

# On savings ratio

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*This paper explores the factors that affect saving and consumption behaviours, in a context where some believe that the high savings ratio of the East Asia and oil-producing countries is one major cause for the global imbalances and the crisis.*

*The paper elaborates on the factors behind the high savings ratios in East Asia and oil producing countries and low savings ratios in the United States. It argues that the high savings in East Asia can mainly be explained by cultural and structural factors in nature. Simple adjustments in nominal exchange rate cannot influence savings behaviour. The paper also argues that savings increased in East Asia as a result of rescue plans designed by international organisations after the 1997 crisis. Encouraging a reduction in savings ratio has been an important component of the national economic policies in China since 2005. The low savings ratios in the United States over the recent period are mainly due to euphoria sentiments and an analysis of time series suggests that no significant causal relationship exists between savings and consumption behaviours in the United States and those in East Asia.*

*The paper discusses a set of options for adjusting savings ratio over the time. They include a switch to a more balanced growth pattern, enhanced regulation of the international speculative capital flows and the channeling of more savings into developing countries and emerging markets. In addition, a reform of the international monetary system is in order so as to prevent the over-concentration of foreign assets in one particular currency.*

NB: Major views of this paper were from Dr Zhou's speech delivered at the High Level Conference Hosted by Bank Negara Malaysia on February 10, 2009.

There are no commonly accepted explanations for savings and consumption behaviours in the economics and statistics community. With further transmission of the current financial crisis, discussions on the causes of the crisis intensified. Some believe that the high savings ratio of the East Asia and oil-producing countries is one major cause for the global imbalance and the crisis. This paper attempts to explore the factors that affect savings ratio, and examines the reasons behind the high savings ratios in the East Asian and oil-producing countries and the low savings ratio in the United States. It also provides a brief description of savings ratio in China and the corresponding adjustment approaches, as well as a set of options for adjusting this ratio.

## 1| FACTORS AFFECTING SAVINGS RATIOS

The term “savings” in this paper includes domestic savings, current account surplus and foreign reserve. As of now, we have not seen sufficient and solid academic studies illustrating the linkage between the savings ratio and determinant factors, such as the level of wealth as measured by per capita gross domestic product (GDP), foreign exchange rate, the development of financial intermediation and capital market, tradition, demographic structure and social security system. While exchange rate is statistically correlated with savings ratio to some degree, the coefficients are generally low and the correlation usually insignificant. It therefore seems that savings ratio can't be adjusted by simply adjusting exchange rate.

Identifying the factors determining savings ratio is a major policy challenge for all countries. We can only come up with an effective policy tool kit after identifying determining factors for and their impacts on the savings ratio.

## 2| CAUSES FOR HIGH SAVINGS RATIO IN THE EAST ASIA AND OIL-PRODUCING COUNTRIES

Tradition, culture, family and demographic structure and the stage of economic development are the major reasons for high savings ratio in East Asia.

First, the East Asia countries are influenced by Confucianism, which values thrift, self-discipline, *zhong yong* or Middle Ground (low-key), and anti-extravagancy. Second, we may be able to trace the cultural differences from a large number of textbooks and literature of different countries. For instance, the Latin American countries have similar levels of national wealth as the East Asian countries but lower savings ratios. This can be attributed to the cultural differences in the region, where people have a higher propensity of consumption and tend to quickly use up all their salaries. Third, family tie is strong in the East Asian countries, and families shoulder social responsibilities such as providing for the elderly and bringing up children. Fourth, according to the Life Cycle Hypothesis by Franco Modigliani, more money is saved to meet future pension and healthcare needs as the share of working age population increases. When we study the phases of economic growth, in times of exceptionally high economic growth, most of the incremental income will be saved, resulting in an unusually high savings ratio. China fits in the above-mentioned two conditions for a high savings ratio. Japan and the United States can also demonstrate the contribution of these factors in determining savings ratio. Similar to the United States, Japan is a developed country with high per capita income. The social security systems in the two countries have their respective weaknesses. However, Japan's savings ratio is much higher than that in the United States. This can be largely ascribed to cultural, family value and demographic feature in Japan, which are fairly similar to those in other East Asian countries.

Some argue that an inadequate social security system leads to high savings ratio. Though logically sound, this argument lacks adequate empirical support. Moreover, it is based on the assumption that human behaviours are rational and people increase their savings for future healthcare and pension needs. In act, such an assumption does not necessarily stand.

High savings ratio in oil-producing countries has different reasons. Endowed with rich oil resources that far exceed their normal demand, these countries naturally accumulate their wealth in the form of savings.

The elementary textbooks on economics always start with “supply, demand and prices”, which lead the readers to believe that certain prices (e.g., exchange

rate and interest rate) can determine the behaviour of savings and consumption. However, the fact is that the level of savings ratio is influenced by a wide range of factors, and it can't be adjusted simply by changing nominal exchange rate. Factors such as national tradition, culture, family structures, demography and social security system can't be changed in the short term. As a result, it may take a long time for policies to yield intended impacts.

### 3| IMPLICATIONS OF THE ASIAN FINANCIAL CRISIS FOR SAVINGS RATIO IN EAST ASIA

Savings in the GDP are composed of resident, corporate and government savings. If total savings exceed domestic investment, the surplus will take the form of foreign reserves. To analyse the drastic increase of imbalance of savings and trade in East Asian countries that emerged after 1997, we need to examine the impact of the Asian financial crisis on savings ratio in these countries.

The high savings ratio and large foreign reserves in the East Asian countries are a result of defensive reactions against predatory speculation. During the Asian financial crisis, the rampant speculations of hedge funds caused large capital inflows and subsequent reversal in these countries, which exacerbated their economic woes. People in these countries were shocked, and disgusted by these speculative attacks. Afterwards, many suggested that unregulated predatory speculation caused the crisis, and appropriate international regulation was needed. However, for various considerations, some countries were against such regulations, and failed to see the need to adjust the regulatory frameworks. International organisations also failed to perform their regulatory responsibilities over abnormal capital flows, forcing the East Asian countries to amass foreign reserves to fend for themselves.

The increase of savings ratio and current account surplus in the East Asian countries is also a result of the rescue plan designed by international organisations. The rescue plans were silent on regulating cross-border speculative capital flows, which otherwise should have been put under scrutiny. Instead, excessive and stringent conditionalities were

imposed, demanding that the crisis-stricken countries adopt tight-fiscal and monetary policies, raise interest rates, cut fiscal deficits and increase foreign reserves. In the decade thereafter, the East Asian countries learnt the lessons, and increased foreign reserves and domestic savings in order to beef up their defense against financial crisis.

Of course, there were also vulnerabilities in economic development models, foreign debt management as well as institutional arrangements of the East Asian countries. Sweeping structural reforms on the corporate and financial sectors were launched in the wake of the crisis, social security systems were improved, and education and healthcare systems reformed. However, it takes time for these efforts to take effect.

### 4| CAN CHINA ADJUST ITS SAVINGS RATIO EFFECTIVELY?

During the Asian Financial Crisis, China, as a responsible large economy, did not devalue its currency and paid the price of a fairly slow recovery. The endeavor of the Chinese authorities to maintain the stability of renminbi (RMB) against all odds contributed to stemming the spread of the financial crisis.

After the crisis, China intensified efforts to revamp its corporate and government sectors with the deepening of market-oriented reforms. Profitability of enterprises, especially state-owned enterprises (SOEs), increased; fiscal position improved and residents' income improved steadily. Starting 2002, savings ratio began to surge, with steadily rising resident savings and remarkable increase of corporate savings. China's savings ratio increased from 37.5% in 1998 to 49.9% in 2007. During the period, the ratio of corporate sector disposable income to the national disposable income increased from 13% to 22.5%, while the share of government disposable income to the total increased by only 2 percentage points.

The rate of corporate savings to GDP in China is high compared with other countries in the world. This is closely related to the unsolved distortion of cost/profit of enterprises during China's economic transition. Under the planned economy, housing, healthcare, and pension were provided by the enterprises and the government, and weren't

accounted for in wages. This had dampened people's incentives to save. Savings were even considered "involuntary" as people had to regularly line up in queues at shops for consumer goods in short supply. After the reform in the 1990s, the "iron bowl" (lifelong secure job and welfare) system was smashed and the enterprises stopped providing pension and housing for free. However, effective social security system had not been in place either. These significantly increased the incentive for precautionary savings. Nevertheless, the real cost of labor takes time to be reflected in the cost of the enterprises. As a result, the extraordinary profit from cost distortion did not find its way to liability accounts of pension, healthcare and housing for employees, where it should have, which led to a significant surge of corporate savings. This broadly explained the increase in household and corporate savings. This is also why some people suggested that part of the state-owned shares of listed companies should be transferred to the national social security fund.

The Chinese authorities have a clear policy intention to reduce savings ratio. Since 2005, boosting domestic demand and encouraging consumption have been important components of the national economic policies. These policies would eventually bring down the savings ratio. Yet, in-depth studies are needed to identify factors influencing the savings ratio, its elasticity with respect to these factors, and the specific adjustment measures to take.

Besides, the incomplete reforms in some areas have affected the adjustment of savings ratio. Although private enterprises in China are already market-driven and free of cost distortion, the reforms of the public sector are incomplete despite considerable achievements in reforming SOEs. The lack of clearly-defined and fully monetised cost structure hampered the adjustment of savings ratio. It is therefore important to expedite the reform of the public sector and the transformation of the government functions.

## 5 | OBSERVATIONS ON LOW HOUSEHOLD SAVINGS RATIO IN THE UNITED STATES

The US household savings ratio in recent years went through two phases: before the mid-1990s, it ranged between 7-10%; after 1997, it declined remarkably

with pronounced "twin deficits", especially trade deficit. Some attributed the low savings to the so-called "euphoria" on the US economic performance since the mid-1990s. Specifically, in late 1980s and early 1990s, after the collapse of the central planning system of the former Soviet Union and Eastern Europe, growth in those regions steadily slipped. In the 1990s, the Japanese economy was also trapped in prolonged stagnation, and European Union's economic performance was lackluster due to structural problems including rigid labor market. The United States, as the largest economy, boasted the optimal economic system that was seemingly unparalleled in the world. The only remaining challenge, in terms of economic system, came from Asia; after 1997, the Asian economies suffered heavy blows. In contrast, the US economy demonstrated strong flexibility and resilience, and recovered rapidly from the 9/11 attack and the burst of the IT bubble in recent years. All these augmented the euphoria sentiment in the market, which in turn influenced the saving behaviour of the US residents. However, the unprecedented magnitude of the current financial crisis is expected to dramatically dampen such euphoria sentiments.

The time series show that this round of low savings and high consumption in the United States commenced in Mid-1990s. In contrast, the savings ratio of East Asian countries only surged after the Asian financial crisis and China's savings ratios did not begin to increase until 2002. The difference in time distribution indicates that there is no significant causal relationship between the two.

## 6 | OPTIONS FOR ADJUSTING SAVINGS RATIO

Global savings imbalance exists for many reasons. It seems inappropriate to link savings ratio only to exchange rate, and it is also unrealistic to resolve long-term issues in the short run. One should, instead, adopt a broader and more comprehensive mindset in examining the imbalance of savings.

First, a comprehensive set of prescription is needed. Although the United States can't sustain the growth pattern of high consumption and low savings, it is not the right time to raise its savings ratio at this very moment. It needs to strike a balance between stimulating consumption and facilitating the economic

recovery. On the other hand, the East Asian nations should attend to economic growth model, economic structure, price system and the like, in order to bring down savings ratio. Of course, reform of the exchange rate mechanism is part of this prescription. The Chinese government has focused on boosting domestic demand to sustain economic growth in an effort to tackle the ongoing financial crisis and conducting economic adjustment. The RMB 4 trillion stimulus package, one of the largest in the world, is mainly an expenditure program. The program underscores public welfare, job creation, and income growth for the rural areas and the underprivileged groups.

Second, countries and international organisations should strengthen their cooperation and intensify the regulation of the international speculative capital flows. The current financial crisis underscores the necessity of reinforcing the regulation over international capital flows and enhancing their transparency. International organisations and countries concerned should help developing countries to establish a robust early-warning system and guard against attacks from predatory speculation. International cooperation should be strengthened

to improve the aid mechanism. In case emerging markets experience temporary balance of payments difficulties, international aid should be swift, and conditionalities attached should be reduced. This would encourage countries to lower savings including foreign reserves and expand domestic demand.

Third, appropriate measures should be taken to channel more savings into developing countries and emerging markets. Savings flowing from emerging markets to the advanced economies is neither rational nor consistent with the intention of the advanced economies to increase their domestic savings. However, the adjustment of savings ratio in the East Asian countries will not see immediate effects. Meanwhile, savings in oil-producing countries may remain at a high level so long as oil prices don't plunge further. Therefore, global savings imbalance will remain for some time in the future. The top priority at present is to facilitate the rational flow of savings and improve their allocation efficiency. One option is to redirect surplus savings to other developing countries and emerging markets, those with abundant resources, low labor cost, but lack of capital. These economies are the future growth engines of the global economy.

*Finally, the reform of the international monetary system should be advanced. Currently, the US dollar is used in most international trade and financial transactions, and is also the most important reserve currency. The International Monetary Fund data showed that the US dollar accounted for 63.9% of the total foreign reserves by the end of 2007. When countries increase savings and if these savings are in the form of dollar denominated foreign reserves, capital will inevitably flow into the United States. In the short run, the United States may need more capital inflows to deal with the financial crisis; over the long run, large capital inflows are not in its best interest of making adjustments to its economic growth model. Moreover, the over-concentration of foreign assets in one particular currency may bring about undesired consequences. Therefore, in addition to upgrading regulatory cooperation and rationalising savings allocation, the international community should move forward in reforming the international monetary system. Efforts should be made to strengthen the surveillance on the economic and financial policies in major reserve currency countries and to enhance the status of the SDR, so as to advance the international monetary system towards diversification over the long run.*