. The expansionary monetary policy made the bureaucratic class benefited from cheap credit and financial speculation through the first-hand internal information from the government, while "small and medium-sized banks and lower-class workers were liquidated by expansionary monetary policy."[789]

***6.2.3.1.3 The proposal of political democratization.*** Furthermore, he advocated political democratization, the reduction the size of the government, and the elimination of the government economic intervention, thinking that "all economic consequences today are caused by political reasons."[790] This proposal matched the intention of the implementation of the 1946 Constitution of the Republic of China. However, the Chinese government's policy failure in terms of economy and military, along with the ambitious Communists, making his proposal become impossible after the end of Civil War.

**6.2.3.2 Wu Chi-yuen and his just price proposal.** In Wu Chi-yuan's *From Wartime Economy to Peacetime Economy* (1946a), he supported the policy of the abolishment of Fabi establishing another new 100% reserve central banking system. In

[786] See P. Yang (1948, p. 1), own translation.
[787] See P. Yang (1948, p. 2), own translation.
[788] See P. Yang (1948, p. 8, p. 11).
[789] See P. Yang (1948, p. 21), own translation.
[790] See P. Yang (1948, p. 7), own translation.

addition, he also advocated a stable currency system through price control, free exchange, tax increase and reduction of government-owned industries.

***6.2.3.2.1 Being against the traditional gold standard, supporting central banking 100% reserve, and the proposal of abolishing Fabi.*** Wu denied the traditional gold standard and supported the paper money standard, believing that Chinese currency should be linked to the dollar, not gold as "China's gold production is limited, and its national strength is not sufficient; thus, there is no need for China to adopt a gold standard."[791] The second reason why Wu opposed gold standard was that he deemed that in the 19th century, the results of the Western countries who implemented the gold standard were not ideal, and "for a country [like China] with a deficit in the balance of payments, the implementation of the gold standard will lead to the weakening of the economy and production." [792] Besides, Wu advocated that the government should authorize the central bank and the designated commercial banks to issue a new currency abolishing Fabi.[793] He deemed that the new currency issued by the government should have two types. The first type is that the government entrusts the banks to issue banknotes without any reserve support. The second is the currency of 100% gold and foreign exchange reserves. However, he did not say the issuance ratio of the two types of currency. In addition, Wu advocated that the government should adopt the principle of the transparency of currency issuance by using the to regulate currency issuance.

***6.2.3.2.2 Theory of just price, economic cycle, and the psychological effects of price inflation.*** Wu considered that the government should stabilize prices through price controls and the price adjustment between different regions, and through the acquisition of export commodities.[794] However, Wu did not demonstrate the negative

[791] See C. Y. Wu (1946a, p. 315), own translation.
[792] See C. Y. Wu (1946a, p. 315), own translation.
[793] See C. Y. Wu (1946a, pp. 316-317), own translation.
[794] See C. Y. Wu (1946a, p. 387).

effects caused by price control to the economy (the cronyism and government-issued privilege, corruption, and the invalidity of price adjustment) as Yang Peixin did. He reckoned that the postwar prices should be set at 2000 times of the pre-war prices to curb inflation.[795] However, Wu did not provide any logical deduction of his argument, just arguing that that such prices were reasonable. Subsequently, Wu said that in order to maintain the price level at 2000 times of the pre-war prices (as we have seen, previously Wu argues that the postwar prices should be set at 2000 times of the pre-war prices), the amount of Fabi issued should be increased to about C$2 trillion.[796] However, Wu still did not give any detailed reasons.[797]

Wu also pointed out that the rising prices would lead to economic recession and the polarization between rich and poor. Besides, Wu also predicted that the soldiers, the public servants, and the teachers might no longer endure the oppression that inflation brought on their lives in the postwar era.[798] He considered that although the increasing prices can stimulate industrial production, but the postwar prices were already in a state of malignant rise. "To stimulate production by increasing prices is just like quenching a thirst with poison, which will trigger the recession of business and industry."[799] Therefore, he reckoned that the postwar price conditions caused an unfair distribution of social wealth.[800] Thus, the view that Wu holds on how price inflation can

[795] See C. Y. Wu (1946a, p. 307), own translation.
[796] See C. Y. Wu (1946a, p. 337).
[797] For Wu Chi-yuen's other analysis on how the Civil War and central banking monetary inflation caused price hyperinflation and the wealth gap between the rich and the poor, see Chi-yuen Wu (1946b). In this paper, he pointed out that "the civil war itself is not just a big economic drain, but also... accelerating the economic collapse, delaying economic construction, which is an economic destruction and struggle caused by endless disasters." He assessed that the postwar price hyperinflation was caused by the civil war is profound. However, he did not explicitly point out how price inflation caused the widen gap between the rich and the poor.
[798] See C. Y. Wu (1946a, p. 374).
[799] See C. Y. Wu (1946a, p. 373), own translation.
[800] See C. Y. Wu (1946a, p. 373).

cause the economic gap between the rich and the poor is consistent with the analysis of the Austrian Business Cycle Theory.[801]

Wu emphasized the impact of psychological effects on prices.[802] He argued that due to of psychological effects "the increase of banknote issuance will not necessarily lead to price increases."[803] Thus, Wu advocated the establishment of a special fund of C$1 trillion to regulate the market prices.[804] However, where does the funding come from? Why does the amount have to be C$1 trillion? Wu here had the same problem as before because he still does not provide sufficient demonstration on this argument

***6.2.3.2.3 Theory of exchange rate and non-interventionism.*** Wu proposed the exchange rate of the new currency in future with foreign currencies and Fabi. He argued that the government should not intervene the market other than the open market operation.[805] He indicated that "price and exchange rate should find a reasonable and natural level by themselves."[806] The government should be "allowing the free trade of US dollars."[807] Besides, he considered that opening up the foreign exchange market can help stabilize the psychology of the market participants emphasizing the role of psychological factors in formulizing price.[808] However, again, Wu put forward another contradictory claim. He claimed that when the exchange rate stabilizes to a certain level, the government can set an official exchange rate according to this level, which is in contradiction with the previous Wu's claim that the government should not intervene in

[801] For more about the Austrian Business Cycle Theory, see Mises (1912/2009), Hayek (1931/1935), Huerta de Soto (1998/2010), and Bagus (2010/2012, 2015). Also see *An Outline of International Price Theories* (C. Y. Wu, 1939).
[802] See C. Y. Wu (1946a, p. 407).
[803] See C. Y. Wu (1946a, p. 408), own translation.
[804] See C. Y. Wu (1946a, p, 386).
[805] See C. Y. Wu (1946a, p. 306).
[806] See C. Y. Wu (1946a, p. 309), own translation. Also see p. 345 of the same book.
[807] See C. Y. Wu (1946a, p. 335), own translation.
[808] See C. Y. Wu (1946a, p. 348).

the exchange rates.[809] Subsequently, he advocated that the central bank should expand its control over foreign exchanges.[810] It should become the "real controller of the foreign exchange market [after the foreign exchange reform in February 1946]."[811] For Wu, the government should impose its controls on foreign exchange that the designated banks should monopolize foreign exchange trading.[812] Therefore, Wu Chi-yuen's claim is completely distinct from that of Yang Peixin.

***6.2.3.2.4 Theory of using fiscal balance and taxation to suppress inflation.*** Wu advocated fiscal balance to suppress price inflation.[813] Wu argued that wartime fiscal deficits were the primary cause of price inflation, claiming that it was a consensus for the Chinese people at that time.[814] Thus, Wu proposed to achieve the fiscal balance by taxing rich people, as he deemed that the cost of war is the burden of the people of middle and lower classes, but not the rich people.[815] Therefore, he argued that it is required to impose progressive property taxes, comprehensive income taxes, excessive profits taxes, luxury taxes, and financial transaction taxes on the rich.[816] However, what Wu Chi-yuen ignored was that the rich can use their income to invest and hire labors, enhancing the economy. Due to Wu's proposal, the rich people's money should be forcibly requisitioned by the government, ignoring the unknown consequences of taxation, and he could not argue whether taxation is an effective way or not to solve the postwar fiscal deficits and inflation problems. Hence, he himself admitted that implementation of taxation "has a great difficulty."[817] This shows that he also

[809] See C. Y. Wu (1946a, p. 349).
[810] See C. Y. Wu (1946a, p. 397).
[811] See C. Y. Wu (1946a, p. 351), own translation.
[812] See C. Y. Wu (1946a, p. 309, p. 349),
[813] See C. Y. Wu (1946a, pp. 322-324, pp. 380-385).
[814] See C. Y. Wu (1946a, p. 367).
[815] See C. Y. Wu (1946a, p. 324, p. 381).
[816] See C. Y. Wu (1946a, pp. 382-383).
[817] See C. Y. Wu (1946a, p. 383), own translation.

recognizes that as a central planning measure of the government, it is difficult to calculate in which degree should the government collect taxations.[818]

***6.2.3.2.5 Theory of Privatization and the Abolishment of zombie enterprises.*** We advocated that the government should balance its expenditure and income by selling government materials and properties, including state-owned enterprises and industries.[819] Besides, Wu advised that the dead-alive factories and the bankrupting factories which were benefited from the previous speculation should be closed and if they were still open, they would become a burden of China.[820]

**6.2.3.3 Professors of Economics at Nankai University's argumentations on post Sino-Japanese War's economic construction and the methods to prevent price inflation.** Fang Xianting (1903-1985), Professor of Economics at Nankai University stressed the importance of saving and capital accumulation in the process of economic development.[821] He was against the centrally planned economy, arguing that this type of publicity will make foreigners reluctant to invest in China.[822] However, Fang did not go profoundly to analyze that apart from the publicity, if it is necessary to have a centrally planned economic system to enhance economic growth. Fang also believed China should be cautious to borrow foreign debts as the repayment ability should also be considered. Hence, Fang could be treated as a fiscal conservative.[823] Li Zhuomin (1912-1991) argued that industrialization was an important part of the postwar Chinese economy proposed his theories of industrialization and stable currency. He advocated that China should borrow capital from foreign countries on the one hand and reduce

[818] For more about the theory of impossibility of central planning economic calculation, see Mises (1949/1998), Hayek (1945), and Huerta de Soto (1992/2010).
[819] See C. Y. Wu (1946a, pp. 387-388, pp. 393-394). However, Wu also argued that the government should increase income by operating state-owned enterprises (p. 334), which is completely contrary to his own analysis as we have demonstrated in this paragraph.
[820] See C. Y. Wu (1946a, p.303, p.336).
[821] See S. Fang (1945/1947, pp.1-14).
[822] See S. Fang (1945/1947, p. 25).
[823] See S. Fang (1945/1947, p. 25).

domestic debt on the other, which is similar to Fang Xianting's proposal.[824] Besides, Li Zhuo-min advocated that China should develop its economy through the elimination of tariff barriers and through free trade.[825] Like Fang, Li Zhuomin also opposed the centrally planned economy. About foreign exchange and banking policy, he proposed to establish stable institutions of foreign exchange, foreign trade and economic order through a strong central banking system.[826] However, Li did not specifically explain in detail what central banking system he preferred. Chen Zhenhan (1912-2008) argued both government economic intervention and the market playing the role of enhancing China's postwar economic development. Chen provided his insights between prices and consumption though he did not provide his theory of central banking. He argued that if the prices continue to increase, the government should regulate the prices to suppress price inflation.[827] Yang Shujin and Wu Daye argued that if a silver standard and an international gold standard based on a determined gold content were not possible, the alternative was issuing a new Fabi based on a Dollar Standard System with which the exchange rate of the new Fabi should be fixed. They advocated relatively stable rising prices and opposed deflationary monetary policy and price deflation, while they also criticized some negative economic consequences of hyperinflation policy though it was not an institutional analysis. On economic policy, they emphasized the role of capital and investment that can promote economic development; however, they did not mention the role of entrepreneurial discovery, creativity, and coordination in discovering potential investment opportunity.[828] Song Zexing (1917-2003) proposed a mixed economy between the protection of infant industry and the market that can enhance the postwar China's economic development, but an analysis of the role of entrepreneurs is

[824] See S. Fang (1945/1947, p. 15).
[825] See S. Fang (1945/1947, p. 16).
[826] See S. Fang (1945/1947, p. 22).
[827] See S. Fang (1945/1947, pp. 59-60).
[828] For the details of Yang Shujin and Wu Daye's theories, see S. Fang (1945/1947, pp. 159-203).

absent in his proposal. Besides, he advocated the resolution of the trade deficit through the central bank's currency depreciation policy. However, he did not review China's free banking tradition and the possible negative institutional effects of the central bank's expansionary monetary policy.[829]

**6.2.3.4 The debate between Minster of Finance Yu Hung-chun and his economic advisor Zhu Xie on the limitation of the issuance of Fabi.** Minister of Finance Yu Hung-chun (from November 20, 1944 to May 31, 1948) advocated maintaining government spending through monetary expansion, while his economic advisor Zhu Xie argued that a new currency should be issued to suppress price inflation in the conditions of restricted monetary issuance and the holding of the assets of gold reserves, the reserves of US dollars, and the materials left by the Japanese.[830]

**6.2.3.5 Soong Tse-ven, Arthur N. Young and the Shanghai Panic Buying of Gold in February 1947.** Arthur N. Young's suggestion on free trade of gold to stabilize the prices was accepted by Premier Soong Tse-ven. However, economists at that time argued that it as the expansionary monetary policy caused the price hyperinflation, making the policy of free trade of gold resulted in the panic buying of gold in 1947.[831] However, as we have demonstrated in chapter 3, the prerequisite of A. N. Young's theory of the free trade of gold was based on a monetarist perspective of a restricted monetary supply. In Young's argumentation, once the government starts to over-issue the banknotes, it was not possible for the policy of free trade of gold to stabilize prices.[832]

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[829] For the details of Song Zexing's theories, see S. Fang (1945/1947, pp. 27-35, pp. 204-257). The Chinese names of the economists mentioned above that are not included in the reference chapter of this thesis are as follows: Li Zhuomin (李卓敏), Chen Zhenhan (陳振漢), Yang Shujin (楊叔進) and Song Zexing (宋則行).

[830] For the details of the debate between Yu Hung-chun and Zhu Xie, see X. Zhu (1985).

[831] See H. He (1985), L. Li (1985), R. Shen (1985), and Y. Zi (1985).

[832] For our detailed analysis of Soong's economic and monetary theories, see section 4.2.3.2 of Chapter 4. For Young's monetary and economic theories for the National government, see Chapter 3.

**6.2.3.6 Fang Xianting and his understanding of people's expectation on price inflation.** Two years of the first publication in January 1948, Fang Xianting acknowledged the importance of suppressing price inflation, considering that the growth of the amounts of materials and products increase synchronously in tandem with the currency issuance can prevent the further price inflation. Besides, he also understood that people's psychological expectation of price inflation *per se* can also make the prices higher. However, like the other Chinese economists, Fang also did not demonstrate whether the central banking system itself could cause monetary and price inflation as the Austrian School economists argue.[833]

**6.2.3.7 A primarily institutional analysis of the monetary price inflation issues of a group of 12 Chinese economists.** Two months before the issuance of the Gold Yuan Notes, there was a group of 12 Chinese economists who provided a summary of the Chinese economy in the first half of 1948.[834] Their analysis included the economic issues of deficits, monetary expansion, the rising prices, the conditions of rural areas, industrial and commercial conditions, financial turmoil, and the deterioration of foreign trade, which is a combination of laissez-faire economics and interventionism, especially mercantilism. Their thought and analysis path have some ways of thinking of institutional economics and they provided the detailed analyses for some specific economic issues; however, they have not launched their arguments about the price hyperinflation systematically and analytically.

**6.2.3.8 Kuang Ri'an and his argumentation of how Fabi's price inflation reduced the living standard of people.** On the eve of the Gold Yuan Note's reform, on August 1948, economist Kuang Ri'an compared the large gap between the indices of workers' living expenses and the indices of wholesale price in Shanghai in 1947,

[833] See X. Fang (1948). For the position of the Austrian School, see Mises (1912/2009, 1949/1998, 1978/2002, 1979/2006) and Salerno (2010, pp. 199-236).
[834] See C. X. Wu *et al*. (1948).

pointing out that expansionary monetary policy and price inflation seriously reduced the living standards of the working class in Shanghai area.[835] Kuang endorsed the policies such as reducing taxes, expanding loans to businesses, and abolishing government economic regulations. However, he did not specifically analyze his own proposals.

**6.2.3.9 Yu Hong-jun and the Rejected Gold Yuan Plan.** On May 19th, 1948, after Yu Hong-jun took over as the governor of the Central Bank, he summoned four economists including Li Lixia, Wu Daye, Lin Chongyong and Fang Shangui to formulate a plan of the new currency reform.[836] Li Lixia was the Director of the Audit Office of the Central Bank.[837] Wu Daye was a professor of economics at the Nankai University, who was also a consultant to the Central Bank of Chiang when Chang Kia-ngau was its governor. Lin Chongyong and Fang Shangui were deputy directors of the Economic Research Division of the Central Bank.[838] Their plan had these four features. Firstly, they advocated the retention of Fabi. They deemed that under the Civil War, the monetary system was not suitable for fundamental reforms. They considered that although Fabi was in a vicious state, it still can survive for a period as long as supplementary measures were taken to save it. Secondly, they believed that the essential problem at that time was the disparity in fiscal revenue and expenditure. Therefore, they suggested adopting a new currency system called Gold Yuan which was like the previous Custom Gold Unit (that was issued during the Second World War) to stabilize taxes and sort out finances.[839] The specific plan of the Gold Yuan had three points. The fixed exchange rate of the Gold Yuan should be US$25 million per 25 Gold Yuan. People who held Gold Yuan can buy and sell foreign exchange without limit. The

[835] See Kuang (1948). The original Chinese name of worker's living expenses and the indices of wholesale price are "工人生活費指數" and "批發物價指數" respectively.
[836] The original Chinese name of Lin Chongyong and Fang Shangui are "林崇庸" and "方善桂" respectively. For the reference, see L. Li (1985a).
[837] The original name of the Audit Office in Chinese is "稽核處."
[838] The original name of the Economic Research Division in Chinese is "經濟研究處."
[839] The original name of the Gold Yuan in Chinese is "金圓."

exchange rate between Gold Yuan and Fabi should be set by the Central Bank at any time. The tax paid to the central government and the import and export trades should all use Gold Yuan. In sum, as Li Lixia himself said, the Gold Yuan plan only expands the method of the previous Custom Gold Unit to pay taxes and import and export trades. Thus, the Gold Yuan plan does not have any other new measures than the Custom Gold Unit. The governor of the Central Bank Yu Hong-jun was very satisfied with this plan thinking it was the only possibility. However, President Chiang Kai-shek disagreed and rejected it.

### 6.2.4 Economic and Monetary Policy Debates During the Period of Gold Yuan Notes, 1948-1949

In the previous section 6.2.3, we have reviewed the academic debates of economic and central banking theories of the Chinese economists during the Fabi period of the Civil War, 1945-1948. In this section, we review the economic and monetary policy debates during the period of Gold Yuan Notes, 1948-1949.

**6.2.4.1 President Chiang Kai-shek's support for the implementation of Gold Yuan Notes.** President Chiang was strongly in favor of the implementation of Gold Yuan Notes. He denied the plan of retaining legal currency while issuing Gold Yuan Notes to pay taxes, foreign trades, and foreign exchanges.[840] Chiang Kai-shek proposed the plan of Gold Yuan Notes at a meeting of the Kuomintang Central Standing Committee.[841] This indicated that it was Chiang who was manipulating the issuance of Gold Yuan Notes. Therefore, Chiang Kai-shek must bear the final responsibility for the policy failure of Gold Yuan Notes. Moreover, Chiang Kai-shek was also supporting his son Chiang Ching-kuo's action of "hitting the tigers": hitting the speculators during the

[840] See L. Li (1985a).
[841] See Y. Huang (1985).

Gold Yuan Notes' price hyperinflation.[842] However, if the government took measures to suppress price hyperinflation, why would there be such a large degree of market speculation? Besides, it is understandable that President Chiang Kai-shek was deliberately in favor of issuing the new issued Gold Yuan Notes instead of Fabi due to the chaotic financial situation and the price hyperinflation of Fabi at that time. However, by using force to order the Shanghai entrepreneurs to submit their gold silver and foreign currencies to support the Civil War was also a violation of private property rights. Chiang Kai-shek ignored the policy suggestions from most of the economists that a further war-oriented expansionary monetary policy would trigger a more severe price inflation, no matter whether there would be a new monetary system being implemented or not.

**6.2.4.2 Minister of Finance Wang Yun-wu and his support on Gold Yuan Notes.** Yu Hong-jun's successor, the new Minister of Finance Wang Yun-wu (May 31st, 1948 to November 11th, 1948) strongly supported the issuance of the Gold Yuan Notes.[843] Wang Yun-wu used to be the editor-in-chief at the famous Commercial Press, had no connection with the financial and economic circles. Perhaps because of Chiang Kai-shek's trust in him, Wang was nominated as the new Minister of Finance to substitute for Yu Hong-jun.[844] Wang advocated to implement a new currency system.[845] He proposed two ways to reverse the situation. First, issue Gold Yuan Notes, whose value should be guaranteed by the gold, silver, and foreign reserves held by the central bank. Second, use political power to levy mandatorily the gold, silver, and foreign exchanges held by the people, implementing economic control. In sum, Minister of Finance Wang Yun-wu was one of the few people who strongly supported the issuance

[842] See L. Dai (1985), L. Li (1985a) and C. Shou (1985a).
[843] See S. D. Cheng (1948).
[844] See C. Shou (1985b) and X. Zhu (1985).
[845] For more of Wang Yun-wu's arguments in details, see C. Shou (1985, b).

of Gold Yuan Notes as President Chiang Kai-shek did. Perhaps due to Wang being a press editor who had little economic knowledge, he was also in favor of expansionary monetary policy instead of other methods to solve the war expense issues, all without considering the negative consequences of price inflation caused by monetary expansion. Besides, he was also among the few people who supported using political power to levy mandatorily the gold, silver, and foreign exchanges held by the people, implementing economic control and making prices stable.

**6.2.4.3 Dai Li'an and his proposal against issuing more banknotes.** Former Director of the Department of Currency and Shanghai banker Dai Li'an was strongly against the issuance of Gold Yuan Notes when he was in an Executive Yuan meeting about how to implement Gold Yuan Notes.[846] [847] In his memory, Dai claimed that he was the only person who was against the plan of implementing Gold Yuan Notes. He argued that there were two contradicted points in the planed measures of implementing the new currency. Firstly, he illustrated that the price regulation measure is self-contradictory. Dai thought that the measure stipulates that the prices of various products should not exceed their prices of August 19, 1948 (one day before the planned implementation day of the Gold Yuan Notes) while the measures rule that the prices of the public transportation industry could be adjusted. However, the prices of electricity and transportation were related to the price of the goods. Thus, Dai argued that if the prices of the public transportation industry could be adjusted and increased artificially, then "how to limit and not to increase the price of other products without increasing the price?" Secondly, he considered that the acquisition plan of gold, silver, and foreign currencies may not guarantee the market stability. Dai assumed that though the idea of redeeming gold, silver, and foreign currency within a time limit was good; however,

[846] The Chinese name of the position, Director of the Department of Currency is "財政部錢幣司司長."
[847] See L. Dai (1985).

given that large amounts of new Gold Yuan Notes were being released, the purchasing power of banknotes would increase resulting big pressure on the market (to increase prices). However, Dai's opinions were not considered by Soong Tse-ven's cabinet. Altogether, Dai Li'an was very conscious of that if the government still issued new banknotes without any reserve of gold, silver and foreign currencies, prices will continue to rise. Besides, he also understood that price regulation policy is self-contradictory as the regulated prices would make products more scare causing rising prices again.

**6.2.4.4 Cheng Shaode and his proposal of adopting a new currency system.**

Financial specialist Cheng Shaode is one of the few scholars who support the implementation of the Gold Yuan Notes to replace Fabi. [848] Firstly, he believed that due to the price inflation issues and the failure of Fabi, a new monetary system should be adopted to stabilize people's confidence, although he also admits that most scholars at that time were cautious about the reform of adopting a new currency system. Secondly, Cheng argued that Gold Yuan Notes reform was caused by the fluctuation of the prices of gold and silver and price inflation. He provided Shanghai's commodity wholesale prices indices from 1947 to 1948 to demonstrate the severity of the price inflation issues, and pointed out the phenomenon that brought about by the price hyperinflation, such as panic buying, the speculations of goods, the lack of circulating currencies to due hoarding (caused by the rising prices), and the increase of interest rates. However, he did not conduct an in-depth analysis of these issues. Thirdly, Cheng argued that the two prerequisites for making the monetary reform successful are the government's absolute control of the budget and the restraining of the government balance of payments.

[848] For Cheng's monetary theory, see S. D. Cheng (1948). Cheng Shaode (1900-1954) received his Ph.D. of economics at the University of Paris in 1932. His doctoral dissertation title is "Étude sur le marché monétaire de Changhaï (au début du XXe siècle)" ("Research on Shanghai Financial Market in the Early 20th Century", own translation). For more about Cheng's thesis, see: https://data.bnf.fr/fr/15030962/shao-teh_chen. For Cheng's simple biography, See J. Zou (2016, p. 114).

Finally, he presented a specific policy details about how to implement the currency reform, which is a combination of government intervention and laissez-faire policies: the regulation of prices, the control of government budget, various financial policies should be reasonably matched together, and the control of international trade and the execution of trade balance. In sum, Cheng also proposed a self-contradicted policy plan. He argued it was necessary to adopt a new currency system instead of the collapsing Fabi. He correctly perceived that the fluctuation and price inflation of gold and silver made the survive of Fabi difficult. He also correctly observed that the control of government budget was one of the essentials that the government should do to prevent price inflation. However, he also wrongly considered that price and trade regulation policies would help the government stabilize the currency system.

**6.2.4.5 Song Tongfu and his proposal to restricting government spending to stabilize the currency system.** After the issuance of Gold Yuan Notes in August 1948, in September, financial expert commented on the government's decrees on the implementation of Gold Yuan Notes. Subsequently, he pointed out that to make the government's currency reform successful, there were three things that the government should do.[849] First of all, he argued that the government should take two measures to stabilize the exchange rate. One, the government should execute the planned 40% reserves of Gold Yuan Notes and make its issuance policy transparent to avoid the over-issuance of it, given the government's bad record of over-issuing currencies during the Second Sino-Japanese War. Two, regulate the trade of currencies (gold, silver, and foreign currency) and products. Secondly, Song argued that the government should balance its fiscal revenue and expenditures since the government had a record of using printing paper money to cover its deficits during the Second Sino-Japanese War. There

[849] See T. Song (1948).

are three points of this argument. one, cut the government spending. Two, increase the government's revenue by taxation. Song provided his calculations of the previous taxation revenue to support his point. Three, issue public debt and use profits of the sales US aid materials to China to offset the fiscal deficit. He argued that if the government "can seriously do [these] three things, then the new currency system will succeed." Thirdly, Song suggested that the government should take four measurements to stabilize the prices to avoid the happening of the further price hyperinflation. One, he advocated the increase of people's savings. He argued that price inflation undermines the habits of people's savings. This analysis concurs with other scholars' demonstration that the Chinese people do have an economic tradition of saving.[850] Two, use hot money for production. Three, reduce consumption. Four, advocate a strict implementation of the price regulation. Fourthly, Song argued that the government's decrees of implementing Gold Yuan Notes were "perfect" in the perspective of policy planning. Thus, he indirectly criticized some pro-Communist views that advocated the currency reform of the Soviet Union style in the 1920s to confiscate private properties and currencies that people held stabilize the economy. In sum, Song argued that once the currency reform fails, "China's future is negatively unimaginable" as China was in the "period of mobilization for the suppression of Communist rebellion". The irony is that his prediction became a reality, as the pro-capitalist and pro-constitutionalist ROC government lost Mainland China, and mainland China has entered the tyrannical era with the CPC ruling since 1949.

**6.2.4.6 Huang Yuanbin's criticism on Kemmerer Plan and his suggestion of using the tools of financial markets to stabilize the currency system.** The Legislative Representative and the Convener of the Currency Group of Legislative

[850] See J. Zhu (2012) and X. Fang (1945/1947).

Yuan Huang Yuanbin, who was previously the adviser to the Minister of Finance, held three related opinions of the currency reforms.[851] First of all, he criticized that E. Kemmerer's theory of the gold standard did not apply to China because it had never implemented that system in history. He also criticized the rush issuance of Fabi in China, distorting the previous financial order.[852] However, he did not further argue in detail whether Fabi as a currency system, based on a modern central banking system, was suitable for China. Secondly, Huang claimed that he was holding the same opinion as Chang Kia-ngau, advocating the use of financial markets rather than government intervention to control and stabilize the economy. He argued that if people are forced to change their currencies according to political pressure, their distrust will also prompt them to resist the monetary reform and use goods instead of currencies as the medium of exchange. Huang's views were also submitted to President Chiang Kai-shek. Thirdly, by proving the first hand inside sources, Huang's article also demonstrated how the political struggles inside the ROC government caused the chaotic situations of the monetary policies. In sum, Huang Yuan-bin considered that there was no applicability of a gold standard in China, refuting Edwin Kemmerer's gold-reserve central banking proposal; while he also argued that the quick switch into Fabi and fiat money system also created a chaotic situation of the banking system. Like Chang Kia-ngau, Huang was also in favor of using the tools of financial markets rather than government intervention to control and stabilize the economy being against the proposal of using government coercion to confiscate people's gold, silver, and foreign reserves. He argued that this mandatory policy will cause people's distrust of the financial orders making the banking situation more complicated negatively.

[851] The original Chinese name of the Legislative Representative and the Convener of the Currency Group of Legislative Yuan is "立法院貨幣小組召集人." Reference of this section see Y. Huang (1985).
[852] For the issues of Kemmerer's China project and the issuance of Fabi, see Chapter 2 of this thesis.

**6.2.4.7 Premier Weng Wenhao's Memory of his service during Gold Yuan Notes period.** Chiang Kai-shek's Premier Weng Wenhao (from 24 May to 26 November,1948) provided his memories of the chaos of the political situation at that time, pointing that Minister of Finance Wang Yun-wu, who strongly supported the abolishment of Fabi and the implementation of the Gold Yuan Notes, was isolated by the rest of politicians and was neither supported by H. H. Kung nor the Shanghai bankers.[853] Besides, we find that the reasons why Weng were appointed as the Premier was that he had connection and reputation among the Americans, and he supported the U.S. aids to ROC.[854]

**6.2.4.8 George Marshall and his proposal to support Free China and the ROC central banking system.** The Marshall Plan (European Recovery Program) played an important role of the reconstruction of Western Europe historically in some degrees, while the similar proposal was also suggested to help the habitation of the postwar Republic of China. In the review of the relevant literature, we find the U.S. diplomat George Marshall also provided his suggestions on constructing China's banking policies during the Civil War.

Marshall's activities in China are consistent of three parts. Firstly, as we have demonstrated in the introduction part of this chapter, the US government sent General George Marshall's mission from 1946 to 1947 to regulate the conflicts between the Chinese government and the Communist Party but ultimately failed.[855] During his two-year staying in China, Marshall acknowledged the economic and political conditions of the ROC better than before. He made a prediction that if China engages in a large-scale

[853] See Weng (1960) and C. Shou (1985b).
[854] See C. X Wu *et al*. (1947).
[855] See Fairbank & Feuerwerker (1986, p. 758), C. Wang (2000, pp. 505-566, pp. 128-136), and X. Han & K. Jiang (2011, p. 8225).

civil war, the economy will collapse.[856] Marshall's conclusion became a reality when the Communists won the Civil War in 1949.

After his visit on China, later Marshall even proposed his land policy for China, arguing China should carry out land reform and hand over land from landlords to farmers.[857] However, the reform later failed as the government's land reform only let farmers to pay a lot of money to obtain land from their landlords, increasing the burden on Chinese farmers (see section 6.4.2.4 of this chapter).

In March 1946, as the Secretary of State, George Marshall proposed his "Marshall Plan of China", expressing that United States would give China a loan of US$500 million.[858] However, the loan was delayed until 1948, and the amount of the final physical assistance only accounted for US$463 million, making it a useless plan on supporting the Free China to resist the Communists as the ROC government was severely failing in the Civil War in late 1948 militarily and suffering from price hyperinflation economically (see section 6.3.7 of this chapter).

## 6.3 Process of Fabi's Price Hyperinflation, 1945-1948

In this section, we investigate the reasons why Fabi's price hyperinflation happened and how Fabi collapsed from 1945 to 1948. Section 6.3.1 reviews the background: the over-issued Fabi and its price inflation during the Second Sino-Japanese War. Section 6.3.2 specifically analyzes Fabi's expansionary monetary policy in the Civil War era. Section 6.3.3 demonstrates the Chinese government's mismanagement on the Japanese puppet currencies. Section 6.3.4 illustrates the relationship among taxation, public debt policies and the Civil War's price hyperinflation. Section 6.3.5 demonstrates the circulation of uncontrolled foreign currency. Section 6.3.6 examines the foreign reserve policy and gold policy. Section

[856] See C. Y. Wu (1946a, p. 417).
[857] See C. X. Wu *et al*. (1948).
[858] See Hong (2008, p. 507).

6.3.7 discusses the lack of foreign aids and Marshall Plan on China. Section 6.3.8 analyzes the economic regulation policies.

### 6.3.1 Background: The Over-issued Fabi and its Price Inflation during the 2nd Sino-Japanese War

As we have discussed in Chapter 5, for paying the war expense, the Chinese government already issued a massive amount of Fabi during the Second Sino-Japanese war. In 1937, the central banking system of the government issued C$1.64 billion, in 1945, the amount of the issued Fabi was C$1.0319 trillion, which was 62921% of the amount in 1937. As a result, the price level was 144773.74% of the amount in 1937.[859]

The previous over-issuance of Fabi was disguised trouble of the later hyperinflation after the end Second-Sino Japanese War. The National Government already made a mistake of issuing a lot of banknotes in the previous war time to pay the wartime expense. However, after 1945, the government continued its expansionary monetary policy, which was another main reason why the financial system collapsed during the Civil War time.

### 6.3.2 Fabi's Monetary Expansion Policy in the Civil War Era

In this section, we thoroughly exam the expansionary monetary policy of Fabi during the postwar era.[860] Figure 6.1 below shows the monetary supply and price level from 1945 to 1948. Price indices have been evaluated by logarithms in Figure 6.1. In the text demonstration, we use the original data to demonstrate. In 1945, the central banking system issued C$1.0319 trillion, in 1947 (one year before the abolishment of

[859] All the statistic results in this paragraph is our own calculation based on the price indices data from K. Chang (1958, p. 376, p. 371).

[860] For the economic situation and hyperinflation during this period, see Fairbank & Feuerwerker (1986, pp. 741-746), J. Zhu (2012, pp. 423-432), K. Chang (1956, pp. 67-85, p. 151-169, pp. 259-274, pp. 303-321, pp. 350-360), G. Wu (1958, pp. 92-97; pp. 140-245), Hong (2008, pp. 471-552), and P. Yang (1963, pp. 60-83). In order to more accurately analyze China's economic situation after 1945, we will analyze the issues related to the Gold Yuan Notes (1948-1949) in the next section of this chapter. In this section, we will focus on the analysis of the situation of Fabi from 1945 to 1948 before the Gold Yuan Notes reform.

Fabi), the amount of the issued Fabi was C$33.1885 trillion, which was 3,216.25% of the amount in 1945. As a result, the price level in 1947 was 6337.34% of the amount in 1945. Figure 6.1 also shows that the price in December 1945 was five times that of September. If the price index in 1926 was 100, the price indices from 1945 to 1948 were 1.5 trillion, 9.2 trillion, 61 trillion, and 399 trillion. Obviously, China experienced vicious price inflation during the Civil War. In the subsections of section 6.3.2, we will specifically analyze the specific causes of price hyperinflation.

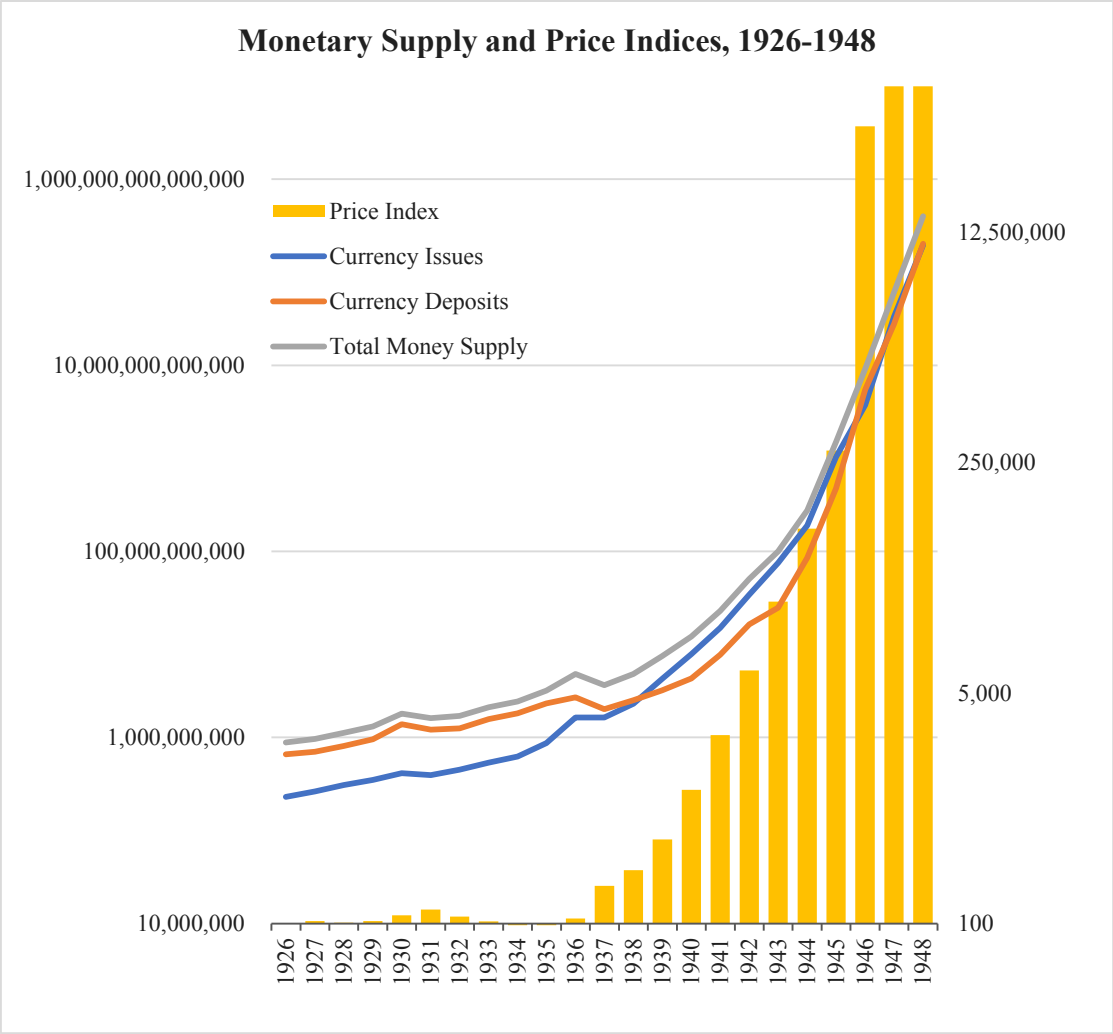


*Figure 6.1* Monetary supply and price indices, 1926-1948.

*Sources*: Data on currency issues, currency deposits, and total money supply is from K. Chang (1958, p. 376); also see G. Wu (1958, pp. 92-96), P. Yang (1963, pp. 61-62) and Hong (2008, pp. 519-520). Data on price indices of 1930 to July 1948 is from K. Chang (1958, pp. 371-373). Data on price indices in August 1948 is from G. Wu (1958, p. 162). Price indices from 1930 to 1936 is the Shanghai price index. Price index from 1937 to July 1948 is the whole Free China index. The price index of August 1948 is the Shanghai price index.

*Notes*: Price index has been evaluated by logarithms in the figure. The price indices of 1946 to 1948 were obtained from the average of the monthly price indices for these years. In order to enable price indices from different sources to be displayed on the same statistical chart, we have processed the data from different sources according to the principle of proportionality.

**6.3.2.1 Monetary expansion as the payment of the military spending in the Civil War.** The governments' military spending in the Civil War was the leading cause of Fabi's price hyperinflation during the Civil War era.[861] The government had to print a lot of banknotes to maintain its military force to resist and exterminate the Communist rebellion, and to restore its military force in the former Japanese Occupied Areas. Figure 6.2 below shows the military expenditure from 1945 to 1948. All data have been evaluated by logarithms in Figure 6.2. In the text demonstration, we use the original data to demonstrate. In 1946, military spending accounted for 60% of total expenditure.[862] In 1947, military spending was 55% of total expenditure.[863] As the government already had a severe condition of the deficit,[864] it had no choice but to borrow the money from the Central Bank to pay the military expansion, which caused price inflation. The conclusion from Figure 2 is due to the proportion of the military spending in the total government expenditure, the military expansion is the main cause of the price hyperinflation from 1945 to 1948.

[861] See K. Chang (1958, pp. 71-72), P. Yang (1963, pp. 63-66), and G. Wu (1958, pp. 98-990). Some research (Hong, 2008, pp. 496-529) detailed the process of Fabi's inflation but did not elaborate on the relationship between the hyperinflation and the Communist Revolution.
[862] See K. Chang (1958, pp. 71-72).
[863] See K. Chang (1958, pp. 71-72).
[864] The deficit of the National Government in 1945 was C$1,106,698 million, in 1946 was C$4,697,802 million, and in 1948 was C$29,329,512 million. See K. Chang (1958, p. 374).

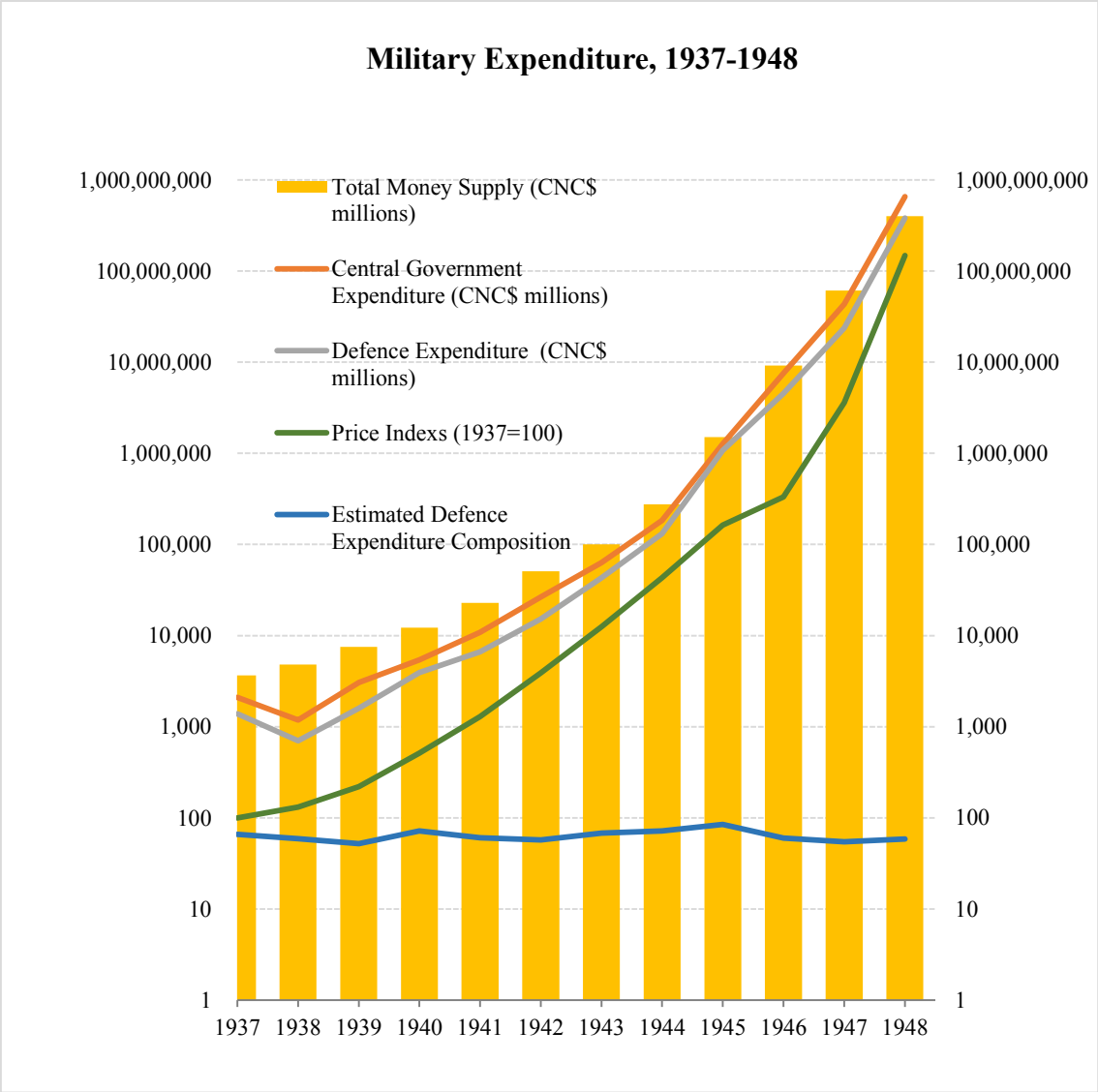


*Figure 6.2* Military expenditure, 1937-1948. Figure's currency unit is one million Chinese dollars (C$).

*Sources*: Data on central government expenditure (1937-1945) is from A. Young (1965, p. 16). Data on central government expenditure (1945-1948) is from K. Chang (1958, p. 154). Data on military expenditure from 1946 to 1948 (K. Chang, 1958, pp. 154-155) is based on the estimated defense expenditure composition and central government expenditure. Data on military expenditure (1937-1945) is from A. Young (1965 p. 16). Data on total money supply (1937-1948) is from K. Chang (1958, p. 376). The total money supply includes currency issues and currency deposits. Data on total money supply also see G. Wu (1958, pp. 92-96), P. Yang (1963, pp. 61-62) and Hong (2008, pp. 519-520). Data on price indices (1937-1948) is from Chang (1958, p. 371-373). The price index from 1937 to July 1948 is the index of Free China. Price index of January to August 1948 is the index of Shanghai. Data on price index, also see G. Wu (1958, pp. 154-163), and P. Yang (1963, pp. 61-62).

*Notes*: All data has been evaluated by logarithms in the figure.

Inside the National Government, some oppositions were against the monetary expansion in military affairs.[865] For dealing with the failure of the economic policy, the Chinese government appointed Pei Tsu-yee as the new governor of the Central bank substituting Yu Hung-chun, trying to control the price inflation in 1946.[866] However, these personnel changes in the government did not change the situation of price hyperinflation. Reducing price inflation requires a reduction in military spending. However, the government and the Minister of Finance at the time refused to reduce military spending, which meant that Pei's deflationary monetary policy could not be implemented.[867]

**6.3.2.2 Monetary expansion as the administration management spending necessity in the formulation of the price hyperinflation.** Monetary expansion also played a role as the administration management spending necessity in the formulation of the price hyperinflation.[868] The expense of administration management was also a considerable burden. The National Government also had to spend a lot to pay the salaries and daily management of the large government institutions in the recovered territories which were formally occupied by the Japanese. Figure 6.3 below shows the administration expenditure and monetary supply from 1945 to 1948. All data has been evaluated by logarithms in Figure 6.3. In the text demonstration, we use the original data to demonstrate. For paying the salaries and expense of government management, the government borrowed the newly printed money from the Central Bank. In Figure 6.3, we can see that administrative expenditure and the total government, as well as the

[865] See K. Chang (1958, p. 73).
[866] More about Pei, see Prial (1982). Pei Tsu-yee is the father of the famous Chinese architect IM Pei (貝聿銘, 26 April 1917 – 16 May 2019). IM Pei always held the nationality of the Republic of China before his death. For how Yu Hung-chun was trying to control the price inflation, see K. Chang (1958, p. 73).
[867] See K. Chang (1958, p. 73).
[868] References of this paragraph see Fairbank & Feuerwerker (1986, pp. 741-742), J. Zhu (2012, p. 426), and K. Chang (1956, pp. 71-72). Regarding the various economic policy difficulties encountered by the ROC government in postwar reconstruction, see Fairbank & Feuerwerker (1986, pp. 741-743).

total money supply, were all increasing from 1945 to 1948. In 1945, the administrative expenditure was C$122,115 million, which was only 9% of the central government expenditure in that year. However just one year later, the administrative expenditure is 28.5% of the total central government expenditure. In 1948, the administrative expenditure was C$155,346,648 million, which increased by 127113.4% over 1945.

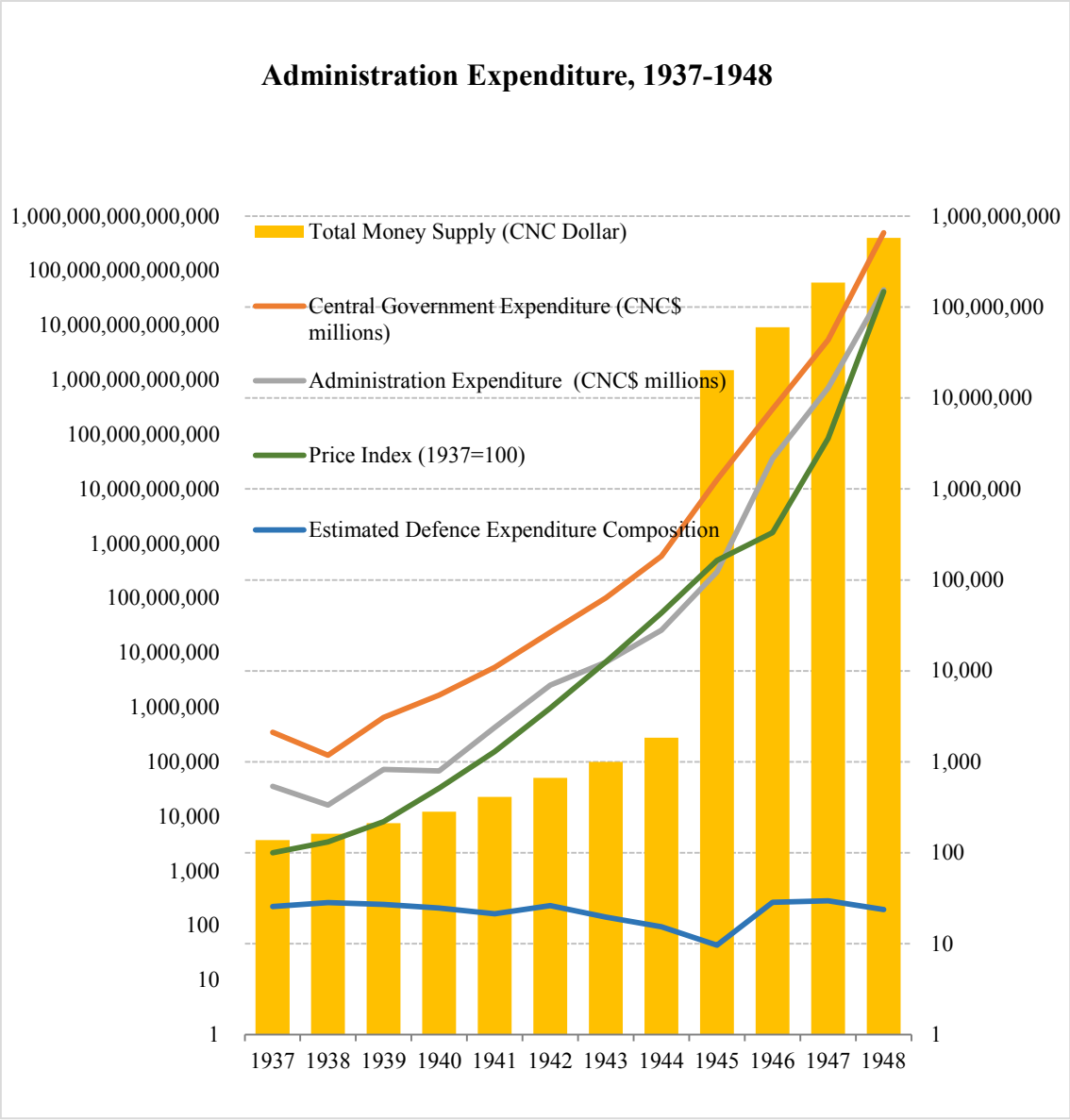


*Figure 6.3* Administration expenditure, 1937-1948 Figure's currency unit is one million Chinese dollars (C$).

*Sources*: Data on central government expenditure (1937-1945) is from A. Young (1965, p. 16). Data on central government expenditure (1945-1948) is from K. Chang (1958, p. 154). Data on administration expenditure from 1946 to 1948 (K. Chang, 1958, pp. 154-155) is based on the estimated defense expenditure composition and central government expenditure. Data on administration expenditure (1937-1945) is from A. Young (1965 p. 16). Data on total money supply (1937-1948) is from K. Chang (1958, p. 376). The total money supply includes currency issues and currency deposits. Data on total money supply also see G. Wu (1958, pp. 92-96), P. Yang (1963, pp. 61-62) and Hong (2008, pp. 519-520). Data on price indices (1937-1948) is from K. Chang (1958, p. 371-373). Price index from 1937 to July 1948 is the index of Free China. The price index of January to August 1948 is the index of Shanghai. Data on price index, also see G. Wu (1958, pp. 154-163), and P. Yang (1963, pp. 61-62).

*Notes*: All data has been evaluated by logarithms in the figure.

It is quite understandable that the National Government needed to borrow money from the Central Bank to pay the salaries of its employees. However, the National Government did not have a specific main plan to balance its other plans, making the borrowed money an employee's salaries contradicted from its other different goals.

**6.3.2.3 The Stimulation of the economy and the low official interest rate.** The third question of the main hypothesis in section 3.3 was that if the government's stimulation policy of the economy and the low official interest rate also partly cause the hyperinflation.[869] Our research finds that after the end of the Second Sino-Japanese War, the government kept a low official interest to stimulate the economy, while the strong consumer demand also drove the price inflation. [870] In Figure 6.4 below, we find that the official interest rate from 1946 to 1948 was 10.7%, 15.14%, and 23.17% respectively. The black-market interest rate was higher than the official rate. The black-market interest rate from 1946 to 1948 was 15.08%, 18.25%, and 26.55% respectively. The price index in 1948 increased by 44,650.9% over 1946. The wholesale prices (Shanghai) in 1948 increased by 14,478.4% over 1946. However, due to the government's official interest rate maintained at a low price, the supply of loans increased, resulting in a significant increase in bank credits and private loans.[871] In 1946, the issuance of private loan was C$1,073,483 million. In 1948, the amount of private loan was C$156,496,326 million, which was increased by 14,478.4% over 1945. In addition, the government also

[869] References of this paragraph see Hong (2008, pp. 492-496), J. Zhu (2012, pp. 427-428), and K. Chang (1958, pp. 74-78).
[870] For the references of low interest rates, see Hong (2008, pp. 492-496) and K. Chang (1958, p. 427-428). For the references of consumer demand, see Hong (2008, pp. 493-495, pp. 510-517) and J. Zhu (2012, p. 428).
[871] See J. Zhu (2012, p. 428).

ignored the velocity of money.[872] In 1945, the velocity of money was 2.57%. In 1948, it raised to 10.82%.

[872] See He (1999) and J. Zhu, (2012, p. 428). The Austrian School of economics is skeptical about the concept of the velocity of money. For related references, see Shostak (2017, 2018).

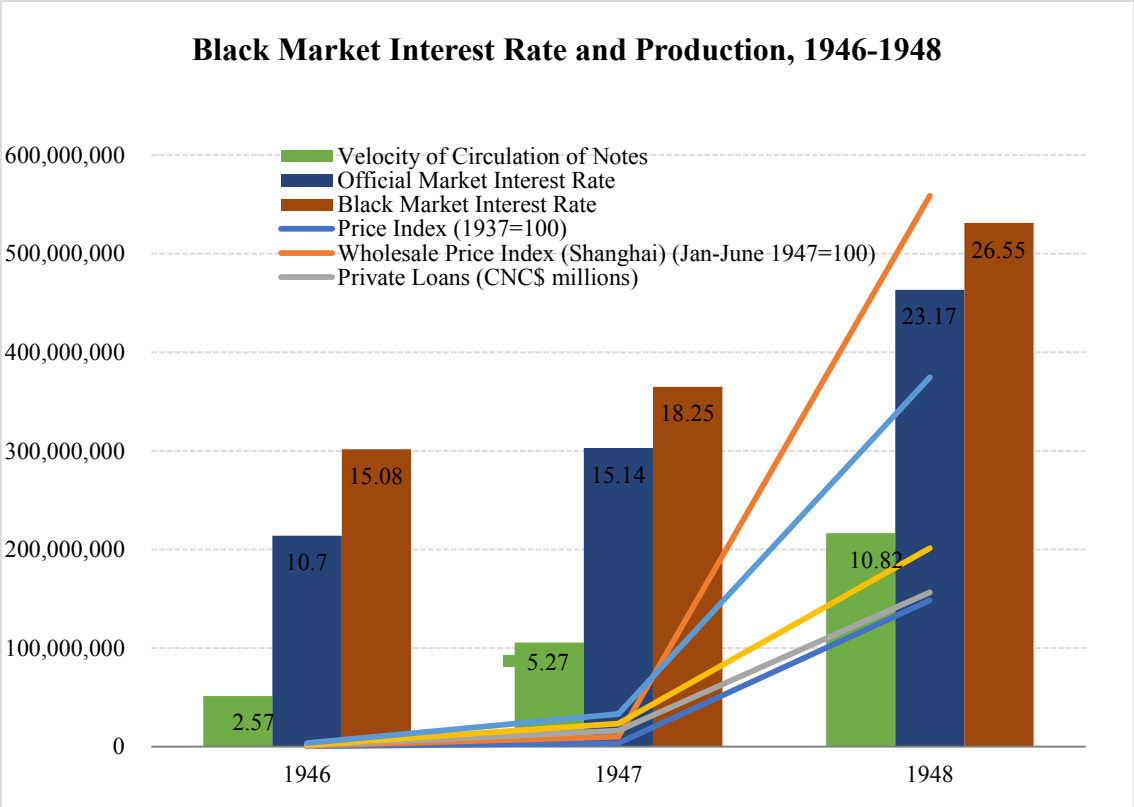


*Figure 6.4* Black market interest rate and production, 1946-1948. Figure's currency unit is one million Chinese dollars (C$).

*Sources*: Data on note issues is from K. Chang (1958, p. 374); also see G. Wu (1958, pp. 92-96), P. Yang (1963, p. 61-62) and Hong (2008, pp. 519-52). Data on the velocity of circulation of notes is from K. Chang (1958, p. 270). Since there is no annual data, we have selected the data for each December from 1946 to 1948 as the samples. Data on bank credit (in CNC$ millions) is from K. Chang (1958, p. 375). Bank credit data in 1946 is from June to July. Data on official market interest rate is from K. Chang (1958, p. 375). Data on the price index of 1945 (Free China), see K. Chang (1958, p. 371). Data on the price index of 1946 to 1948 of the whole China, see K. Chang (1958, pp. 372-373). Data on the price index of 1946 to 1948 is the annual data calculated from the monthly date of these years (K. Chang, 1958, pp. 372-373). Data on wholesale price index (Shanghai) is from K. Chang (1958, p. 79). The price indices of 1946 to 1948 were obtained from the average of the monthly price indices for these years. Since there is no complete monthly data, we have selected the wholesale price index of August 1948 as the sample. For data on price index, also see G. Wu (1958, pp. 154-163), and P. Yang (1963, pp. 61-62). Data on private loans see K. Chang (1958, p. 77).

*Notes*: Since there is no complete monthly data, we have selected the private loans data of June 1948 as the sample.

**6.3.2.4 National Government's underestimation of public's psychological rebound of prince inflation.** Whether the National Government underestimated the public's psychological rebound that partly caused the increase of prices is another question that needs examining.[873] The Chinese people had already been very susceptible to price inflation during the Second Sino-Japanese War and the new issuances of currency increased people's sensitivity. Thus, when the prices raised, the National Government tried to control them. However, the price control reform in February 1947 made people rush to buy the products in the market, which made the Nationalist Government cancel the price control. Thus, the price increased rapidly again, which made people furious. Although the content of the psychological changes of the people may not be fully quantified, it can be inferred from the increase in production volume in Figure 6.4 that since the total demand is equal to the total supply, the demand of the people at that time was also high.

We argue that the government did not systematically evaluate the public's psychological rebound when the prices were increasing and when it was executing the price control measurements. If the National Government could make better propaganda on this policy and make the balances among different policies, the prices might be stabilized to a certain degree.

### 6.3.3 Mismanagement with Japanese Puppet Currencies

This section analyze whether the mismanagement on the Japanese puppet currencies was also one of the reasons of Fabi's price hyperinflation.[874] In section 5.5.12.4 of Chapter 5, we analyzed the monetary expansion and price inflation issues of the Japanese puppet currencies during the Second Sino-Japanese War to understand the

[873] References of this paragraph see J. Zhu (2012, p. 431), and Hong (2008, pp. 510-514).
[874] References of this section see P. Yang (1963, pp. 55-56), G. Wu (1958, pp.41-50), Hong (2008, pp. 477- 482), ACPBC (1991, pp. 311-320), J. Zhu (2012, pp. 426-427), and Research Group of the Northeast Materials Regulatory Commission [RGNMRC] (1948).

postwar price inflation in the former Japanese occupied areas of Wang Jingwei Regime and Manchukuo, it is important to review whether the Chinese government mismanaged the Japanese puppet currencies causing a postwar price inflation in the former occupied areas or not. Our research finds that before the victory of the Second Sino-Japanese War, the Manchukuo Regime (Manchuria) and Wang Jingwei Regime, who separately ruled the Japanese-occupied areas, had already paid for war and government expenditure through their own expansionary monetary policy.[875] Figure 6.5, Figure 6.6 and Figure 6.7 below show the monetary expansion and price inflation situation in the Japanese-occupied areas during the Second Sino-Japanese War: the currency conditions in Manchuria from 1936 to 1944, and the currency issues of Federal Reserve Bank Dollars from 1938 to 1945 in Wang Jingwei Regime.[876] In Manchuria, during that period, both the wholesale price indices and the currency issues were increasing. In 1944, the wholesale price index was 358.3, which has increased 258.3 over 1936. The currency issues of Manchukuo Yuan were 7,709,251 million in 1944, which increased 2,706.5% over 1936.[877] In Wang Jingwei Regime, in 1943, the wholesale price index in North China was 1,176.67, which increased 1,076.67 over 1936. The currency issues of Federal Reserve Bank Dollars of the Wang Jingwei Regime were FRB$142,399 million in 1945, which increased by 687423% over 1936. To sum, the Japanese Puppet Regimes were also implementing monetary expansion policies during the Second Sino-Japanese War.

[875] See P. Yang (1963, pp. 55-56), and G. Wu (1958, pp.41-50). In addition to the above two Japanese Occupied Areas, the Japanese authority on Taiwan was also implementing inflationary policy. Since *the Treaty of Shimonoseki* (馬關條約) in 1895, Taiwan became a Japanese colony until 1945. Although Taiwan did not directly participate in the Second Sino-Japanese War, the Japanese authority on Taiwan still implemented an inflationary policy there. In 1937, the issuance of Taiwanese Silver Dollar Notes (台灣銀元券) was 75 million yuan, reaching 2.9 billion yuan in December 1947. From 1937 to 1945, prices in Taipei has risen by 23 times. The above data on Taiwan's inflation is from G. Wu (1958, p.56). For more about the above inflation situation in Taiwan at that time, see Y. Wu (1947). For more about the history of *the Treaty of Shimonoseki*, see Fairbank & K. Liu (1980, pp. 107-109). For more about the history of Taiwan under Japanese rule see Lamley (1999).

[876] The original name of Federal Reserve Bank Dollars in Chinese is "中央儲備銀行券."

[877] The original name of Manchukuo Yuan in Chinese is "滿洲國圓."

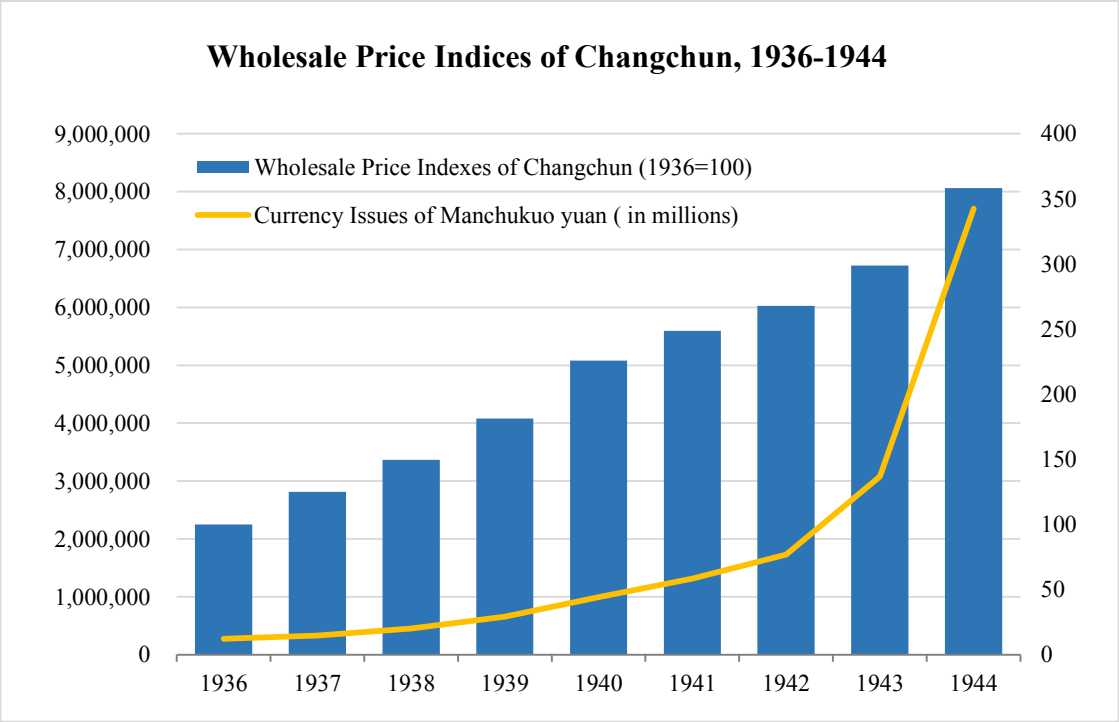


*Figure 6.5* Currency conditions in Manchuria, 1936-1944. Figure's currency unit is one million Manchukuo Yuan.

*Sources*: Data on currency issues of Manchukuo Yuan and the wholesale price indices of Changchun from 1936 to 1944, see P. Yang (1963, p. 55) and RGNMRC (1948, p. 37, pp. 154-155).

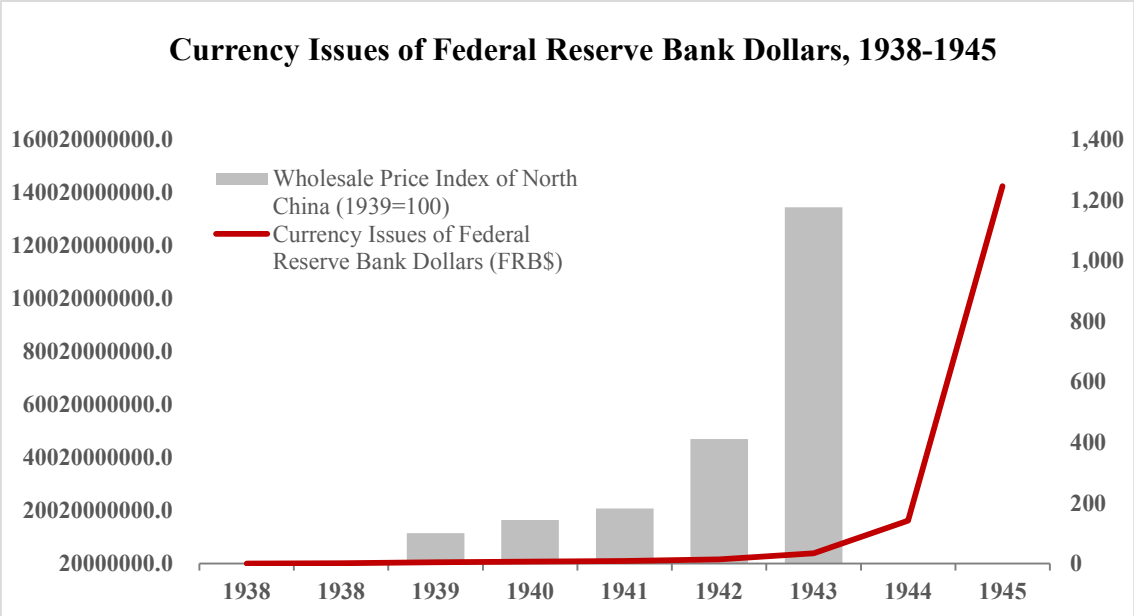


*Figure 6.6* Currency issues of Federal Reserve Bank Dollars, 1938-1945.

*Sources*: Data on currency issues of Federal Reserve Bank Dollars and the wholesale price indices of north China from 1938 to 1945, see P. Yang (1963, p. 56); also see G. Wu (1958, pp. 45-47).

*Notes*: Data on 1933 is the monthly data on March 1933 when the issuance of Federal Reserve Bank Dollars initialed; data on 1944 is the monthly data on October 1944; data on 1945 is the monthly data on October 1945.

Subsequently, after the end of the Second Sino-Japanese War, the National Government was facing a problem of how to deal with the Japanese puppet currencies under the former Wang Jinwei Regime. The Chinese government decided that people had to exchange the Japanese puppet currencies for Fabi mandatorily.[878] As the official exchange rate was lower than the public's expectation, people who had the Japanese puppet currencies went to the market in a rush to buy different products, making the prices higher than before.[879] Figure 6.7 below shows the currency issues of Federal Reserve Bank Dollars in 1945 (from January to October). The currency issuance was FRB$142,399 million in October 1945, which has increased by 618.4% over January 1945.

[878] See J. Zhu (2012, pp. 426-427), Hong (2008, p. 482), ACPBC (1991, pp. 312-320), and P. Yang (1963, pp. 57-58).
[879] See J. Zhu (2012, pp. 426-427), P. Yang (1963, pp. 57-58), and Hong (2008, pp. 481-482).

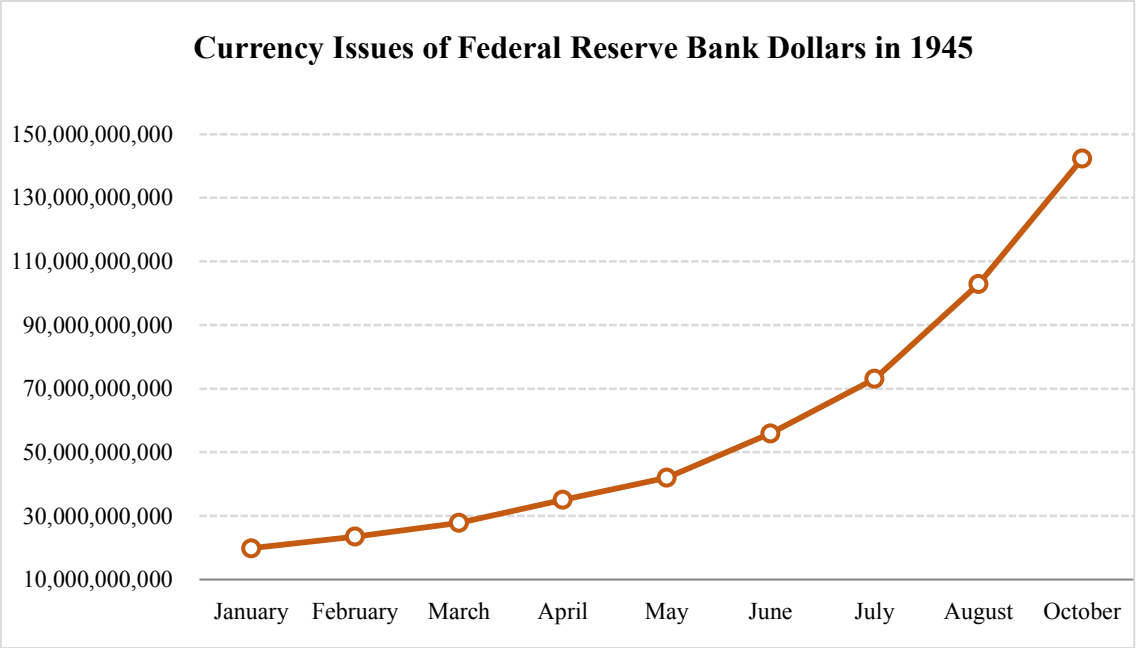


*Figure 6.7* Currency issues of Federal Reserve Bank Dollars in 1945.

*Sources*: Data on the currency issues of Federal Reserve Bank Dollars in 1945 see G. Wu (1958 p. 48) and P. Yang (1963, p. 56).

We argue that abolishing the circulation of the Japanese puppet currencies was indeed a very nationalist action of the Chinese government. However, it seems that the National Government did not consider the public's reaction and did not consider the price inflation caused by the sudden abolishment of the Japanese puppet currencies. It was understandable that some Chinese people were angry about the Japanese occupation and the Japanese puppet Currencies. However, there had also another group of Chinese people who still wanted to use the Japanese puppet currencies in the short run, considering the convenience of their life. Thus, the ideal policy dealing with the Japanese puppet currencies might be announcing that the Japanese puppet currencies would be abolished eventually, but it would still be allowed in circulation with the market exchange rate in the short run.

This policy has the following benefits. In the first place, as the Japanese puppet currencies could be circulated in the short run, people could keep their confidence in the ROC government and the financial system. Second, the circulation of the Japanese puppet currencies in short run could also stabilize the prices as people did not need to buy products rashly and as the ROC government did not need to issue more Fabi when the Japanese puppet currencies was still in circulation. Third, the allowance of using the Japanese puppet currencies could also provide the former Japanese-occupied areas a smooth period of making the economic transition. In the fourth place, the smooth transition of currency would also steadily advance the changes in the spontaneous social order, and people would not be overwhelmed by the sudden changes in the financial system. However, the ROC government did not take smooth measures to gradually and excessively deal with the issues of the Japanese puppet currencies, and ultimately the wrong economic policy promoted monetary expansion and price inflation.

### 6.3.4 Taxation and Public Debt Policies

This section examines if the mismanagement of the taxation and public debt policies also partly caused the price hyperinflation.[880] As the Chinese government did not have enough taxes to pay its deficit, it issued a series of public debt to cover its vast wartime deficit. However, the unstable economic situation made it hard to repay the loan to the public, causing people to lose confidence in the government further.

One view argued that as the Chinese government did not have sufficient taxes, it was impossible to reduce government debt through taxation.[881] We argue that this view is reasonable in some sense. The government had inherited China's traditional concept of keeping taxes low and was willing to levy taxes.[882] This view argues that the Chinese government naively believed that with the support of people, it could overcome economic difficulties. Thus, it did not establish any modern tax system. Moreover, this standpoint argued that the reality was that the Chinese people did not support the government's tax policy during the war because they were busy with dealing with their own difficulties. Judging from the taxation situation already collected by the Chinese government, the tax was based on profit, and the profit was difficult to determine and calculate during the wartime. On the other hand, the view argued that because of the wartime expansionary monetary policy and price inflation, it was difficult to calculate the value of the profit that the government collected. Therefore, this argument claims that the Chinese government had almost no way to compensate for the fiscal deficit through taxation policies during the war.

[880] References of the issue of the government's taxation and deficit see K. Chang (1958, pp. 151-169), Fairbank & Feuerwerker (1986, pp. 741-743), J. Zhu (2012, p. 426), and P. Yang (1963, pp. 120-122).
[881] For more details of the view and reference in this paragraph, see J. Zhu (2012, p. 426) and K. Chang (1963, p. 68).
[882] The traditional Chinese traditional concept of keeping taxes low and not levying taxation is written as a famous saying "輕徭薄賦" in Chinese.

We have doubts about whether the establishment of a modern tax system can solve the debt problem of the National Government. First, the establishment of a taxation system required the support of the majority of people. However, the politicians and specialists of the government did not have the energy to design and publicize the reform of the taxation system during the wartime, as they already had much work to do. [883] Thus, the mobilization of the people to support a new taxation system could not be possible. Compared with the tax system, the mobilization of the ROC government in establishing the central bank system was extensive and robust enough. When the government was establishing the central banking system in the late 1920s, it had sufficient discussion of the central banking issues. It also the foreign monetary experts (i.e., E. Kemmerer and A. Young) to investigate and research the carefully banking issues. Besides, the government also successfully convinced the public and chief bankers to support the new central banking system. To sum, the Chinese government did enough preparation, and promotion of the entire policies of the new central banking system, making the central banking reform happened gradually and steadily. On the contrary, the government did not have specific plans and steps on the reform of the taxation system. Therefore, it is not surprising that the reform of the taxation system was difficult to achieve. Second, the Second Sino-Japanese War and the subsequent Civil War involved most of the energy of the Chinese government. The Chinese government had to couple with the reception and management of the former Japanese-occupied areas and prepare all the work for the implementation of the 1946 Constitution, making the politicians and specialists of the government very difficult to have the time thinking about the reform of taxation system. Therefore, we argue that it was almost impossible for the ROC government to establish a modern taxation system during the

[883] See K. Chang (1958, pp. 151-169), Fairbank & Feuerwerker (1986, pp. 741-743), J. Zhu (2012, p. 426), and P. Yang (1963, pp. 120-122).

wartime. Balancing the deficit through the tax collection was difficult. As the government encountered difficulties in collecting taxes, it had to seek to issue public debt to solve the deficit problem. However, due to monetary expansion and price inflation, the repayment of public debts through Fabi was worthless, which indirectly leads to the public losing their confidence in the government. Thus, we argue that the failed taxation and public debt policies were also one of the reasons why the National Government could not prevent price inflation from happening.

The National Government had a huge debt problem since the victory of the Second Sino-Japanese War in 1945.[884] As we have mentioned before, the Chinese government had to a considerable expense of its military force to resist and exterminate the Communists' expansion and to restore its military force in the former Japanese-occupied areas. In 1946, military spending accounted for 60% of total expenditure. In 1947, it was 55% of total expenditure. Besides the military expansion, the government also spent a lot on its administrative management. As there were so many lost territories were recovered from the Japanese occupation, the government also had to spend a lot to pay the salaries and daily management of the huge government institutions. Figure 6.8 below shows the government deficit conditions from 1946 to the middle of 1948. We have found that the indicators of note issuance, government expenditure, government revenue, and government deficit, were all growing during the Civil War, which also means that the Chinese people and entrepreneurs must bear the negative consequences of monetary expansion and price inflation.

[884] Reference of the data in this paragraph see K. Chang (1958, pp. 71-72).

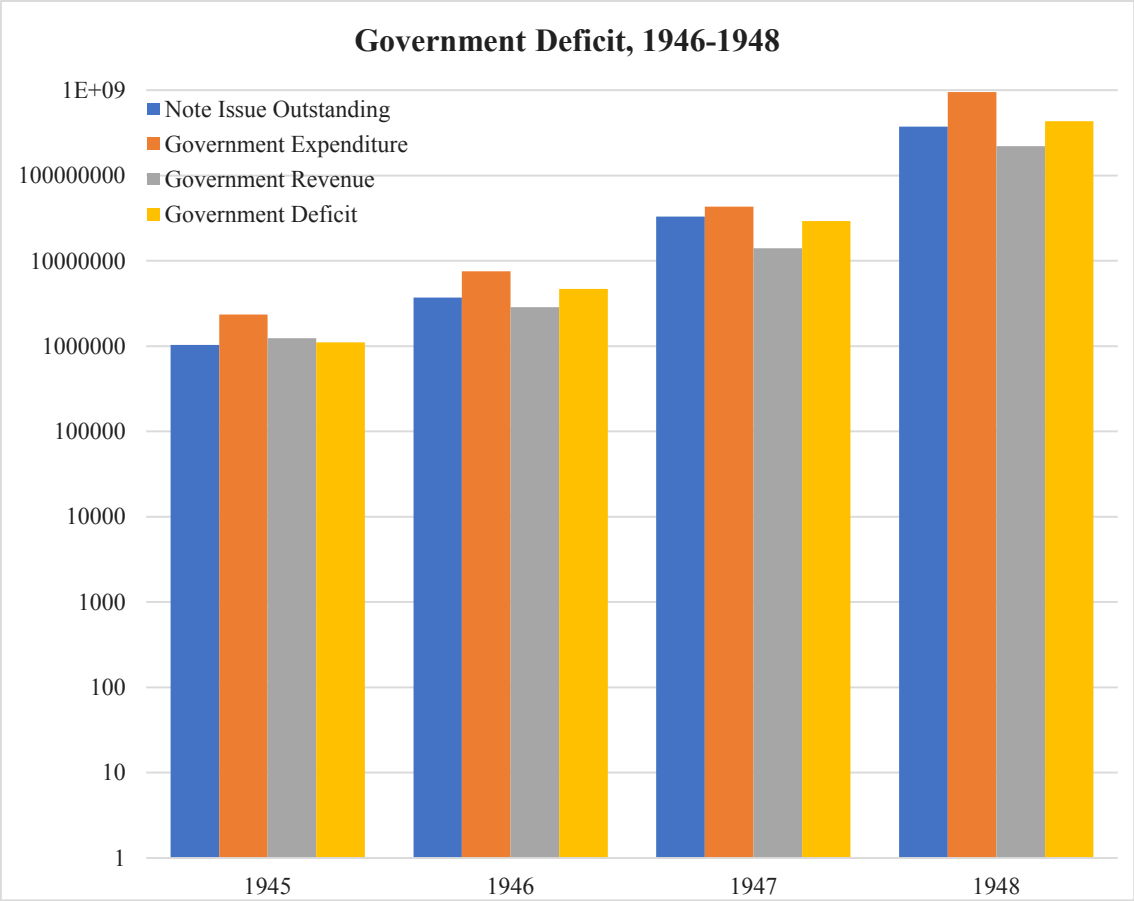


*Figure 6.8* Government deficit, 1946-1948. Figure's currency unit is one million Chinese dollars (C$).

*Sources*: K. Chang (1958, p. 71) and G. Wu (1958, p. 153).

The expenditure of the daily management of all the government institutions could be treated as normal spending. For the rehabilitation and reconstruction, the Chinese government had to expense to restore all the necessary institutions. Though corruption was a problem for the government, there was almost nothing can blame the government using the money in the restoration of the necessary government institutions. However, as we have analyzed before in section 6.2.1, the war between the government and the Communists could be avoided. In this sense, a considerable burden of deficit could be released, and the government could have devoted all its energy in the rehabilitation and reconstruction of the Republic of China meanwhile maintaining the peace with the Communists.

### 6.3.5 Circulation of Uncontrolled Foreign Currency

This section inspects if the circulation of uncontrolled foreign currency had influence on the price hyperinflation.[885] Before the Second Sino-Japanese War, the US dollar had already circulated in Free China. In 1946, the Chinese government opened the foreign exchange market, increasing the dollar's inflow. In addition to the foreign exchange market opening, the price inflation caused by the dollar was mainly due to the following reasons. First, China's industrial development after the Second Sino-Japanese War promoted the influx of dollars and its price inflation. In the postwar era, many products, such as cotton, tobacco, and fuel, had to be imported from the United States. As these products needed to use dollars to calculate prices, accounting profits, and monetary costs, people in China needed to buy US dollars to purchase these products. Second, the Chinese government allowed the United States to station troops in China. Thus, the US military directly used the US dollar making the dollars flow into the market. Third, because the United States implemented expansionary monetary policy

[885] References of this paragraph see P. Yang (1963, p.116), J. Zhu (2012, p. 427), and S. Zhu *et al.* (1947).

during the Second World War and in the postwar era, the US dollar in 1948 was only equivalent to 55 cents in Chinese dollars in 1937. One dollar lost its purchasing power of 45 cents in the past decade, which also promoted the price inflation of the dollar. Fourth, due to the failure of Fabi and its subsequent replacement of the Gold Yuan Notes, the circulated US dollars were at least three times the amount in Free China than during the Second Sino-Japanese War. For example, in Shanghai (China's financial center), with the exception of people using gold for renting houses and shops, the transactions of large-scale goods and the transactions between old trade partners all used US dollars.[886] The circulation of the US dollar in Free China after the Second Sino-Japanese War was more than US$30 million in Guangdong Province and Fujian Province. The national circulation of the US dollar was estimated to be around US$150 million, which were mainly in ports and major cities such as Shanghai and Guangzhou. Thus, our research concludes that the massive circulation of the US dollar also boosted price inflation indirectly causing the collapse of Fabi.

Figure 6.9 below shows Chinese official US dollar exchange rate in 1947. At the beginning of 1947, one dollar was equivalent to C$3,395. In December 1947, one dollar was equivalent to C$83,000. Of course, the US dollar's higher price was not only caused by the large circulation of in Mainland China, but also caused by the depreciation and price hyperinflation of Fabi. However, the above data also tells us after the end of the Second Sino-Japanese War in 1945, the Chinese currency and foreign currency markets were facing a situation of extreme instability and deteriorating price inflation.

[886] More about how people traded goods and dollars, see S. Zhu *et al.* (1947).

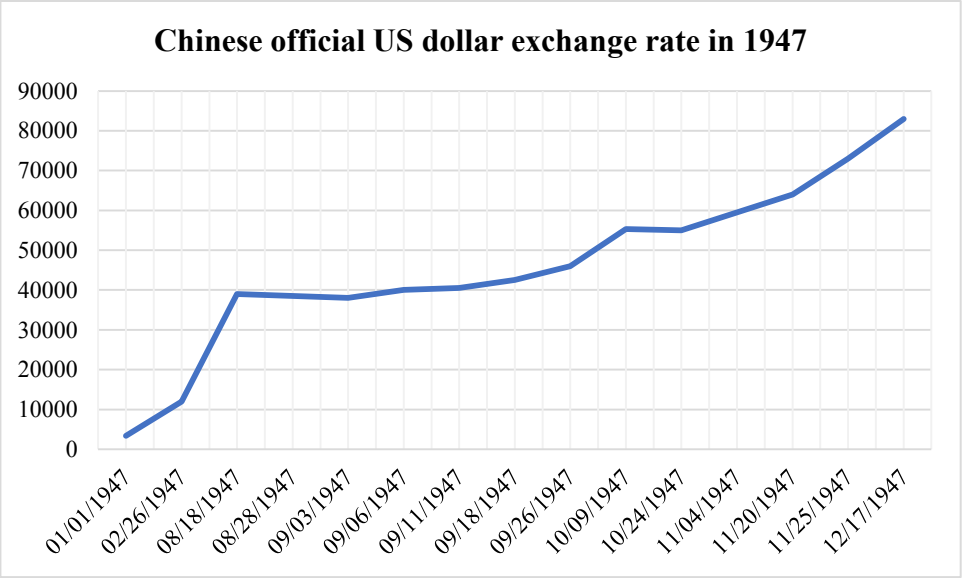


*Figure 6.9* Chinese official dollar exchange rate in 1947. Figure's currency unit is one Chinese dollars (C$).

*Sources*: S. Zhu et al. (1947, p. 6) and K. Chang (1958, pp. 382-383).

Besides, other foreign currencies were also circulating in Free China.[887] There are still 3 million Philippine pesos in circulation in South China after the Second Sino-Japanese War. Likewise, due to the failure of Fabi and the subsequent Gold Yuan Notes, and due to Guangdong Province is adjacent to Hong Kong geographically, the Hong Kong dollar was particularly popular in Guangdong and other provinces in South China after the Second-Sino Japanese War. The issuance of the Hong Kong dollar was HK$280 million in 1945, and it was HK$880 million in April 1949. Before the 1949 Communist Revolution, HK$600 million were circulating in mainland China; Hong Kong dollar accounted for 88% of the circulated currency in South China.

The circulation of foreign currency in China indeed boosted price inflation to some degree. However, we must also note that the widespread use of foreign currency by ordinary people is mostly due to their distrust of Fabi and the price inflation it brought. Therefore, it was the inability of Fabi that led people to use foreign currency to protect their daily lives rather than the circulation of foreign currency caused price inflation and the collapse of Fabi. Moreover, the collapse of Fabi was a result of the ROC government's series of wrong political, economic and military policies.

### 6.3.6 Foreign Reserve Policy and Gold Policy

This section examines if the foreign reserve policy and the gold policy had the influence on the price hyperinflation of Fabi. Our research finds that the wrong exchange rate policy also harmed the instability of the central banking system, and price inflation caused by the wrong exchange rate policy also had a negative contribution to the foreign exchange rate. T. V. Soong, the Premier of the Republic of China (25 Sep. 1930 – 4 Dec. 1930), led the reform of free exchange of foreign currency and gold at

[887] Reference of this paragraph see P. Yang (1963, pp. 116-119),

that time.[888] Soong's initial idea was to alleviate price inflation through opening up the foreign exchange and gold markets. Once the markets of foreign exchange and gold were open, people could use their foreign exchanges and gold to buy Fabi to reduce the pressure of price inflation. Besides, Soong also thought that the opening of the markets could be a way of attracting US investment in China. However, a prerequisite for this policy is that the value of the currency remains relatively stable. In this way, Chinese and foreign investors may form a more optimistic expectation of Fabi, choosing to purchase it through foreign currency and gold. However, if Fabi is in a status of continuous printing, it means that the Fabi is in rapid price inflation, making the value of it depreciated. Under such circumstances, it is not surprising that people were reluctant to buy Fabi through foreign currency and gold. Unfortunately, this is precisely what was happening at the time. Soong's policy was too idealistic. He did not consider the continuing depreciation of Fabi at that time, would not only make the free exchange policy not only helpless to ensure the price deflation of Fabi, but also caused a series of economic and political problems.

On March 4, 1946, the Central Bank officially opened the foreign exchange market. In the beginning, when the foreign exchange market was opened, the exchange rate of Fabi to the US dollar was C$2020 to US$1. Figure 6.10 below shows the prices of US dollar and gold in Chinese dollar Fabi from 1945 to 1948. In the same month, on the black-market, the exchange rate of Fabi to the US dollar was C$2006 to $1. We can find that in the beginning, the exchange rate difference between the official exchange rate and the black-market exchange rate was not monumental. Several factors led to the relatively stable foreign exchange prices at the time.[889] First, the government was negotiating with the Chinese Communist Party. Thus, people were hoping for peace at

[888] References of this paragraph see P. Yang (1963, p. 72), and J. Zhu (2012, pp. 428-429).
[889] See Wen (2011).

that time, which stabilized their confidence in the foreign exchange market and their subjective expectations of prices. Second, because the Civil War did not yet begin during that period, the government's foreign exchange has not been consumed because of war, making foreign exchange abundant, which also stabilized the price of foreign exchange. Third, due to the combination of the foreign exchange market and the trading of gold at that time, foreign exchange and gold together played a role in stabilizing the exchange rate.

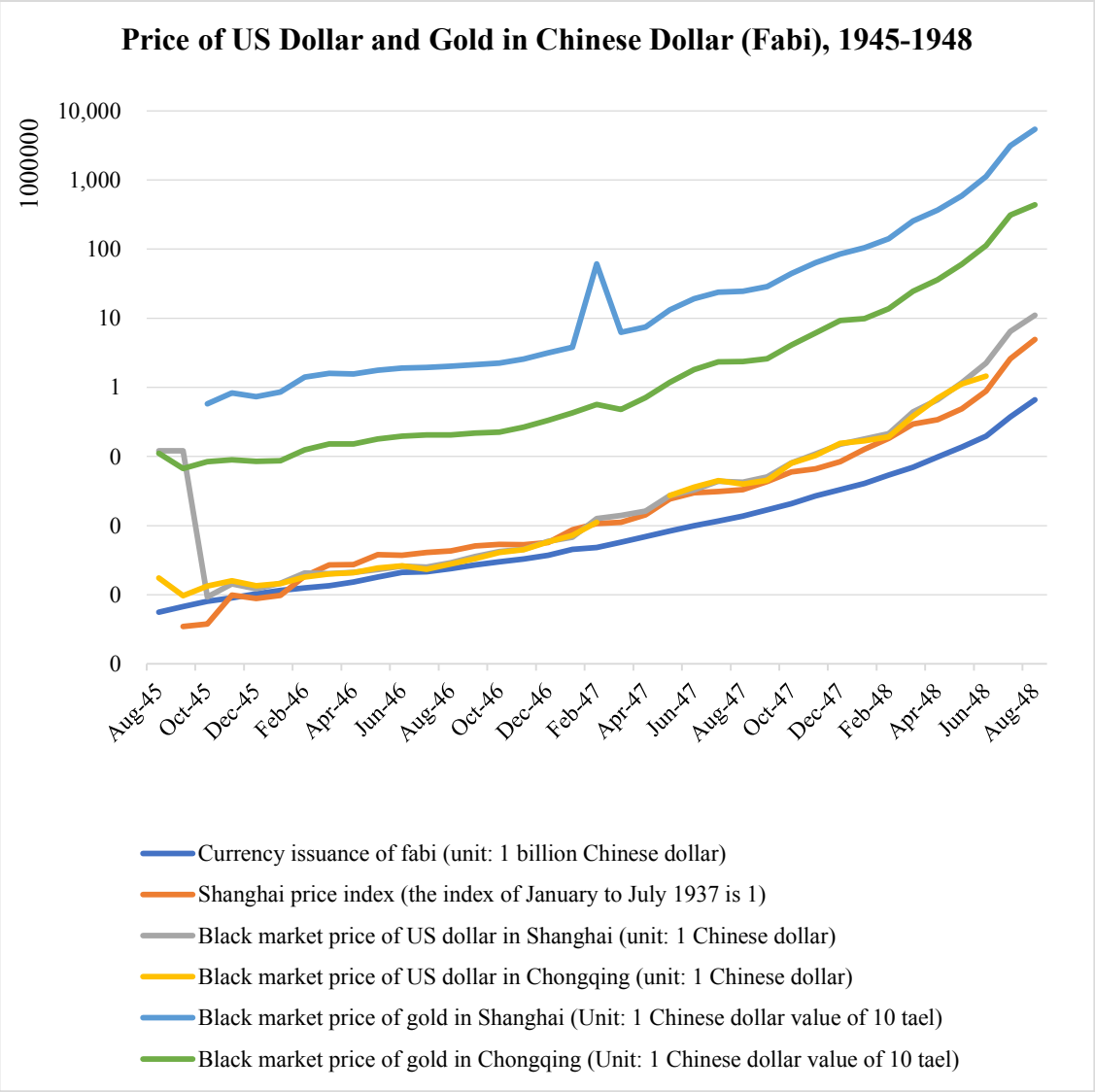


*Figure 6.10* Currency issuance of Fabi, Prices of US dollar and gold in Fabi, 1945-1948, 1945-1948.

*Sources*: G. Wu (1958, pp. 145-146, pp. 149-150), Hong (2008, p. 503), and P. Yang (1963, p. 75, p. 79, p. 83).

However, gradually the prices of the exchange market and the gold market started to rise.[890] As just stated previously, at the beginning of the reform, the price in the foreign exchange market and the gold market was rising gradually. From March to July 1946, the black-market price of the US dollar rose from C$2,022 to C$2,519, an increase of about 25%.[891] The price of the gold market rose from C$1.59 million to C$1.93, an increase of about 21%.[892] As we have analyzed in section 6.3.2.1, in order to pay for the Civil War, the Chinese government issued a large amount of Fabi, and the result was a rapid rise in prices. One of the results of the government's attempt to use the sale of foreign exchange to stabilize prices is the massive consumption of government foreign exchange. However, the government quickly discovered that foreign exchange was being consumed very quickly. The consumption of government's reserve of gold and foreign exchange was very high, and by November 1946 it had consumed foreign exchange of $450 million.[893] The depreciation of Fabi corresponded to the relative scarcity of gold and foreign exchange. Therefore, the prices of gold and foreign exchange markets had also risen. In 1947, gold prices rose dramatically. In February 1947, the average selling price of gold in Shanghai was four times higher than the average price in March 1946. [894] At this time, the government no longer dared to let go of selling gold and foreign exchange, while the rising price of gold and foreign exchange in the black-market began to accelerate. In August 1946, in the black-market, the US dollar was C$2,909, and in February 1947 it was C$12,657, an increase of more than three times. In February 1946, the gold rose from C$2.03 million to C$6.11 million in the same period; the price had risen at least two times.[895] From March 1946 to

[890] See G. Wu (1958, pp. 140-152) and P. Yang (1963, pp. 75-76).
[891] See P. Yang (1963, p. 75).
[892] See P. Yang (1963, p. 75).
[893] See P. Yang (1963, p. 75).
[894] See R. Shen (1985).
[895] See P. Yang (1963, pp. 75-76).

February 1947, the consumption of foreign exchange, gold, and others accounted for 58.41% of the reserve at the end of February 1946, and the consumption of gold at that time accounted for 60% of the original foreign exchange deposit in March 1946, being sold for 3.53 tales.[896] For this reason, the President of the National Government Chiang Kai-shek was angry, and T. V. Soong had to resign, leading Soong to fade out of the political circle of the Republic of China.[897] The panic buying happened In February 1947 in the whole country, especially in Shanghai was called "the panic buying of gold in 1947".

Initially, Soong wanted to use the free exchange of gold and foreign exchange to ease price inflation. However, the problem is that the amount of Fabi issued by the Chinese government had been unable to hedge against the sale of gold and foreign exchange. Similarly, due to the loss of foreign exchange and gold, people lost confidence in Fabi and further sold the amounts of it that they held. Soong's policy was full of contradictions. On one hand, he wanted to be laissez-faire in the gold and foreign exchange markets. On the other hand, he could not control the currency issuance. The result was the failure of his policy of gold and foreign exchange.

### 6.3.7 Insufficiency of Foreign Aids and Marshall Plan on China

This section analyzes whether the lack of foreign aids was also one of the causes of Fabi's price hyperinflation. During the wartime, if the Chinese government had no way to stabilize the value of through its own gold and foreign exchange policies, then gold and foreign exchange aid from Western countries should also be a way to help China stabilize the price value of Fabi. However, unfortunately, because the foreign aid

[896] See R. Shen (1985).
[897] See R. Shen (1985).

of Western countries was not in place in time, the Chinese government did not have the opportunity to use this method to stabilize the value of the Fabi.[898]

In fact, the Chinese government had already obtained a certain degree of US aid during the Second Sino-Japanese War.[899] In 1942, the Chinese government won a US$500 million loan to resist against Japan, including using part of the loan to purchase a US$200 million gold from the US. At the same time, the US army garrison also brought US$321 million to China. Also, after 1947, the United States gave China another US$2 billion to stabilize China's economic situation. At that time, the US's currency assistance to China accounted for more than 50% of the Chinese government's monetary expenditure. The money was finally used by the Chinese government to quell the rebellion of the Communist Party of China.

However, as we have analyzed before, due to the consumption of the Civil War, prices had skyrocketed, and foreign exchange reserves were completely consumed. Thus, the Chinese government was very eager to request economic assistance from the United States.[900] On February 10, 1947, Primer T. V. Soong eagerly stated to the US officials that without further foreign aid, the Chinese economy was likely to collapse within a few months.[901] In 1948, the Chinese government again proposed to the United States a three-year US$1.5 billion loan assistance program.[902] However, in the face of the pressure of the continuous collapse of the government of Republic of China, the US government finally promised the assistance only in the form of physical goods rather than loans as the primary means of assistance.[903] In March,1946 the US Secretary of State George Marshall once expressed that the United States would give China a loan of

[898] See P. Yang (1963, p. 71, pp. 80-82) and J. Zhu (2012, p. 432).
[899] Data of this paragraph see P. Yang (1963, p. 71).
[900] See Hong (2008), World Affairs Press (1957), and P. Yang (1958).
[901] See World Affairs Press (1957, pp. 401-402).
[902] See P. Yang (1958, pp. 81-82).
[903] See P. Yang (1958, pp. 81-82).

US$500 million.[904] However, the loan was delayed until 1948, and the amount of the final physical assistance only accounted for US$463 million.[905]

The US economic assistance did not meet the requirements of the Chinese government; in fact, according to the US statement, after Japan surrendered, they had provided China with US$1.437 billion loans in economic assistance.[906] So, perhaps we need to look at the problem differently: the US might not have met all the Chinese government's request for financial assistance, but in absolute terms, the loans of US$1.437 billion was not insignificant. What we need to doubt is Chiang Kai-shek's ability to manage finance and military talent as the President of the National Government.

The lack of foreign aids was one of the reasons why price inflation could not be controlled at the time. However, if we consider from the perspectives of the United States and other Western countries, it is understandable that they were less willing to assist the Republic of China. The government led by the Chinese Nationalist Party had not had an excellent fiscal and monetary policy disciplines since the Second Sino-Japanese War, which makes the Western countries reluctant to provide more aids to China. Therefore, if the Chiang Kai-shek administration had been able to have stricter discipline over fiscal and monetary policies and formulate a more effective military strategy to calm the Communist rebellion, it would have been reasonable for Western countries to increase their aids. Under such a circumstance, the Chinese government might not even need more foreign aids to settle the Communist rebellion.

### 6.3.8 Economic Regulation Policies

In the previous sections, we have discussed the monetary and fiscal policies issues that led to the price hyperinflation of Fabi. We conclude that the Chinese

[904] See Hong (2008, p. 507).
[905] See Hong (2008, p. 507).
[906] See Hong (2008, p. 507).

Nationalist Government's misguided monetary policies are the most important causes of the price hyperinflation. In this section, we examine the hypothesis if the government's economic regulation policies had the role in the shape of the price hyperinflation.

**6.3.8.1 The stock market policy and its relationship with the price hyperinflation.** The stock market policy and whether it had the relationship with the price hyperinflation is should also be discussed.[907] During the Second Sino-Japanese War, the government did not ban stock trading. However, in the early days after the victory of the resistance against the Japanese, in order to strengthen control over the economy, the Chinese government prohibited stock trading (although in May 1946 and August 1948, the stock exchanges in Shanghai and Tianjin opened separately and the transactions were very active). The initial share capital of the Tianjin Stock Exchange was C$1 billion.[908] However, in August 1948, the government ordered the stock exchanges to close on the grounds of currency reform. Thus, the stock market could no longer play the role of absorbing capital, and all the funds that flowed into the market, foreign exchange market, overseas market, etc., indirectly promoted price inflation.

**6.3.8.2 Price control policy and price hyperinflation.** Another question that needed to answer was what were the conditions of the price control were and whether it partly caused the price hyperinflation.[909] The price inflation in 1946 caused the government to issue a price control in February 1947.[910] Our research finds that some opinions argued that there were two reasons for the failure of price control. One is that the government had a limited ability of the price control of goods. The other is that the government's preemptive measures were only effective in places like Shanghai and

[907] References of this paragraph see J. Zhu (2012, p. 429) and Hong (2008, pp. 523-524).
[908] The original name of Tianjin Stock Exchange in Chinese is "天津證券交易所."
[909] See Fairbank & Feuerwerker (1986, pp. 743-744) and K. Chang (1956, pp. 350-352).
[910] See K. Chang (1956, p. 350).

Nanjing where it had a strong influence.[911] We reckon that when formulating the issuance policy of Fabi, the government should consider that once price inflation accelerates, there is no way to control prices. This is because the government's price control was simply not enough to cover in all areas of the Republic of China, but the currency was easily distributed throughout the while government-controlled areas.

**6.3.8.3 Capital outflow as a role of the formulation of price hyperinflation.** The third question that needed to be answered is what the role of capital outflow was in the formulation of price hyperinflation. Our research finds that due to price inflation and the deterioration of the economic situation, capital outflow such as foreign exchange and gold appeared in large numbers. According to statistics, during the Civil War, the wealth of wealthy Chinese families and government officials in the United States reached US$1 billion to US$2 billion, of which the T. V. Soong family had US$100 million in deposits in the United States and Switzerland. We argue that the Civil War led to a severe capital flight from the stock market, which could have played a role in hedging the price inflation of Fabi if it was still open during the Civil War.

**6.3.8.4 The expansion of demand as an influence on price hyperinflation.** Our research finds that after the Second Sino-Japanese War, people had a great desire to return to normal economic life. However, due to the scarcity of products, people's demand was reflected in the rapid rise in prices.[912] As we have analyzed in the previous sections, the leading cause of price inflation was the government's over-issuance of Fabi. Therefore, the expansion of demand, even if it promoted the rise of prices, was not the main cause of the rising prices.

[911] See Fairbank & Feuerwerker (1986, p. 744).
[912] See J. Zhu (2012, pp. 430-431) and Hong (2008, pp. 492-496).

## 6.4 A Discussion of the Possible Consequences of Fabi's Price Hyperinflation, 1945-1948

After analyzing the causes of Fabi's price hyperinflation, in this section, we synthesize the economic, political and social consequences of Fabi's price hyperinflation from 1945 to 1948. From section 6.4.1 to section 6.4.3, we propose three consequences of what the institutional consequences of the collapse of the Fabi were from 1945 to 1948. These sections respectively discuss how the Fabi's price hyperinflation caused the destruction of entrepreneurial production, people's lives, and social orders.

### 6.4.1 Destruction of Entrepreneurial Production

This section analyses how Fabi's monetary expansion and price hyperinflation destroyed entrepreneurial production. Section 6.4.1.1 discusses the cost of the wages increases paid to the workers. Section 6.4.1.2 demonstrates the taxation on entrepreneurs. Section 6.4.1.3 is on cronyism, destructive entrepreneurship, and unfair high interest rates credits for the entrepreneurs without the official relationships. Section 6.4.1.4 illustrates the relationship between overproduction and entrepreneurial loss that cost by Fabi's monetary expansion and price hyperinflation.

**6.4.1.1 The increase of the cost of the wages paid to the workers.** Our analysis finds that the price hyperinflation caused an increase in workers' wages which increased the cost of entrepreneurs.[913] Before the Second Sino-Japanese War, the government had various means to destroy the strikes. However, after the war, as the government's control was weakened, it had no ability to destroy the strikes. Therefore, in the postwar era, the government had to allow workers to adjust and raise their wages automatically. In April 1946, the government announced this policy. Subsequently, the

[913] References of this paragraph see Fairbank & Feuerwerker (1986, p. 742).

rise in wages of workers led to an increase in the cost of entrepreneurs, which harmed the interests of entrepreneurs and caused the dissatisfaction among them.[914] One example was the decline in the purchasing power of Shanghai workers' salaries in 1948. If we treat the first year of statistics of the price index is 1936, the price index of Shanghai in July 1948 rose 4.06 million times, while the living expenses index of the labors of Shanghai only rose 1.62 million times, having a difference of 150.2%.[915] The price of rice was about C$40 million in the first half of August 1948; however, the price of rice rose to more than C$60 million in the second half of August 1948.[916] The rising cost of living for ordinary people was partly passed on to the entrepreneurs who hired them.

**6.4.1.2 The taxation on entrepreneurs.** In section 6.3.4, we have analyzed that the price hyperinflation led the government to increase spending by increasing taxes to entrepreneurs, which has also distorted entrepreneurship.[917] The government's tax policy did not treat entrepreneurs equally. It increased taxes for some entrepreneurs and did not increase taxes for some speculators, which led to the taxed entrepreneurs having less incentives to produce.[918] Besides, what we need to point out here is that if it were not the government's chaotic economic policy and expansionary monetary policy, speculators would not have the opportunity. Therefore, instead of condemning speculators, it is better to condemn the fact that the government's expansionary monetary policy caused speculation. Because as long as there is bad economic policy from the government, speculators will always exist.

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[914] References of this paragraph see Fairbank & Feuerwerker (1986, pp. 742-743), P. Yang (1963, pp. 137-140), D. Wu (1958, pp. 33-36), Kuang (1948), and Hong (2008, pp. 521-522, pp. 526-627).
[915] See Kuang (1948).
[916] See Kuang (1948).
[917] References of this paragraph see Fairbank & Feuerwerker (1986, p. 742), C. X. Wu *et al*. (1948, p.12), and P. Yang (1963, p. 153).
[918] For more about the relationship between taxation and speculation, see Fairbank & Feuerwerker (1986, p. 743). For more about the speculation issues, see Hong (2008, pp. 511-514).

**6.4.1.3 Cronyism, destructive entrepreneurship, and unfair and high interest rates credits for the entrepreneurs without the official relationships.** The price hyperinflation led to the emergence of cronyism, leading to the emergence of destructive entrepreneurship and the unfair credits for the entrepreneurs without official relationships.[919] Government officials and their entrepreneurial partners colluded to get foreign exchange, import goods, and get the other benefits that ordinary people in business could not get. One case of how politicians get benefit from the collusion was shown in section 6.3.8.3.

In the management of foreign exchange, after the victory of the Second Sino-Japanese War, enterprises that traded on the black-market were hit by the government.[920] The government provided relatively sufficient foreign exchanges for the state-owned enterprises and the private entrepreneurs with whom the government had close ties and calculated foreign exchange at official rates, while private entrepreneurs who were not closely related to the government were refused to fully satisfy their foreign exchange.[921]

In the issue of the discriminated credit policy, one example was the nepotism between the government and the rice merchants who were closely related to it.[922] In 1946, the government loaned to rice merchants, who engaged in speculative activities

[919] Due to K. Foss and N. Foss (2002), "entrepreneurship may be socially harmful if it takes the form of rent-seeking, attempts to influence governments (or management) to redistribute income in a way that consumes resources and brings about a social loss", which can be referred to the destructive entrepreneurship. We argue that during the Civil War, the behaviors of the entrepreneurs who colluded with the government can be called destructive entrepreneurship. Some viewpoints (Huerta de Soto, 2006, pp. 421-423) argue that the credit expansion of the central bank will cause entrepreneurs to misjudge market price signals, thereby distorting entrepreneurship. Also, in one study, W. H. Wang and Caramés (2019) point out how the traditional philosophy of Laozi can help entrepreneurs avoid destructive entrepreneurship. However, clearly during that time, when some of the Chinese entrepreneurs and politicians colluded, the traditional business ethics were lost.

[920] References of this paragraph see Fairbank & Feuerwerker (1986, p. 743), P. Yang (1963, pp. 145-157; 1948, p.154), and Hong (2008, pp. 496-500).

[921] See P. Yang (1948, p.154).

[922] References of the discriminatory credit policy see Fairbank & Feuerwerker (1986, p. 742), Hong (2008, pp. 511-514), P. Yang (1946, pp. 66-70; 1948, pp. 88-102; 1963, pp. 68-70, p. 146).

leading to the increase of price.[923] In addition, the interest rate manipulated by the government on private enterprises loans was also not fair. As early as during the Second Sino-Japanese War, the ROC government implemented an unfair credit policy for the ordinary entrepreneurs and implemented preferential policies for the state-owned economy on the number of loans and interest rates, which discriminated against private entrepreneurs on credit policies.[924] According to data from March 1941, the Central Bank, Bank of China, Bank of Communications, and the Farmers Bank provided C$186 million loans to state-owned enterprises, while the loans to the private economy amounted to only C$67 million.[925] The annual interest rate was about 10% and in terms of price, had increased dozens of times. Through this, the ROC government was actually subsidizing the state-owned enterprises by providing low-interest loans, making the state-owned enterprises having the absolute advantage against the private economy.[926] During the Civil War since 1945, the government continued this discriminatory policy. The loan interest rate obtained by the private sectors was calculated according to the market and the black-market price was much higher than the official interest rate provided by the government to the state-owned economy.[927]

**6.4.1.4 Overproduction and entrepreneurial loss.** The price hyperinflation also led to excessive production and the loss of entrepreneurs.[928] In the early days of Fabi's price inflation, some enterprises were even experiencing profit.[929] However, with the progress of monetary expansion and price inflation, especially during the Civil War,

[923] See Fairbank & Feuerwerker (1986, p. 742).
[924] See Zong (1943, p. 263), P. Yang (1946, p. 69; 1948, p. 92; 1963, pp. 148-149).
[925] See Zong (1943, p. 263) and P. Yang, (1963, pp. 148-149).
[926] See Zong (1943, p. 263) and P. Yang, (1963, pp. 148-149).
[927] See P. Yang (1948, p. 92; 1963, p. 150). For data on the difference between the official interest rate and the black-market interest, see K. Chang (1958, p. 375).
[928] References of this paragraph see P. Yang (1946, pp.81-83; 1963, p. 146) and Z. Zou (1943). About the theory of entrepreneurial loss and entrepreneurship, see Kirzner (1997) and Harper (2003).
[929] See P. Yang (1963, p. 146).

enterprises experienced excessive production and losses.[930] Despite the lack of specific and comprehensive statistics, evidence shows that the price inflation after 1944 led to a decline in the purchasing power of all the classes of society, followed by a decline in prices and a decline in the production of the consumption goods.[931] Moreover, the previous price inflation led to overproduction of factories and enterprises. As the purchasing power of people declined, the goods at this time also became unsalable, the production of machine manufacturing was also reduced.[932]

### 6.4.2 Destruction of Ordinary People's Life

The monetary expansion and price hyperinflation of Fabi resulted in a decline in the value of government bonds that people held, a decline in the value of savings, and a malignant decline in the purchasing power of money and the decline of the quality of people's life. Each sub-section of section 6.4.2 deals with one of the above topics respectively.

**6.4.2.1 A decline in the value of government bonds the people held.** We find that the government's expansionary monetary policy and price hyperinflation also led to a decline in the value of government bonds purchased by the public, which caused public dissatisfaction.[933] As of 1946, the government issued public debt of C$9.558 billion (excluding the British pounds, US dollars, and customs bonds).[934] After the victory of the Second Sino-Japanese War, due to price hyperinflation caused by expansionary monetary policy, people asked the Chinese government to repay 1,000

[930] See P. Yang (1963, p. 146).
[931] See P. Yang (1963, p. 146).
[932] See P. Yang (1963, p. 146). The Austrian Economics school argues that the loss of entrepreneurs is caused by the central banking system-generated business cycle (Garrison, 2000). For an analysis of the Austrian School perspective on the business cycle problems caused by Mainland China's central banking system in recent years, refer to W. Wang and Vegas (2017).
[933] References of this paragraph see P. Yang (1963, pp.122-126, p. 145), Fairbank & Feuerwerker (1986, p. 743), and Qian (1984, pp. 338-365).
[934] See P. Yang (1963, p. 145).

times the amount of the original public debt.[935] However, in July 1946, the government decided to pay the public debt according to the ratio of one to one.[936] This policy caused a massive loss for the people who had bought the public debt, causing their distrust and dissatisfaction with the government.[937]

**6.4.2.2 A decline in the value of savings.** The Chinese government's expansionary monetary policy also led to a decline in the value of savings.[938] After the beginning of the Second Sino-Japanese War in 1937, the Chinese government restricted the withdrawal of deposits.[939] Therefore, during the war of resistance, hundreds of millions of depositors could not withdrawal their more than one million value deposits.[940] In 1947, the price of the government's ruling area rose by more than 100,000 times, and the government only allowed the amount of savings to be repaid 700 to 1700 times the original value of the savings.[941] Ironically, after controlling the Mainland China in 1949, in 1953, the Communist regime compensated the people for their deposits losses to some degree.[942]

**6.4.2.3 Malignant decline in the purchasing power of money and the decline of the quality of people's life.** Due to our research, we find that the price hyperinflation also caused the malignant decline in the purchasing power of money and the decline of quality of people's life. Figure 6.11 and Figure 6.12 below show how the living standard of the labor class also significantly declined due to price hyperinflation.[943] One example was the decline in the purchasing power of Shanghai

[935] See P. Yang (1963, p. 145).
[936] See P. Yang (1963, p. 145).
[937] See P. Yang (1963, p. 145).
[938] References of this paragraph see Fairbank & Feuerwerker (1986, pp. 742-743), P. Yang (1963, pp. 145-146), China Finance (1953), and Hong (2008, p. 491).
[939] See P. Yang (1963, p. 145).
[940] See P. Yang (1963, p. 145).
[941] See P. Yang (1963, p. 145).
[942] See China Finance (1953) and P. Yang (1963, p. 145).
[943] References of this paragraph see Fairbank & Feuerwerker (1986, pp. 742-743), P. Yang (1963, pp. 137-140), D. Wu (1958, pp. 33-36), Kuang (1948), and Hong (2008, pp. 521-522, pp. 526-627).

workers' salaries in 1948. If we treat the first year of statistics of the price index is 1936, the price index of Shanghai in July 1948 rose to 4.06 million times, while the living expenses index of Shanghai's workers only rose to 1.62 million times, having a difference of 150.2%.[944] The price of rice was about C$40 million in the first half of August 1948; however, the price of rice rose to more than C$60 million in the second half of August 1948, making the actual purchasing power of workers' wages drop by a third.[945] And all this occurred in just half a month![946]

Thus, workers were living in a miserable situation. First, they lacked nepotism in the government; hence there was no way for them to gain privileges. Therefore, it was not possible for them to get any help from the government to avoid the loss from the price hyperinflation. Second, due to the low social status of the workers, it was also difficult for them to adopt various resources and took measures to preserve their wealth during the period of the price hyperinflation. Third, and perhaps the most important, is that Chinese workers at the time did not understand price inflation from the perspective of economic theory, which made it difficult for them to use scientific theory to guide themselves to find ways to circumvent price hyperinflation.

[944] See Kuang (1948).
[945] See Kuang (1948).
[946] See Kuang (1948).

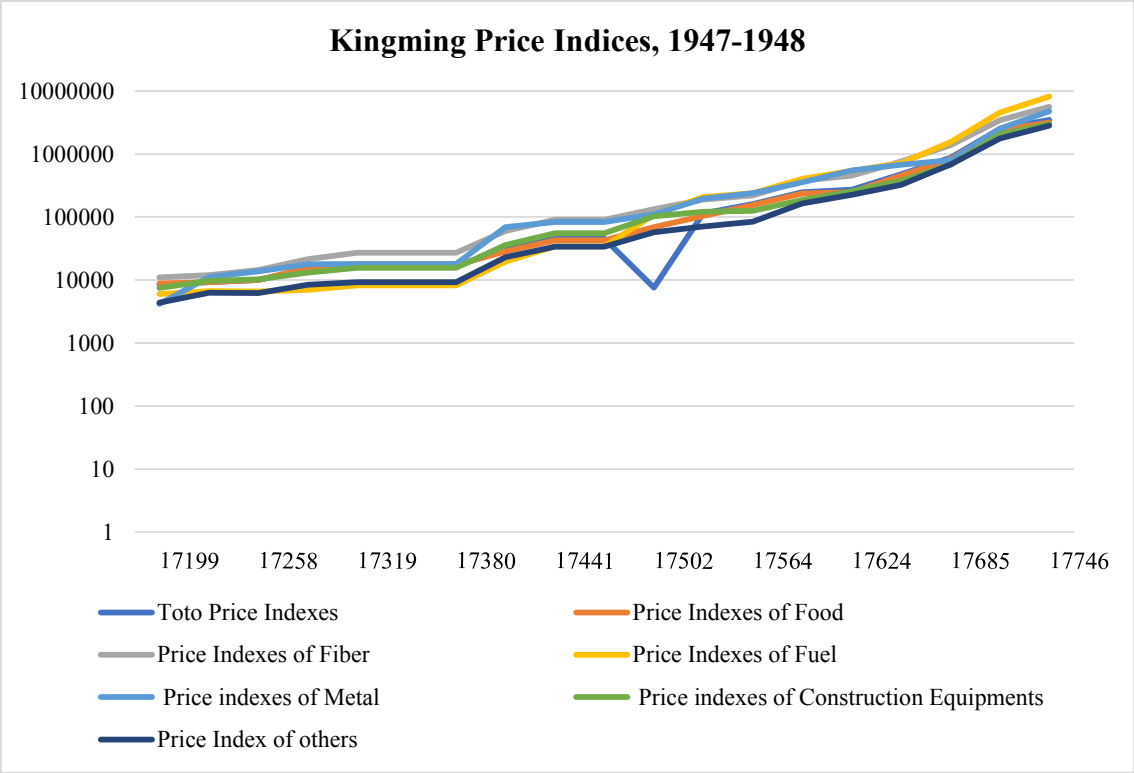
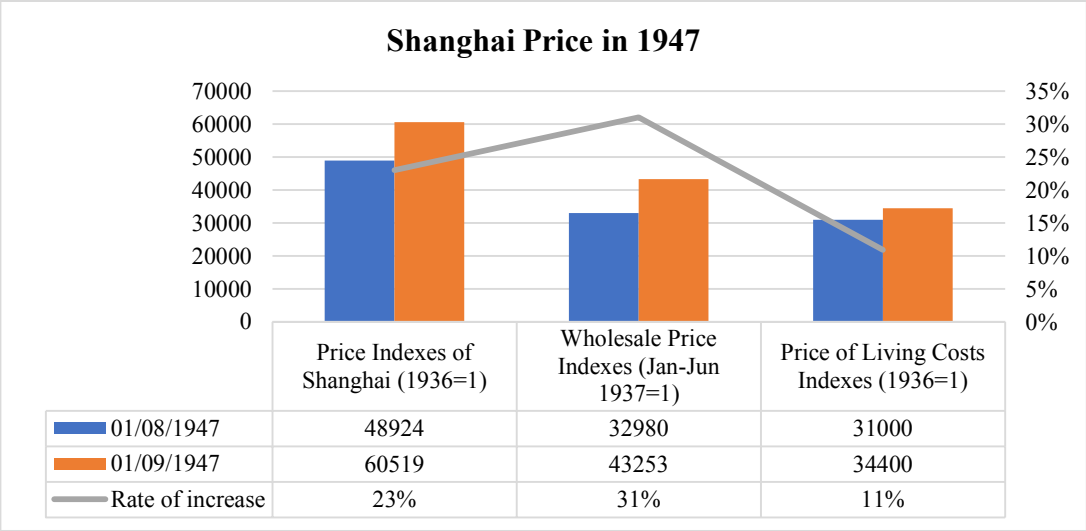



*Figure 6.11* Kingming price indices, 1947-1948.

*Sources*: G. Wu (1958, pp.186-188) and Central Bank Economic Research Division (1949).

*Notes*: All data (Jan-July 1937=1) has been evaluated by logarithms in the figure.




| | Price Indexes of Shanghai (1936=1) | Wholesale Price Indexes (Jan-Jun 1937=1) | Price of Living Costs Indexes (1936=1) |
|---|---|---|---|
| 01/08/1947 | 48924 | 32980 | 31000 |
| 01/09/1947 | 60519 | 43253 | 34400 |
| Rate of increase | 23% | 31% | 11% |

*Figure 6.12* Shanghai price in 1947.

*Sources*: P. Yang (1963, p.139) and Kuang (1948).

The decreased purchasing power of money then caused the decline of the living standard of the public servants, the personnel of the public universities, and the students who were dependent on their family members working in the public sectors.[947] Although these people work for the government, they could not benefit from the corrupted cronyism system.[948] The following are examples of the difficult life of intellectuals during this period.[949] At that time, Wen Yiduo, a well-known professor at Kunming University in China, had to make a fake official stamp to make fake certificates obtaining subsidy income.[950] Du Su, a senior professor of economics at the University of Guilin, who had been teaching for many years, committed suicide in 1948, leaving behind his wife and three daughters.[951] The experience of these public servants and the intellectuals of public universities is equally worthy of sympathy. Just like the public servants of other countries, these Chinese public servants perhaps just wanted to have a stable income. Thus, they might have never dreamed that the policies of the government led by the Nationalist Party, which promised to bring them a good livelihood, actually not only did not bring them a stable life but also destroyed their livelihood through expansionary monetary policy. However, human actions are full of uncertainty. If these public servants realized that their jobs in the government jobs were also uncertain, especially during the wartime, they might have prepared more sufficiently to deal with such situations.

**6.4.2.4 A decline of the purchasing power of farmers.** The extreme monetary expansion and price hyperinflation also caused the decline of the purchasing power of

[947] Reference of this paragraph see Fairbank & Feuerwerker (1986, pp. 742-743) and P. Yang (1963, p. 145).
[948] See P. Yang (1963, p. 145).
[949] See P. Yang (1963, p. 144).
[950] For more about Wen Yiduo and his intellectual activities with other scholars in the 1940s, see Mazur (1993).
[951] The original name of Du Su in Chinese is "杜肅."

farmers.[952] The prices of various industrial products were increasing much quicker than the increase in the prices of agricultural products. This phenomenon means that the farmers' actual money income and purchasing power money were declining. This situation lasted from the period of the Second Sino-Japanese War to the time after the war. Whether it was before and after the war, the prices of agricultural products were always lower than the prices of industrial products. The price difference between agricultural products and industrial products was around three times before the war and after.[953] As the price hyperinflation reduced the purchasing power of urban populations, the output of agricultural products was also decreasing (see Figure 13 in the appendix of this chapter). The yield of tea in 1946 was 82% lower than the average yield of it from 1933 to 1937.[954] The yield of eggs was reduced by 6.7% in 1946 compared to 1936.[955] The price of tung oil in 1946 was only 50% of it before the Second Sino-Japanese War.[956] We argue that because of the inconvenient transportation and communication conditions in rural China at the time, farmers lacked information and knowledge to avoid price inflation. Therefore, the situation of the peasants was also very tragic. Moreover, because of the decline in farmers' purchasing power, it was difficult for them to purchase industrial products for consumption. Therefore, the price hyperinflation not only caused the fall of peasants' monetary income but caused that the industrial producers lost the purchase of the farmers worsening the general economic situation.

[952] Reference of this paragraph see G. Wu (1958, pp. 174-179), Hong (2008, pp. 527-528), P. Yang (1963, pp. 140-141), and X. Fang (1948).
[953] See G. Wu (1958, pp. 174-179) and P. Yang (1963, p. 140).
[954] See X. Fang (1948).
[955] See X. Fang (1948).
[956] See X. Fang (1948).

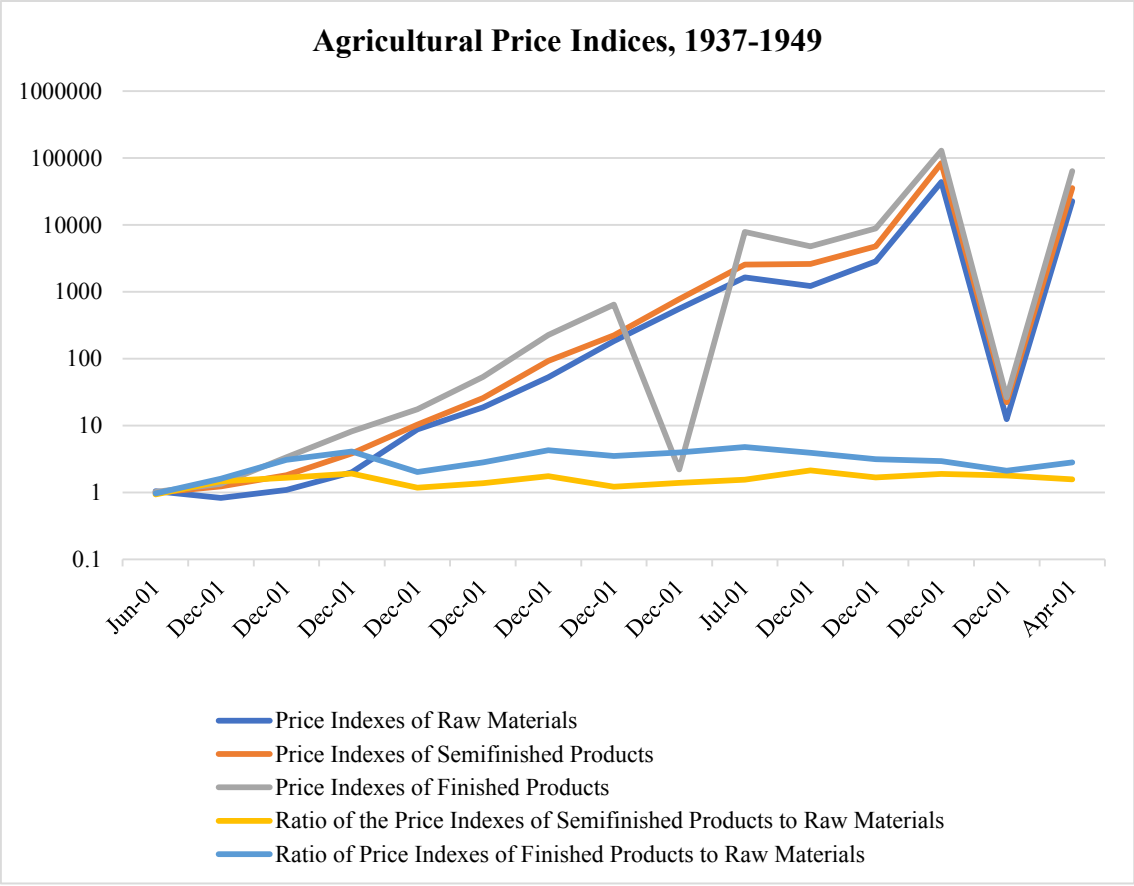



*Figure 6.13* Agricultural price indices, 1937-1949.

*Sources*: P. Yang (1963, p. 141) and D. Wu (1945, pp. 34-35).

*Notes*: All data has been evaluated by logarithms in the figure. The currency standard of 1948 was changed from Fabi to the New Gold Yuan Notes in the figure.

### 6.4.3 Destruction of Social Orders

The monetary expansion and price hyperinflation of Fabi resulted in the destruction of social orders. Each sub-section of section 6.4.3 deals with one of the above topics, respectively.

**6.4.3.1 The strikes of workers.** Our research find that the price hyperinflation led to a decline in the living standards of workers, which in turn caused strikes. The strikes of workers then interrupted the regular production of enterprises and factories, negatively interrupting entrepreneurship and production orders. Thus, the supply of products was reduced by the strikes. Compared to the situations before the Civil War, the situation of strikes after 1945 was more severe.[957] In 1936, before the Japanese invasion, the total number of strikes recorded nationwide was 278.[958] In 1946, the number of incidents involving strikes and labor disputes in Shanghai reached 1,716.[959] By 1947, the number reached 2,538.[960] Evidence supported the government's accusation that the Communist infiltrated the workers' strike.[961] However, if the government did not implement such an expansionary monetary policy, it would not have such a significant negative impact on the normal life of workers and the production of enterprises and factories.

**6.4.3.2 The protests of students and intellectuals.** We also find that due to the deterioration of the economic situation caused by the price hyperinflation, students and professors broke out in large-scale demonstrations, in particular, the demonstrations of anti-hunger and anti-warfare, the requiring of military spending cuts and increasing government education budgets in the spring of 1947. The deterioration of the economic

[957] Reference of the strikes of the labors during the Civil War, see Fairbank & Feuerwerker (1986, p. 742), and C. Liu (1951).
[958] See Fairbank & Feuerwerker (1986, p. 742).
[959] See Fairbank & Feuerwerker (1986, p. 742).
[960] See Fairbank & Feuerwerker (1986, p. 742).
[961] See Fairbank & Feuerwerker (1986, p. 742) and C. Liu (1951).

situation made it impossible to carry out activities related to education, which led to these demonstrations by students and professors, disrupting negatively the social order of education. After we finish the analysis of the process and the consequences of Fabi's extreme monetary expansion and price hyperinflation, in the next section (section 6.5), we demonstrate the process of Gold Yuan Notes' price hyperinflation.

## 6.5 Process of Gold Yuan Notes' Price Hyperinflation, 1948-1949

This section demonstrates the process of Gold Yuan Note's price hyperinflation from 1948 to 1949. Section 6.5.1 is about the background of the issuance of Gold Yuan Notes. Section 6.5.2 to section 6.5.6 analyze the process and reasons of Gold Yuan Notes' price hyperinflation in details.

### 6.5.1 Background of the Issuance of Gold Yuan Notes

Our research has found that there are three essential factors of the background of the issuance of the Gold Yuan Notes. The first is the price control reform in February 1947. The second is the panic buying of gold in 1947. The third is the currency reform decision of the President of the Republic of China Qiang Kai-shek. Each sub-section in section 6.5.1 deals with one of the above topics, respectively.

**6.5.1.1 The price control reform in February 1947.** In section 6.2.2.3, section 6.3.2.4, and section 6.3.8.2, we already demonstrated the process and institutional consequences of price control. We have pointed out that the failure of price control was one of the original intentions of the soaring prices. What we need to emphasize in this section is that price control reform was the most significant economic reform of the government before the 1948 Golden Yuan Notes reform.[962] However, considering the background of the government's gradual failure in the Civil War and the failed price control reform, little space remained for the government to curb the errors

[962] For more about the price control, see Fairbank & Feuerwerker (1986, pp. 743-744), K. Chang (1958, pp. 72-730), J. Li & F. Xu, and J. Zhu (2012, p. 431).

of any further economic and monetary reform. Therefore, every step of the government's next reform must be cautious, and a slight carelessness in the new reform will lead to a total loss.

**6.5.1.2 The panic buying of gold in 1947.** In section 6.3.6, we have demonstrated the process and the institutional consequence of the panic buying of gold in 1947. We have demonstrated that the wrong gold policy and the panic buying of gold were the reasons of Fabi's price hyperinflation, making people distrust the Nationalist Government more. Therefore, in light of the shaken public support, any subsequent monetary reform would become a critical factor in the success of the government and Free China.

**6.5.1.3 The reform decision of President Qiang Kai-shek and the Chinese government.** As the previous analysis of this chapter has revealed, China's economic situation in 1948 was in a chaotic situation: price hyperinflation could not be restrained, and misguided economic policies accelerated the occurrence of price hyperinflation. In order to solve the price inflation problem, the Chinese government proposed a reform plan to solve it.[963] This plan is divided into three parts. In the first part, the plan argued that in the case of the continuation of the Civil War, to stabilize the economic, political, and military situations, the monetary system should not be radically reformed. Thus, Fabi should be retained. In the second part, the plan believed that although Fabi was in a state of price hyperinflation, as long as supplementary measures were taken, the current economic situation could be maintained, and the situation would not be deteriorated further. In the third part, given the disparity in government revenues and expenditures, the project planned that on the basis of not changing Fabi's status quo as the legal currency standard, the government could issue a particular currency being used for

[963] References of this reform plan in this paragraph, see Y. Huang (1985), Weng (1960), and J. Zhu (2012, pp. 432-433).

trading foreign exchange and paying taxes. Further, the plan argued that the special currency should not circulate in the market like the function of Customs Gold Unit issued before the Second Sino-Japanese War.[964]

This approach was a very smooth and gradual monetary reform program. However, this program did not seem to have received the support of senior government officials. Senior government officials, especially President Qiang Kai-shek, were more inclined to more radical monetary reforms.[965] With the support of the Premier (May 24, 1948 - November 26, 1948) Weng Wenhao and the Minister of Finance (June 1, 1948 - November 15, 1948) Wang Yun-wu, this program was denied. In May and June of 1948, just after the sworn of President Chiang Kai-shek, the first democratically elected President of the Republic of China (through the National Assembly which was elected directly by all the Chinese voters), who was also the first and only President elected democratically in the whole China in history, vetoed this plan and decided to abolish Fabi issuing a new currency, which is called the Gold Yuan Notes.

For the Chinese government and President Chiang Kai-shek, there were three reasons to cancel Fabi and issue the Gold Yuan Notes.[966] The first reason was that the government's financial pressure was immense. Thus, it was a possible option to ease the government's fiscal pressure by issuing a new currency standard. The second reason was that the government needed to reclaim the gold of the private sectors (that scattered among ordinary people in 1947) to increase control over the financial system. The third reason was to rebuild the government credit through gold and the convertible new currency standard. These reasons seemed to have some cogency. However, some

[964] The original name of Customs Gold Unit in Chinese is "關金券." For more about the Customs Gold Unit, see section 4.4.1.1 of Chapter 4.
[965] Reference of this plan and of this paragraph, see Y. Huang (1965), J. Zhu (2012, pp. 432-433), and K. Chang (1958, p. 79).
[966] Reference of the reasons why the Chinese government abolished Fabi and issued the Gold Yuan in this paragraph, see Y. Huang (1985), and Weng (1960), S. D. Cheng (1948), J. Zhu (2012, p. 433), and Hong (2008, pp. 529-532).

officials such as Chang Kia-Ngau and Huang Yuanbin warned that the newly issued Gold Yuan standard would inevitably lead to an uncontrollable situation of price inflation.[967] In addition, we argue that taking into account the government's inconsistent economic and monetary policies and lack of execution of its own policies, it is not a strange thing if the new monetary standard could not be fully implemented or even fail.

On August 19, 1948, the Presidential Decree *Financial and Economic Emergency Policy and Order* announced the new monetary standard reform.[968] The Decree declared the implementation of the Gold Yuan standard and promulgated a series of rules to support the new currency standard of supporting laws and regulations.[969] On the same day, the Chinese government issued *Measures for the Issuance of Gold Yuan Notes*, which stipulated specific rules for the Gold Yuan standard.[970] The main contents of the decree were recorded as follows:

> The unit of value was defined as 0.2217 centigram of pure gold, to be represented by a note known as the Gold Yuan. The new notes exchanged at the rate of GY 1 to CNC $3,000,000. A 40 per cent reserve of gold, silver, and foreign exchange was to be maintained against the note issue, which was limited by law to 200,000,000 Gold Yuan equivalents of the levels obtaining on August 19 and could not be altered without the approval of the government authorities. The possession of gold, silver, or foreign exchange was prohibited, and all private holdings were to be surrendered in return for Gold Yuan notes. (Chang, 1958, pp. 79-80).

[967] See Hong (2008, p. 532), Y. Huang (1985), and K. Chang (1958, p.79).
[968] The original name of the decree in Chinese is "財政經濟緊急處分令."
[969]The original name of the Measures in Chinese is "金圓券發行辦法." For more about this Presidential Decree, see T. Song (1948), S. D. Cheng (1948), ACPBC (1991, p. 574), and Hong (2008, p.532).
[970] For more about *the Measures*, see S. D. Cheng (1948), ACPBC (1991, pp. 574-576), K. Chang (1958, pp. 79-80), Hong (2005, pp. 1279-1281), and Hong (2008, p. 532-533).

According to the above series of regulations, the government began to issue new Gold Yuan Notes to replace Fabi. However, history tells us that the new monetary policy ultimately failed for various reasons. In the following sections, we will analyze the reasons and process of the Gold Yuan's price hyperinflation and failure.

### 6.5.2 Unconstrained Currency Circulation

Another issues which should be inspected is the relationship between the unconstrained currency circulation of Gold Yuan Notes and its price hyperinflation. In response to paying the expense of the Civil War, the issued amounts of Gold Yuan Notes had exceeded the promised initially amounts GY$2 billion, which is one of the reasons for the continued acceleration of the monetary expansion and price hyperinflation and the failure of this new currency.[971] Figure 6.14 below shows the issuance of Gold Yuan Notes and Shanghai price index from August 1948 to May 1949. As the government had no other method to pay the expense of the Civil War, the original quota of GY$2 billion was also cancelled and the government started to printing more Gold Yuan Notes to pay the war expense after the enactment of the decree of *the Amended Measures for the Issuance of Gold Yuan Notes*.[972] Since then, the amounts of the issued Gold Yuan Notes started to increase rapidly. In November 1948, the issued amount of it was GY$3.39 billion, and in April 1949 it was GY$679.456 billion.[973] From August 1948 to the Fall of Shanghai in May 1949, the issuance of the Gold Yuan Notes has increased by more than 19,9423%. After breaking through the initially agreed issuance quota, the face value of the Gold Yuan Notes was also increasing. In March 1949, the government issued the banknote's face value of GY$5,000 and GY$10,000; in April, the newly issued banknote's face value was GY$100,000; in May, the newly

[971] References of this paragraph see K. Chang (1958, p. 373), Hong (2008, pp. 541-543), ACPBC (1991, p. 610), and D. Liu (1992, pp. 284-285).
[972] The original name of the decree in Chinese is "修正金圓券發行辦法." See ACPBC (1991, p. 610) and Hong (2008, p. 541).
[973] See Hong (2008, p. 543) and D. Liu (1992, pp. 284-285).

issued currencies' face value was GY$500,000 and GY$1 million.[974] Hence, the issuance of the Gold Yuan Notes led to price hyperinflation. If the price indices in Shanghai of the Gold Yuan Notes in August 1948 was 100, then the price indices of it in April 1949 was 20,957,009.[975] Figure 14 shows the banknote issuances and the price hyperinflation of prices indices of the Gold Yuan Notes from August 1948 to May 1949.

[974] See Hong (2008, p. 542).
[975] See K. Chang (1958, p.373).

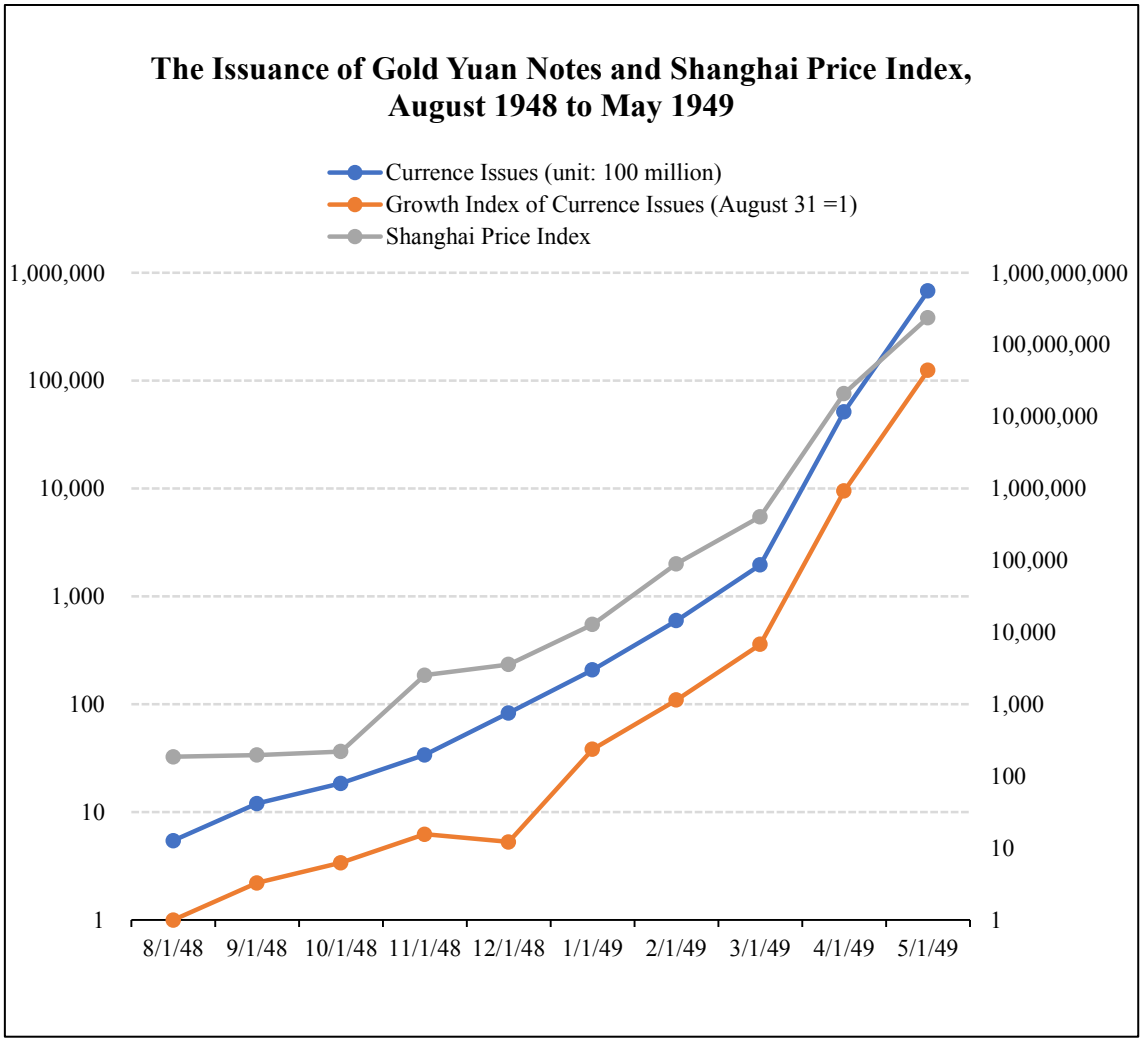



*Figure 6.14* The issuance of Gold Yuan Notes and Shanghai price index, August 1948 to May 1949. Unit of currency: one million Gold Yuan Notes.

*Sources:* Hong (2008, p.543), K. Chang (1958, p. 373), and Ji (2003, p. 235).

From the above discussion and Figure 6.14, we conclude that the excessive issuance of the Gold Yuan Notes was the main reason that led to the tragedy of price hyperinflation. However, we argue that if other measures were taken, the excessive issuance of this currency standard and price hyperinflation was likely to be avoided. On one hand, the government should make reasonable war decisions reducing military expenditure, which was the most crucial excuse of the government for the over-issuance of Gold Yuan Notes. On the other hand, if the government adopted different decisions on other policies, such as what we have abovementioned in this chapter (do not abuse power to over-issue currency, retain the circulation of Fabi, and actively seek foreign aid), then the over-issuance and price hyperinflation of Gold Yuan Notes could have been avoided. Unfortunately, all these alternatives had not been endorsed by President Chiang Kai-shek, which caused the tragedy of the Gold Yuan Notes happening irreversibly.

### 6.5.3 Insufficient Metal and Foreign Exchange Reserves to Support the Value of Gold Yuan Notes

This section exams whether the lack of sufficient metal and foreign exchange reserves to support Gold Yuan Notes value also caused its price hyperinflation.[976] Although the government promised to use its US$200 million foreign reserve to support the value of Gold Yuan Notes in August 1948, it was estimated that the foreign exchange supporting Gold Yuan Notes was still not enough; the foreign reserve of which was possibly from the maximum US$130 million in June 1948 to the minimum US$36.6 million.[977] In late October 1948, the government only had 2,000,000 ounces of

[976] Reference of this paragraph see J. Zhu (2012, pp. 433-434), Chou (1963/1969, pp. 25-27, pp. 168-172), K. Chang (1958, pp. 79-80, p. 82), and ACPBC (1991, pp. 574-576).
[977] References of the US$200 million foreign reserve see K. Chang (1958, p. 80) and ACPBC (1991, p. 575). References of the maximum US$130 million in June 1948, see K. Chang (1958, p. 81) and J. Zhu (2012, p. 432). References of the minimum US$36.6 million, see Chou (1963/1969, p. 171) and J. Zhu (2012, p. 4323).

gold, 25,000,000 ounces of silver, and foreign exchange of US$76,000,000 to be used to fight against the price hyperinflation.[978] Therefore, one view argues that if China had sufficient gold reserves in 1948 and if China did not abandon Fabi, the gold content of the Gold Yuan Notes might maintain being stable and its circulation might not be out of control.[979] We argue that such a view is reasonable to some degree. However, the premise of the view is that President Qiang Kai-shek had a certain degree of economic knowledge and listened to the advice of his financial experts making correct decisions such as not abolishing Fabi rashly. However, Qiang's ignorance of economics and his recklessness and short-sighted arbitrariness made this policy difficult to achieve.

### 6.5.4 Rash Implementation of Gold Yuan Notes Hit People's Psychological Expectation of the Currency System

The rash implementation of Gold Yuan Notes hit people's psychological expectation of the currency system causing the price hyperinflation.[980] The sudden change in the monetary system did not get people's support. On the contrary, because the government imposed people to submit the gold and silver in their hands, and because people did not trust the new monetary standard, they went to the mall to buy goods to get rid of the newly issued Gold Yuan Notes.[981] The panic buying happened since the end of September 1948 in many Chinese cities such as Shanghai, Guiyang, Zhenjiang, Hangzhou, Beiping (Beijing), Guangzhou, Taipei, Chongqing, Fuzhou, Wuxi, Tianjin, Suzhou, Yangzhou, and Chengdu.[982] On September 30, the products on the Shanghai market were sold out; on October 7, the products on the Beijing market

[978] See K. Chang (1958, p. 82)
[979] See J. Zhu (2012, p.433) and Y. Huang (1985).
[980] Reference of this paragraph see K. Chang (1958, p. 80), and J. Zhu (2012, pp. 434-435).
[981] See K. Chang (1958, pp. 80-81) and Hong (2008, pp. 538-540)
[982] Weekly Report of Banks [WRB] (1948) and Hong (2008, p. 539).

were also sold out; on the same day, the rice, noodles, and meat on Taipei market were extinct.[983]

On the question of whether it was needed to abolish Fabi or not, the government's financial experts had already made recommendations to President Chiang Kai-shek on people's psychological expectations of monetary policy, hoping that the government would not quickly abolish Fabi. We also have argued previously in section 6.5.3 that if Chiang Kai-shek listened to the advice of his financial experts of not abolishing Fabi, if Chiang tutored the economic knowledge that he lacked, and if he had learned from the lessons of the failure of his previous currency reforms, then the release of Gold Yuan Notes might not result in people's general negative psychological expectations. On the issue of the nationalization of gold, silver, and foreign exchanges, we also agree with some scholars that if the government did not use force to nationalize them, people's psychological expectations of monetary policy could be stabilized.[984] It is precisely because of the government's compulsory exchange policy that led to the loss of people's support, causing continuous price inflation and accelerating the ultimate failure of currency reform.

### 6.5.5 Rapid Currency Depreciation

The government's rapid currency depreciation also partly formulated the price hyperinflation. Our analysis finds that the loss of control over the issuance of Gold Yuan Notes led to the continued depreciation of the currency.[985] After the issuance of Gold Yuan Notes for only four months, the government announced that the unit of value of the Gold Yuan was changed from as 0.2217 centigrams of pure gold to as

[983] See WRB (1948) and Hong (2008, pp. 539-540).
[984] See K. Chang (1958, p. 81) and J. Zhu (2012, p. 434).
[985] References of this paragraph see ACPBC (1991, pp. 609-610), J. Zhu (2012, p. 435), K. Chang (1958, p. 83), and Hong (2008, p. 541).

0.04434 centigrams of pure gold.[986] At the same time, due to the lack of other payment for the Civil War, the original quota of GY$2 billion was also canceled.[987] In November 1948, the circulation of the Gold Yuan was 10 times that of August of that year.[988] We argue that this behavior fully demonstrates that the government at that time did not have integrity at all. In order to win the Civil War, the government disregarded people's lives and livelihoods printing banknotes and distorting the spontaneous market order without any policy constraint and credit. Of course, the frustration that the government encountered in the Civil War made the situation faced by its monetary policy more complicated. Because of the defeat of the Civil War, apart from printing money, the government could find no other way to solve the issue of war expense. The lack of government's credit accelerated the loss of public trust and support on both the government its monetary system.

### 6.5.6 A Wrong Time of Implementing a New Currency System

The time of implementing another currency system was wrong which therefore caused price hyperinflation. Some previous research argues that the timing of the 1948 reform was poor, which was also one of the causes of the failure of the Gold Yuan reform.[989] Our analysis provides three answers to this hypothesis. First, as we have analyzed in section 6.3, due to a series of previous policy mistakes with currency, taxation, finance, and the military, in general, Chinese people did not support the new currency reform. Secondly, during the reform, the Communist Party had occupied most of China's territory in North China, separating the Chinese economic systems by the Civil War. Thus, it was tough to implement a new monetary system. Thirdly, the international community had just experienced the painful Second World War and the

[986] See ACPBC (1991, p. 609) and J. Zhu (2012, p. 435).
[987] See ACPBC (1991, p. 610) and Hong (2008, p. 541).
[988] See K. Chang (1958, p. 83).
[989] The three points of this view of the improper time of implementing a new currency reform in this paragraph are mainly from J. Zhu's opinions (2012, p. 435).

Western powers did not have enough to support China's new currency reform financially. Hence, we argue that the government's reform did not adequately take into account the timing but rather used coercion to implement the reform by the stubborn opinions of President Chiang Kai-shek, which ultimately led to the failure of the Gold Yuan Notes.

## 6.6 A Discussion of the Possible Consequences of Gold Yuan Notes' Price Hyperinflation, 1948-1949

Section 6.6 deals with the consequences of Gold Yuan Notes' price hyperinflation from 1948 to 1949. Section 6.6.1 to section 6.6.2 separately analyze the economic, political, and social consequences of Gold Yuan Notes' price hyperinflation.

### 6.6.1 Economic Consequences

Gold Yuan Notes' expansionary monetary policy and its price hyperinflation caused people's buying to be inconvenienced, entrepreneurs to hoard resources, and the financial market's distortion. Section 6.6.1.1 to section 6.6.1.3 separately delve into these issues.

**6.6.1.1 Inconvenience of people's buying.** The over-issuance of Gold Yuan Notes led to severe economic consequences. In section 6.5.1.2, we have demonstrated the panic buying caused by Gold Yuan's price hyperinflation. In addition to this issue, because of the price hyperinflation caused by the over-issuance of banknotes, the purchasing power of currency declined dramatically, and the normal economic life of urban residents was markedly shattered.[990] Due to the decline in purchasing power and the increasing price hyperinflation, urban residents had to carry a bundle of the Gold Yuan Notes for shopping.[991] Sometimes people had to put a bundle of the Gold Yuan

[990] For references of how the purchasing power of currency declined dramatically and how the normal economic life of urban residents has been severely damaged due to the hyperinflation, see Hong (2008 pp. 542-543) and D. Liu (1992, pp. 289-290).
[991] For references of this event, see Hong (2008 pp. 542-543).

Notes on their bicycle for shopping due to the rapidly increased price hyperinflation, which was exceedingly inconvenient. In May 1949, the situation of Gold Yuan Notes was worsened.[992] As the price rose several times a day, people were either unwilling to store Gold Yuan Notes or were unwilling to change Gold Yuan Notes because the depreciation of it was so rapid. The market, the prices of water, electricity, and gas were therefore priced in US dollars. Many products were also priced in gold and silver. On May 21, 1949, Shanghai's rice price was GY$440 million per 50kg. In rural areas, there even had a situation of barter exchange.

**6.6.1.2 Hoarding of entrepreneurs and distortion of the financial market.** In addition, due to the deterioration of the economic and military situations, financial markets were turbulent, and entrepreneurs began to hoard goods. Normal securities trading activities were difficult to unfold due to the government's changing policies. The Shanghai Stock Exchange also opened, closed, and even several times stopped.[993] The Shanghai Stock Exchange was closed in August 1948 after the issuance of Gold Yuan Notes. It was resumed on February 21 and was closed again on June 10, 1949 when Shanghai fell into the hands of the Communists. From August 23rd to November 6th, 1948, President Chiang Kai-shek sent his son, Chiang Ching-kuo, who had no economic work experience, [994] to Shanghai to crack down on the merchants' activities of stockpiling.[995] This action was known as "hitting the tigers".[996] Although Chiang Ching-kuo hoped that by killing some speculators, the businessmen who stored the stockpiled goods would sell them to save their lives, his policy was still greatly resisted

[992] For references of this event, see Hong (2008 p. 543) and K. Chang (1958, p.85).
[993] See Hong (2008, p. 523), J. Zhu (2012, p.430).
[994] For references of this event, see J. Zeng & Liang (2007, pp. 137-138), Hong (2008, p. 537), Q. Fang (1985), and Shou (1985a).
[995] See Qin (1978, p. 3480, p. 3517), Z. Zhu & Tao (2000, p. 378), S. Wang (2006, pp. 238-239), and Hong (2008, pp. 536-538).
[996] The original name of "hitting the tigers" in Chinese is "打老虎."

by the Shanghai business community, even though they were in the danger of being persecuted by Chiang. Thus, the plan of Chiang ultimately failed.

### 6.6.2 Political Consequences

The collapse of the Gold Yuan Notes caused a breakdown within the government. On November 11, 1948, the second day of the enactment of the decree of *the Amended Measures for the Issuance of Gold Yuan Notes*, President Qiang Kai-shek's senior advisor Chen Bulei committed suicide as he was too disappointed with the situation. [997] On January 21, 1949, under pressure, President Chiang Kai-shek announced his temporal stepping down.[998] Acting President Li Zongren, who was also the Vice President at that time, failed not only in the peace talks with the Communist Party in early 1949, but also failed to reverse the deteriorating economic and military situation because of his lack of prestige and connections. Finally, he had to return to his hometown Guangxi to recuperate.[999]

With the deterioration of the economic and military situation, the essential financial practitioners who were close to the government had also fled overseas. The heads of the Central Bank, Bank of China, Bank of Communications, Farmers Bank,

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[997] The original name of the decree in Chinese is "修正金圓券發行辦法." For the references of the decree, see ACPBC (1991, p. 610), Y. Huang (1985), and Hong (2008, p. 541). For the suicide of Chen Bulei, see Y. Li & Zhang (1995, p. 362) and Hong (2008, p. 550).

[998] See Y. Li & Z. Zhang (1995, p. 375), Z. Zhu & Tao (2000, pp. 445-507), Hong (2008, p. 550), and K. Chang (1958, p. 84).

[999] For the issue of Li Zongren, see Li's autobiography in the English version (Li, 1979), K. Chang (1958, p. 84-85), and Hong (2008, pp. 550-551). Li Zongren and Chiang Kai-shek were far from each other because of their differences in personality and value. Chiang advocated the use of military and power to solve the problems of the Communist Party, while although Li was once a warlord in Guangxi, he hoped to resolve the conflict between the government and the Communist Party through peaceful and coordinated means. This situation was one of the reasons why Li initiated the negotiations between the government and the Communist Party in early 1949. In 1965, after surrendering to the Communist Party, Li Zongren returned to Mainland China occupied by the Communists. However, a year later, Li faced the Cultural Revolution initiated by the Communist Party trying to eliminate the entire Chinese traditional culture by systemic coercion. Two years later, in 1969, Li died. One wonder was Li regretting and ashamed of his surrender to the totalitarian Communist Party? For more about peace talks between the government and the Communist Party in early 1949 and the last military defeat of the government the Republic of China on Mainland China, see Fairbank & Feuerwerker (1986, pp. 782-788) and Z. Zhu & Tao (2000, pp. 441-445). For more about the Cultural Revolution, see MacFarquhar & Fairbank (1991, pp. 107-401) and Clark (2008). For the nature of Communism, See Hayek (1944/2001).

and other important financial institutions fled overseas because of the deterioration of the economic and military situation, which accelerated the collapse of the cronyism economic and financial forces supporting the central government of the Republic of China.[1000]

President Chiang Kai-shek might not have thought about the government's overall failure on Mainland China due to his poor monetary policy. However, it is precisely because of the failure of President Chiang Kai-shek and the Republic of China on the Mainland that caused the government of the Republic of China, after moving to Taiwan, made painstaking efforts and carried out economic reforms, which avoided the monetary disaster in the Mainland reappear again.[1001] This status was one of the key

[1000] See Hong (2005, pp. 1388-1389; 2008, pp. 551-552).

[1001] For references of the event of the Republic of China government transporting gold to Taiwan, see J. Zhu (2012, pp. 436-437), Fairbank & Feuerwerker (1986, p. 784), and K. Chang (1958, p. 84-85). It is worth noting that during Chiang Ching-kuo's administration on Taiwan (1972-1987), Taiwan's economy maintained rapid growth and entrepreneurs started their own businesses. This situation is in stark contrast to the series of disasters that have taken place on Mainland China occupied by the Communist Party. The aides to President Chiang Ching-kuo were a group of classical liberals. One representative of the group of advisors was Sho-Chieh Tsiang (蔣碩傑), a student of the Austrian school economist and the 1974 Nobel Prize winner in Economics Fredrich A. Hayek. The laissez-faire economic thoughts of Sho-Chieh Tsiang and other classical liberals led the economic policies of the government of the Republic of China in Taiwan from the 1960s to the 1980s. In 1972, Chiang Ching-kuo started serving as the Premier of the ROC. In 1975, after his father Jiang Zhongzheng died, Chiang Ching-kuo became the chairman of the Nationalist Party of China. In 1978, Chiang Ching-kuo was elected president of the ROC at the National Assembly. In 1987, one year before the death of Chiang Ching-kuo, he announced that the Taiwan region had lifted a 38-year martial law order to lift the party ban and ban. In 1987, one year before the death of Chiang Ching-kuo, he announced that the Taiwan Area of the Republic of China (中華民國台灣地區) lifted a 38-year martial law order, party ban (黨禁) and media ban (報禁) since the ROC entered the period of mobilization for the suppression of Communist rebellion (動員戡亂) in 1947. At that time, one top politician of the Nationalist Party was opposed to the lifting of the martial law; Chiang Ching-kuo only responded calmly that there was no eternal ruling party in the world (Taylor, 2009). In the 1990s, the democratized Taiwan Area of the ROC continued to achieve steady growth on the basis of the Chiang Ching-kuo period. In 1996, the Free Area (Taiwan Area) of the ROC achieved direct presidential election. This was the first time in Chinese history that direct elections have been used to elect the head of state (the election of the first president of the Republic of China in 1948 was an indirect election of the National Assembly). In 2000, the Free Area of the Republic of China (中華民國自由地區) achieved peaceful rotation of political parties, and the Democratic Progressive Party (DPP) came to power. Taiwan's economic liberalization and political democratization was inseparable from the work of President Chiang Ching-kuo and his staff. It should be said that the achievements of the Republic of China on Taiwan are worthy of the pride of the whole Chinese community. Regarding the life of Chiang Ching-kuo, see Taylor (2009). Regarding the economic liberalization and market-oriented reforms during the Chiang Ching-kuo period, and the contribution of Chiang Ching-kuo and others to Taiwan's free-market reform, see (T. Liu, 2013; H. Han, 2015; Chiu, 2011). For more about the democratization of the Republic of China on Taiwan (1986-1994), see Chao & Myers (1994). For the market-oriented reforms that the Chinese Communist Party regime has tried from 2012 to 2017, see W. H. Wang (2018).

reasons for achieving economic success of the Republic of China on Taiwan. In addition, in early 1949, due to the expected failure of the Republic of China on the Mainland, Chiang Kai-shek ordered the shipment of $US300 million of gold, silver and foreign exchange to Taiwan. These funds also played a vital role in the future economic development of the Republic of China on Taiwan.[1002]

### 6.6.3 Social Consequences

Since the issuance of the Gold Yuan Notes Golden Coin did not alleviate the consequences of Fabi's price hyperinflation, leading to a continuous decline in the purchasing power of the working class, the middle class, the young students and the teachers in public educational institutions, which in turn led them to continue the previous strikes.[1003] The anti-hunger strikes that began in the spring of 1948 continued in the era of the Gold Yuan Notes. The strikes were in major cities such as Shanghai, Beiping (Beijing), Nanjing, Tianjin, and Guangzhou. The industries involved included textiles, fashion, department stores, chemistry, Western medicine, cigarettes, finance, hydropower, transportation, shipping industries, and so on. As we have analyzed in section 6.6.1, the price hyperinflation resulted in a large depreciation of the purchasing power of ordinary people, creating the lack of food which led to the strikes. The production of industries and social were falling into complete chaos due to the worse era of price hyperinflation.

**6.6.3.1 Chaotic bank run caused by the limited redemption of currencies.** At the end of 1948, the Ministry of Finance's policy on the limited redemption of the Gold Yuan Notes to bullion also distorted the social order.[1004] In early December 1948, when the exchange policy was just started executing, 60,000 people were competing in

[1002] See Fairbank & Feuerwerker (1986, p. 784).
[1003] For references of the strikes in this section, see P. Yang (1963, p. 140), Fairbank & Feuerwerker (1986, p. 742), and C. Liu (1951).
[1004] For reference of this paragraph, see K. Chang (1958, p. 83).

the areas of the government banks in Shanghai, trying to get a chance to exchange the hard currencies. In the chaotic situation, dozens of people were killed and injured.

**6.6.3.2 Destruction of the traditional relationship of family.** Like Fabi's price hyperinflation, Golden Yuan Notes' price hyperinflation not only caused the above problems in currency order, but also negatively affected family ethics and relationships. Here is a tragic case of how the rise in the price of has caused the suicide of a couple in Shanghai.[1005] In a day of late April 1949, Shanghai's rice price was GY$15 million per 50kg, and the price silver dollar was GY$3 million yuan per silver dollar. A low-level public servant sold the only ten existing silver dollars that he had been ready to use to purchase rice. Because the rice shop had closed, he went back wanting to redeem the ten silver dollars that he sold. However, at this time the price of the silver dollar has risen to GY$3.8 million per silver dollar, making them have not enough money to redeem these ten silver dollars. The husband and his wife were very upset and subsequently they both committed suicide.

## 6.7 Conclusion

This chapter provides a quantitative, qualitative, and synthetic analysis of the collapse of China's first modern central banking system and its price hyperinflation during the Chinese Civil War. After the end of the Second Sino-Japanese, the National Government and the Chinese Communist Party quickly made the Chongqing Negotiation in the autumn of 1945. On December 25, 1946, the National Constituent Assembly passed *the Constitution of the Republic of China*, which was the first time in Chinese history to enact a constitution through constitutional and democratic procedures. From November 1947 to January 1948, the first time in the entire history of China, millions of Chinese people voted for their own representatives of the first National

[1005] For reference of this paragraph, see P. Yang (1963, pp.157-158).

Assembly and the members of the first Legislative Yuan. The two direct elections made the Republic of China become the largest democracy in the world at the time. The 461 million Chinese people directly authorized their legislative representatives. From March 29th to May 1st, 1948, with the enormous prestige of leading the country for the eight-year fight against the Japanese invaders, the National Assembly elected Chiang Kai-shek as the first democratically elected President of the ROC. On May 20th, Chiang Kai-shek was sworn in office.

It seemed that China entered a new peaceful time of postwar economic rehabilitation and reconstruction after the laborious 8-year war against the Japanese aggressors along with a wartime price inflation. However, reality was on a completely different path. Due to military failure and mismanagement of the economy and price hyperinflation, the Communists occupied the majority of the Chinese Mainland in 1949 and the government of the free Republic of China had to withdraw itself to Taiwan in the same year (leading up to the present). The Chinese Civil War deeply influences the drawing of different political and economic patterns of the Chinese Mainland and Taiwan in the modern history of China.

On the side of the research of the Chinese Civil War, some previous studies have demonstrated sufficiently on how the ROC government failed in the Civil War in the military perspective, while the other studies investigated different issues that were related with the Civil War period's Chinese economy and central banking system. Based on the academic heritage of these studies, this chapter originally goes into an in-depth and synthetic analysis of how China's first modern central banking system collapsed and how its price hyperinflation unfolded during the Chinese Civil War. Section 6.2 demonstrates the political and economic background during the Civil War. The formulation of the 1946 Constitution of the Republic of China and the failure of the

Chinese are the two important political factors during this Civil War period. The Chinese Communist Party disagreed with the democratically made constitution, yet they themselves participated in its early drafts. To be against the new constitutional order, a war between the Chinese Communist Party and the government of the Republic of China gradually became inevitable. Section 6.2.1 deals with the topic of the 1946 Constitution and the process of the Civil War.

The failed military strategy was not the only mistake that the Chiang Kai-shek administration made, but also the economic policy, especially its central banking policy. And a systematic analysis of how the postwar government of the Republic of China failed its economic and banking policies should be examined thoroughly. Before this examination, it is essential to perceive that an exhausted economy and the difficulties of rehabilitation and reconstruction was the general feature of the economic condition during the Civil War period. During the short period from August to December 1945, the Chinese economy was facing a relative stability. The economy and financial system was recovering. Prices were falling during that period, while the performance of the agricultural industry was also improving. Section 6.2.2.2 demonstrates the above features of the Chinese economy during the period from August to December 1945.

However, what followed was a deteriorating economic and monetary situation. The massive issuance of currency in response to military expenditures later became the biggest feature of China's economy during the Civil War and resulted with price hyperinflation. In 1945, the central banking system issued C$1.03 trillion. In 1947, one year before the abolishment of Fabi, the amount of the issued Fabi was C$33.19 trillion, which was 3,216.25% of the amount in 1945. As a result, the price level in 1947 was 6337.34% of the amount in 1945. In 1946, military spending accounted for 60% of total expenditure. In 1947, military spending was 55% of total expenditure. As the

government already had a severe condition of the deficit, it had no choice but to borrow the money from the Central Bank to pay the military expansion, which caused price inflation. In 1948, the collapse of Fabi made the Chinese government decide to issue Gold Yuan Notes as new currency in response to the increasingly collapsing Fabi system. As the government had no other method to pay the expense of the Civil War, the original quota of GY$2 billion was also cancelled and the government started to printing more Gold Yuan Notes to pay the war expense after *The Amended Measures for the Issuance of Gold Yuan Notes* decree was enacted. Since then, the amounts of the issued Gold Yuan Notes started to increase rapidly. In November 1948, the issued amount of it was GY$3.39 billion and in April 1949 it was GY$679.456 billion. From August 1948 to the Fall of Shanghai in May 1949, the issuance of the Gold Yuan Notes has increased by more than 19,9423%. After breaking through the initially agreed issuance quota, the face value of Gold Yuan Notes was also increasing. In March 1949, the government issued the banknote's face value of GY$5,000 and GY$10,000; in April, the newly issued banknote's face value was GY$100,000; in May, the newly issued currencies' face value was GY$500,000 and GY$1 million. Hence, the issuance of Gold Yuan Notes led to price hyperinflation. If the price index in Shanghai of Gold Yuan Notes in August 1948 was 100, then the price index of it in April 1949 was 20,957,009. Later, as the Communists established its regime in the Chinese mainland in October 1949, all the banking institutions of the Republic of China gradually disappeared in the Chinese Mainland. Section 6.2.2.3 briefly reviews the relationship among monetary expansion, military expenditure, taxation, and price hyperinflation.

The question here is, did the government of the Republic of China fail in its monetary policy without receiving any policy suggestions which could help correct its errors? Our analysis in section 6.2.3 and 6.2.4 provide an original evaluation of the

economic and monetary policy debates during the periods of Fabi and Gold Yuan Notes, respectively. This chapter discovers that during the Civil War, economic scientists and intellectuals provided sufficient and diverse opinions of how to construct China's economic and monetary system. Among them, Soong Tse-ven and Arthur N. Young were the representatives of the economists who were in the level of policy making that can directly influence the decision-making of President Chiang Kai-shek; they were in favor of a relatively free trade and free exchange policy that they believed was positive for the Chinese economy and they were strongly against the expansionary monetary policy along with its consequence of price (hyper)inflation. They suggested the postwar ROC government should adopt a more self-disciplined monetary policy, arguing that this policy would be good of the postwar economic rehabilitation and reconstruction. They strongly opposed uncontrolled military spending and advocated stabilizing the economic and financial order through fiscal austerity and other methods. From the previous chapters of the thesis, we have already known that Soong Tse-ven and Arthur N. Young had a consistent view of supporting a fiscal and monetary tightening policies, even after the late 1920s. They did not contradict themselves. Section 6.2.3.5 deals with their policy views during the Civil War. Apart from them, economist Yang Peixin was in favor of a more laissez-faire and a more profound perspective, who not only supported the above policy views that Soong Tse-ven and Arthur N. Young held, but even proposed that the complete abolition of state-owned enterprises and any other kind of government. He did this by demonstrating the danger of government economic intervention and regulation through his down-to-earth empirical observation of the real situation of the Chinese economy and the economic life of the Chinese people with sound and systematic argumentation. Besides, Yang Peixin also perceived that a good economic policy alone was not enough to China's postwar rehabilitation and

reconstruction. For him, the constitution democracy was also essential to establish a heathy and positive postwar economy. Therefore, his perspective was not just from the limited version of policy making, but also considers the deeper question of building a good institution in a macro and long-term perspective.[1006] Section 6.2.3 reviews his economic and monetary theories. In addition, in section 6.2.3 and section 6.2.4 we also reviewed the views of other scholars, such as Wu Chi-yuen, who advocated market economy with a certain degree of government economic intervention on China's economy and monetary system (i.e. just prices and a certain degree of governmental industrial and international trade regulations). None of them agree that the government can deal with the Civil War's military expenditures by means of indiscriminate monetary expansion. Besides, they were also very critical of the danger of price inflation and its harm caused by the extreme expansionary monetary policy. Unfortunately, none of the above views were adopted by President Chiang Kai-shek, who was the final political decision maker and who had little knowledge of economic theories. Therefore, it was no wonder why George Marshall, who had come to China from 1946 to 1947 to regulate the conflicts between the Chinese government and the Communist Party but ultimately failed later, became pessimistic about the future of the Republic of China during the ongoing Chinse Civil War. Section 6.2.4.8 reviews George Marshall and his proposal on supporting Free China and the ROC central banking system. Although these scholars did not propose a free banking theory similar to the Austrian School of economics, if their proposals against inflation were adopted,

[1006] We argue that the theory of dynamic efficiency proposed by the Austrian economist Jesús Huerta de Soto cooperates with Yang Peixin's view. Huerta de Soto argues that private property ethics are a necessary and sufficient condition for dynamic efficiency. The ethics of private property is a necessary condition because if the ownership of the fruits of each action is not respected, the most important incentive to create and discover profit opportunities is removed. Furthermore, an environment of freedom, in which entrepreneurs are not coerced and respect their private property, is sufficient condition, for it unwraps the creative entrepreneurial process and the coordination that characterizes dynamic efficiency. For more about the theory of dynamic efficiency, see Huerta de Soto (2009/2010c, pp. 1-30).

they might have been enough to stop the collapse of the Republic of China's financial system before 1949.

Section 6.3 systematically reviews the process of Fabi's price hyperinflation from 1945 to 1948. In section 6.3.1, we have pointed out that the previous issued Fabi and its price inflation during the Second Sino-Japanese War promoted price inflation during the Chinese Civil War. This understanding is very important because it helps us realize that the Civil War's price hyperinflation during was not a static and short-term process, but a dynamic economic phenomenon linked to the expansionary monetary policy and price inflation in the previous wartime. Section 6.3.2 shows the data of Fabi's monetary expansion and its price hyperinflation during the Civil War. According to our collation of existing statistics, we find that in 1945, the central banking system issued C$1.0319 trillion, in 1947, the year before the abolishment of Fabi, the amount of the issued Fabi was C$33.1885 trillion, which was 3,216.25% of the amount in 1945. As a result, the price level in 1947 was 6337.34% of the amount in 1945. Figure 6.1 also shows that the price in December 1945 was five times that of September. If price index in 1926 was 100, the price indices from 1945 to 1948 were 1.5 trillion, 9.2 trillion, 61 trillion, and 399 trillion, respectively. China's Fabi experienced vicious price inflation during the Civil War. Besides, based on previous research and evidence, we find that the mismanagement on Japanese puppet currencies, the heavy taxation and public debt that people had to bear, the circulation of foreign currency, the exhausted foreign currency and gold reserves, insufficiency of foreign aids, and heavy economic regulations were all counted for the Civil War's price hyperinflation. Section 6.3.3 to 6.3.8 deals with each of the above topics, respectively.

Here, it needs to be emphasized again our conclusion in section 6.3.7 that the failure of international cooperation is an important reason for the collapse of Fabi. As

early as March,1946 the US Secretary of State George Marshall once expressed that the United States would give China a loan of US$500 million. However, in the face of the pressure of the continuous collapse of the government of Republic of China, the US government finally promised the assistance only in the form of physical goods rather than loans as the primary means of assistance. However, the loan was delayed until 1948, and the amount of the final physical assistance only accounted for US$463 million. Finally, the Marshall Plan for China became an empty check.

Section 6.4 provides an analysis of the possible consequences of the Civil War's Fabi price hyperinflation from 1945 to 1948. Empirical evidence and statistics show Fabi's price hyperinflation distorted entrepreneurial production, ordinary people's life (especially the purchasing power of the banknotes that they held), and social orders.

Section 6.5 systematically reviews the process of Gold Yuan Notes' price hyperinflation from 1948 to 1949 and Shanghai's price index from August 1948 to May 1949. To suppress the chaotic price hyperinflation and financial disorder, the government abolished Fabi and issued Gold Yuan Notes' instead in August 1948. However, the government had no other method to pay the expense of the Civil War original quota of GY$2 billion, so it was cancelled, and the government started to print more Gold Yuan Notes to pay the war expense in November 1948. Since then, the amounts of the issued Gold Yuan Notes started to increase rapidly. In November 1948, the issued amount of it was GY$3.39 billion and in April 1949 it was GY$679.456 billion. From August 1948 to the Fall of Shanghai in May 1949, the issuance of the Gold Yuan Notes had increased by more than 19,9423%. After breaking through the initially agreed issuance quota, the face value of the Gold Yuan Notes was also increasing. In March 1949, the government issued the banknote's face value of GY$5,000 and GY$10,000; in April, the newly issued banknote's face value was

GY$100,000; in May, the newly issued currencies' face value was GY$500,000 and GY$1 million. Hence, the issuance of the Gold Yuan Notes led to price hyperinflation. If the price indices in Shanghai of the Gold Yuan Notes in August 1948 was 100, then the price indices of it in April 1949 was 20,957,009. As Shanghai, the economic center of the Republic of China, fell into the hands of the Chinese Communist Party in May 1949, Gold Yuan Notes gradually withdrew from the stage of history. Apart from Gold Yuan Note's expansionary monetary policy that we have analyzed in section 6.5.2, from section 6.5.2 to 6.5.3, we conclude that the insufficient metal and foreign exchange reserves to support the value of Gold Yuan Notes, the rash implementation of Gold Yuan Notes that hit people's psychological expectation of the currency system, the rapid currency depreciation, and the wrong time of implementing a new currency system were also the other main reasons of Gold Yuan Notes' price hyperinflation. In section 6.6, we point out that Gold Yuan Notes' expansionary monetary policy and its price hyperinflation also distorted the economic, political, and social orders like Fabi.

After the Chinese Communist Party officially announced the establishment of the regime in Beijing in October 1949, the Central Bank of the Republic of China and its currency system completely withdrew from the historical stage of Mainland China. So far, it has only been implemented in Taiwan Area (officially the Free Area) of the Republic of China. It can be said that the first modern central bank experiment in Chinese history failed in 1949. Obviously, President Chiang Kai-shek and the government of the Republic of China ignored the recommendations of Chinese and foreign economists during the Civil War. The currency issue abuse in response to military spending was the core reason for price hyperinflation during the Civil War. The indecision of the US government led by Harry Truman and the Democratic Party that whether it should provide military and financial aid to the democratically elected

government of the government of the Republic of China was also an important reason for the collapse of the ROC central banking system. The Chinese Civil War and the collapse of China's first central banking system has had a profound impact on the contemporary cross-strait relationship among the Communist Chinese Mainland the Republic of China on Taiwan.

## Conclusion

The central banking system has been a worldwide-adopted banking system since the 20th century, which influences political and economic structures profoundly in different countries to this day. Chinese Mainland is the second biggest economic entity, whose economic growth in the last 30 years gets the attention of the world. One hot topic is the function of China's central banking system. But the works for studying the establishment of China's central bank and the monetary thought debate behind the event still require further analysis. This thesis explains the establishment of China's central banking system by following the monetary thought debate among Chinese economists, politicians, and foreign financial specialists. They provided advice for monetary policy from 1927 to 1949.

The literature on China's central banking studies is focused on four relevant fields. The first field is the general study of the Chinese monetary and banking system. Due to their studies, before the establishment of the Chinese National Government in 1927, both the private sector and the government shared legal rights to do mintage. Meanwhile, China had less governmental regulation in monetary issues. Silver, as a rare metal, was recognized as the primary currency standard in China. The second field is the studies of economic and monetary thoughts of Chinese economists during the period from 1927-1949 of the Republic of China. The Chinese economists during the period of Nationalist China on the Chinese Mainland (1927-1949) were deeply involved in a huge debate on how to build an efficient central banking institution to make China stronger. The third field is Edwin W. Kemmerer and Arthur N. Young's theories and their works on the Chinese central banking system. To build China's first modern central banking, some western monetary specialists like Edwin W. Kemmerer and Arthur N. Young were invited to China during the late 1920s, providing direct policy advice on China's

banking system. The fourth field is the Austrian school economists' studies on Edwin Kemmerer and the related monetary theories. As a supporter of the gold standard and free banking institutions, The Austrian school economists not only provided their own views on Edwin Kemmerer's 100% central banking theory, but also their Austrian Business Cycle Theory on how central banking credit expansion and monetary inflation cause price inflation and distort the economy and entrepreneurship, and the relationship between central banking and wars. In addition, the Austrian school economist and Nobel Prize Winner F. A. Hayek also provided his study of the background of monetary nationalism in the 1930s.

However, we find that the literature above did not link the respective research fields to comprehensively analyze the subject of the establishment of China's first modern central banking institution, along with its evolution. What were the roles of Edwin Kemmerer, Arthur Young, T. V. Soong, H. H. Kung, Chiang Kai-shek, and the other Chinese financial specialists in the establishment of China's first modern central banking institution? Did the foreign factors, like the 1934 American Silver Purchase Act and the 1948 Marshall Plan for China, influence the performance of the Central Bank of China and the stability of Chinese politics and economy? Is it arguable to apply the insights of Austrian school economics along with the orthodox anti-price inflation insights to evaluate the performance of the Central Bank of China, especially its expansionary monetary policy and price hyper(inflation) during the Second Sino-Japanese War (1937-1945) and the Chinese Civil War (1945-1949)?

Based on these questions, this thesis proposes an Austrian-school based perspective to examine the establishment and performance of China's first modern central banking institution, the Central Bank of China, from the period of 1927-1949. This thesis has the following three main objectives: Revise the monetary thought debate

from 1927 to 1949 among Chinese economists, politicians, and Western monetary specialists on how to improve the Chinese monetary system and how to build an effective central banking system during wartime. Demonstrate how the establishment of central banking was supported by the monetary theories provided in the monetary thoughts debate. Identify which parts of the above monetary thoughts caused the growing and enormous price inflation during wartime; and discuss whether other thoughts in the discussion or related financial thoughts, if they were adopted as monetary policies, could avoid the economic collapse and Communist occupation in 1949.

This thesis uses the two following methodologies to analyze the research objects. The first is economic history. This thesis uses the methods of economic history (a combination of orthodox economic theory, the Austrian school's view on central banking and price inflation, and quantitative methods, paying particular attention to institutional factors and the long run) to view the establishment of China's central bank and the monetary debate behind it. The second is the extensive use of primary sources located in archives. This thesis uses archives to demonstrate the above topics. The main files used in this thesis are found in the following location: the library of Bank of Spain in Madrid, Spain; the library of Fudan University in Shanghai, China; the library of Shanghai University of Finance and Economics in Shanghai, China; E. W. Kemmerer's papers at the library of Princeton University in New Jersey, United States; A. N. Young's papers at the library of Stanford University in Stanford (archives are originally from Hoover Institution), United States; Cato Institute in Washington DC, United States; personal collections from Prof. Dr. Jiaming Zhu.

The thesis is structured in three parts. The first part is about China's general economic and banking situation (1912-1927) (Chapter 1). The second part demonstrates

the monetary thought debate and silver standard currency reform from 1927 to 1937 (Chapter 2 to Chapter 4). The third part focuses on central banking and wartime (1937-1949) (Chapter 5 to Chapter 6). The contents of each chapter of the thesis can be briefly summarized as follows.

Chapter 1 reviews China's general economic and political situation from the 19th century to 1927. First, we discuss the comprehensive history of China from the Qing Empire—the last Chinese dynasty—to the 1911 Republican Xinhai Revolution. The reform of the late Qing Dynasty had contributed mainly to China's progress, especially the modernization of the Chinese economy and opening the Chinese market to the entire world. Still, stagnant political reform disappointed the social elite and caused the Xinhai Revolution. Since then, China was either in wartime or in Communist despotism, except the Nanjing Golden Decade (1927-1937). We argue that if the Qing Dynasty successfully implemented all necessary reforms, including banking reform, faster before people became angry, China could have been a developed, prosperous, and liberal society without authoritarian rule. Furthermore, we also introduce the Austrian school's economic study of free banking institutions in the late 1890s in the Chinese southeastern coastal city of Fuzhou. Along with other studies, they revealed that China had a long-time history of free banking institutions before the 1920s, which is different from the later central banking patterns in China.

This chapter also points out that unlike the Chinese Communist Party's official negative opinions on the epoch of the Beiyang Government, independent researchers have found some positive elements that happened during the Beiyang era. Although some regional wars happened among the warlords, due to a pro-laissez-faire economic policy, the domestic economy was still growing, especially the industries that were not related to the war. Because of World War I, the energy of Western countries was placed

on the European battlefield. Hence, there was no Western power to intervene in China's domestic political and economic affairs, which on one side, avoided the wars that had happened in the late Qing Dynasty due to poor Sino-foreign relations. In addition, we also argue that the improving economic situation and monetary ideas laid the foundation of the monetary policy debate and led to the establishment of China's first modern central bank since the late 1920s, especially during the Nanjing Golden Decade (1927-1937).

Chapter 2 is an original synthesis that reviews the biography, monetary theories, and reports for China's central banking institutions of Edwin Kemmerer. Most importantly, this chapter also includes our original review of Kemmerer's 1929 reports for the construction of China's first modern central banking experiment. These crucial reports sought to build an effective Chinese central banking system based on Edwin Kemmerer's main theories, such as a central banking system with a 100% gold reserve. Kemmerer was an economics professor at Princeton University and the world-famous "Money Doctor" who helped build central banks in various countries in Latin America, Europe, and Asia.

One originality of the research in this chapter is that we visited the original archives of Kemmerer's research on China's economic issues kept by the Hoover Institution at Stanford University. To start, we demonstrate the biography of "Money Doctor" Edwin Kemmerer and his monetary and gold theories. We not only review his general theory on central banking and gold reserves but also provide some commentary from a few Austrian economists on Kemmerer's theory, as they both emphasize the function of a gold standard in banking systems. Secondly, we present Kemmerer's reports from 1929 and our commentary on whether his project for China was well planned and practicable. We provide a detailed description of Kemmerer's reports and

present the critical reports on China's banking system. Finally, we illustrate our commentary on the reports. In addition, the general political and economic background in China from 1927 to 1937, which were related to Kemmerer's reports, is presented in this chapter.

Chapter 3 reviews Arthur N. Young's banking thoughts on China's central banking reform from 1927 to 1937. As a member of Kemmerer's western monetary specialists' group for China, who also influenced the decision-making of the Chinese National Government and Generalissimo Chiang Kai-shek to adopt Western-style central banking institutions, Young's reports on his banking thoughts will be mainly checked in this chapter.

One originality of the research in this chapter is that we visited the original archive of Young's research on China's economic issues kept by the Hoover Institution at Stanford University. This chapter also reviews Arthur Young's biography. As a senior student graduating with a Ph.D. in economics from Princeton University, Young worked with "Money Doctor" Edwin Kemmerer and came to China as an essential member of the 1929 Kemmerer Commission for China to analyze and study China's currency and economic issues, making policy recommendations to the Chinese National Government. Kemmerer was his "teacher and colleague" who influenced Young's economic thoughts. Also, we find that Young not only came to China as an international student proficient in Spanish but also visited Latin American countries and Spain to conduct research on the economic affairs of these countries. Furthermore, he also visited some European and Asian countries such as Poland and Vietnam to help them carry out economic and monetary policies. In the later sections, we have reviewed Young's general comments on the modernization of Nationalist China and his central banking thoughts from 1927 to 1937.

Chapter 4 studies how China established its first modern central banking system from 1927 to 1937, filling a gap in the previous international research on the entire process of building China's first modern central bank. In Chapter 1, we discussed that China had more than two thousand years of free banking, and silver tael was used as a primary currency standard since the 15th century. However, the three central banking reforms that happened in the 1920s and 1930s fundamentally changed the status of China's banking system. China, a country of using traditional and diverse metal standards, eventually established its first modern central bank in 1928. In 1933, the country abolished the traditional silver tael standard, setting its Silver Dollar standard, which was designed by the Sino and Western financial specialists of the National Government based one a decade discussion.

Initially, due to the 1929 gold standard plan proposed by the U.S. financial specialist E. W. Kemmerer, the Silver Dollar standard would become a transition between the old silver tael standard and the future gold standard. However, due to the fragile internal financial condition and the 1934 US Silver Purchase Act, it became impossible for China to have sufficient silver to establish its Silver Dollar Standard, not mention the gold standard given that China was not a country that produced this scarce metal. Instead, from 1934 to 1935, after three rounds of Sino-Western negotiations, China was going to implement a fiat money system, Fabi, whose currency value was based on its exchange rates of the US dollar and the British pound. The reform was taken in November 1935, which ended China's two-thousand-year history of using metals as currency standards. The relatively stable political and economic conditions, along with the global trend of establishing a central banking system to strengthen the state power and the national financial system, made the birth of China's first modern central banking system inevitable. Based on first-hand references, the monographs of

the authoritative scholars, and the empirical data, this chapter focuses on the study of the history of the establishment of China's first modern central banking institutions, providing an original, in-depth synthesis and analysis of China's first modern central banking establishment process.

As the political and economic situation was relatively stable during those 10 years, that era is called the "Nanjing Golden Decade" by many scholars. Essential historical events and data are provided in this chapter to demonstrate how and why that 10-year history became a Golden Decade. Furthermore, we will also show in this chapter that the relatively peaceful environment provided Chinese politicians and economists a sufficient condition to discuss what kind of monetary system China should adopt. Among them, Yao Qingsan was probably the first Chinese economist during the Mainland period of the Republic of China who systematically introduced the Austrian School of Economics' monetary theories into China. In *Trends in Modern Currency Thoughts and World Currency Systems*, Yao introduced F. V. Weisser, J. G. K. Wicksell, F. A. Hayek, and L. von Mises' business cycle theories.

Chapter 5 analyzes the conditions of China's first modern central banking institutions during the Second Sino-Japanese War. China established its first modern central banking in 1928, along with its 1933 silver-standard reform and its 1935 fiat-currency reform. Due to the 1935 banking reform plan, the Chinese National Government would establish a modern central reserve banking system that was planned to control the currency issuance fully. However, the outbreak of the Second Sino-Japanese War in 1937 delayed the ongoing central banking reform. Based on quantitative analysis and original synthesis of archives and previous research, this chapter studies China's central banking institutions during the Second Sino-Japanese War, 1937-1945.

To understand the wartime banking structure in China, it is crucial to review the relevant historical backgrounds. This is due to the complicity of the wartime China as the country was separated into Free China, Japanese-occupied China (along with Manchukuo) and Communist-occupied area. At the beginning of the analysis, this chapter provides the political and economic background during the Second Sino-Japanese War, along with an analysis of the disappearing local, private, and spontaneously free banking systems. Secondly, this chapter deals with the background of the wartime banking policy. In the later sections, we discuss the process of the wartime expansionary monetary policy and price inflation and provide an in-depth discussion of the possible causes of the wartime price inflation, along with its consequences.

In this chapter, combined with historical events and the statistics itself, we have made an original systematic quantitative analysis of the various causes of wartime price inflation (especially the second stage of price inflation). We point out that the most direct cause of price inflation during wartime was the issuance of Fabi. The cost of living and consumer goods price indexes were generally higher than other indexes during the war, especially from 1940 to 1943, both of which were higher than the wage indexes of the four major occupation categories (including the salary indices of college teachers, middle school teachers, primary school teachers, primary school teachers, and government officials) in the statistics. It can be seen that because of the rising cost of living and the increasing price of consumer goods, both the ordinary people and entrepreneurs' production and living conditions were worsening due to wartime price inflation. Moreover, due to the wartime expansionary monetary policy and price inflation, people gradually lost their confidence in Fabi. We argue that the reduction of people's psychological confidence in Fabi also caused an increase in prices. Besides,

through statistic results, we also conclude that the government's taxation and fiscal policy, the expansion of private credits were also the triggers of wartime price inflation. While the policies of increasing interest rates, the rise of bank's saving, the sales of gold and foreign reserves all together were not valid to suppress the wartime price inflation. Besides, the statistics result shows that the generally increasing agricultural production during wartime was not related to price inflation.

Our analysis in this chapter not only discusses the impact of the National Government's own policies on price inflation, but also discusses the effects of trade wars and currency wars between Free China, the Japanese-occupied areas (Occupied China and Manchukuo), and the Communist-occupied area on price inflation in these three regions. Although no specific statistics were available, evidence shows that to purchase export goods, the Chinese government relied on printing currency to make up for its fiscal deficit, which also partly caused the increase of price. During wartime, an insufficient supply of factory products also led to rising costs in Free China. These two were all related to the fact that most of the industries were in Occupied China and Manchuria. Besides, the reduction of the circulation area of Fabi caused by the Japanese occupation also partly caused Free China's price inflation. At the same time, the Japanese-occupied areas (Occupied China and Manchukuo) and the Chinese Communist Party fought currency wars with Free China to destroy or distort the financial order of Free China in this way.

Chapter 6 analyzes the conditions and the collapse of China's first modern central banking institutions during the Chinese Civil War. Although China established its first modern central bank in 1928, along with its 1933 silver-standard reform and its 1935 fiat currency reform, due to the outbreak of the Second Sino-Japanese War, the banking reform deployed. Because China passed its first democratically created

Constitution in 1946, becoming the world's largest democratic country at the time, post-WWII China was initially expected to establish a stable banking system. However, during the following Chinese Civil War period, not only the central banking experiment failed by massive price inflation and chaotic economic order, but the government of the Republic of China was also defeated militarily by the Chinese Communist Party.

This chapter provides a quantitative, qualitative, and synthetic analysis of the collapse of China's first modern central banking system and its price hyperinflation during the Chinese Civil War. Based on the above political background, this chapter provides a brief description of the Chinese economy during not only the Chinese Civil War, but also an in-depth analysis of the process and the reasons why two currency systems, the Fabi and the Gold Yuan Notes, collapsed successively during the Civil War. This chapter also synthesizes the economic, political, and social consequences of the wartime expansionary monetary policy and its price hyperinflation. The massive issuance of currency and its subsequent price hyperinflation in response to military expenditures later became the most prominent feature of China's economy during the Civil War. We point out that President Chiang Kai-shek and the government of the Republic of China must bear the ultimate responsibility for the collapse of the monetary system and price hyperinflation as they ignored all the suggestions of the Chinese and foreign economists. They opposed the payment of military spending through excessive monetary expansion policy.

An original evaluation of the economic and monetary policy debates during the Civil War is provided in this chapter. Among them, Soong Tse-ven and Arthur N. Young were the representatives of the economists who were in the level of policymaking that can directly influence the decision-making of President Chiang Kai-shek; they were in favor of relatively free trade, and free exchange policy that they

believed was positive for the Chinese economy and they were firmly against the expansionary monetary policy along with its consequence of price (hyper)inflation. They suggested the postwar ROC government should adopt a more self-disciplined monetary policy, arguing that this policy would be good for economic rehabilitation and reconstruction. They strongly opposed uncontrolled military spending and advocated stabilizing the economic and financial order through fiscal austerity and other methods. From the previous chapters of the thesis, we have already known that Soong Tse-ven and Arthur N. Young had a consistent view of supporting fiscal and monetary tightening policies, even after the late 1920s. They did not contradict themselves. Apart from them, economist Yang Peixin was in favor of a more laissez-faire and a more profound perspective, who not only supported the above policy views that Soong Tse-ven and Arthur N. Young held, but even proposed the complete abolition of state-owned enterprises and any other kind of government. He did this by demonstrating the danger of government economic intervention and regulation through his down-to-earth empirical observation of the real situation of the Chinese economy and the economic life of the Chinese people with sound and systematic argumentation. Besides, Yang Peixin also perceived that a sound economic policy alone was not enough for China's post-war rehabilitation and reconstruction. For him, constitutional democracy was also essential to establish a healthy and positive post-war economy. Therefore, his perspective was not just from the limited view of policymaking, but considers the more profound question of building a good institution in a macro and long-term perspective. It can be said that Yang Peixin's point of view was the scholar who was the closest to the Austrian school's free market and limited government stance during the period.

In addition, we also point out that the Marshall Plan for China, which arrived lately in 1948, was useless to stabilize the Chinese economy and its monetary system.

The chapter concludes by pointing out that the Chinese Civil War and the collapse of China's first central banking system have had a profound impact on the contemporary cross-strait relationship among the Communist Chinese Mainland and the Republic of China on Taiwan since 1949.

The establishment of central banking institutions in the 20th century is an inevitable trend. Although the Austrian school's support for free banks may not be realistic at the moment, their discussion of how government arbitrarily issues banknotes through the central bank, resulting in price inflation, distorting the spontaneous market order, and destroying entrepreneurship is still worth thinking about. In particular, the perspective of the Austrian school has a positive significance for analyzing the tragic failure of China's first central bank in the 1920s and 1940s for later people to think more deeply about banking theories and banking systems.

Finally, we propose some potential research aspects that are related to the discussion of this thesis. First, the research on the Chinese central bank systems given to the Austrian School's currency theory needs to be further extended. As the Chinese Mainland ruled by the Chinese Communist Party and the Republic of China on Taiwan started to have two separate central banking institutions since the 1949 Communist Revolution, it is essential to systematically research the two central banking institutions and their impacts, especially their influence on entrepreneurship, based on the current research.

Second, the Austrian school-based research on the effects of the banking theories influence the performance of the above two Chinese central banks. Although it is unrealistic to talk about the establishment of a free-banking system at present, an analysis from the perspective of the Austrian school can better help us study the different influences of the Chinese economists on both sides of the Taiwan Strait and

the Western economists' theories on these two Chinese central banks, especially the understanding of price inflation and business cycles that were triggered.

Third, a study of ancient Chinese (free) banking systems and the ancient Chinese (free) banking theory from the perspective of the Austrian school. Regarding the research content of this part, we have already covered in the relevant chapters of the thesis. Still, we have to emphasize that the research on this part is extremely scarce. We believe that in this field, scholars have a broader space to conduct a more systematic and extensive study of China's (free) banking system over the past 2,000 years and ancient Chinese (free) banking theory.

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# Appendices

# Appendix I

## Industrial Production, 1912-1937

| Year | Gross value of output | | Net value added | |
|---|---|---|---|---|
| | Millions of gross value of output (GVO) | GVO index 1927=100 | Millions of net value added (NVA) | NVA index 1927=100 |
| 1912 | 119.7 | 11.9 | 58 | 15.7 |
| 1917 | 268.6 | 26.7 | 118.3 | 32 |
| 1927 | 670.1 | 66.6 | 245.1 | 66.3 |
| 1928 | 725.6 | 72.1 | 260.8 | 70.5 |
| 1929 | 773.8 | 76.9 | 278.2 | 75.2 |
| 1930 | 821.1 | 81.6 | 296.4 | 80.1 |
| 1931 | 886.9 | 88.1 | 320 | 86.5 |
| 1932 | 921.5 | 91.6 | 334.1 | 90.3 |
| 1933 | 1006.3 | 100 | 369.7 | 100 |
| 1934 | 1042.6 | 103.6 | 395 | 106.8 |
| 1935 | 1104.1 | 109.7 | 441.8 | 119.5 |
| 1936 | 1227.4 | 122 | 499.1 | 135 |
| 1937 | 965.8 | 96 | 415.2 | 112.3 |

*Appendix I* Industrial production from 1912 to 1937.

*Sources*: GVO and NVA along with their indices from 1927 to 1936 are from A. Young (1971, p. 311); GVO and NVA indices of 1912, 1917, and 1937 are from J. Zhu (2012, p. 335).

*Notes*: Young's statistical data is based on 1927 and J. Zhu's is based on 1933. We calculate the GVP and NVA data of 1912, 1917, and 1937 and their indices by unifying the statistical data base in 1933. Due to incomplete statistics at that time, statistics for other years are unknown.

# Appendix II

## Agricultural Prices Index, 1931-1937

| Year | Index (1931=100) |
|---|---|
| 1931 | 100 |
| 1932 | 72 |
| 1933 | 61 |
| 1934 | 56 |
| 1935 | 57 |
| 1936 | 60 |

*Appendix II* Agricultural prices index, 1931-1937.

*Source*: A. Young (1971, p. 479).

*Notes*: Due to the lack of statistics, there is no corresponding data for other years in the Nanjing Golden Decade (1927-1937).

# Appendix III

## Monetary Supply and Price Indices, 1926-1945

| | Currency issues | Currency deposits | Total money supply | Price index |
|---|---|---|---|---|
| 1926 | 228,962,163 | 657,646,855 | 886,609,018 | 100.0 |
| 1927 | 262,164,410 | 700,172,666 | 962,337,076 | 104.4 |
| 1928 | 308,818,375 | 808,337,121 | 1,117,155,496 | 101.7 |
| 1929 | 350,236,497 | 957,374,032 | 1,307,610,529 | 104.5 |
| 1930 | 412,968,538 | 1,389,109,572 | 1,802,078,110 | 114.8 |
| 1931 | 393,367,870 | 1,213,334,120 | 1,606,701,990 | 126.6 |
| 1932 | 451,590,418 | 1,255,014,045 | 1,706,604,463 | 112.5 |
| 1933 | 535,190,933 | 1,579,824,899 | 2,115,015,832 | 103.9 |
| 1934 | 622,522,374 | 1,820,621,425 | 2,443,143,648 | 97.2 |
| 1935 | 867,984,374 | 2,324,341,889 | 3,192,326,263 | 96.4 |
| 1936 | 1,633,106,095 | 2,708,005,032 | 4,816,000,000 | 108.6 |
| 1937 | 1,640,000,000 | 2,019,000,000 | 3,659,000,000 | 189.5 |
| 1938 | 2,310,000,000 | 2,506,000,000 | 4,816,000,000 | 247.6 |
| 1939 | 4,290,000,000 | 3,214,000,000 | 7,504,000,000 | 415.9 |
| 1940 | 7,870,000,000 | 4,315,000,000 | 12,185,000,000 | 969.6 |
| 1941 | 15,100,000,000 | 7,746,000,000 | 22,846,000,000 | 2,449.4 |
| 1942 | 34,400,000,000 | 16,391,000,000 | 50,791,000,000 | 7,371.0 |
| 1943 | 75,400,000,000 | 24,796,000,000 | 100,196,000,000 | 23,702.5 |
| 1944 | 189,500,000,000 | 85,587,000,000 | 275,087,000,000 | 81,642.3 |
| 1945 | 1,031,900,000,000 | 474,690,000,000 | 1,506,590,000,000 | 308,372.4 |
| 1946 | 3,726,100,000,000 | 5,455,494,000,000 | 9,181,594,000,000 | 76,001,058.0 |
| 1947 | 33,188,500,000,000 | 27,777,060,000,000 | 60,965,560,000,000 | 681,743,336.0 |
| 1948 | 196,520,300,000,000 | 202,571,339,000,000 | 399,091,639,000,000 | 28,070,706,707.8 |

*Appendix III* Monetary supply and price indices: 1926-1945.

*Sources*: Data on currency issues, currency deposits, and total money supply is from K. Chang (1958, p. 376); also see G. Wu (1958, pp. 92-96), P. Yang (1963, pp. 61-62), and Hong (2008, pp. 519-520). Data on price indices of 1930 to July 1948 is from K. Chang (1958, pp. 371-373). Data on price indices in August 1948 is from G. Wu (1958, p. 162). Price indices from 1930 to 1936 is from the Shanghai price index. The price index from 1937 to July 1948 is from the whole Free China index. The price index of August 1948 is from the Shanghai price index.

*Notes*: The price indices of 1946 to 1948 were obtained from the average of the monthly price indices for these years. In order to enable price indices from different sources to be displayed on the same statistical chart, we have processed the data from different sources according to the principle of proportionality.

# Appendix IV

## Foreign Exchange Rates, 1927-1937

| Year | High | Low |
|---|---|---|
| 1927 | 47.33 | 42.35 |
| 1928 | 50.09 | 45.02 |
| 1929 | 45.43 | 36.83 |
| 1930 | 36.92 | 24.54 |
| 1931 | 26.3 | 19.88 |
| 1932 | 25 | 19.09 |
| 1933 | 34.31 | 19.47 |
| 1934 | 37.88 | 31.19 |
| 1935 | 42.13 | 29.5 |
| 1936 | 30.25 | 29.44 |
| 1937 | 30.25 | 29.44 |

*Appendix IV* Foreign Exchange rate from the Chinese Dollar to the US Dollar. Unit: US Dollar (cents per C$).

*Source*: Young (1971, p. 469).

# Appendix V

## Expenditures, Revenues, and Deficits, 1929-1937

| Year | Expenditures | Revenues | Deficits | Deficit percentage of expenditure |
|---|---|---|---|---|
| 1929 | 434 | 334 | 100 | 23 |
| 1930 | 585 | 484 | 101 | 17.3 |
| 1931 | 775 | 558 | 217 | 28 |
| 1932 | 749 | 619 | 130 | 17.4 |
| 1933 | 699 | 614 | 86 | 12.3 |
| 1934 | 836 | 689 | 147 | 17.6 |
| 1935 | 941 | 745 | 196 | 20.8 |
| 1936 | 1073 | 817 | 256 | 23.8 |
| 1937 | 1177 | 870 | 297 | 25.4 |

*Appendix V* Expenditures, revenues, and deficits, 1929-1937. Figure's currency unit is one million Chinese dollars (C$).

*Source:* A. Young (1971, p. 38).

# Appendix VI

## Foreign Trade, 1927-1937

| Year | Imports | Exports | Total |
|---|---|---|---|
| 1927 | 1298 | 980 | 2278 |
| 1928 | 1530 | 1047 | 2577 |
| 1929 | 1620 | 1070 | 2690 |
| 1930 | 1723 | 944 | 2667 |
| 1931 | 2002 | 915 | 2917 |
| 1932 | 1524 | 569 | 2093 |
| 1933 | 1345 | 612 | 1957 |
| 1934 | 1030 | 535 | 1565 |
| 1935 | 919 | 576 | 1495 |
| 1936 | 941 | 706 | 1647 |
| 1937 | 953 | 838 | 1791 |

*Appendix VI* Foreign trade, 1927-1937. Figure's currency unit is one million Chinese dollars (C$).

*Source*: A. Young (1971, pp. 494-494).

*Notes*: The foreign trade data does not include Manchuria.

# Appendix VII

## Government, Commercial, and Provincial Bank Deposits, 1937-1945

| Year | Current GBD | Fixed GBD | Savings GBD | Total GBD | Commercial and provincial banks all deposits | Total deposits (all Banks) |
|---|---|---|---|---|---|---|
| 1937 | 1318 | 685 | 188 | 2191 | 1115 | 3306 |
| 1938 | 1808 | 928 | 251 | 2987 | 1166 | 4153 |
| 1939 | 2408 | 1906 | 312 | 4626 | 1433 | 6059 |
| 1940 | 3297 | 2172 | 533 | 6002 | 1884 | 7836 |
| 1941 | 6446 | 3382 | 1104 | 10932 | 2833 | 13815 |
| 1942 | 15039 | 1782 | 2976 | 19797 | 3164 | 22961 |
| 1943 | 22811 | 891 | 7387 | 31089 | 4656 | 35745 |
| 1944 | 78887 | 1213 | 15456 | 95556 | 9803 | 105359 |
| 1945 | 466190 | 5289 | 55693 | 527172 | 10740 | 537912 |

*Appendix VII* Government , commercial, and provincial bank deposits, 1937-1945. Figure's currency unit is one million Chinese dollars (C$)

*Source*: K. Chang (1958, p. 191).

*Notes:* The data that we collect include the current government bank deposit (GBD), the fixed GBD, savings of the GBD, the total GBD, the commercial and provincial banks' all deposits, and the total deposits of all banks. In our subsequent analysis, we will use the original data for analysis. Due to the lack of statistics at that time, there is no complete data on fixed and savings deposits in the commercial and provincial banks.

# Appendix VIII

## Foreign Credits, 1938-1945

| Year | Loan granted |
|---|---|
| 1938 | 32.3 |
| 1939 | 46.2 |
| 1940 | 185 |
| 1941 | 350 |
| 1942-1945 | 21 |

*Appendix VII* Foreign aids (credits and lend-lease) to China, 1937-1945. Unit of the currency in the figure is one million Chinese dollars (C$).

*Source*: A. Young (1965, pp. 344-345).

*Notes:* These aids included military, supplies, non-military purchases, currency stabilization, motor truck purchase, lend-lease, etc. The Soviet Union, France, United States, and Great Britain were all providing aid to Free China.

# Appendix IX

## Factories in Free China, 1936-1944

| Year | Number of plants established | Capitalization of new plants |
|---|---|---|
| 1936 | 300 | 117950 |
| 1937 | 63 | 22166 |
| 1938 | 209 | 86583 |
| 1939 | 419 | 120914 |
| 1940 | 571 | 59031 |
| 1941 | 866 | 45719 |
| 1942 | 1138 | 9896 |
| 1943 | 1049 | 14486 |
| 1944 | 549 | 3419 |

*Appendix IX* Factories in Free China, 1937-1944. Figure's currency unit for new plants' capitalization is one million Chinese dollars (C$).

*Source:* Fairbank & Feuerwerker (1986, pp. 593).

# Appendix X

## Agricultural Production Index, 1937-1945

| Year | Rice | Wheat | Sweet potatoes | Cotton | Livestock |
|---|---|---|---|---|---|
| 1937 | 100 | 100 | 100 | 100 | 100 |
| 1938 | 103 | 120 | 128 | 97 | 92 |
| 1939 | 105 | 117 | 115 | 121 | 98 |
| 1940 | 85 | 119 | 119 | 104 | 92 |
| 1941 | 89 | 98 | 128 | 93 | 87 |
| 1942 | 88 | 124 | 113 | 79 | - |
| 1943 | 84 | 118 | 135 | 98 | - |
| 1944 | 93 | 147 | 141 | 88 | - |
| 1945 | 81 | 130 | 144 | 147 | - |

*Appendix X* Agricultural production index, 1937-1945. Unit: 1937=100.

*Source:* A. Young (1965, p. 300).

# Appendix XI

## Foreign Exchange Rates, 1937-1945

| Year | Official exchange rates | Market exchange rates |
|---|---|---|
| 1937 | 3.42 | 3.42 |
| 1938 | 6.4 | 6.4 |
| 1939 | 18.21 | 18.21 |
| 1940 | 17.76 | 17.76 |
| 1941 | 18.8 | 18.93 |
| 1942 | 20 | 18.8 |
| 1943 | 20 | 84 |
| 1944 | 20 | 570 |
| 1945 | 20 | 1705 |

*Appendix XI* Foreign exchange rates (US dollars), 1937-1945. Unit: One Chinese dollar (C$) per US dollar (US$).

*Sources*: Source: K. Chang (1958, p. 382).

*Notes:* Data for all years are taken from December of that year. Since only official exchange rate data was available in 1937, in order to show statistical trends in the chart, we used the official exchange rate data of that year to place it in the statistical item of market exchange rate. Since the market exchange rate data was only available from 1938 to 1940, in order to show the trend of the data, we used the market exchange rate data at this stage to place it in the statistical item of official exchange rate.

## Appendix XII

## Expenditures, Revenues, and Deficits, 1929-1945

| Year | Expenditures | Revenues | Deficits | Deficit percentage of expenditure |
|---|---|---|---|---|
| 1929 | 434 | 334 | 100 | 23 |
| 1930 | 585 | 484 | 101 | 17.3 |
| 1931 | 775 | 558 | 217 | 28 |
| 1932 | 749 | 619 | 130 | 17.4 |
| 1933 | 699 | 614 | 86 | 12.3 |
| 1934 | 836 | 689 | 147 | 17.6 |
| 1935 | 941 | 745 | 196 | 20.8 |
| 1936 | 1073 | 817 | 256 | 23.8 |
| 1937 | 1177 | 870 | 297 | 25.4 |
| 1938 | 1169 | 297 | 872 | 74.59 |
| 1939 | 2797 | 715 | 2082 | 74.55 |
| 1940 | 5288 | 1317 | 3970 | 75.08 |
| 1941 | 10003 | 914 | 9090 | 90.87 |
| 1942 | 24511 | 4592 | 19919 | 81.26 |
| 1943 | 58816 | 15882 | 42934 | 73 |
| 1944 | 171690 | 35609 | 136081 | 79.26 |
| 1945 | 1215089 | 159961 | 1065028 | 87.65 |

*Appendix XII* Expenditures, revenues, and deficits, 1929-1945. Unit of the currency in the figure is one million Chinese dollars (C$).

*Sources*: Data from 1929 to 1937, see A. Young (1971, p. 38). Data from 1938 to 1945, see A. Young (1965, p. 12).

*Notes:* Data for 1938 was selected from the data on the second half of that year.

## Appendix XIII

## Wholesale Prices of Groups of Commodities in Chongqing, 1937-1945

| Year | General index | Food | Clothing | Metals and products | Building materials | Fuel and light | Miscellaneous |
|---|---|---|---|---|---|---|---|
| 1937 | 1.15 | 1.04 | 1.22 | 1.66 | 1.18 | 1.49 | 0.84 |
| 1938 | 1.6 | 0.95 | 1.92 | 5.34 | 1.94 | 2.96 | 1.09 |
| 1939 | 3.16 | 1.83 | 3.87 | 13.6 | 3.73 | 5.7 | 2.19 |
| 1940 | 11.3 | 9.48 | 12.5 | 22.4 | 11.9 | 22.6 | 5.23 |
| 1941 | 27.6 | 25.5 | 28.3 | 66.9 | 28 | 43.3 | 9.72 |
| 1942 | 80.1 | 48.3 | 131 | 263 | 99.7 | 188 | 26.6 |
| 1943 | 228 | 187 | 324 | 526 | 228 | 432 | 64.5 |
| 1944 | 648 | 477 | 903 | 1283 | 695 | 1669 | 212 |
| 1945 | 2403 | 1604 | 2759 | 4994 | 2933 | 5157 | 942 |

*Appendix XIII* Wholesale prices of groups of commodities in Chongqing, 1937-1945.

*Sources*: A. Young (1965, p. 353). Price index of the period February-June 1937=1.

# Appendix XIV

## Domestic, Import, and Export Wholesale Prices in Chengdu, 1937-1945

| Year | Domestic goods | Import goods | Export goods | General index |
|---|---|---|---|---|
| 1937 | 1.01 | 1.43 | 0.67 | 1 |
| 1938 | 1.29 | 1.98 | 1.22 | 1.45 |
| 1939 | 3.03 | 2.89 | 2.29 | 3.33 |
| 1940 | 10.22 | 7.52 | 5.39 | 10.33 |
| 1941 | 26.76 | 22.22 | 13.37 | 28.48 |
| 1942 | 64.83 | 85.78 | 35.5 | 67.1 |
| 1943 | 220 | 882 | 89 | 234 |
| 1944 | 708 | 3078 | 355 | 791 |
| 1945 | 2169 | 8372 | 1522 | 2523 |

*Appendix XIV* Domestic, import, and export wholesale prices in Chengdu, 1937-1945.

*Source*: A. Young (1965, p. 354).

*Notes:* Due to the huge difference of data, we use logarithm to evaluate and express all the listed statistic items. All data has been evaluated by logarithm (July 1936-June 1937=1).

# Appendix XV

## Wartime Indices of Salary and Industrial Production, 1937-1943

| Year | College teachers' salary index | Middle school teachers' salary index | Primary school teachers' salary index | Government officials' salary index | All four groups | Index of cost of living | Chongqing factory workers index | Sichuan farmers index | Soldier salary index | Industrial production index | Production supplies index | Consumer goods index | Export index |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1937 | 79 | 95 | 100 | 85 | 88 | 110 | 100 | 100 | 100 | 131 | 130 | 146 | 122 |
| 1938 | 88 | 108 | 103 | 85 | 96 | 142 | 124 | 111 | 93 | 186 | 181 | 306 | 115 |
| 1939 | 110 | 141 | 118 | 85 | 120 | 282 | 95 | 122 | 64 | 243 | 231 | 404 | 159 |
| 1940 | 224 | 202 | 204 | 169 | 213 | 1180 | 96 | 63 | 29 | 302 | 272 | 659 | 120 |
| 1941 | 356 | 620 | 850 | 358 | 532 | 2930 | 78 | 82 | 21 | 376 | 316 | 1011 | 61 |
| 1942 | 529 | 1131 | 1554 | 591 | 942 | 6290 | 75 | 75 | 10 | 352 | 325 | 920 | 26 |
| 1943 | 17990 | 3536 | 5002 | 1769 | 3095 | 1830 | 69 | 58 | 57 | 344 | 245 | 849 | 13 |

Wartime indices of salary and industrial production, 1937-1943.

*Sources*: For college teachers' salary index, middle school teachers' salary index, primary school teachers' salary index, government officials' salary index, and the index of the all above four groups (1936-1937=100), see A. Young (1965, p. 321). Indices above are for December of each year. For Chongqing factory workers index (1937=100), see P. Yang (1963, p. 138). For Sichuan farmers index soldier salary index (1937=100), see D. Wu (1945, pp. 34-35). For industrial production index (1938=100), see P. Yang (1963, p. 146).

## Appendix XVI

## Military Expenditure and Wartime Price Inflation, 1937-1945

| Year | Fiscal expenditure | Military expenditure | Fiscal deficit | Bank advance | Total monetary supply | Price index for Free China |
|---|---|---|---|---|---|---|
| 1937 | 20.91 | 13.68 | 15.32 | 11.95 | 3,659,000,000 | 100 |
| 1938 | 11.69 | 6.98 | 8.72 | 8.53 | 4,816,000,000 | 145 |
| 1939 | 27.97 | 16.01 | 22.79 | 23.1 | 7,504,000,000 | 323 |
| 1940 | 52.88 | 39.12 | 38.73 | 38.34 | 12,185,000,000 | 724 |
| 1941 | 100.03 | 66.17 | 88.2 | 94.43 | 22,846,000,000 | 1,980 |
| 1942 | 245.11 | 152.16 | 192.51 | 200.81 | 50,791,000,000 | 6,620 |
| 1943 | 588.16 | 429.39 | 419.44 | 408.75 | 100,196,000,000 | 22,800 |
| 1944 | 1716.8 | 1310.8 | 1387.26 | 1400.9 | 275,087,000,000 | 75,500 |
| 1945 | 12150.89 | 10607.37 | 6853.67 | 10432.57 | 1,506,590,000,000 | 179,000 |

*Appendix XVI* Military expenditure and wartime price inflation, 1937-1945. Figure's currency unit is one million Chinese dollars (C$).

*Sources*: Lu & Q. Fang (1991, p. 555, p. 557).

# Appendix XVII

## The Expansion of Private Credit, 1938-1945

| Year | Increase of private credit of government banks | Percentage increase (of private credit of government banks) of previous year | Increase of private credit of commercial and provincial banks | Percentage increase (of commercial and provincial banks) of previous year | Increase of rural credits | Percentage increase (of rural credits) of previous year | Increase in price levels |
|---|---|---|---|---|---|---|---|
| 1938 | 225 | 392 | 102 | | 32 | | 27 |
| 1939 | 882 | 25.3 | 163 | 160 | 47 | 147 | 68 |
| 1940 | 223 | 131 | 88 | 54 | 97 | 206 | 133 |
| 1941 | 294 | 1534 | 927 | 1,052 | 254 | 262 | 153 |
| 1942 | 4,511 | 184 | 1083 | 117 | 220 | 87 | 201 |
| 1943 | 8,344 | 184 | 2029 | 187 | 993 | 451 | 222 |
| 1944 | 13,531 | 162 | 3087 | 152 | 1,037 | 103 | 244 |
| 1945 | 121,661 | 899 | 7974 | 258 | 2,411 | 233 | 278 |

*Appendix XVII* The expansion of private credit, 1938-1945.

*Source*: K. Chang (1958, p. 249).

## Appendix XVIII

## Market Interest Rate and Price Indices for Free China, 1937-1945

| Year | Annual average of market interest percentage rate per month of wartime capital Chongqing | Price indices for Free China |
|---|---|---|
| 1937 | 1 | 189.5 |
| 1938 | 1.2 | 247.6 |
| 1939 | 1.3 | 415.9 |
| 1940 | 1.5 | 969.57 |
| 1941 | 1.9 | 2449.44 |
| 1942 | 2.8 | 7371 |
| 1943 | 6 | 23702.5 |
| 1944 | 9.3 | 81642.3 |
| 1945 | 10.1 | 308372.4 |

*Appendix XVIII* Market interest rate and price indices of Free China, 1937-1945.

*Source:* K. Chang (1958, p. 254).

# Appendix XIX

## Government Banks' Saving Policy, 1937-1945

| Year | Government banks' total savings | Government banks' percentage ratio of savings to total deposits | Commercial and provincial banks' ratio of total loans to total deposits |
|---|---|---|---|
| 1937 | - | - | 67 |
| 1938 | - | - | 73 |
| 1939 | - | - | 71 |
| 1940 | 533 | 8 | 60 |
| 1941 | 1,104 | 10 | 70 |
| 1942 | 2,976 | 15 | 98 |
| 1943 | 7,387 | 14 | 110 |
| 1944 | 15,456 | 16 | 84 |
| 1945 | 55,693 | 11 | 151 |

*Appendix XIX* Banks' saving policy, 1937-1945. Figure's currency unit is one million Chinese dollars (C$).

*Sources*: For the data on government banks' total savings, see K. Chang (1958, p. 256). For the data on government banks' percentage ratio of savings to total deposits, see K. Chang (1958, p. 257).

# Appendix XX

## The Sales of US Dollar Certificates and Gold Savings Deposits, 1940-1945

| Year | Sales of US dollar certificates and gold savings deposits |
|---|---|
| 1940 | 5 |
| 1941 | 6 |
| 1942 | 446 |
| 1943 | 1,910 |
| 1944 | 4,042 |
| 1945 | 9,956 |

*Appendix XX* The sales of US dollar certificates and gold savings deposits, 1940-1945. Figure's currency unit is one million Chinese dollars (C$).

*Source*: K. Chang (1958, p. 256).

# Appendix XXI

## Wholesale Price Indices of Changchun, 1936-1944

| Year | Currency issues of Manchukuo yuan (in millions) | Wholesale price indices of Changchun (1936=100) |
|---|---|---|
| 1936 | 274,691 | 100 |
| 1937 | 329,908 | 125.1 |
| 1938 | 452,895 | 149.6 |
| 1939 | 657,345 | 181.3 |
| 1940 | 991,228 | 225.7 |
| 1941 | 1,317,036 | 248.7 |
| 1942 | 1,728,145 | 267.9 |
| 1943 | 3,079,793 | 298.7 |
| 1944 | 7,709,251 | 358.3 |

*Appendix XXI* Currency conditions in Manchuria, 1936-1944. Figure's currency unit is one million Manchukuo Yuan (MCB¥).

*Sources*: P. Yang (1963, p. 55) and RGNMRC (1948, p. 37, pp. 154-155).

# Appendix XXII

## Currency Issues of Federal Reserve Bank Dollars, 1937-1945

| Year | Currency issues of Federal Reserve Bank Dollars (FRB$) | Wholesale price index of north China (1939=100) |
|---|---|---|
| 1937 | 20,712,000 | - |
| 1938 | 161,925,777 | - |
| 1939 | 458,042,170 | 100.00 |
| 1940 | 715,154,446 | 144.01 |
| 1941 | 966,457,251 | 182.10 |
| 1942 | 1,592,508,991 | 411.29 |
| 1943 | 3,828,272,976 | 1,176.67 |
| 1944 | 16,225,175,325 | - |
| 1945 | 142,399,854,507.81 | - |

*Appendix XXII* Currency issues of Federal Reserve Bank Dollars, 1938-1945. Unit of the currency in the figure is one Federal Reserve Bank dollar (FRB$).

*Sources*: Data on currency issues of Federal Reserve Bank dollars and the wholesale price indices of north China from 1938 to 1945, see P. Yang (1963, p. 56) and G. Wu (1958, pp. 45-47).

*Notes*: Data on 1933 is the monthly data on March 1933 when the issuance of Federal Reserve Bank Dollars was initiated. Data on 1944 is the monthly data on October 1944; data on 1945 is the monthly data on October 1945. Due to the lack of data, price indices in 1937, 1938 1944, and 1945 are not available.

# Appendix XXIII

## Comparison of Price Indices Among Wartime Free China, Communist-occupied Area, and Occupied China, 1937-1945

| Year | Price index for Free China | Price index for Communist-occupied area | Price index for Occupied China (Shanghai) |
|---|---|---|---|
| 1937 | 100 | 100 | 100 |
| 1938 | 145 | 143 | 115 |
| 1939 | 323 | 237 | 308 |
| 1940 | 724 | 500 | 653 |
| 1941 | 1,980 | 2,200 | 160 |
| 1942 | 6,620 | 9,900 | 493 |
| 1943 | 22,800 | 119,900 | 176 |
| 1944 | 75,500 | 564,700 | 2,510 |
| 1945 | 179,000 | 1,690,712 | 86,400 |

*Appendix XXIII* Comparison of price indices among Free China, Communist-occupied area, and Occupied China, 1937-1945.

*Sources*: For price index for Free China (1937=100), see A. Young (1965, p. 356). For price index for Communist-occupied area from 1937 to 1944 (1937=100), see Schran (1976, p. 184). For price index for Communist-occupied area in 1945, see FEHCGSR (1981/2016, p. 135). For price index for Occupied China (1937=100), see A. Young (1965, p. 357).

*Notes*: We choose the price indices of the capital of the COA Yan'an to demonstrate the COA's price inflation condition. The price index for Communist-occupied area in 1945 was calculated based on the ratio of the 1944 to 1945 data from FECCGSR and the 1944 data from Schran. The data of Occupied China is the wholesale prices in Shanghai (each December from 1937-1944, the data for 1945 is the data of August 1945).

# Appendix XXIV

## Monetary Supply and Price Indices, 1945-1948

| | Currency issues | Currency deposits | Total money supply | Price index |
|---|---|---|---|---|
| 1926 | 228,962,163 | 657,646,855 | 886,609,018 | 100.0 |
| 1927 | 262,164,410 | 700,172,666 | 962,337,076 | 104.4 |
| 1928 | 308,818,375 | 808,337,121 | 1,117,155,496 | 101.7 |
| 1929 | 350,236,497 | 957,374,032 | 1,307,610,529 | 104.5 |
| 1930 | 412,968,538 | 1,389,109,572 | 1,802,078,110 | 114.8 |
| 1931 | 393,367,870 | 1,213,334,120 | 1,606,701,990 | 126.6 |
| 1932 | 451,590,418 | 1,255,014,045 | 1,706,604,463 | 112.5 |
| 1933 | 535,190,933 | 1,579,824,899 | 2,115,015,832 | 103.9 |
| 1934 | 622,522,374 | 1,820,621,425 | 2,443,143,648 | 97.2 |
| 1935 | 867,984,374 | 2,324,341,889 | 3,192,326,263 | 96.4 |
| 1936 | 1,633,106,095 | 2,708,005,032 | 4,816,000,000 | 108.6 |
| 1937 | 1,640,000,000 | 2,019,000,000 | 3,659,000,000 | 189.5 |
| 1938 | 2,310,000,000 | 2,506,000,000 | 4,816,000,000 | 247.6 |
| 1939 | 4,290,000,000 | 3,214,000,000 | 7,504,000,000 | 415.9 |
| 1940 | 7,870,000,000 | 4,315,000,000 | 12,185,000,000 | 969.6 |
| 1941 | 15,100,000,000 | 7,746,000,000 | 22,846,000,000 | 2,449.4 |
| 1942 | 34,400,000,000 | 16,391,000,000 | 50,791,000,000 | 7,371.0 |
| 1943 | 75,400,000,000 | 24,796,000,000 | 100,196,000,000 | 23,702.5 |
| 1944 | 189,500,000,000 | 85,587,000,000 | 275,087,000,000 | 81,642.3 |
| 1945 | 1,031,900,000,000 | 474,690,000,000 | 1,506,590,000,000 | 308,372.4 |
| 1946 | 3,726,100,000,000 | 5,455,494,000,000 | 9,181,594,000,000 | 76,001,058.0 |
| 1947 | 33,188,500,000,000 | 27,777,060,000,000 | 60,965,560,000,000 | 681,743,336.0 |
| 1948 | 196,520,300,000,000 | 202,571,339,000,000 | 399,091,639,000,000 | 28,070,706,707.8 |

*Appendix XXIV* Monetary supply and price indices, 1926-1945.

*Sources*: Data on currency issues, currency deposits, and total money supply is from K. Chang (1958, p. 376); also see G. Wu (1958, pp. 92-96), P. Yang (1963, pp. 61-62), and Hong (2008, pp. 519-520). Data on price indices of 1930 to July 1948 is from K. Chang (1958, pp. 371-373). Data on price indices in August 1948 is from G. Wu (1958, p. 162). Price indices from 1930 to 1936 is from the Shanghai price index. The price index from 1937 to July 1948 is the whole Free China index. The price index of August 1948 is the Shanghai price index.

*Notes:* The price indices of 1946 to 1948 were obtained from the average of the monthly price indices for these years. In order to enable price indices from different sources to be displayed on the same statistical chart, we have processed the data from different sources according to the principle of proportionality.

# Appendix XXV

## Military Expenditure, 1945-1948

| Year | Estimated defense expenditure composition | Central government expenditure (CNC$ millions) | Defense expenditure (CNC$ millions) | Total Money supply (CNC$ millions) | Price indices (1937=100) |
|---|---|---|---|---|---|
| 1937 | 66 | 2,103 | 1,388 | 3,659 | 100 |
| 1938 | 59.2 | 1,181 | 699 | 4,816 | 131 |
| 1939 | 52.2 | 3,063 | 1,600 | 7,504 | 220 |
| 1940 | 72.1 | 5,425 | 3,911 | 12,185 | 513 |
| 1941 | 60.7 | 10,892 | 6,616 | 22,846 | 1,296 |
| 1942 | 57.2 | 26,602 | 15,216 | 50,791 | 3,900 |
| 1943 | 67.8 | 63,352 | 42,944 | 100,196 | 12,541 |
| 1944 | 71.7 | 182,832 | 131,080 | 275,087 | 43,197 |
| 1945 | 85 | 1,266,438 | 1,075,367 | 1,506,590 | 163,160 |
| 1946 | 59.9 | 7,574,790 | 4,537,299 | 9,181,594 | 331,887 |
| 1947 | 54.8 | 43,393,895 | 23,779,855 | 60,965,560 | 3,607,108 |
| 1948 | 58.5 | 655,471,087 | 383,450,586 | 399,091,639 | 148,522,258 |

*Appendix XXV* Military expenditure, 1937-1948. Unit of currency: one million Chinese dollar Fabi.

*Sources*: Data on central government expenditure (1937-1945) is from A. Young (1965, p. 16). Data on central government expenditure (1945-1948) is from K. Chang (1958, p. 154). Data on military expenditure from 1946 to 1948 (K. Chang, 1958, pp. 154-155) is based on the estimated defense expenditure composition and central government expenditure. Data on military expenditure (1937-1945) is from A. Young (1965 p. 16). Data on total money supply (1937-1948) is from K. Chang (1958, p. 376). The total money supply includes currency issues and currency deposits. Data on total money supply also see G. Wu (1958, pp. 92-96), P. Yang (1963, pp. 61-62) and Hong (2008, pp. 519-520). Data on price indices (1937-1948) is from Chang (1958, p. 371-373). The price index from 1937 to July 1948 is the index of Free China. Price index of January to August 1948 is the index of Shanghai. Data on price index, see also G. Wu (1958, pp. 154-163) and P. Yang (1963, pp. 61-62).

# Appendix XXVI

## Administration Expenditure, 1945-1948

| Year | Estimated Defense Expenditure Composition | Central Government Expenditure (CNC$ millions) | Administration Expenditure (CNC$ millions) | Total Money Supply (CNC Dollar) | Price Index (1937=100) |
|---|---|---|---|---|---|
| 1937 | 25.5 | 2,103 | 536 | 3,659 | 100 |
| 1938 | 28.3 | 1,181 | 334 | 4,816 | 131 |
| 1939 | 27 | 3,063 | 827 | 7,504 | 220 |
| 1940 | 24.7 | 5,425 | 796 | 12,185 | 513 |
| 1941 | 21.3 | 10,892 | 2,388 | 22,846 | 1,296 |
| 1942 | 26.1 | 26,602 | 6,943 | 50,791 | 3,900 |
| 1943 | 19.6 | 63,352 | 12,415 | 100,196 | 12,541 |
| 1944 | 15.3 | 182,832 | 28,001 | 275,087 | 43,197 |
| 1945 | 9.6 | 1,266,438 | 122,115 | 1,506,590,000,000 | 163,160 |
| 1946 | 28.5 | 7,574,790 | 2,158,815 | 9,181,594,000,000 | 331,887 |
| 1947 | 29.7 | 43,393,895 | 12,887,987 | 60,965,560,000,000 | 3,607,108 |
| 1948 | 23.7 | 655,471,087 | 155,346,648 | 399,091,639,000,000 | 148,522,258 |

*Appendix XXVI* Administration expenditure, 1937-1948. Unit of currency: one million Chinese dollar Fabi.

*Sources*: Data on central government expenditure (1937-1945) is from A. Young (1965, p. 16). Data on central government expenditure (1945-1948) is from K. Chang (1958, p. 154). Data on administration expenditure from 1946 to 1948 (K. Chang, 1958, pp. 154-155) is based on the estimated defense expenditure composition and central government expenditure. Data on administration expenditure (1937-1945) is from A. Young (1965 p. 16). Data on total money supply (1937-1948) is from K. Chang (1958, p. 376). The total money supply includes currency issues and currency deposits. For data on the total money supply, see also G. Wu (1958, pp. 92-96), P. Yang (1963, pp. 61-62) and Hong (2008, pp. 519-520). Data on price indices (1937-1948) is from K. Chang (1958, p. 371-373). Price index from 1937 to July 1948 is the index of Free China. The price index of January to August 1948 is the index of Shanghai. Data on price index, see also G. Wu (1958, pp. 154-163) and P. Yang (1963, pp. 61-62).

# Appendix XXVII

## Black Market Interest Rate and Production, 1946-1948

| Year | Note issue (CNC$ millions) | Velocity of circulation of Notes | Bank credit (CNC$ millions) | Official market interest rate | Black market interest rate | Price index (1937=100) | Wholesale price index (Shanghai) (Jan-June 1947=100) | Private loans (CNC$ millions) |
|---|---|---|---|---|---|---|---|---|
| 1946 | 3,726,100 | 2.57 | 1,627,281 | 10.7 | 15.08 | 331887 | 681563 | 1,073,483 |
| 1947 | 33,188,500 | 5.27 | 23,434,073 | 15.14 | 18.25 | 3607108 | 10063000 | 16,119,751 |
| 1948 | 374,762,200 | 10.82 | 201,245,341 | 23.17 | 26.55 | 148522258 | 558900000 | 156,496,326 |

*Appendix XXVII* Black Market Interest rate and production, 1946-1948. Unit of currency: one million Chinese dollar Fabi.

*Sources*: Data on note issues is from K. Chang (1958, p. 374); see also G. Wu (1958, pp. 92-96), P. Yang (1963, p. 61-62) and Hong (2008, pp. 519-52). Data on the velocity of circulation of notes is from K. Chang (1958, p. 270). Since there is no annual data, we have selected the data for each December from 1946 to 1948 as the samples. Data on bank credit (in CNC$ millions) is from K. Chang (1958, p. 375). Bank credit data in 1946 is from June to July. Data on official market interest rate is from K. Chang (1958, p. 375). For data on the price index of 1945 (Free China), see K. Chang (1958, p. 371). For data on the price index of 1946 to 1948 of the whole China, see K. Chang (1958, pp. 372-373). Data on the price index of 1946 to 1948 is the annual data calculated from the monthly date of these years (K. Chang, 1958, pp. 372-373). Data on wholesale price index (Shanghai) is from K. Chang (1958, p. 79). The price indices of 1946 to 1948 were obtained from the average of the monthly price indices for these years. Since there is no complete monthly data, we have selected the wholesale price index of August 1948 as the sample. For data on price index, see also G. Wu (1958, pp. 154-163) and P. Yang (1963, pp. 61-62). For data on private loans, see K. Chang (1958, p. 77).

*Notes*: Since there is no complete monthly data, we have selected the private loans data of June 1948 as the sample.

## Appendix XXVIII

## Currency Issues of Federal Reserve Bank Dollars in 1945

| Month | Currency Issues of Federal Reserve Bank Dollars (FRB$) |
|---|---|
| January | 19,823,145,000 |
| February | 23,520,747,000 |
| March | 27,835,850,000 |
| April | 35,060,048,000 |
| May | 42,024,200,000 |
| June | 55,962,473,000 |
| July | 73,120,748,000 |
| August | 102,885,567,000 |
| October | 142,399,854,507.78 |

*Appendix XXVIII* Currency issues of Federal Reserve Bank Dollars in 1945.

*Sources*: For data on the currency issues of Federal Reserve Bank Dollars in 1945, see G. Wu (1958 p. 48) and P. Yang (1963, p. 56).

# Appendix XXIX

## Chinese Official Dollar Exchange Rate in 1947

| Date | Chinese official US dollar exchange rate in 1947 |
|---|---|
| 1/1/1947 | 3350 |
| 02/26/1947 | 12000 |
| 08/18/1947 | 39000 |
| 08/28/1947 | 38500 |
| 3/9/1947 | 38000 |
| 6/9/1947 | 40000 |
| 11/9/1947 | 40500 |
| 09/18/1947 | 42500 |
| 09/26/1947 | 46000 |
| 9/101947 | 55300 |
| 10/24/1947 | 55000 |
| /4/11/1947 | 59500 |
| 11/20/1947 | 64000 |
| 11/25/1947 | 73000 |
| 12/17/1947 | 83000 |

*Appendix XXIX* Chinese official dollar exchange rate in 1947. Unit: One Chinese dollar Fabi.

*Sources*: S. Zhu et al. (1947, p. 6) and K. Chang (1958, pp. 382-383).

## Appendix XXX

## The Government Deficit, 1946-1948

| | Note issue outstanding | Government expenditure | Government revenue | Government deficit |
|---|---|---|---|---|
| 1945 | 1031900 | 2348085 | 1241389 | 1106696 |
| 1946 | 3726100 | 7574790 | 2876988 | 4697802 |
| 1947 | 33188500 | 43393895 | 14064383 | 29329512 |
| 1948 | 374762200 | 955471087 | 220905475 | 434565612 |

*Appendix XXX* Government deficit, 1946-1948. Unit: One million Chinese Fabi dollars.

*Sources*: K. Chang (1958, p. 71) and G. Wu (1958, p. 153).

# Appendix XXXI

## Price of US Dollar and Gold in Chinese Dollar (Fabi), 1945-1948

| | Currency issuance of Fabi (unit: 1 billion Chinese dollar) | Shanghai price index (the index of January to July 1937 is 1) | Black market price of US dollar in Shanghai (unit: 1 Chinese dollar) | Black market price of US dollar in Chongqing (unit: 1 Chinese dollar) | Black market price of gold in Shanghai (Unit: 1 Chinese dollar value of 10 tael) | Black market price of gold in Chongqing (Unit: 1 Chinese dollar value of 10 tael) |
|---|---|---|---|---|---|---|
| Aug-45 | 557 | - | 120,800 | 1,754 | - | 111,424 |
| Sep-45 | 674 | 346 | 121,318 | 968 | - | 66,728 |
| Oct-45 | 806 | 379 | 932 | 1,334 | 574,700 | 83,751 |
| Nov-45 | 901 | 993 | 1,439 | 1,597 | 833,880 | 89,871 |
| Dec-45 | 1,032 | 885 | 1,213 | 1,354 | 731,374 | 84,721 |
| Jan-46 | 1,150 | 983 | 1,459 | 1,449 | 856,844 | 86,938 |
| Feb-46 | 1,261 | 1,860 | 2,072 | 1,804 | 1,413,729 | 124,487 |
| Mar-46 | 1,346 | 2,712 | 2,022 | 2,006 | 1,598,260 | 151,308 |
| Apr-46 | 1,528 | 2,735 | 2,098 | 2,074 | 1,555,380 | 152,436 |
| May-46 | 1,796 | 3,807 | 2,319 | 2,441 | 1,762,500 | 179,474 |
| Jun-46 | 2,113 | 3,724 | 2,578 | 2,625 | 1,899,792 | 197,648 |
| Jul-46 | 2,158 | 4,072 | 2,519 | 2,344 | 1,938,600 | 204,285 |
| Aug-46 | 2,376 | 4,286 | 2,909 | 2,781 | 2,030,768 | 205,658 |
| Sep-46 | 2,701 | 5,092 | 3,579 | 3,316 | 2,137,500 | 217,792 |
| Oct-46 | 2,984 | 5,363 | 4,223 | 4,068 | 2,231,923 | 225,542 |
| Nov-46 | 3,296 | 5,317 | 4,532 | 4,500 | 2,560,400 | 265,052 |
| Dec-46 | 3,726 | 5,713 | 5,910 | 5,787 | 3,167,600 | 332,272 |
| Jan-47 | 4,510 | 8,668 | 6,765 | 7,243 | 3,822,170 | 429,500 |
| Feb-47 | 4,838 | 10,665 | 12,657 | 11,161 | 61,110,000 | 564,478 |
| Mar-47 | 5,744 | 11,209 | 14,040 | - | 6,232,000 | 480,000 |
| Apr-47 | 6,901 | 14,253 | 16,250 | - | 7,488,000 | 707,270 |
| May-47 | 8,381 | 24,313 | 27,204 | 27,313 | 13,148,000 | 1,175,556 |
| Jun-47 | 9,935 | 29,931 | 32,826 | 35,900 | 19,182,550 | 1,795,625 |
| Jul-47 | 11,664 | 31,169 | 43,640 | 44,880 | 23,812,000 | 2,339,000 |
| Aug-47 | 13,697 | 32,980 | 42,680 | 39,900 | 24,644,000 | 2,359,400 |
| Sep-47 | 16,948 | 43,253 | 50,519 | 45,208 | 28,553,846 | 2,582,500 |
| Oct-47 | 20,791 | 59,879 | 81,058 | 79,981 | 44,500,000 | 4,092,309 |
| Nov-47 | 26,879 | 66,587 | 109,375 | 103,450 | 63,375,000 | 6,119,375 |
| Dec-47 | 33,189 | 83,796 | 149,615 | 154,500 | 85,000,000 | 9,258,077 |
| Jan-48 | 40,941 | 127,474 | 178,917 | 168,353 | 104,333,333 | 9,838,333 |
| Feb-48 | 53,929 | 182,554 | 213,250 | 191,929 | 141,250,000 | 13,705,536 |
| Mar-48 | 69,692 | 295,060 | 441,154 | 381,733 | 256,346,154 | 24,509,536 |
| Apr-48 | 97,799 | 342,042 | 661,154 | 696,923 | 368,038,462 | 35,930,772 |
| May-48 | 137,419 | 491,644 | 1,166,923 | 1,120,000 | 589,807,692 | 60,550,000 |
| Jun-48 | 196,520 | 884,800 | 2,252,917 | 1,453,333 | 1,119,600,000 | 112,832,000 |
| Jul-48 | 374,762 | 2,606,000 | 6,430,769 | - | 3,119,230,769 | 309,291,665 |
| Aug-48 | 663,694 | 4,927,000 | 11,088,000 | - | 5,396,000,000 | 437,695,652 |

*Appendix XXXI* Currency issuance of Fabi, Prices of US dollar and gold in Fabi, 1945-1948, 1945-1948.

*Sources*: G. Wu (1958, pp. 145-146, pp. 149-150), Hong (2008, p. 503), and P. Yang (1963, p. 75, p. 79, p. 83).

# Appendix XXXII

## Agricultural Price Indices, 1937-1949

| Year | Price indices of raw materials | Price indices of semi-finished products | Price indices of finished products | Ratio of the price indices of semi-finished products to raw materials | Ratio of price indices of finished products to raw materials |
|---|---|---|---|---|---|
| Jun-37 | 1.05 | 0.99 | 1.02 | 0.94 | 0.97 |
| Dec-37 | 0.83 | 1.23 | 1.34 | 1.47 | 1.61 |
| Dec-38 | 1.09 | 1.81 | 3.34 | 1.66 | 3.06 |
| Dec-39 | 2 | 3.84 | 8.21 | 1.92 | 4.1 |
| Dec-40 | 8.77 | 10.37 | 17.61 | 1.18 | 2.02 |
| Dec-41 | 18.8 | 25.9 | 53.23 | 1.38 | 2.83 |
| Dec-42 | 52.62 | 92.07 | 226.26 | 1.75 | 4.3 |
| Dec-43 | 182.46 | 223.09 | 641.33 | 1.22 | 3.52 |
| Dec-44 | 554.1 | 771.55 | 2.199 | 1.39 | 3.97 |
| Jul-45 | 1639.5 | 2535 | 7810.7 | 1.55 | 4.76 |
| Dec-45 | 1221.34 | 2605.5 | 4773.67 | 2.13 | 3.91 |
| Dec-46 | 2829 | 4760.67 | 8845.8 | 1.68 | 3.13 |
| Dec-47 | 43832 | 83445 | 128228.5 | 1.9 | 2.93 |
| Dec-48 | 12.44 | 22.35 | 26.35 | 1.8 | 2.12 |
| Apr-49 | 22437.32 | 35578.46 | 63420 | 1.57 | 2.83 |

*Appendix XXXII* Agricultural price indices, 1937-1949.

*Sources:* P. Yang (1963, p. 141) and D. Wu (1945, pp. 34-35).

*Notes*: The currency standard of 1948 was changed from Fabi to the New Gold Yuan Notes in the figure.

# Appendix XXXIII

## Shanghai Price in 1947

| Year | Price indices of Shanghai (1936=1) | Wholesale price indices (Jan-Jun 1937=1) | Price of living costs indices (1936=1) |
|---|---|---|---|
| 1947/8/1 | 48924 | 32980 | 31000 |
| 1947/9/1 | 60519 | 43253 | 34400 |
| Rate of increase | 23% | 31% | 11% |

*Appendix XXXIII* Shanghai price in 1947.

*Sources*: P. Yang (1963, p.139) and Kuang (1948).

## Appendix XXXIV

## Kingming Price Indices, 1947-1948 (Jan-July 1937=1)

| | Toto price indices | Price indices of food | Price indices of fiber | Price indices of fuel | Price indices of metal | Price indices of construction equipment | Price index of others |
|---|---|---|---|---|---|---|---|
| Feb-47 | 8558.9 | 8827.2 | 11008.5 | 6009.7 | 4167.8 | 7501.5 | 4371.8 |
| Mar-47 | 9232.5 | 9231.4 | 11966.7 | 6648 | 11217.1 | 9645.6 | 6300 |
| Apr-47 | 10017.3 | 9998.6 | 14349.7 | 6611.8 | 13826.5 | 10271.9 | 6229.7 |
| May-47 | 15021.4 | 15696.1 | 21385 | 6947.3 | 17809.6 | 13073.9 | 8451.6 |
| Jun-47 | 16963.2 | 17321.6 | 27123.1 | 8216.8 | 17963.8 | 15596.7 | 9289 |
| Jul-47 | — | — | — | — | — | — | — |
| Aug-47 | — | — | — | — | — | — | — |
| Sep-47 | 29847.1 | 28364 | 59820 | 19478.2 | 69186.7 | 35808.3 | 23102.1 |
| Oct-47 | 45542 | 42885 | 90706 | 34375.4 | 83126 | 55403 | 33846 |
| Nov-47 | — | — | — | — | — | — | — |
| Dec-47 | 7593.03 | 68773.3 | 132766.7 | 109097.4 | 110075 | 102493 | 57594 |
| Jan-48 | 113795 | 104467 | 189239 | 206519 | 195965 | 121422 | 70633 |
| Feb-48 | 160174 | 155318 | 219050 | 238028 | 239339 | 125877 | 83902 |
| Mar-48 | 246692 | 235267 | 374982 | 405573 | 356542 | 186900 | 164029 |
| Apr-48 | 272456 | 248594 | 454067 | 543150 | 547562 | 257200 | 224989 |
| May-48 | 476012 | 452250 | 763217 | 715350 | 674515 | 374809 | 322880 |
| Jun-48 | 879520 | 835180 | 1375320 | 1547040 | 797150 | 673034 | 685115 |
| Jul-48 | 2495000 | 2381000 | 3438000 | 4546000 | 2536000 | 2057000 | 1761000 |
| Aug-48 | 3465000 | 3174000 | 5643000 | 8139000 | 4764000 | 2997000 | 2826000 |

*Appendix XXXIV* Kingming price indices, 1947-1948.

*Sources*: G. Wu (1958, pp.186-188) and Central Bank Economic Research Division (1949).