

THE DOLLAR RESERVE SYSTEM AS A BASTION OF EMPIRE AND A FORCE OF
ECONOMIC NECROSIS

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ABSTRACT

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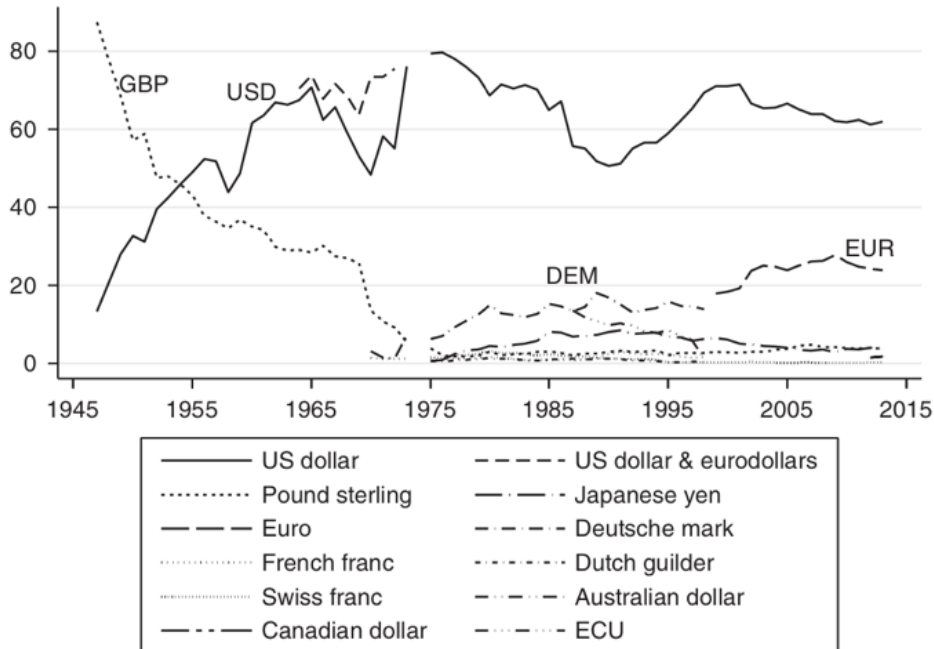
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The 1944 Bretton Woods agreement established the dollar as the world's reserve currency and the United States as the most economically powerful nation on earth. Its termination in 1971 gave the United States the "exorbitant privilege" of a fiat reserve currency. America's export of fiat dollars supported decades of chronic current account deficits and debt-fueled overconsumption.

Like the prototypical resource-rich nation, America suffers from a dollar-induced Dutch disease. An abundance of fiat dollars predisposed institutional failure: the economy increasingly advantaged few at the expense of many. Corporate activity reconfigured to transfer wealth from labor to capital, the proprietor of the dollar resource. Financialization undermined investment and production by capital reallocation from the real economy to the financial economy.

Introduction of the US dollar as a reserve currency:

After World War II, the Bretton Woods agreement cemented the US dollar's status as the world's reserve currency. Since the dissolution of Bretton Woods, the US dollar has retained its reserve currency status despite declining economic and geopolitical importance.



(Figure: Eichengreen 6, CNY not present)

Today, the dollar is a fiat currency and thus has no intrinsic value. However, it maintains its role as the primary global reserve currency, with substantial benefits accruing to the United States government, economy, and capital markets as a result. However, much like any other national resource, this status has been abused, resulting in financialization, inequality, and industrial necrosis in the United States. Moreover, China is emerging as a new world power and trying to cement the Yuan as a reserve currency. The mutual progression of the US and China toward Thucydides' trap highlights the increasing importance of this contest.

The US dollar's replacement of the British Pound Sterling as the world's reserve currency:

The US dollar emerged from World War II as the world's reserve currency, largely because of the disparate economic effects of both World Wars I and II on the US in comparison to Europe. Before World War I, the dollar "played no role in the international monetary system" (Richardson). However, the economic benefits of World War I accrued disproportionately to the US economy, increasing the economic importance of the US global trade and accelerating the US dollar towards reserve currency status.

"When the war began the United States was in a recession. European purchases of goods for the war, mainly food and munitions, soon turned things around and created a long economic boom. This story was to be repeated after the outbreak of the Second World War, although the U.S. economy was considerably further from full employment in 1939 than it was in 1914.

...Nearly two thirds of the World War I expansion took place during the period of U.S. neutrality. It might make sense, therefore to look to a peacetime expansion for a basis of comparison. As we look backward in time, the first peacetime expansion to match or exceed the length of the World War I expansion was the gold-rush expansion from 1848 to 1853." (Rockoff 4)

The US reaped the economic benefits of war with few of the detriments because it remained neutral for a substantial time. Even during its involvement, the US suffered virtually no destruction of productive capabilities. The US enjoyed immense economic growth, as measured by change in gross domestic product (GDP), a measure of national production that includes

personal consumption, domestic investment, government spending, and net exports. Each of these areas saw strength as the domestic economy’s production capacity and exports grew.

Table 1. Three Long Economic Expansions.			
	1848-1853	1861-1865	1914-1918
	The California Gold Rush	The American Civil War	World War I
(1) Percentage increase in Money	66.8	95.9	48.6
(2) Percentage increase in Real GNP	25 .6 [37.6]	20.2?	26.1 [18.4]
(3) Percentage increase in the GNP deflator	9.8	57.1	45 [51.3]

Sources. Money. 1848-1853, Friedman and Schwartz (1970, table 14, column 3, p. 232). 1861-1865, my estimates, based mainly on Mitchell (1903, table V, p. 179). 1914-1918: Friedman and Schwartz (1970, table 1, column 9, pp. 14-16). Real GNP and GNP deflator, 1848-1853, 1861-1865: Berry (1988, Table 3, p. 19; table 5, p. 21). [Real GDP, 1848-1853]: Rhode [Gallman] (2002, table 1, p. 28). The increase shown for the Civil War years is highly controversial. It probably applies, if at all, to those regions that avoided actual fighting. 1914-1918: Balke and Gordon (1989, Table 10, p.84). [1914-1918]: (Romer 1989, table 2, pp. 22-23).

(Figure: Rockoff 29)

Like the gold rush, the US’ peacetime involvement led to a “gold-backed expansion of the stock of money” (Rockoff 4). US exports of munitions to Europe drove an immense trade surplus. The United States settled balance of payments surpluses in gold, which drove monetary expansion via net transfers of gold from Europe to the United States. Like the gold rush, the result was “inflation, real income growth, and a long boom” from 1914 to 1917 (Rockoff 4). The munitions manufacturing boom also “made the ultimate conversion of the economy to a wartime basis easier than it otherwise would have been,” reducing economic discontinuity usually associated with transitions of productive capacities in wartime (Rockoff 5).

Furthermore, the newly-founded Federal Reserve system mitigated the economic disruptions associated with retooling the economy and transitioning to war. The Federal Reserve “created a market for trade credits, smoothed seasonal interest rate spikes, reduced financial volatility, and solidified management of the gold standard” (Richardson).

The economic tailwinds of World War I helped the United States’ improved its monetary status through global capital markets. With its newfound wealth, the United States a capital exporter, or an investor abroad. As the United States became a net creditor, it invested “large amounts abroad, especially in Latin America, taking on the role traditionally played by Britain and other European capital exporters” (Rockoff 21). Increasing activity in global financial markets supported dollar ubiquity, contributing to perception of the dollar as a global means of exchange. Furthermore, increased participation of American financial institutions in global capital markets spurred the development of its financial infrastructure, including market makers and investment banks. The shift of financial power to the United States made it economically competitive with European superpowers, attracting talent and investment that drove productivity and technology growth throughout the 20th century (Rockoff 20).

“New York could justly claim to have emerged from the War as London’s equal if not her superior in the contest to be the world’s leading financial center. Britain’s economic weakness, a direct result of the war, and the difficulties surrounding her return to the gold standard naturally meant that entrepreneurs and governments would look to the one industrial nation that had remained largely unscathed by the war.” (Rockoff 21)

Table 9. The International Investment Position of the United States, 1914-1929, selected years.

Year	U.S. Investments Abroad	Foreign Investments in the U.S.	U.S. Net Indebtedness
	(Billions of dollars)	(Billions of dollars)	(Billions of dollars)
1914 (June)	5.0	7.2	-2.2
1919	9.7	3.3	6.4
1924	15.1	3.9	11.2
1927	17.9	6.6	11.3
1929	21.5	8.4	13.1

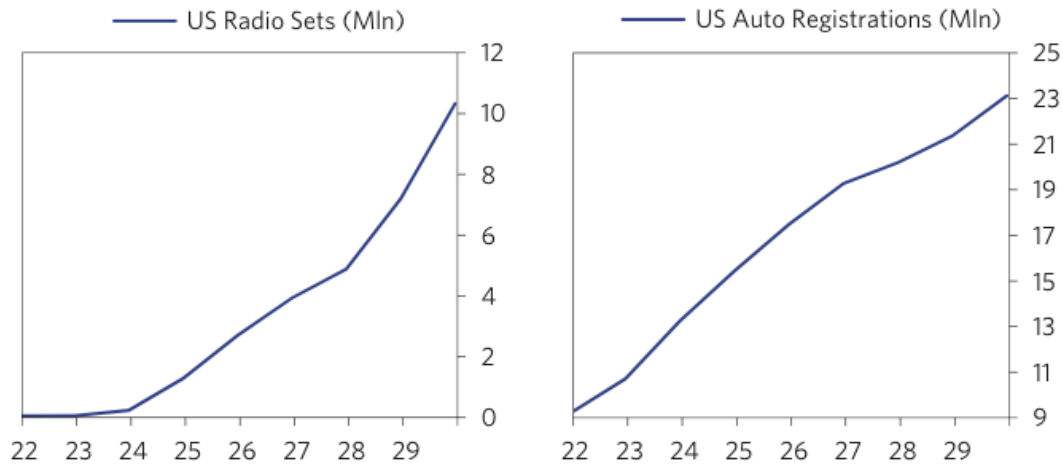
Source: U.S. Bureau of the Census (1975, series U26, U33, p. 869)

(Figure: Rockoff 37)

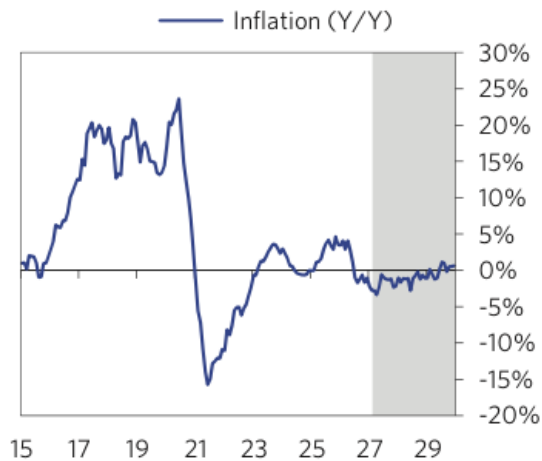
Recalling the Great Depression in the US and abroad:

After the 1929 stock market crash, the United States and Britain faced the Great Depression, which brought balance of payment crises analogous to that precipitating the end of Bretton Woods in 1971. The Great Depression illustrates the challenges of a gold standard and the relation between credit cycles and currency status.

Unsustainable asset price inflation preceded the Great Depression. After World War I, the US experienced a technology-led boom with massive productivity gains and low inflation.

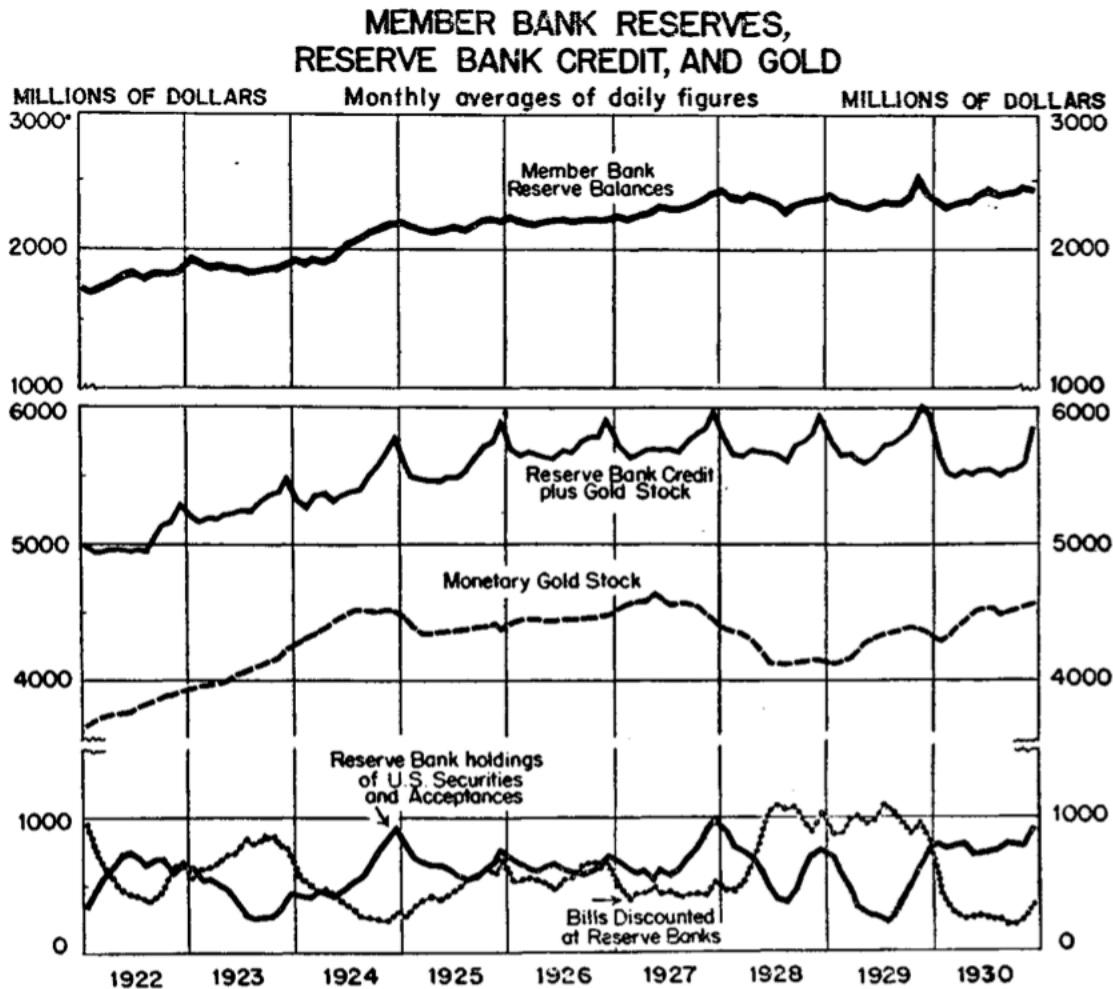


(Figure: Dalio, Part 2, p.49)



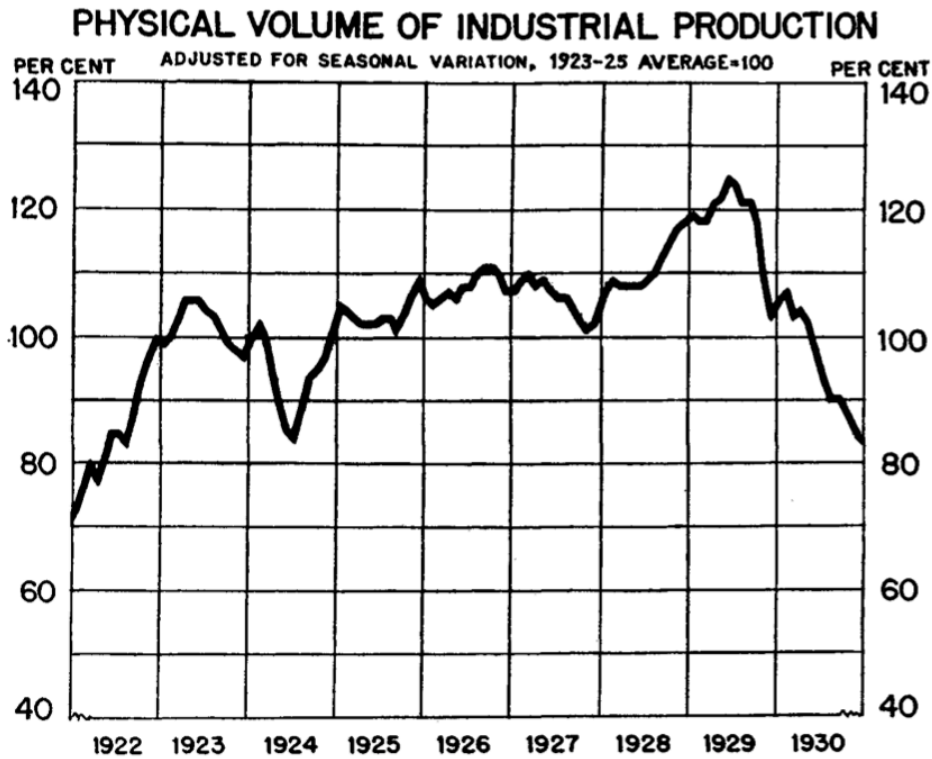
(Figure: Dalio, Part 2, p.53)

Robust post-war growth within the US attracted investment from abroad. Gold “flowed from other countries to the US” as “investors bought dollars” (Dalio, Part 2 50). In 1927, “European currencies, and particularly sterling” began to show “weakness” (Miller 445). European countries had “considerable concern” for the gold standard, and the US “feared” that European currency weakness would “interfere with sales of agricultural products”(Miller 445).



(Figure: Miller 445)

Federal Reserve banks doubled their holdings of US government securities from “\$300,000,000 in May to \$600,000,000 in December” and reduced “discount rates at all reserve banks from “4 to 3 ½ per cent during the third quarter of the year,” “cheapening the cost of credit to borrowing member banks (Miller 446). The easing measures succeeded, and industrial production rose sharply.



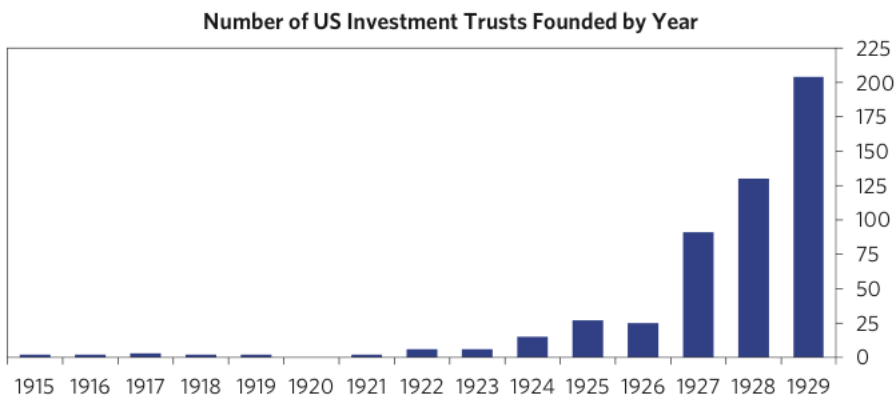
(Figure: Miller 443)

The Federal Reserve's interventions transformed optimism into leverage-fueled market hysteria.

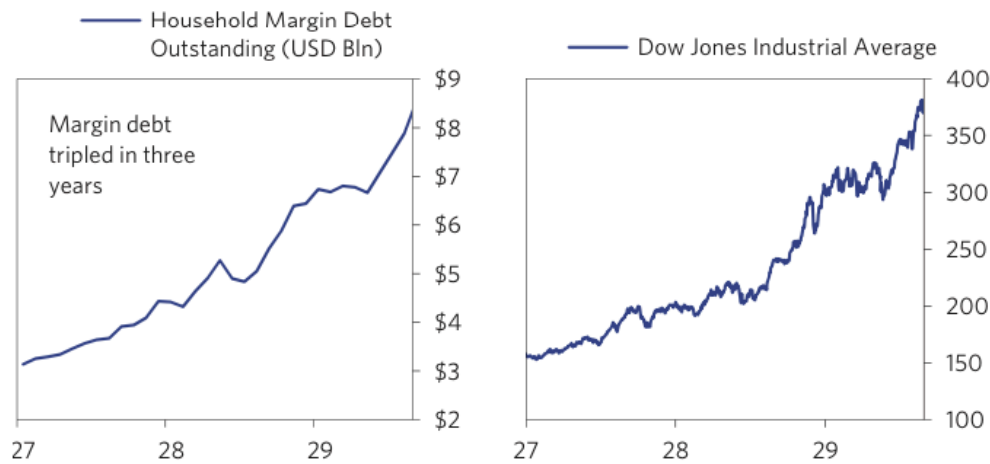
An explosion in debt, including margin debt used to purchase stocks, fueled the bubble.

Investment trusts, leveraged passive investment vehicles, grew immensely (Dalio, Part 2 52).

Markets roared as investors became increasingly complacent.



(Figure: Dalio Part 2 52)

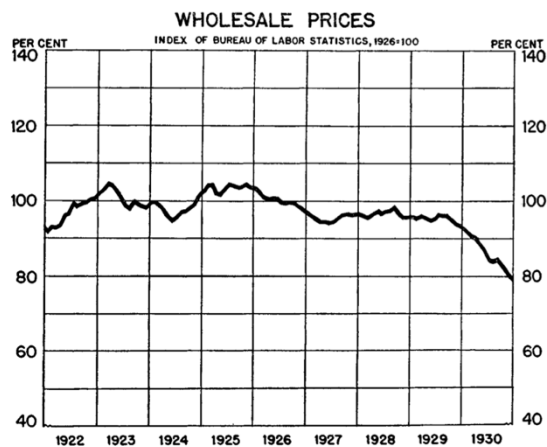


(Figure: Dalio Part 2 52)

The Federal Reserve knowingly created precarious market conditions because its mandate targets unemployment and inflation, not debt growth.

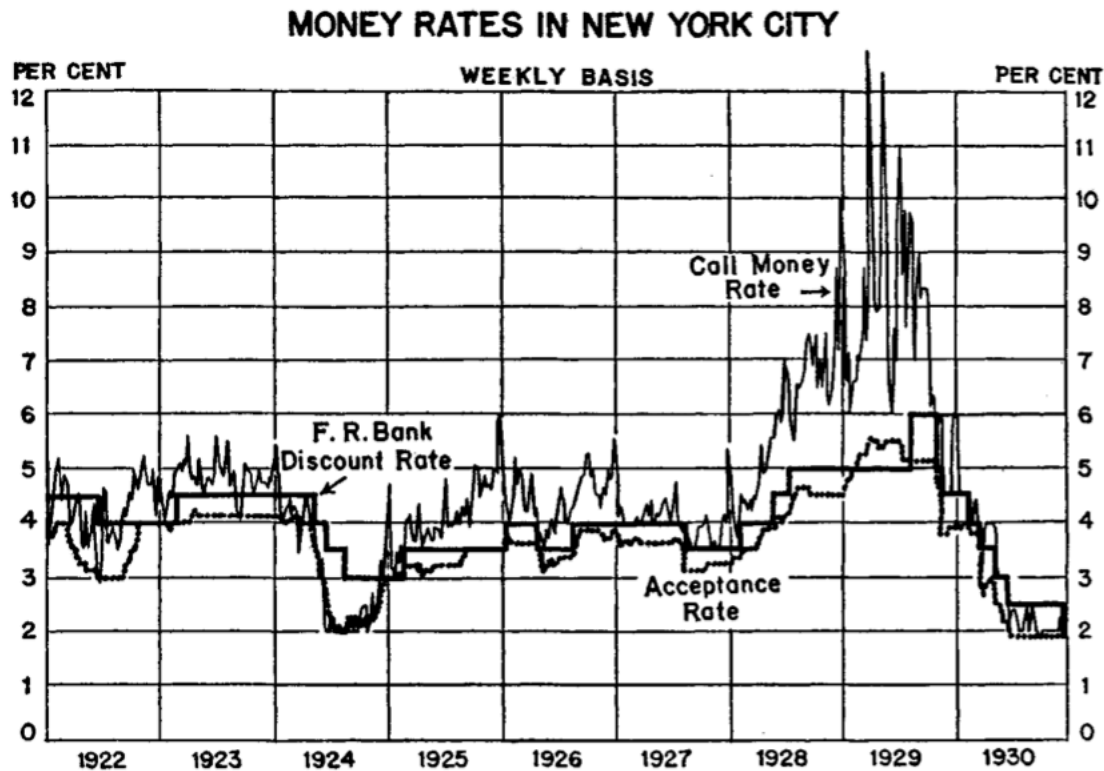
“The federal reserve saw its function as meeting the needs of business for liquidity--consistent with the idea of providing an elastic currency--with the ultimate goal of supporting financial and economic stability (Bernanke)

Throughout the Federal Reserve’s easing cycle, prices remained stable. Thus, easing was within the Fed’s mandate.



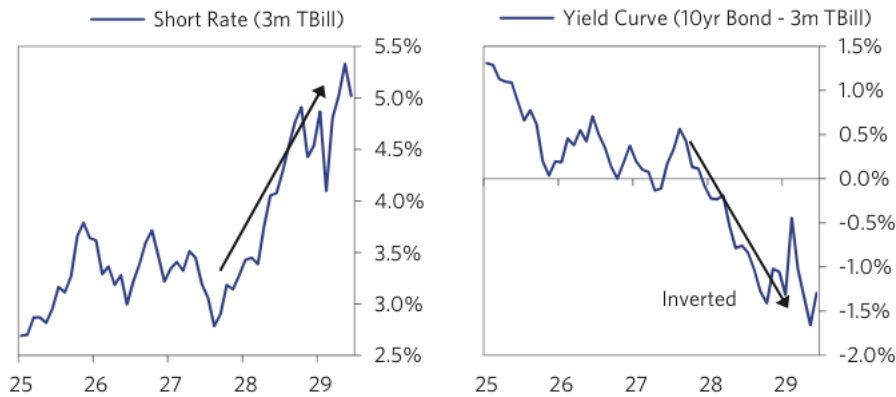
(Figure: Miller 444)

The Federal Reserve tried to mitigate a bubble by aggressively raising rates throughout 1928 and 1929.

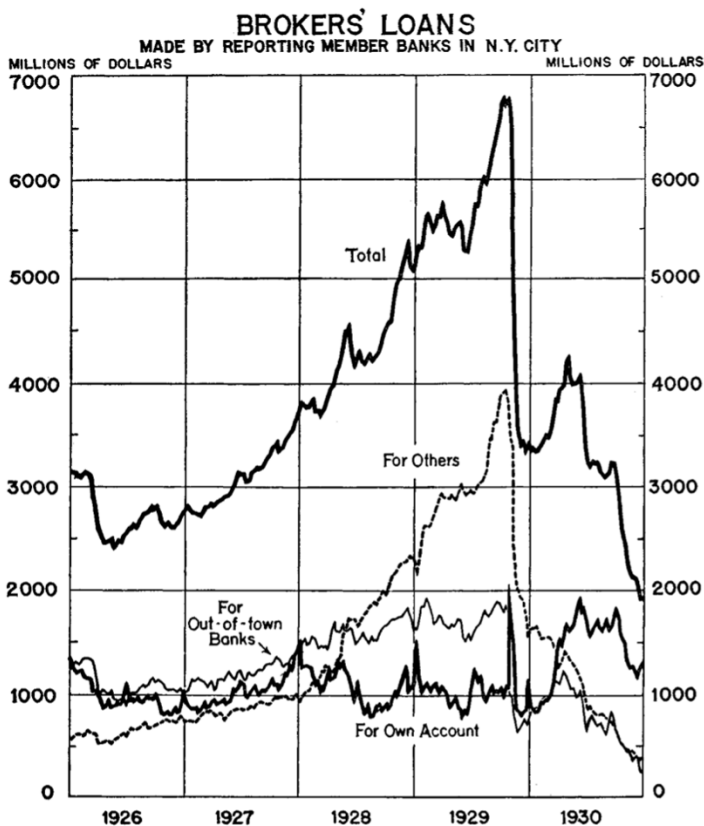


(Figure: Miller 446)

Rising short term rates flattened the yield curve as risk-averse investors pushed into duration securities. The flattening rate term structure made cash more attractive relative to financial assets. Money flowed out of financial assets, precipitating a market selloff exacerbated by margin calls on the very leverage that had pushed the market to its highs. The rout popped the 1920s asset bubble and led to a negative wealth effect that rippled throughout the economy as consumers and businesses alike cut spending.



(Figure: Dalio, Part 2 54)



(Figure: Miller 448)

In the face of collapsing asset prices, the Federal Reserve’s purchases of government securities to provide liquidity to markets proved insufficient to stave off further declines (Dalio, Part 2 58).

The Hoover administration lowered taxes, increased infrastructure spending, and “created a

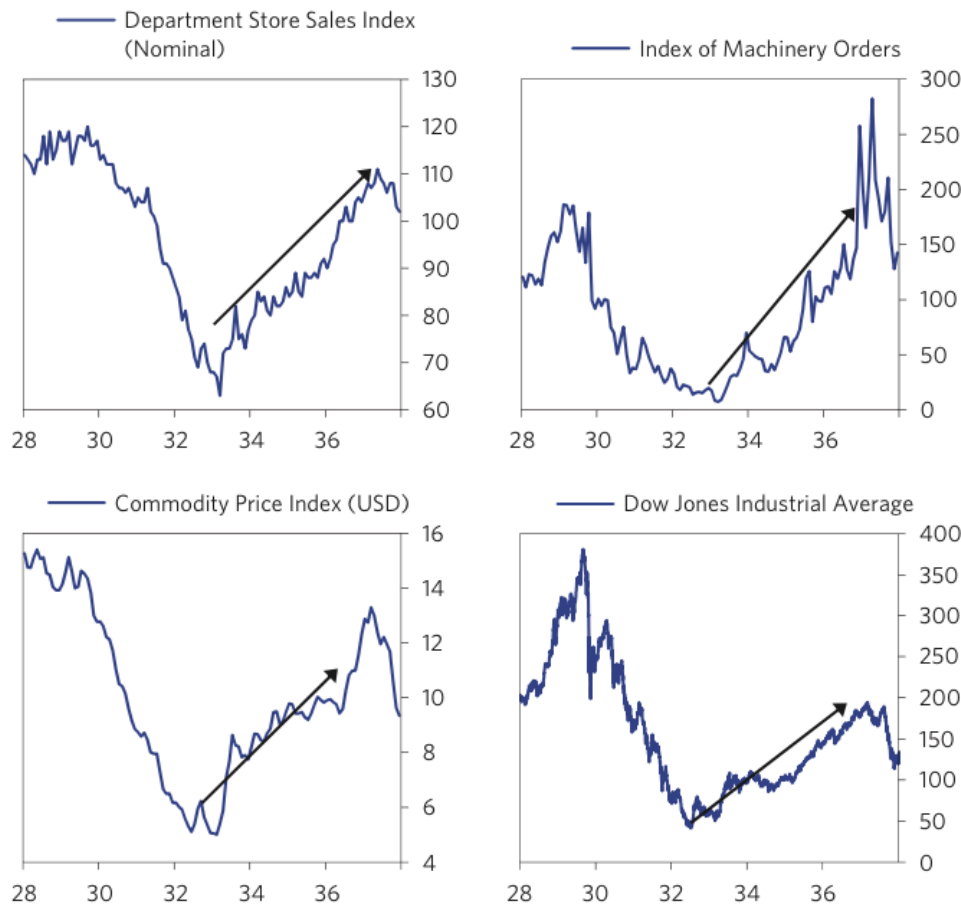
leadership committee of 72 of the top business tycoons of the 1920s” (Dalio, Part 2 60). These fiscal and monetary efforts did not ease problems in the credit market, where spreads continued to widen. The Smoot-Hawley Tariffs exacerbated business conditions with immigration restrictions and other protectionist policies. Bank runs and subsequent failures in subsequent months exacerbated the crisis and led to further credit contraction. (Dalio, Part 2 64).

The gold standard constrained policy responses to the crisis. The gold standard constrained the money supply, suppressing central bank lending to “bank[s] facing liquidity problems” (Dalio, Part 2 64). Money supply constraints also limit fiscal policy responses. The Federal Reserve’s inability to meaningfully monetize deficits meant that incremental Treasury issuance would push up yields. In the face of declining tax receipts, the Hoover administration pushed fiscal austerity policies. Limited monetary and fiscal support for the economy led to self-reinforcing credit contraction and a “global dollar shortage” because dollars had been lent broadly around the world (Dalio, Part 2 65). Debt deflation ensued as negative inflation and credit contraction reduce consumption in a self-reinforcing cycle. Meanwhile, rising risk premia made it difficult for dollar debtors, particularly Germany, to repay their debts. Germany suffered immense capital flight as investors withdrew capital, fearing a German debt default (Dalio, Part 2 69).

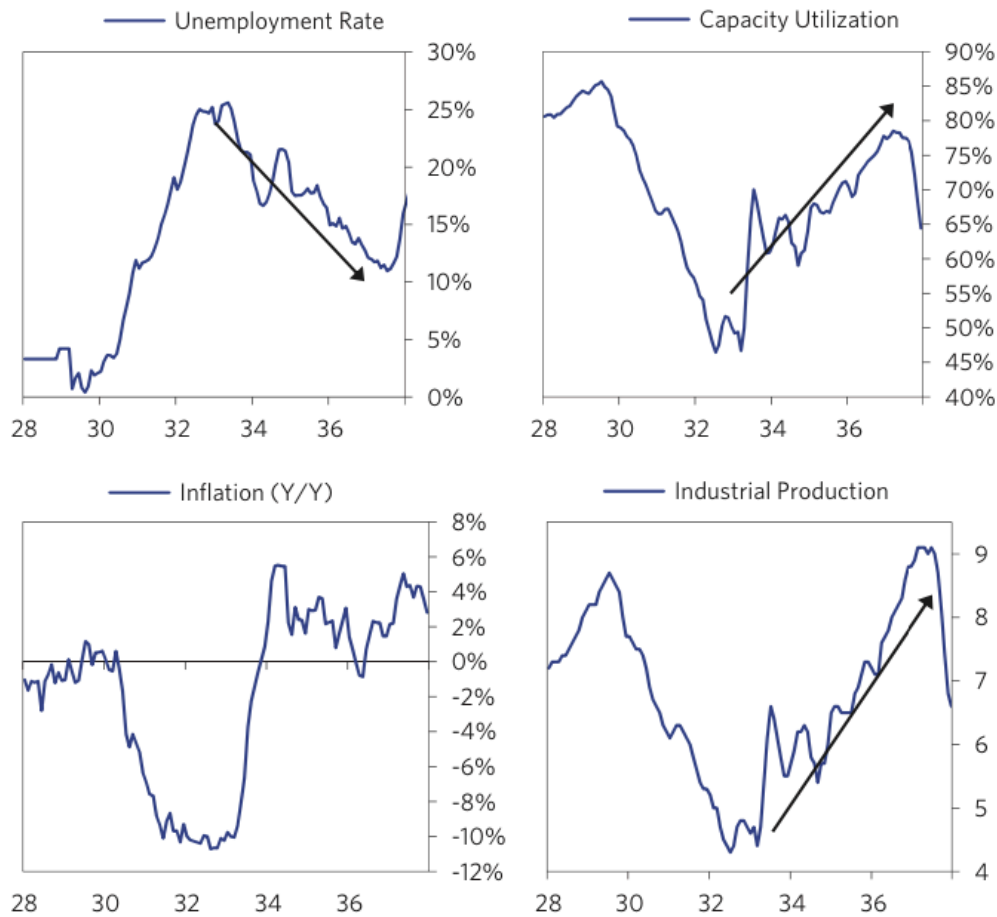
Hoover instituted a one-year debt moratorium meant to mitigate this crisis by forcing banking institutions in the US, Britain, and other Allied nations to continue extending credit to Germany. However, the measures “came too late to prevent a general banking panic in Germany, and soon enormous sums of short-term credits were frozen” (Wilson 185). The panic spread to Britain,

whose banks had many outstanding loans to Germany. Eventually, the UK abandoned the gold standard to prevent capital flight (Dalio, Part 2 74).

Credit crises and currency devaluations around the world drove the dollar higher as foreclosures and bank failures rose in the United States. Hoover created the Reconstruction Finance Corporation to provide liquidity to solvent banks and signed the 1932 Banking Act to enable the Federal Reserve to “print money, but only to buy government bonds” (Dalio, Part 2 78).



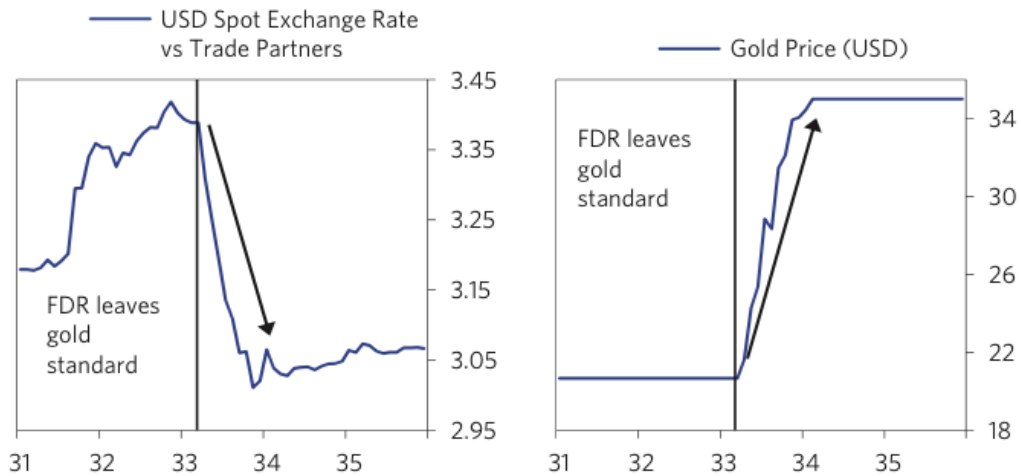
(Figure: Dalio, Part 2 89)



(Figure: Dalio, Part 2 89)

Stimulation efforts under Hoover expanded the monetary base against constant gold reserves, prompting a run on the dollar that shrank the US money supply and tightened credit, counteracting the policies' stimulative intent.

The solution to the crisis came in the American departure from the gold standard under FDR. With a fiat dollar, the Federal reserve could expand the money supply without an economy-jeopardizing run on the dollar. Massive asset repurchases under the new fiat regime mitigated credit contraction, which, along with low rates, helped incomes to grow faster than debts. The breakthrough was only possible through devaluation (Dalio, Part 2 90)



(Dalio, Part 2 86)

The Great Depression exemplified the challenges of implementing a gold standard over time and across countries. It reduces the ability of monetary authorities to act in concert, increasing risks of economic crises, and reduces the flexibility of monetary authorities to deal with those crises.

World War II:

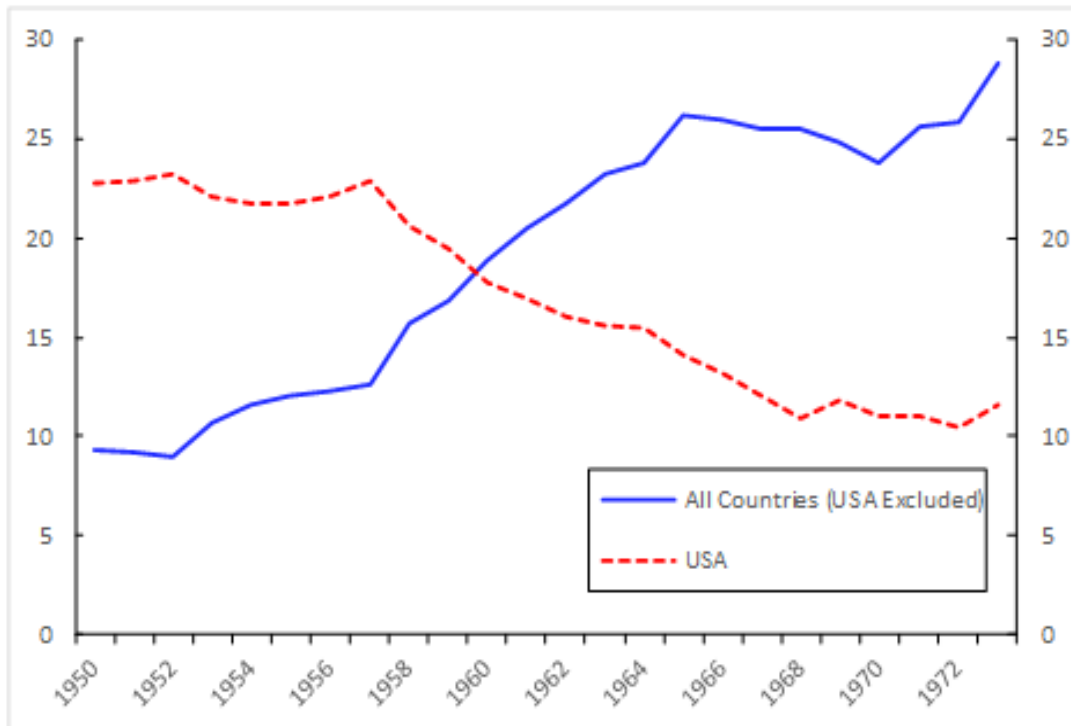
At the end of World War II, the Allied Powers met in Bretton Woods, US, to develop a new monetary order based on gold and the US dollar.

“Fixed exchange rates were no longer defined in terms of gold parity but in terms of dollars. Only the US dollar was defined as convertible into gold at \$35 per ounce”
 (Monnet 7)

The convention chose the United States because it had substantial amounts of gold following World War II. The United States “kept more than 90 percent of gold reserves held in the world by monetary authorities after the war,” which it amassed through its prominent role as a creditor and munitions supplier to the war effort (Monnet 8).

Post-War:

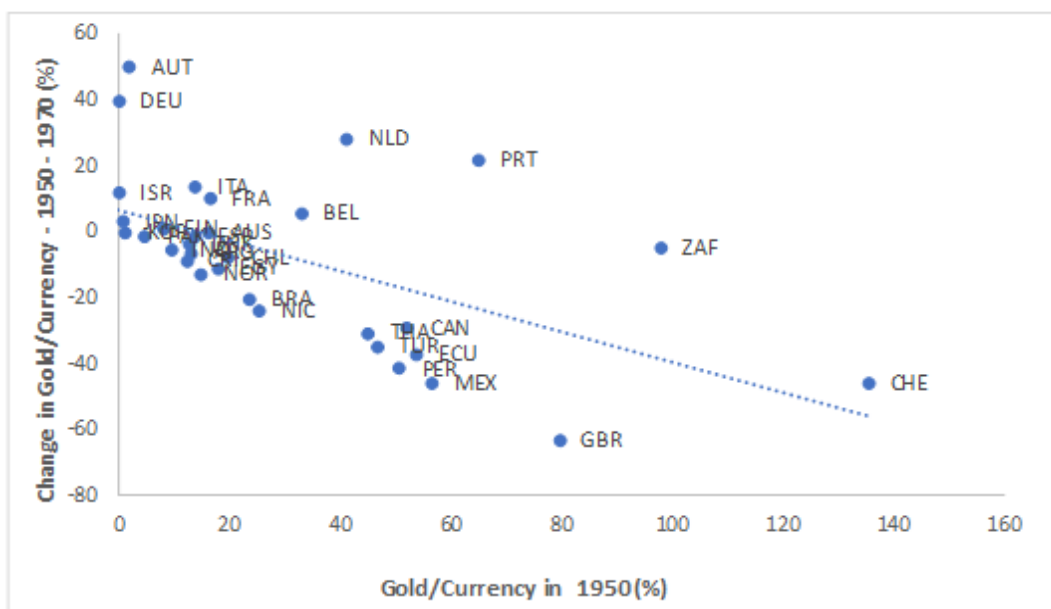
US gold reserves began to rapidly wane after the War. Interestingly, other central banks began to amass gold despite the fact that only the US was required by the Bretton-Woods resolution.



Note: The 37 non-US countries cover 94% of gold reserves held outside of the US over Bretton Woods on average. Country names are reported in Appendix. Source: International Financial Statistics

(Figure: Monnet 9)

Despite the elimination of gold requirements, countries relatively deficient in gold increased their gold reserves substantially through 1970.



Note: Uruguay and Ireland are excluded because their cover ratios are not available in 1950.

(Figure: Monnet 10)

The Downfall of Bretton Woods:

The Bretton Woods system operated under an “adjustable peg system” to the dollar, which members could adjust in cases of “fundamental disequilibrium,” which was “never defined” but “presumed” as a “permanent supply shock” (Bordo 3). As Bretton woods evolved, it conferred special “reserve” status on the US because there was not enough gold being produced at current exchange rates to meet the growing world economy’s need for currency:

“The gold-dollar system arose because growth in the global monetary gold stock was inadequate to finance the growth of world trade and output. This in turn resulted from the post-war choice of parities that put a low real price on gold, which restricted gold production. Moreover, the main sources of gold supply at the time, the USSR and South Africa, were unreliable (Gilbert (1966)); Mundell (1996)). The gap between global reserve demand and supply was filled by dollars produced by an accumulation of official short-term claims on the United States from the early 1950s. In contemporary terms, the United States was running US balance of payments deficits under official settlements, as

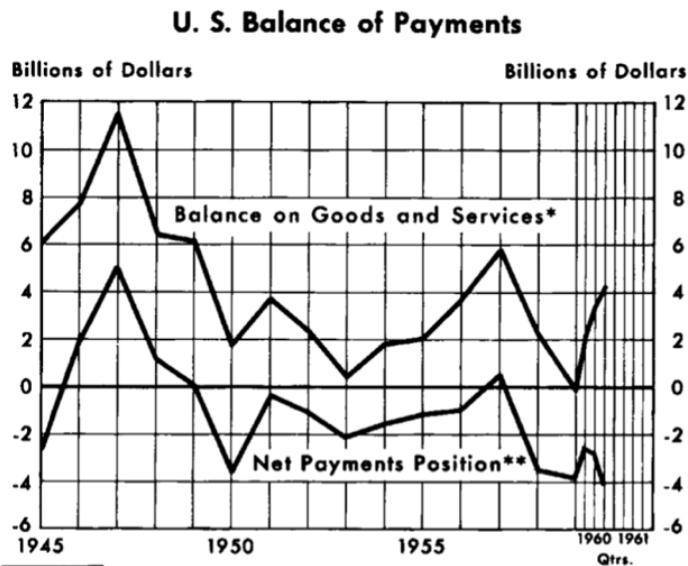
it accumulated liabilities to foreign officials without increasing official assets like gold.”
(Bordo 3)

In 1959, Robert Triffin testified in front of US Congress that Bretton Woods was fundamentally flawed. In the Bretton Woods years, the United States consistently ran considerable balance of payments deficits, which provided “a steady stream of dollars...to fuel world economic growth” (International Monetary Fund). To prevent the dollar from rising and crushing domestic manufacturers, the Federal Reserve expanded the money supply. As the arrangement wore on, claims on gold via US dollars grew to vastly outweigh gold in US central banks: the notional value of dollars in gold terms was far greater than US reserves. America’s massive gold liabilities to other nations threatened the reserve status of the dollar and thus the entire Bretton Woods system.

The US could not solve the problem under the Bretton Woods system. Rectifying the balance of payments deficit would preserve the dollar’s fixed exchange to gold but deprive the world of liquidity, putting upward pressure on real interest rates via deflation and crushing global economic activity (International Monetary Fund).

Triffin’s argument recalls Feliks Młynarski’s, given in 1929: the supply of gold was insufficient to meet the monetary needs of the US economy (Bordo 3). As in the Great Depression, the Federal Reserve could not maintain the gold standard while implementing policies to prevent large-scale debt deflation that would jeopardize the economy. The dollar’s reserve status only exacerbated this issue.

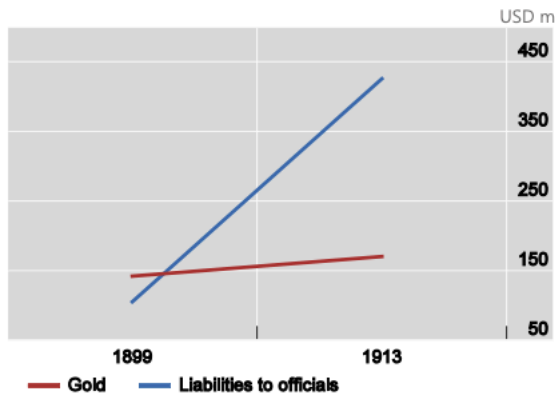
The experiences of the US in the great depression validated Triffin's argument. A gold standard put deflationary pressure on the economy, threatened the banking system, and offered policymakers too few levers to deal with crises. The United States again faced a balance of payments crisis.



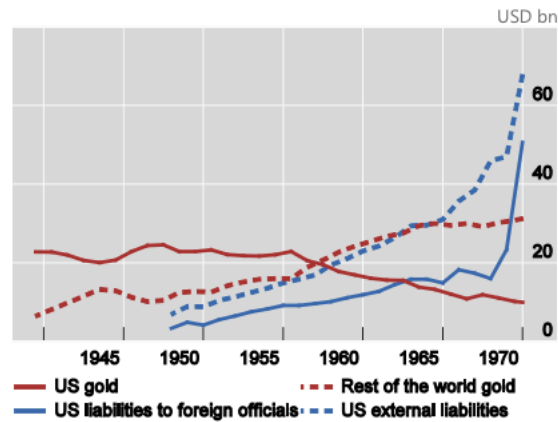
1960 Data by Quarters, Seasonally Adjusted at Annual Rates.
 * Net goods and services, less military transfers under grants.
 ** Minus figures indicate balance of payments deficits, settled by net gold sales and increases in foreign-held dollar assets. (Payment of subscriptions to international institutions in 1946, 1947, and 1959 excluded from totals.)
 Source: U. S. Department of Commerce.

(Figure: Federal Reserve Bank of St. Louis)

Identified UK liabilities to foreign officials and Bank of England gold, 1899 and 1913



US liabilities to foreign officials and US monetary gold, 1940-1971



Source: Lindert (1969, Table 3 and p 37); Bordo (1993), based on Tables SC-8, columns 1 and 2, and SC-10, column 3 in Gold Commission Report, Washington, DC: US Congress, March 1982; 1972 Supplement to International Financial Statistics.

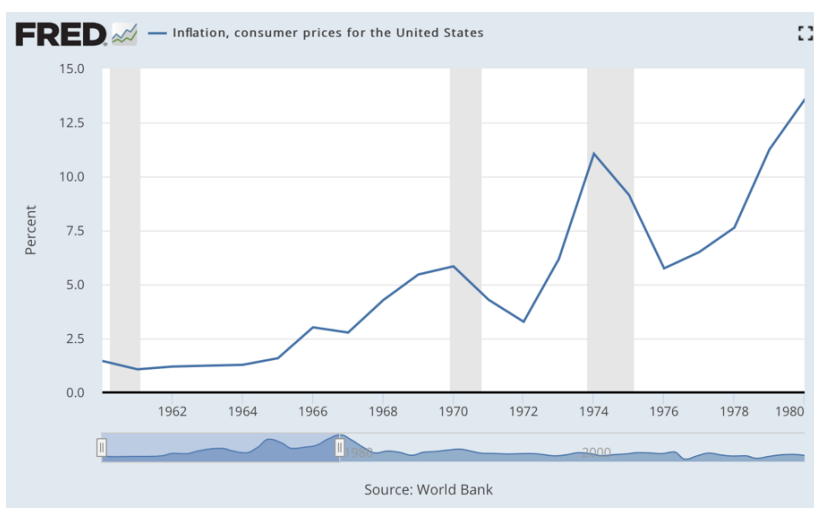
(Figure: Bordo 4)

Countries with US trade surpluses were exchanging their dollars for gold, depleting US gold reserves. The US had to de-peg or risk being unable to meet its foreign gold obligations (Reinbold and Wen).

The Post-Bretton Woods Era and the evolution of Triffin's dilemma:

After Nixon suspended the dollar's convertibility to gold, the US dollar retained its position as the world's reserve currency. In theory, a fiat reserve currency system gave the US extreme monetary flexibility. Fiat dollars allowed the US to run large deficits denominated in its own currency, which it would pay off by printing money as necessary. Normally, money printing would negatively impact the currency's value, but the dollar's reserve status made it more resistant to devaluation.

Triffin expected the US to tighten monetary policy in order to preserve the gold peg, leading to a global deflation, much like the Great Depression. Instead, the dissolution of the gold peg created great inflation.



(Figure: FRED)

In response to the developments, Triffin said:

“Let me also admit, however that I did change my mind about the main danger confronting the future of the international monetary system. While my initial diagnosis was seen by central bankers as placing excessive stress on the first horn of the Triffin Dilemma, the danger of world deflation, my later writings placed increasing stress on the second, the inflationary potential of continuing U.S. deficits...Even so, I was totally wrong in underestimating the duration and the size of the U.S. deficits that foreign central bankers would be willing to absorb, at the cost of an inflationary explosion of world monetary reserves and of a multiple expansion of the money supply in their countries under the traditional system of fractional reserve requirements.” (Bordo 5).

Formulating Triffin’s argument in the context of the fiat reserve US dollar: the US will necessarily run a current account deficit as other countries accumulate dollar reserves. If other countries increase their reserves in proportion to their own GDP, which is growing faster than that of the US, US “external indebtedness” via dollar liabilities will “rise unsustainably” (Bordo 13). The modern formulation of Triffin’s argument indicates that even a fiat reserve currency will suffer balance of payments constraints. America’s “exorbitant privilege” allowed it to borrow “short at low cost in order to acquire long term claims on the rest of the world” at the expense of chronic deficits (Bordo 13).

The modern Triffin argues that the dollar reserve system necessitates chronic current account deficits: “US current accounts are clearly linked to those in the rest of the world thanks to the N-1 problem” (Bordo 13). Emerging export economies run current account surpluses, creating deficits in reserve countries, namely the US.

The modern Triffin argument “requires that the rest of the world runs current account surpluses for a particular reason, namely to acquire dollar reserves as international liquidity” (Bordo 14).

China serves as a counterexample. China “saw its foreign exchange reserves fall from \$4 trillion to \$3 trillion, but where M2 and credit growth continued to grow smartly at double-digit rates” (Bordo 14). However, China is an important exception because it has capital controls and highly centralized economic control. Another caveat: “borrowers resident outside the United States widely use the dollar to denominate debts that are in turn largely held by non-resident creditors (McCauley et al (2015a, b))” (Bordo 16). Regardless, non-reserve economies generally need to maintain foreign reserves to modulate the exchange rates of their currencies.

Despite multiple explanations for the accumulation of US dollar reserves, the implication for the United States remains the same: US consumption creates a current account deficit that must be financed with a financial or capital account surplus. US consumption is supported largely by capital flows, which include “foreign purchases of debt securities, equity securities, and direct investment” that reflect the “desire of foreigners to participate in higher-return investment opportunities in the United States” (Economic Report to the President).

US capital flows can be divided into public and private. Public capital flows include foreign central bank investments in US Treasury securities, which they hold as reserves. The US issues debt as interest-bearing Treasury securities. Most foreign central banks hold Treasuries rather than dollars to generate income. American and foreign investors also hold US treasuries for risk-free income. Private capital flows include financial assets such as debt and equity. The US attracts substantial foreign capital because the dollar is the reserve currency, and because American capital markets are the largest (market capitalization, debt outstanding) and the most

liquid (turnover) in the world. Continued growth of US financial assets, both public and private, draws in foreign capital and supports current account deficits.

TABLE 3.2 Importance of selected national financial markets

Growth pole country/region	Stock markets						Capital markets		
	Market capitalization (2009)			Capital market turnover ^a		Value traded (12-month cumulative)		Domestic debt securities, amount outstanding ^b	International bonds, amounts outstanding ^c
	\$ billions	Rank	Capitalization as % of GDP	%	Rank	\$ billions	Rank	\$ billions	\$ billions
Euro area	—	—	—	—	—	—	—	—	—
United States	15,077	1	106.8	348.6	1	46,736	1	24,978	6,675
China	5,008	2	107.9	229.6	3	8,956	2	1,478	52
Russian Federation	861	14	69.8	108.5	18	683	15	51	136
United Kingdom	2,796	4	128.4	146.4	6	3,403	4	1,194	2,853
Japan	3,378	3	66.6	128.8	11	4,193	3	9,764	364
Brazil	1,167	12	73.0	73.9	32	649	16	787	151
Canada	1,681	7	125.1	92.4	22	1,240	10	952	590
Australia	1,258	10	126.5	78.8	30	762	14	901	523
India	1,179	11	91.4	119.3	12	1,089	11	652	44
Korea, Rep.	836	15	99.5	237.6	2	1,582	6	1,141	125
Turkey	226	27	36.6	141.7	8	244	24	225	52
Mexico	341	20	38.8	26.9	53	77	31	394	103
Poland	135	33	31.1	49.5	41	56	35	190	55
Saudi Arabia	319	21	81.3	119.3	13	337	21	—	13
Argentina	49	— ^d	16.0	5.4	72	3	— ^d	57	50
Indonesia	178	31	32.7	83.3	23	115	28	105	35
Norway	227	26	59.2	140.3	9	248	23	—	180
Switzerland	1,071	13	216.8	82.3	25	796	13	255	428
Malaysia	256	25	132.4	32.9	49	73	32	203	37

Sources: World Bank staff calculations, Bank for International Settlements, and Global Stock Markets Fact book, Standard & Poor's.

Note: — = not available.

a. Ratios for each market are calculated by dividing total 2009 US\$ value traded by average US\$ market capitalization for 2008 and 2009.

b. Bonds, medium-term notes, commercial paper, treasury bills, and other short-term notes issued by residents in local currency on local market as of March 2010.

c. Issues of international bonds and notes in foreign markets and foreign currency based on nationality of issuer as of June 2010.

d. Detailed ranking data were available for only the top 40 countries.

(Figure: World Bank 134)

The Exorbitant Privilege:

Valéry Giscard d'Estaing, French minister of finance from 1962 to 1966 and 1969 to 1974, coined the term “exorbitant privilege” to argue that the dollar’s reserve currency status allows the US to consume beyond its means through massive trade deficits and low interest rates.

“This has long been a sore point for foreigners, who see themselves as supporting American living standards and subsidizing American multinationals through the operation of this asymmetric financial system” (Eichengreen 4)

Primarily, “exorbitant privilege” claims that the dollar transfers wealth through seigniorage, the issuance of currency. The US produces costless dollars for which “countries have to pony up...actual goods and services” (Eichengreen 3). The asymmetry of dollar production allows “American households to live beyond their means” such that “poor households in the developing world [end] up subsidizing rich ones in the United States” (Eichengreen 5). This arrangement theoretically gives the US an advantage in monetary and fiscal policy: the Federal reserve can grow money supply with minimal impacts to exchange rate, and the US can run sustained high current account deficits because of demand for dollars. However, a strong currency disadvantages US exports and advantages foreign imports (Richardson). Dollar strength in the face of accommodative monetary policy drives de-industrialization and financialization.

Mechanically, the external account is “determined partly by domestic policies and conditions, but also by foreign policies and conditions, which in the latter case directly affects the relationship between domestic American consumption and savings” (Pettis). Net exporters suppress their currencies by buy dollars to support a positive current account balance, “export[ing] their savings to the rest of the world” (Pettis). Foreign nations purchase “excess amounts of dollars” as a “policy...aimed at generating trade surpluses and higher domestic employment” (Pettis). Savings exportation supports the US dollar exchange rate despite substantial US trade deficits. However, these savings are immensely deflationary for the US. An “overvalued dollar” makes exports less competitive, forcing manufacturers to “reduce production

and fire American workers” (Pettis). Meanwhile, corporations assume increasingly large debt loads that limit their ability to invest in capital equipment that drives long term growth.

The reserve currency nation must “choose between rising unemployment and debt” (Pettis). Because dollar strength hurts domestic industries, the Federal Reserve must respond per its inflation and employment mandate to “increase domestic demand—and with it domestic employment—by running up public or private debt” (Pettis). Debt abundance creates more dollar-denominated assets, driving dollar strength and perpetuating debt deflation. The result is the situation the US finds itself in today: “gaping trade deficit, low level of savings, and high levels of private and public debt” (Pettis). This cycle is an endogenous feedback loop, coined in financial contexts as “reflexivity” (Soros).

The exorbitant privilege also argues that dollar demand suppress US interest rates. This would hold in a vacuum, but aforementioned US debt issuance puts upward pressure on rates. Moreover, under a view that “trade is a more efficient way to create jobs than government spending or consumer financing,” US debt issuance “will actually exceed net foreign purchases” which could cause US rates to rise (Pettis).

US treasuries have generally offered higher yields than other sovereign debt securities from developed countries. Current interest rate levels are sustainable because they are “lower than the growth rate of nominal GDP,” which holds regardless of reserve currency status (Plender, Bernanke). However, this argument does not address how the exorbitant privilege translates to lower government borrowing costs.

Maturity		30 Year					
Region	RMI	Security		Price	Chg	Yld	
1) Americas							
10) Canada	☐	CAN2 12/01/51	⌵	122.288	-1.443	1.155	
11) United States	☐	T 2 02/15/50	⌵	114-05+	-2-06+	1.414	
12) Mexico (USD)	☐	MEX 4.6 02/48	⌵	91.365	-0.782	5.190	
13) Brazil (USD)	☐	BRAZIL5 $\frac{5}{8}$ 47	⌵	97.377	-1.707	5.819	
14) Argentina (USD)	☐	ARGENT6 $\frac{7}{8}$ 48	⌵	25.435	+0.657	27.048	
2) EMEA							
20) Switzerland	☐	SWISS 4 01/49	⌵	234.358c	-1.588	-0.409	
21) Germany	☐	DBR0 08/15/50	⌵	101.992c	-2.461	-0.065	
22) Netherlands	☐	NETHER2 $\frac{3}{4}$ 47	⌵	171.668c	-2.957	0.047	
23) United Kingdom	☐	UKT1 $\frac{3}{4}$ 01/49	⌵	131.640c	-0.341	0.556	
24) France	☐	FRTR 1 $\frac{1}{2}$ 50	⌵	120.287c	-2.444	0.744	
25) Spain	☐	SPGB2.7 10/48	⌵	125.081c	-1.913	1.597	
26) Portugal	☐	PGB 4.1 02/45	⌵	146.865c	-2.259	1.752	
27) Italy	☐	BTPS 3.85 49	⌵	121.784c	-2.182	2.780	
3) Asia/Pacific							
28) Japan	☐	JGB 0.4 03/50	⌵	99.787c		0.408	
29) South Korea	☐	KTB1 $\frac{1}{2}$ 03/50	⌵	96.873c	-0.509	1.643	
30) Australia	☐	ACGB 3 03/47	⌵	128.951c	-1.285	1.660	
31) China	☐	CGB3.39 03/50	⌵	101.440c		3.314	

(Bloomberg Terminal, 5/6/20)

30-year yields, which proxy government borrowing costs, seem to support the argument that reserve status reduces interest rates. However, other countries pay lower rates on sovereign debt than the US does. Moreover, substantial variation within the Eurozone suggests that country-specific factors are more important.

Maturity		30 Year					
Region	RMI	Security		Price	Chg	Yld↑	
1) Peru (USD)	☐	PERU 5 $\frac{5}{8}$ 50	⌵	151.248	+0.361	3.037	
2) Chile (USD)	☐	CHILE 3.86 47	⌵	107.978	-0.996	3.407	
3) Indonesia (USD)	☐	INDON 3 $\frac{1}{2}$ 50	⌵	99.882c	-0.188	3.506	
4) Qatar (USD)	☐	QATAR 4.817 49	⌵	121.844	+0.010	3.594	
5) Russia (USD)	☐	RUSSIA 5 $\frac{1}{4}$ 47	⌵	124.585c	-0.105	3.791	
6) Saudi Arabia (...)	☐	KSA 5 04/17/49	⌵	110.603	-0.041	4.352	
7) Mexico (USD)	☐	MEX 4.6 02/48	⌵	91.374	-0.773	5.189	
8) Brazil (USD)	☐	BRAZIL 5 $\frac{5}{8}$ 47	⌵	97.385	-1.699	5.818	
9) Turkey (USD)	☐	TURKEY 5 $\frac{3}{4}$ 47	⌵	73.875	-1.810	8.159	
10) Argentina (USD)	☐	ARGENT 6 $\frac{7}{8}$ 48	⌵	25.442	+0.664	27.040	

(Bloomberg Terminal, 5/6/20)

There is a substantial cohort of countries that borrow in US dollars instead of their local currency. Presumably, they would only do this because they had no choice, as it is far more favorable for a nation for its debts to be denominated in its own currency (Dalio). These countries pay far higher rates than the US does, but substantial variation within indicates that country specifics are far more significant than reserve status. In any case, it seems that sovereign yields neither prove nor disprove the exorbitant privilege. Furthermore, rates do not constrain debt burdens as long as nominal GDP grows faster than nominal debt service (Dalio 12).

Bernanke does not dispel the notion of exorbitant privilege, but argues that the “benefits of the dollar’s status...have been much reduced in recent decades.” The end of Bretton Woods brought an era in which currency was “decentralized” and decisions were made “largely by market participants” (Bernanke). Bernanke highlights four merits of the dollar: stability of value, liquidity, safety, and lender of last resort. Each of these topics is inextricably connected to the US dollar privilege and consequent monetary and fiscal freedom. Bernanke also notes that creation of dollar denominated assets outside of the US (e.g., dollarized corporate debt or

sovereign bonds) makes other nations vulnerable to changes in US monetary policy, which can significantly impact global credit cycles by changing interest rates for foreign borrows and exchange rates that affect debt serviceability (Bernanke). The creation of foreign dollarized assets increases demand for dollars as dollar-denominated debts are paid off, contributing to the exorbitant privilege.

Dutch Disease and the Implications of an Exorbitant Privilege:

If the US does in fact enjoy an exorbitant privilege through the dollar, the dollar is analogous to any natural resource. In 1995, Sachs and Warner identified that “economies with a high ratio of natural resource exports to GDP in 1971 tended to have low growth rates during the subsequent period 1971-89” (Sachs).

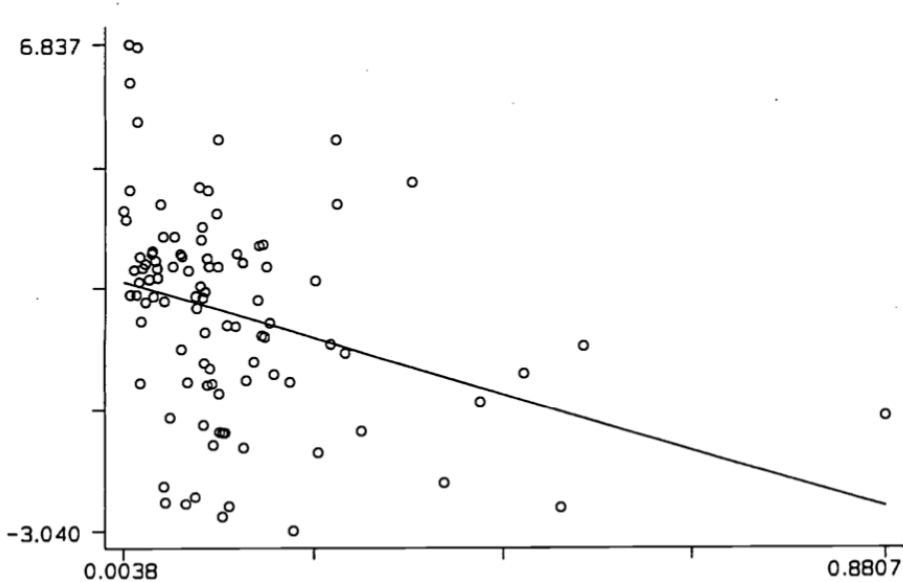


Figure 1. The simple association between growth per-capita between 1970 and 1989 (vertical axis) and the share of natural resource exports in GDP in 1971 (horizontal axis). The regression line has a slope of -5.2 and a t-ratio of -3.3.

(Figure: Sachs 42)

The relationship doesn't appear particularly robust and is subject to many confounding factors. Per Sachs and Warner, "the data are suggestive" but "far from definitive" (Sachs 23). However, it raises an interesting notion: perhaps resource endowment predisposes economies to failure.

In 1999, Gylfason et. al. researched the impact of focused on Dutch disease, and found that concentration in primary sectors "causes the currency to appreciate in real terms" (Gylfason 204). The most significant determinants of GDP growth are "initial GDP and the ratio of investment to GDP (Gylfason 205). Countries with substantial employment in the primary sector (natural resources, agriculture, etc.) had low investment rates, translating to poor growth.

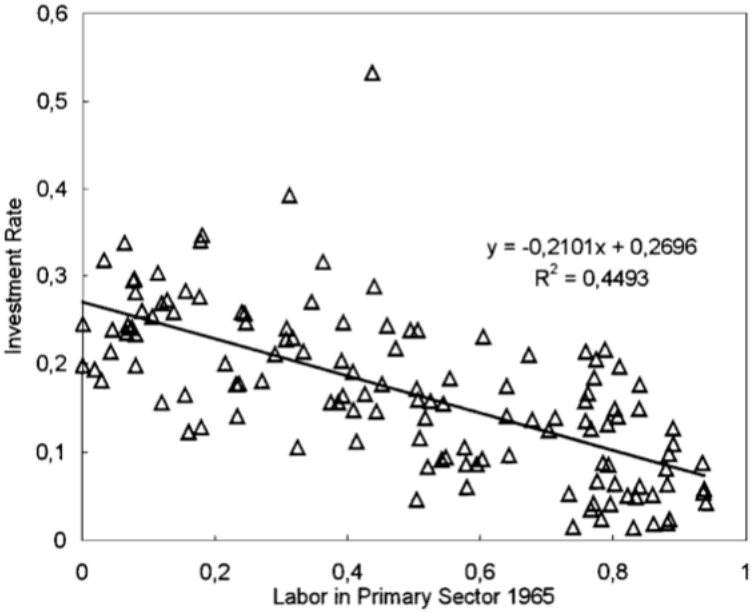


FIGURE 1. Relationship between average investment rate over 1960–1992 and the share of labor in the primary sector during 1965 in a cross section of countries.

(Figure: Gylfason 205)

Resource-rich countries had low levels of investment in “human capital,” which manifested in low education levels and consequently low per-capita income levels. Gylfason et. al. suspect that this is because primary output “may need—and also generate—less human capital than services and manufacturing” (Gylfason 206). Floating exchange rates exacerbate this issue because they “provide insurance for the dominating primary export industry at the cost of increased exchange rate uncertainty for all other industries” (Gylfason 206). Increased activity in the primary sector “causes the currency to appreciate in real terms” and “making it difficult for other potential export industries to establish themselves or for existing ones to thrive” (Gylfason 207).

Mehlum’s research confirms the Sachs and Warner argument that “more natural resources push aggregate income down” (Mehlum 1). However, he finds that “institutions are decisive for the resource curse” a theme Sachs and Warner de-emphasized (Mehlum 1). Whereas Sachs and Warner argued that “resource abundance leads to deteriorating institutional quality,” Mehlum argues that resource-rich nations can be divided into “producer friendly institutions, where rent-seeking and production are complementary activities, and grabber friendly institutions, where rent-seeking and production are competing activities” (Mehlum 3).

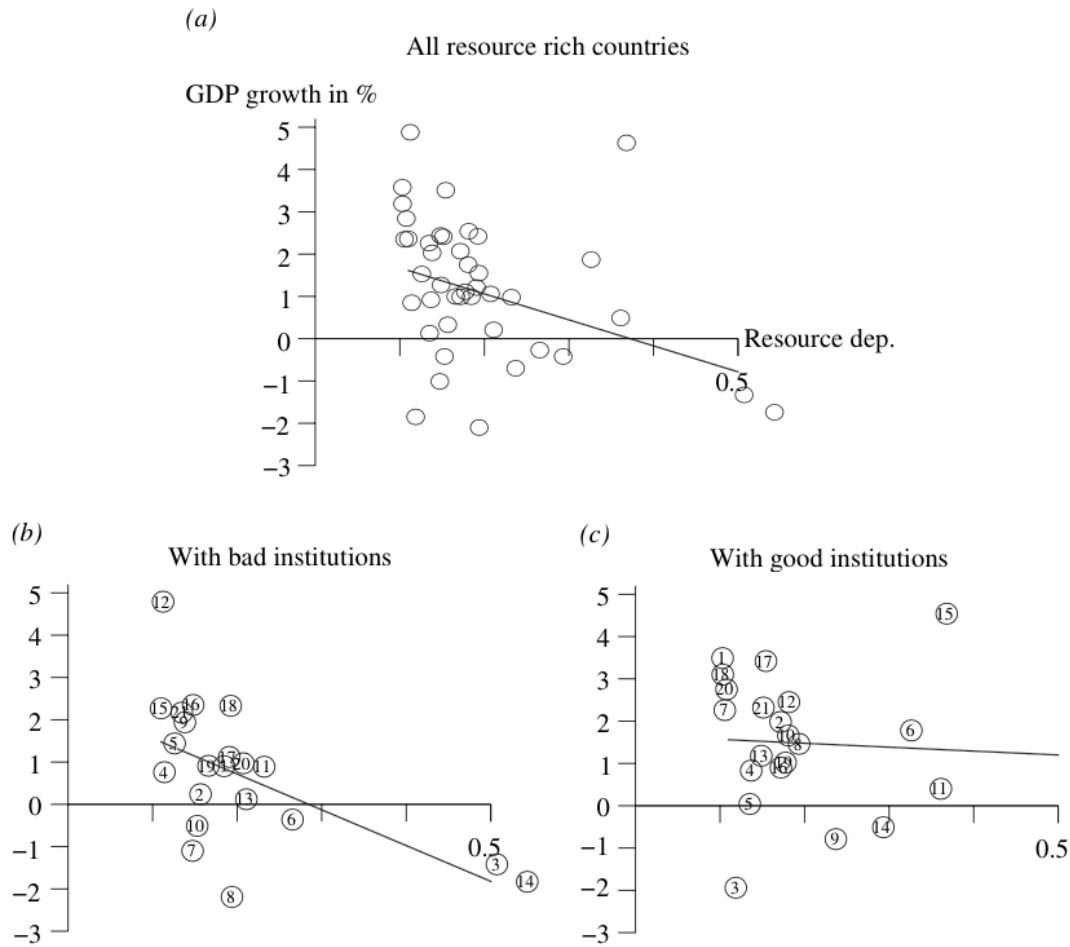


Fig. 1. *Resources and Institutions* (a) all resource rich countries (b) with bad institutions (c) with good institutions

(Figure: Mehlum 2)

Mechanically, this manifests as the “immediate income effect of a higher resource rent” increasing national income in the short term, but “the displacement effect reduces national income as entrepreneurs move from production to grabbing” (Mehlum 9). However, producer friendly institutions “increase profits both in grabbing and production, and thus [lead] to higher total income” (Mehlum 9). Under this view, resource richness is a precondition for, but not a

determinant of, Dutch disease. If rent-seeking and production are complementary, Dutch disease does not manifest.

Not every resource rich country has Dutch disease: “for every Venezuela and Nigeria, there is a Norway or a Botswana” (Robinson 451). Thus, the institutional argument seems more compelling. Politics provides a lens for understanding institutional failure. Robinson argues that “political incentives that resource endowments generate are key to understanding whether or not they are a curse” (Robinson Abstract). There are numerous examples of “dysfunctional state behavior, particularly large public sectors, and unsustainable budgetary policies” in resource-advantaged economies (Robinson 448). Leadership adapts to resource abundance with policies that depend on continued abundance, rather than metaphorically saving for a rainy day. Leaders “discount the future by the probability they remain in power” rather than optimize for long term prosperity of a nation. In a survey of resource-rich nations, a World Bank project indicates that “spending levels should have been adjusted to sharp rises in income levels more cautiously than they actually were,” and that resource-rich nations suffer from a “chronic tendency for the state to become overextended” (Robinson 448). Permanent resource booms exaggerate resource extraction because they “increase the value of being in power and lead politicians to allocate more resources to staying in power” (Robinson 466). The “interaction between institutions and resources” determines the extent of the resource curse (Robinson 451). Resources “create inefficiency in the rest of the economy because they encourage politicians to engage in inefficient redistribution to influence elections” (Robinson 466). However, “resource booms tend to raise national income” when institutions “limit the ability of politicians to use clientelism to bias elections” (Robinson 466).

Robinson's paper highlights the duality of natural resources: natural resources are incredibly useful for a nation and can be used to construct long term prosperity. However, they create immense incentives for those in power to consolidate them, creating a concentration of wealth that discourages efficient allocation of resources and stifles economic progress. Monopolization of resources leaves little for others and inadvertently crushes long term economic growth for the sake of short-term personal gain. Power figures nevertheless engage in this activity, driven by a short term objective function. The resource curse scenario is unsustainable: the non-resource economy is starved as the resource is depleted.

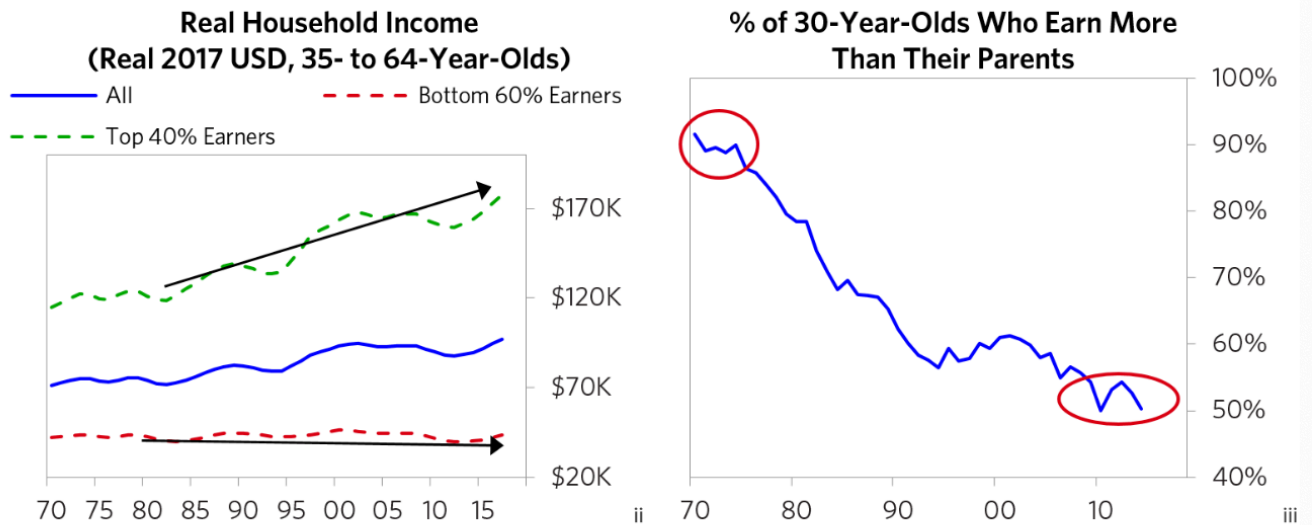
The Dutch Disease Analogy:

The resource curse is analogous to the situation in which the US finds itself today. The dollar is an immense resource: the US has unlimited production capacity, and the real demand for dollars is greater than that for any commodity on Earth. Since the end of Bretton Woods, the US has enjoyed a resource boom of dollars, which it could produce without the constraint of gold convertibility and with the support of international dollar demand as necessary to support continued economic growth. The reserve dollar's benefits accrued to established institutions of politicians, corporations, and the finance industry at the expense of real economic growth, industry, and average Americans. This growth is unsustainable: it is driven by debt (liabilities) in the form of public debt, private debt, and the liabilities represented by dollars themselves.

The Symptoms of the Dutch Disease:

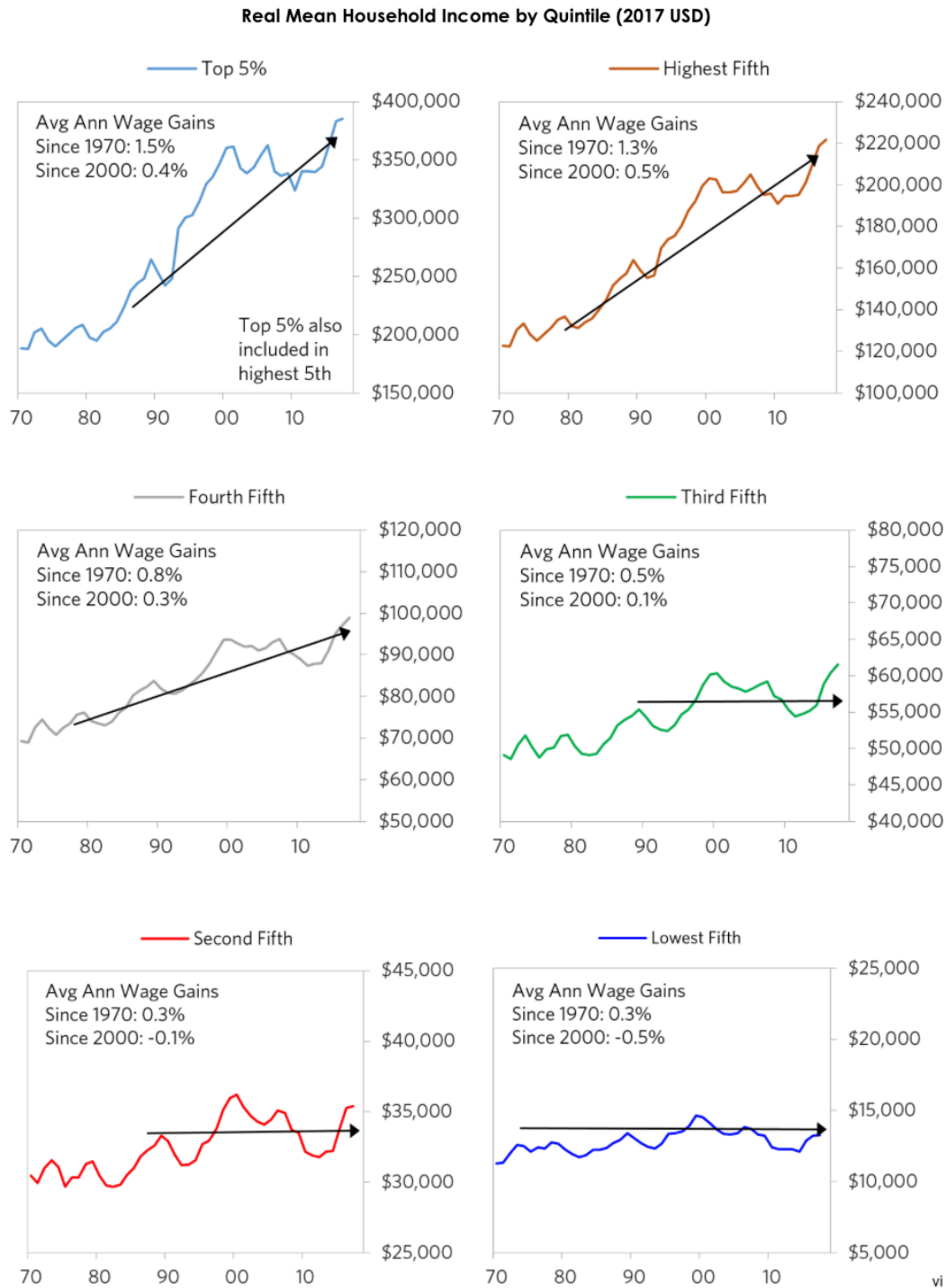
In the past ~60 years, the American economy has become considerably less effective at increasing living standards for all people. The United States has seen growing wealth disparity, particularly through transfers to the financial sector that coincide with general economic anemia. The economy, as an institution, has failed to create prosperity for most Americans.

Real household income and net worth for the bottom 60% of Americans are stagnant. The “American Dream” of greater prosperity for subsequent generations is dead in a growth-starved economy:



(Figure: Dalio 8)

Quintile data brings the segmentation of the economy into growth and non-growth into sharper relief:



(Figure: Dalio)

Employment in manufacturing, a critical source of high-paying jobs for the working class, has declined considerably:



(Figure: Dalio 3)

Income growth by employment industry also illustrate this trend. The financial economy has seen the greatest gains, along with computation, healthcare, science, and engineering. These are all high skill fields that are challenging to outsource. Meanwhile, low-skill fields and those that

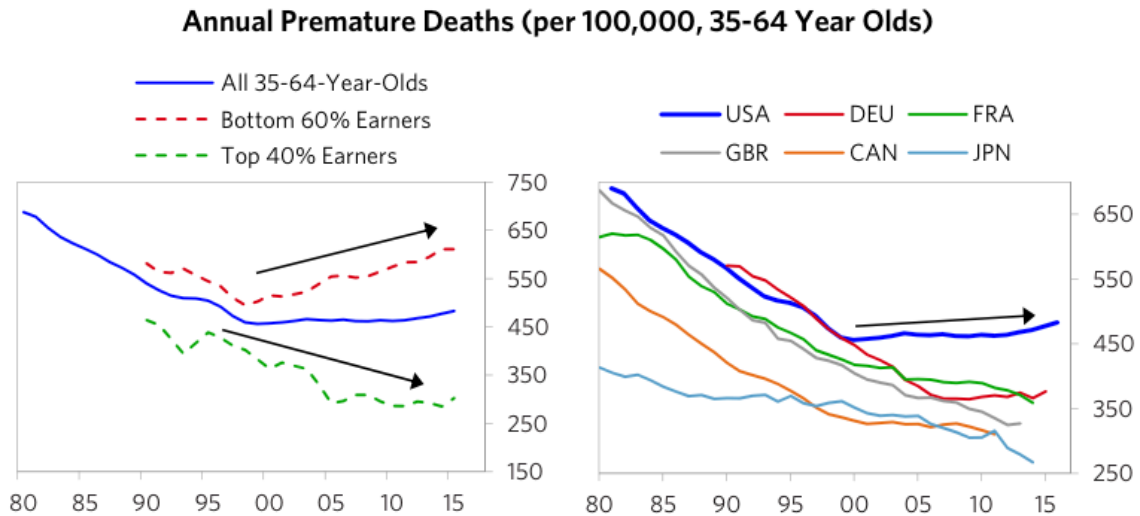
can be outsourced are stagnating or declining. The decline in Education, which is responsible for long term productivity and economic growth, reflects institutional failure:

Change in Wages and Employment Share since 1997

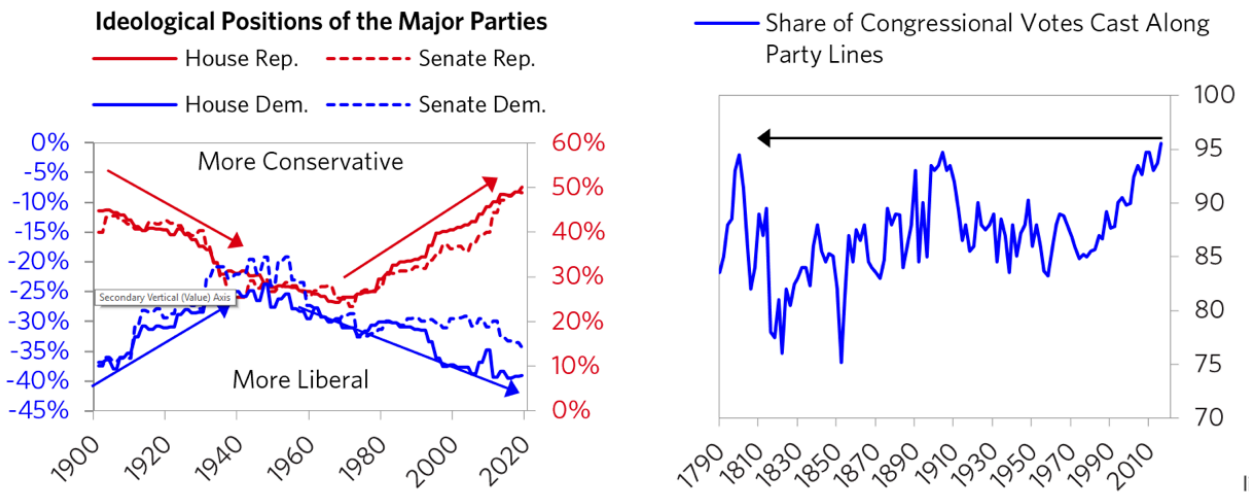
Occupational Category	2016 Average Wage	Change in Real Wages	Change in Employment Share	2016 Employment Share
Management	\$118,020	43%	-2%	5%
Legal	\$105,980	24%	0.2%	1%
Computer and Mathematical	\$87,880	73%	1%	3%
Architecture and Engineering	\$84,300	18%	-1%	2%
Healthcare Practitioners and Technical	\$79,160	24%	1%	6%
Business and Financial Operations	\$75,070	23%	2%	5%
Life, Physical, and Social Science	\$72,930	15%	0.3%	1%
Arts, Design, Entertainment, Sports, and Media	\$58,390	19%	0.4%	1%
Education, Training, and Library	\$54,520	4%	0.5%	6%
Construction and Extraction	\$48,900	4%	1%	4%
Community and Social Service	\$47,200	9%	0.2%	1%
Installation, Maintenance, and Repair	\$46,690	7%	0.0%	4%
Protective Service	\$45,810	17%	0.3%	2%
Sales and Related	\$40,560	14%	-2%	10%
Office and Administrative Support	\$37,260	7%	-2%	16%
Production	\$37,190	7%	-5%	6%
Transportation and Material Moving	\$36,070	10%	-1%	7%
Healthcare Support	\$30,470	10%	1%	3%
Building and Grounds Cleaning and Maintenance	\$28,010	11%	1%	3%
Farming, Fishing, and Forestry	\$27,810	0%	-1%	0.3%
Personal Care and Service	\$26,510	16%	2%	3%
Food Preparation and Serving Related	\$23,850	14%	2%	9%

(Figure: Dalio 10)

These changes indicate that the economic structure of the US is changing. These changes are materially impacting substantial portions of the population, with profound social effects that are polarizing society and its politics.



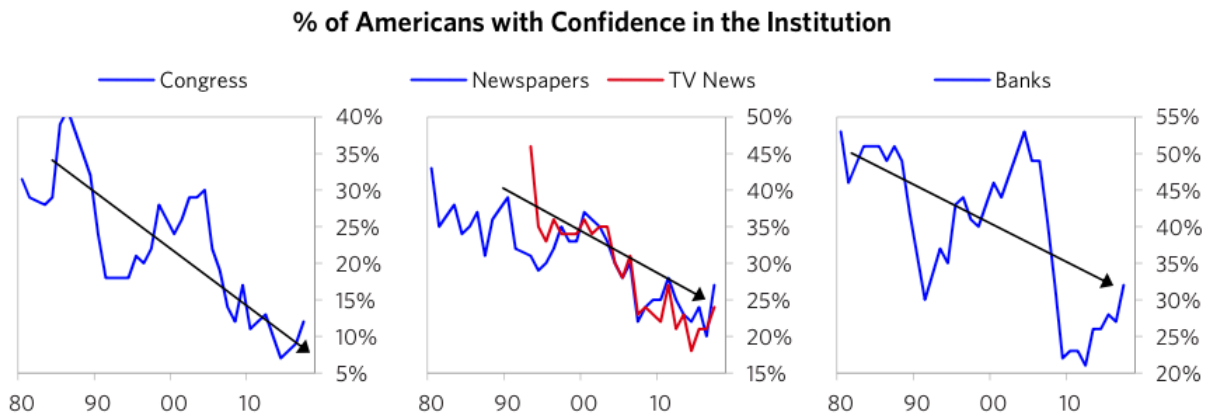
(Figure: Dalio 5)



(Figure: Dalio)

An increasingly disparate economy shifts incremental wealth from the working class to the professional and financial classes. There are many causes: globalization, automation/technology,

and financialization. However, the economy as an institution has failed if its purpose is to bring prosperity to all. Leaving this statement without justification: an economy in which the vast majority of growth accrues to a small portion of the population is not sustainable. Eventually, the disparity will lead to political issues, and arguably already has. American confidence in public institutions has declined immensely:



(Figure: Dalio 7)

Financialization in the US:

Part of America’s economic polarization can be traced to financialization, a process in which “profits accrue primarily through financial channels rather than through trade and commodity production” (Krippner 103). These profits “do not show up in transparent ways in national economic statistics (Block, 1987)” (Krippner 175). This part of the economy is called FIRE: “finance, insurance and real estate.” (Krippner 179). FIRE has grown substantially as a portion

of US GDP since 1950. (Note: this analysis is merely relative shares of GDP among services, manufacturing, and FIRE)

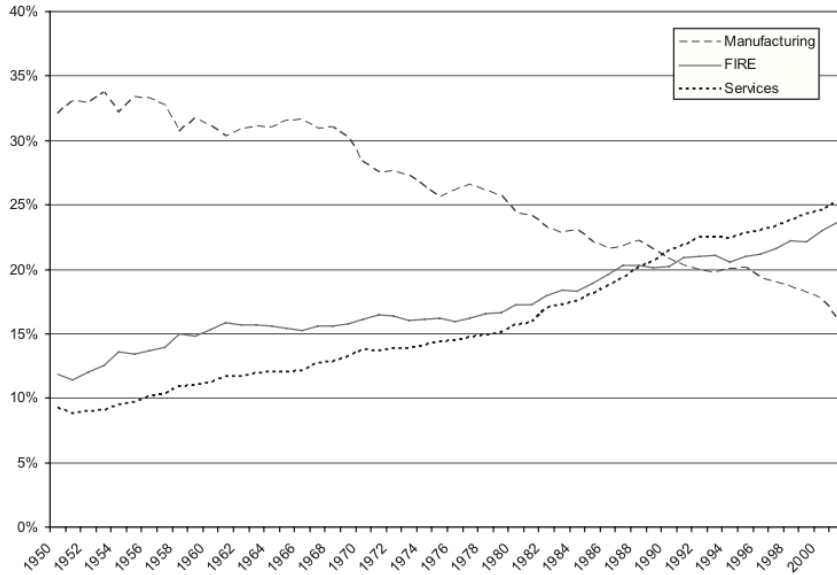


Figure 2 Relative industry shares of current-dollar GDP in US economy, 1950–2001.

(Figure: Krippner 178)

Though FIRE comprises an increasingly large portion of GDP, it employs relatively few people:

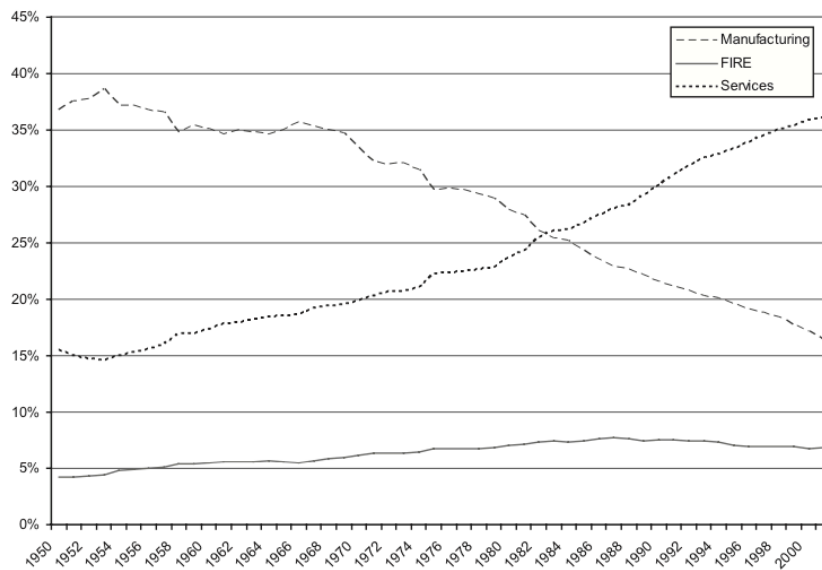


Figure 1 Relative industry shares of employment in US economy, 1950–2001.

(Figure: Krippner 178)

However, FIRE generates an increasingly disproportionate amount of profits:

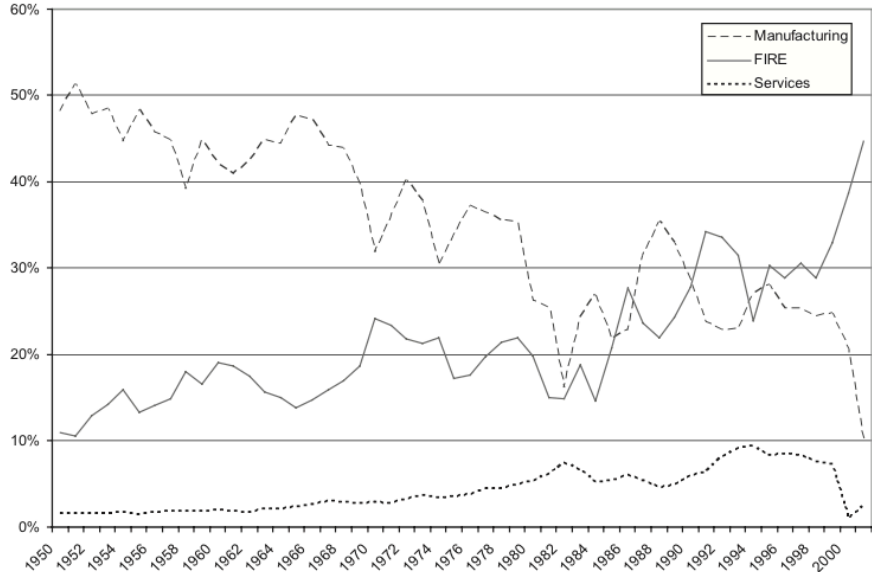


Figure 3 Relative industry shares of corporate profits in US economy, 1950–2001.

(Figure: Krippner 179)

Financialization is happening throughout the economy. Portfolio income, or the income companies derive from financial assets, increasingly dominates total cash flow for all nonfinancial firms:

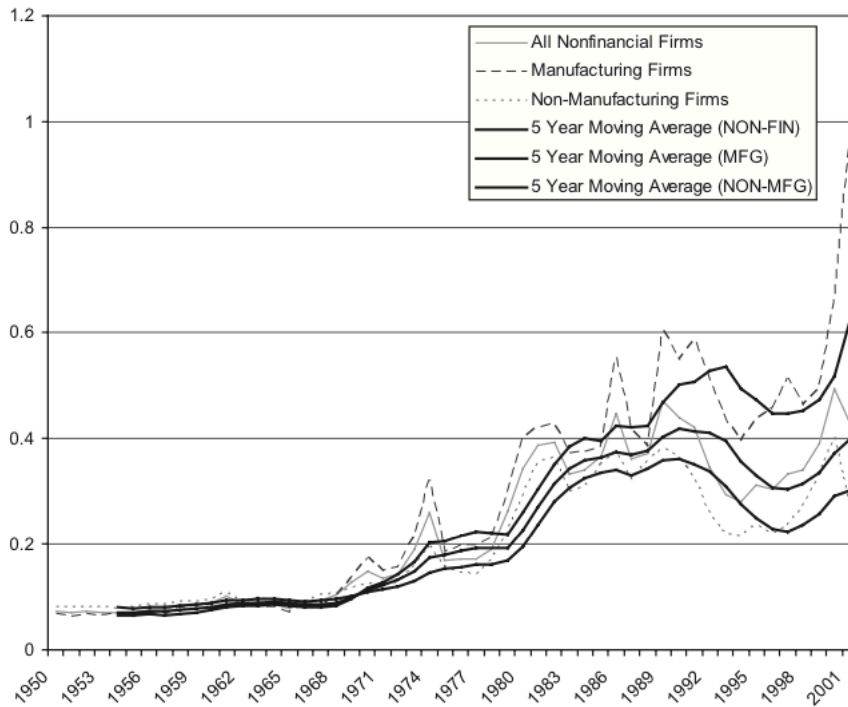


Figure 5 Ratio of portfolio income to cash flow for US manufacturing and non-manufacturing industries, 1950–2001.

(Figure: Krippner 186)

Portfolio income can be segmented into dividends, capital gains, and interest. A declining portion of dividends indicates that increasing cash flow is not a product of ownership transfer to subsidiaries, whose earnings would accrue to a corporation in the form of dividends (Krippner 187).

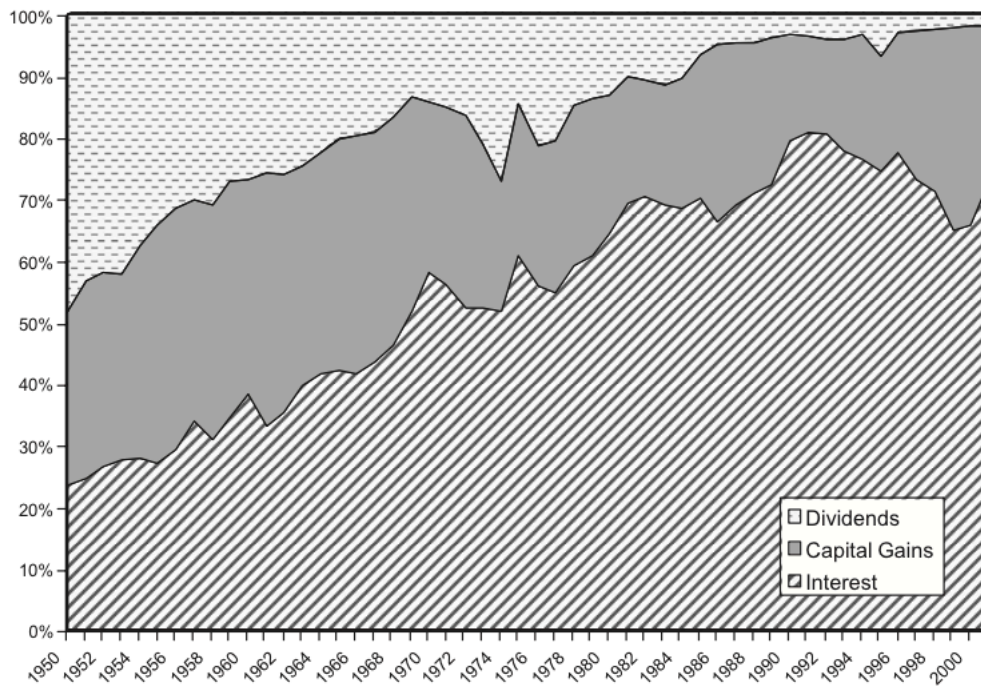
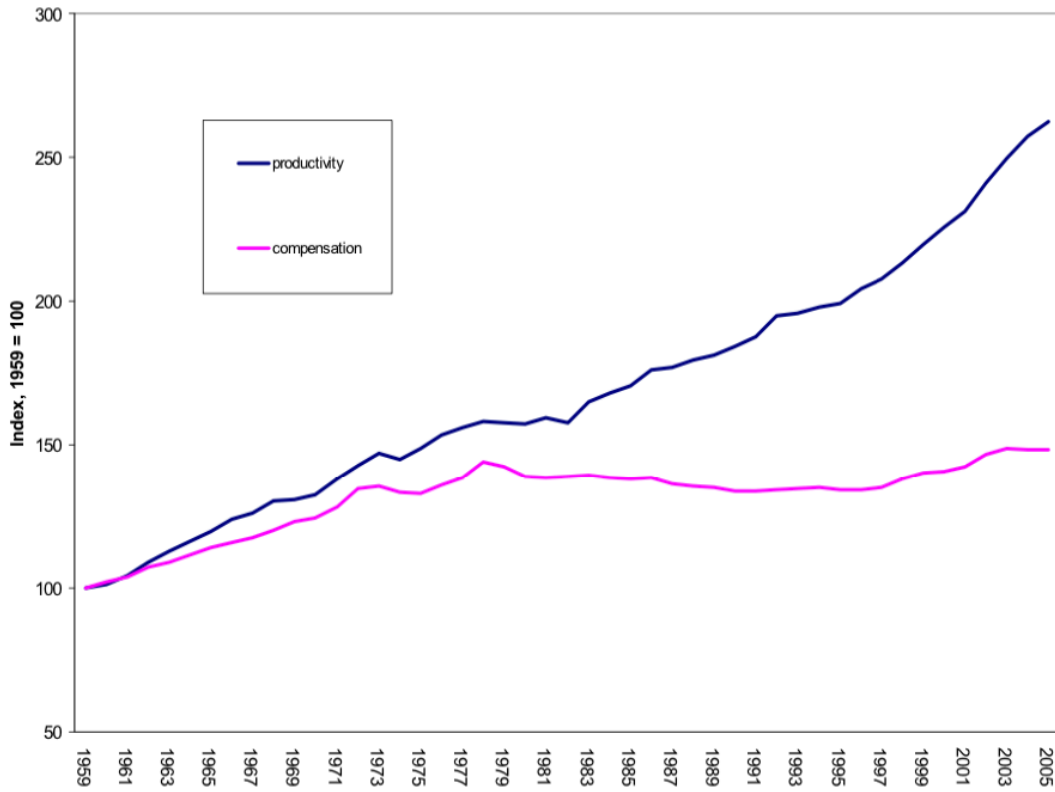


Figure 6 Share of total portfolio income accounted for by individual components for US non-financial corporations, 1950–2001.

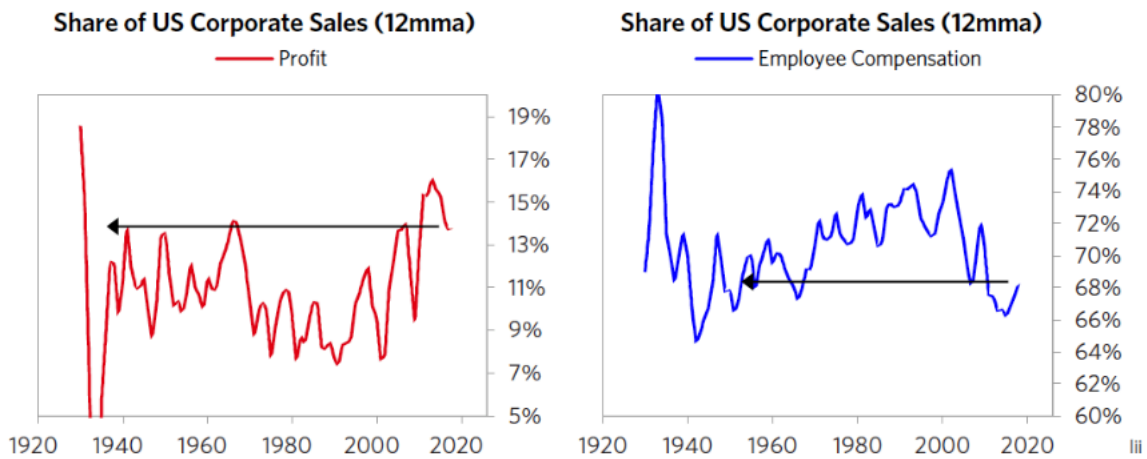
(Figure: Krippner 187)

Krippner’s data indicates that all companies, financial and nonfinancial, have reallocated capital toward financial ends. American companies have seen a contemporaneous relationship in the relationship between capital and labor: wages stagnate despite increasing productivity, with the residual accruing to financial interests.

Figure 1. Index of productivity and hourly compensation of production and non-supervisory workers in the U.S., 1959-2005. Source: Economic Policy Institute.



(Figure: Palley 11)



(Figure: Dalio)

Financialization:

The changes above are explained as a response to “international competition and domestic demands for shareholder return” (Zwan 103). In response to international competition, American corporations have “off-shored production and controlled foreign supply chains to cut back on costs” (Zwan 104). To meet shareholder return demands, “productivity gains” were not “reinvested in the corporation, but rather...distributed to shareholders or used for the purchase of financial products (Crotty, 2005; Milberg, 2008; Baud and Durand, 2012)” (Zwan 104).

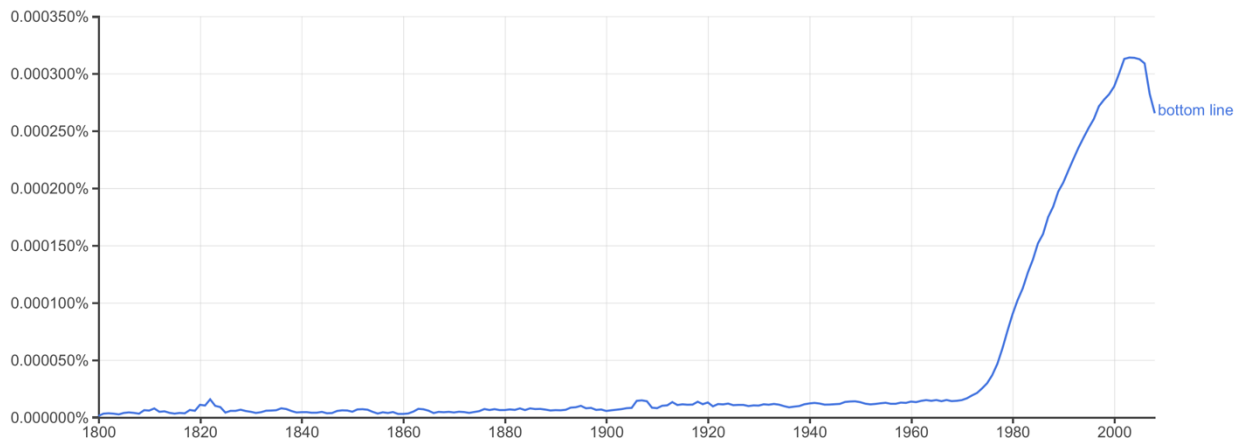
The shift to “financial products” reflects a turn from productive activity and capital investment to financial engineering. The emergence of financial products benefitted financial institutions, per Krippner’s data. However, these changes extend beyond the financial sector: “profits from interest, dividends, and capital gains for non-financial corporations have outpaced those from productive investment” (Zwan 103). And as shown by Dalio’s broader economic data, the “victory of the rentiers has come at the expense of wage-earners and households, who have faced stagnating real wages and increased indebtedness” (Zwan 105).

The Ideological Impetus of Financialization:

Financialization reflects changing corporate priorities. In 1970, Milton Friedman famously proclaimed in the New York Times that the “social responsibility of business is to increase its profits” (Friedman). He argued that company management was acting as “a principal, not an agent” by incorporating the “social responsibilities of individuals” into business objectives (Friedman). Instead, the “great virtue of private competitive enterprise” was in “[forcing] people

to be responsible for their own actions and [making] it difficult for them to ‘exploit’ other people for selfish or unselfish purposes” (Friedman).

This theory was immensely influential, and variations of this thinking made their way into C-suites throughout America. The increased prevalence of financial nomenclature “bottom line” and “equity” indicate this shift in zeitgeist in the early 1970s, in which profit and shareholder returns increasingly became the focus of the American corporation:



(Figure: Google nGram Viewer, Prevalence in All English Text)



(Figure: Google nGram Viewer, Prevalence in All English Text)

Policy Changes that Enabled Financialization:

Monetary policy based on asset prices rather than employment conditions for average Americans “increased financial fragility in combination with declining wages” and “created a growth regime that relies on debt-driven consumption and housing bubbles” that “undermin[es] its own liquidity and solvency” (Lapavitsas, 2009, p. 138)” (Zwan 105). In an economy built on consumption and debt rather than production, the Federal Reserve must manipulate asset prices to prevent recession. The financial economy trumps the real economy as the credit cycle subverts the business cycle. In a rising credit cycle, “asset price inflation that raises collateral values, which allows more borrowing that finances investment spending and drives economic expansion” (Palley 16). In a falling credit cycle, “balance sheets become congested so that borrowing and investment fall, setting off a downturn in which asset prices fall. Credit constraints then tighten, causing a cumulative spiral downward (Kiyotaki and Moore 1997)” (Palley 16). The new importance of financial assets to the economy prompted the Federal Reserve’s “abandonment of full employment,” which “refers to changed priorities regarding macroeconomic policy, which elevated the significance of low inflation and reduced the significance of full employment (Palley 24).

Central banks’ shifting priorities are “implemented through policies of inflation targeting and central bank independence, both of which are supported by financial interests (Epstein 2001; Palley 1996b)” (Palley 24). Unlike “pre-1980 policy” that “tacitly focused on putting a floor under labor markets to preserve employment and wages,” modern monetary policy “policy tacitly puts a floor under asset prices” (Palley 25). The “macro economy” is “vulnerable to asset price declines” and the Federal Reserve “is obliged to step in to prevent such declines from

inflicting broad macroeconomic damage” (Palley 25). With each cycle, this arrangement “has the twin consequence of bailing out investors and also potentially creating investor moral hazard” (Palley 25).

The Federal Reserve’s support of asset prices exacerbates wealth inequality because asset ownership is highly skewed to high net worth individuals. Moreover, the growth of debt supporting the credit cycle “transfers income from high marginal propensity to spend debtors to lower marginal propensity to spend creditors, and this process of transfer can generate business cycles.” (Palley 17) This process is distinct from the “pre-financialized” US, in which “wage growth, rather than borrowing, fueled consumption and demand growth...that then encouraged investment spending, which in turn drove productivity and output growth.” (Palley 25)

Regulatory changes including the “introduction of financial performance measures such as return on equity, the adoption of international accounting standards, and...the publication of quarterly reports (Ju`rgens et al.,2000; Bo`rsch, 2004; Widmer, 2011)” contribute to the short-term value-extractive orientation of markets (Zwan 108).

Financialization in the post-Bretton Woods Era:

The “collapse of the Bretton Woods regime” and the “booming Eurodollar markets of the post-war period” enabled the “globalization of American finance (Konings, 2008)” (Zwan 105).

Dollar strength supported by foreign demand for assets suppressed domestic industry. The loss of manufacturing activity to abroad substantially advanced financialization. Stein argues that “the

Carter Administration ultimately reinforced the movement of capital away from the real economy and thus solidified the deindustrialization of the American economy.” (Zwan 106)

In subsequent years, the US “took the path to financialization” characterized by “progressive taxation and loose credit in hopes of keeping deflation at bay and consumption in line with productive output” (Zwan 117). This places the roots of financialization before the 1970s, and stands in contrast to the approaches of European powers, where “wages were purposively kept low in order to curtail consumption and rebuild the productive capacities of their economies” (Zwan 117).

Effective “bailouts” of asset markets and interest rate suppression, consistent with the Federal Reserve’s reorientation to asset markets, created a debt boom in the United States. Both financial and nonfinancial corporations have drastically increased their borrowings. Kripper’s capital allocation data suggests a substantial fraction of incremental corporate debt is being used for financial engineering purposes.

	GDP (\$ bils.)	Total credit market debt (\$ bils.)	Total credit/GDP (%)	Financial sector debt (\$ bils.)	Financial sector debt/total debt (%)	Non- financial sector debt/total debt (%)
1973	1,382.7	2,172.7	140.0%	209.8	9.7%	90.3%
1979	2,563.3	4,276.4	166.8	504.9	11.8	88.2
1989	5,484.4	12,838.7	234.1	2,399.3	18.7	81.3
2000	9,187.0	27,019.6	294.1	8,130.3	30.1	69.9
2005	12,455.8	40,926.0	328.6	12,905.2	31.5	68.5

Source: Economic Report of the President, Table B-1; Flow of Funds, Table L.1, Board of Governors of the Federal Reserve, September 17, 2007; and author’s calculations.

(Figure: Palley 7)

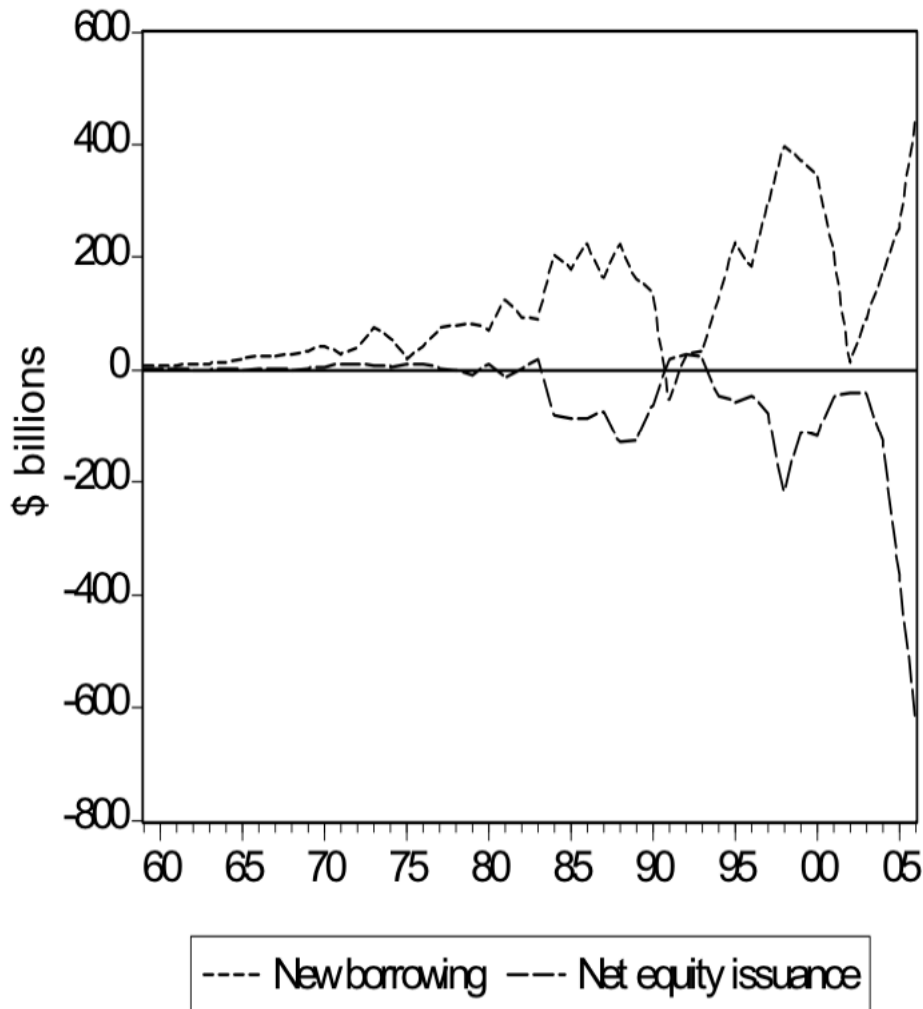
Financialization and Corporate Activity:

Financialization has led to a dearth of real corporate investment in productive capacity, creating an effective deindustrialization. Unlike the “industrial-age” corporation, the “financialized corporation” does not reinvest “financial gains from these operations in the firm’s productive facilities, but rather are distribute[s] [them] to shareholders through dividend payouts and share buybacks”(Zwan 108).

Friedman-style shareholder return attitudes became more common in corporations. Performance-based compensation, designed to align management and shareholders created a “perversion of shareholder value” in which “top-level managers” enjoy “unprecedented degrees of wealth” due to the “shift away from salaries to stock options” whose allocation is determined by “stock price” and other “arbitrary targets” (Zwan 108). The shift in compensation created conditions under which “CEOs of the largest corporations” earn “several hundred times higher incomes than the average worker (DiPrete et al., 2004; Englander and Kaufman, 2004; Bebchuk and Grinstein, 2005)” (Zwan 108).

Mishel et al. (2007) report that CEO pay has exploded from thirty-eight times average worker pay in 1979 to two hundred and sixty-two times worker pay in 2005. Bebchuk and Grinstein (2005) report that pay for the top five officers of S&P 500 companies rose from 5 percent of corporate profits in the 1990s to over 10 percent in the 2000s.” (Palley 14)

Figure 4. Non financial corporation net equity issuance and new borrowing, 1960-2005
 Source: Federal Reserve, Flow of Funds, tables F2 and F4.



(Figure: Palley 19)

“This new pattern suggests changed purpose of corporate borrowing. Before 1980 it financed investment spending, but since 1980 a significant portion of borrowing appears to be for purposes of equity buy-backs.” (Palley 20)

These “new patterns” show that “financial markets tend to prefer that corporations use debt to finance their activities owing to its tax advantages and the higher rates of return on equity that

leverage allows” (Palley 21). These activities effectively and surreptitiously extract of value from the real economy and into the financial economy. Specifically:

Rather than paying dividends that are highly taxed, markets prefer corporations to use profits to repurchase stock, which drives up the stock price and generates lower-taxed capital gains. Finally, increased debt issuance transforms profit streams into interest payment streams, which reduces corporate income available for other non-financial claimants. (Palley 21)

The activities of management teams to enrich themselves and placate shareholders can be seen in their capital allocation. Large negative net equity issuance indicates stock buybacks, much of which were financed with cheap debt, in an effort to drive stock prices and other management targets, such as return on equity, which is enhanced by reducing shares outstanding.

Shareholder value orientation has similarly punishing effects on workers. Restructuring is “associated with job loss and other cutbacks (Lazonick and O’Sullivan, 2000),” and remaining workers work “longer hours for lower pay and fewer benefits” (Zwan 109). More broadly, responsibility has shifted from corporations to individuals with “discourses of risk-taking, self-management, and self-fulfillment” (Zwan 112). Instead of “postwar welfare schemes” and generous corporate benefits/pensions, individuals “encounter a world of risk, in which they themselves are responsible for dealing with the uncertainties of life Cutler and Waine, 2001)” (Zwan 112).

Financialization discourse impacts labor and capital asymmetrically by creating the “‘investing subject’ (Aitken, 2007, p. 13),” an individual who “acts on his own for the benefit of himself” and must “insure himself against the risks of the life cycle through financial literacy and self-discipline” (Zwan 113). The financialized subject must “pil[e] on debt despite stagnating wages”

and will “suffer the most from the periodic crises that financialized capitalism creates, as their reliance on credit is unlikely to be compensated by more secure employment conditions” (Zwan 119).

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