The Revived Bretton Woods System, Liquidity Creation, and Asset Price Bubbles

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In this article, we argue that the present constellation of exchange rate arrangements among the major currencies has led to the creation of excessive global liquidity, which has contributed to asset price bubbles. Although the exchange rates of many of the major currencies—including the U.S. dollar, the euro, the yen, and the pound sterling—float against each other, the currencies of many Asian emerging market economies and oil-exporting economies are pegged to the dollar. Dooley, Folkerts-Landau, and Garber (2004a) labeled this system "Bretton Woods II" (BWII).[1] The original Bretton Woods regime (BWI) lasted for about a quarter of a century. Dooley, Folkerts-Landau, and Garber (DFG) argue that the present regime, despite its large global imbalances, will also be sustainable.

We have a different view. In what follows, we argue that the original Bretton Woods system comprised two fundamentally different variants. The first variant lasted from the inception of the system in 1947 until around 1969. The second variant had a much shorter life span, lasting from about 1970 until the collapse of the system in 1973.

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[1]See also Dooley, Folkerts-Landau, and Garber (2003, 2004b, 2005, 2006, 2009).

Whatever may have been the underlying stability characteristics of the initial part of that system, the variant that emerged around 1970 was fundamentally unstable—it was conducive to high global liquidity creation and asset price bubbles. We argue further that, to the extent that the global financial system has metamorphosed into a revived Bretton Woods regime, that regime resembles BWI from 1970–73, so that BWII is also prone to high global liquidity creation and asset price bubbles.

The remainder of this article is structured as follows. First, we compare both variants of BWI with the BWII regime that emerged in the early 2000s. Next, we discuss the relation between international liquidity creation under the latter stages of the original Bretton Woods regime and the new Bretton Woods regime. We then present some concluding observations.

Bretton Woods: Old and New

The original Bretton Woods regime was a fixed exchange rate system in which Western European countries and Japan maintained *undervalued* exchange rates against the dollar, thereby accumulating large amounts of dollar reserves in the pursuit of export-led growth. The United States was at the center of BWI, playing the role of world banker, running balance-of-payments deficits, and supplying dollar reserves to other countries. As the world's banker, the United States engaged in maturity transformation, accumulating short-term dollar liabilities while lending long-term, on net, to the rest of the world.

Other countries pegged their currencies against the dollar. The United States, for its part, fixed the price of the dollar at $35 per ounce of gold, freely buying gold from, and selling gold to, official bodies at that price. During the 1960s, however, the U.S. Federal Reserve began pursuing expansionary monetary policies for domestic reasons, paying little attention to growing balance-of-payments deficits, especially at the end of the decade. As a result, the growth of global liquidity surged beginning in 1970, commodity prices exploded, and the Bretton Woods system broke down.

Now, consider what DFG have dubbed the "new Bretton Woods system." The revived Bretton Woods metaphor runs as follows:

- As was the case under the earlier Bretton Woods regime, the present regime consists of a center country and a group of

economies comprising a periphery. The center country has been the United States under both regimes. Under the old Bretton Woods system, the Western European countries and Japan were the periphery; the emerging economies of Asia, including China, are the new periphery.

- Under both regimes, there is asymmetric monetary policy, with the Federal Reserve ignoring external factors in setting interest rates, while policymakers in the periphery focus on external factors.
- Under both regimes, the periphery follows export-led growth strategies based on undervalued currencies pegged against the dollar.
- Under both regimes, the undervalued currencies give rise to a massive accumulation of foreign exchange reserves mainly in the form of low-yielding U.S. dollar-denominated financial instruments.
- Under both regimes, the United States provides the main export market for the periphery, validating the export-led growth strategies of that group of countries.
- As was the case in the earlier regime, the United States plays the role of world banker, providing financial intermediation services for the rest of the world, especially the periphery.
- The earlier regime lasted for 25 years. DFG argue that the present system, which they say began in the early 2000s, will also be long-lasting.

International Liquidity and Asset Price Bubbles

Although there is much insight in DFG's story, it overlooks a fundamental change that took place in the late 1960s and early 1970s—namely, the United States severed the link between the dollar and gold. That change led to a surge of global liquidity, an asset price bubble, and a financial crisis, contributing to the breakdown of BWI. The fatal flaw of the revived Bretton Woods system is that it is also a pure fiat money regime with no anchor. We argue that flaw contributed to the asset price bubbles of the 2000s and the crisis that erupted in August 2007.

To demonstrate, consider data on growth rates of international liquidity and commodity prices for 1960–69, 1970–74 (the final years of BWI plus a year added for lagged effects), 1975–2002, and 2003–07

(BWII up until the year of the financial crisis). From 1960 to 1969 and 1975 to 2002, the average annual growth rates of global liquidity were 7 percent and 9.5 percent, respectively. During the final years of BWI (from 1970 to 1974), global liquidity grew by more than 30 percent a year, and under BWII (from 2003 to 2007), global liquidity grew by 17 percent a year.

The growth in global liquidity led to a rapid increase in commodity prices in 1970–74 and 2003–07, as indicated in Table 1. We can, therefore, conclude that both global liquidity and commodity prices grew much more quickly after the dollar's link to gold was severed. A more detailed explanation follows.

TABLE 1
Commodity Prices and International Reserves, 1969–2007
(Annualized Percentage Changes)

	1960–69	1970–74	1975–2002	2003–07
Reserves	6.8	30.5	9.7	17.1
Real GDP (world)	NA	4.8	3.4	4.1
Nominal GDP (world, U.S. dollars)	7.5	13.8	7.1	9.7
Commodities	0.9	33.9	2.6	21.5
Commodities Excluding Gold and Energy	1.4	20.9	0.1	17.9
Energy	-0.5	56.2	5.7	23.5
Price of Gold	0.2	42.2	5.1	19.8

Notes: Reserves are denominated in SDRs and exclude gold holdings. The index for commodities is based on the prices of 30 commodities. The energy component of the index consists of the prices of coal and crude oil. The price of gold is the spot price in U.S. dollars on the London market.

Sources: Reserves are from the IMF's *International Financial Statistics*, line 1ds; nominal GDP (world) and real GDP (world) are from the World Bank online database, *World Databank*; commodities, commodities excluding gold and energy, and energy are from the European Central Bank database. The price of gold is from the IMF's *International Financial Statistics*.

Transmission Channels

There are several channels through which an increase in liquidity may be associated with a rise in asset prices. First, an increase in liquidity tends to boost the demand for assets—such as government bonds, equities, commodity-indexed securities, and real estate—increasing their prices and reducing their rates of return (Baks and Kramer 1999: 5). If inflation in goods-and-services prices is relatively low because of, for example, productivity growth, the prices of assets will rise in real terms (IMF 2000: 88–89). Second, according to the Austrian view of financial crises, a rise in asset prices, whatever the cause, can lead to a bubble if monetary policy passively allows bank credit to expand, fueling the boom (Bordo and Wheelock 2004: 20). The Austrian view associates rising asset prices and financial imbalances (including current-account imbalances) with general inflation regardless of developments in the prices of goods and services (see Borio and White 2003). Third, in the specific case of commodities, economies that maintain undervalued exchange rates to boost growth contribute to a price spike in two ways: (1) the increase in the demand for commodities as inputs into production leads to higher prices of commodities, other things being the same; and (2) the initial price increases can lead to expectations of further increases, making investments in commodities more attractive.

Ending the Link between the Dollar and Gold

During most of the BWI period, discipline on the United States—the main supplier of global liquidity—was imposed in two ways. First, the United States pegged the price of the dollar at $35 per ounce of gold. Second, it maintained the convertibility of the dollar into gold at that fixed price. If U.S. policies were overly expansionary, the resulting balance-of-payment deficits were paid for by sending dollars abroad. Foreign central banks were permitted to exchange those dollars for gold at the U.S. Treasury, imposing some discipline over U.S. policies.

During the late 1960s and early 1970s, several events transformed the Bretton Woods regime from one based on the convertibility of the U.S. dollar into gold (at a fixed price) to one based on fiat money. In this connection, prior to 1958, less than 10 percent of cumulative U.S. balance-of-payments deficits since the end of World War II had been financed through U.S. gold sales; from 1959 until 1968 almost

67 percent of the U.S. cumulative balance-of-payments deficits were financed from U.S. gold reserves (Cohen 2001: 6). When the Bretton Woods regime started, the United States held about 75 percent of the world's monetary stock (Meltzer 1991: 56); by 1968, the U.S. share had declined to about 25 percent. To preserve its remaining gold stock, the U.S. took the following measures to sever the link between the dollar and gold:

- In March 1968, a run on sterling and the dollar into gold brought a collapse of the "gold pool agreement" that was initiated in 1961 by Belgium, France, Federal Germany, Italy, the Netherlands, Switzerland, the United Kingdom, and the United States to stabilize the price of gold at $35 an ounce on the London market (the main trading center for gold). The gold pool became a key pillar of the Bretton Woods I regime (Yeager 1976: 425–27; Eichengreen 2007: chap. 2). With the abandonment of the gold pool, the price of gold for official transactions remained at $35 per ounce, but the members of the gold pool did not attempt to control the price of gold in *private* transactions. In order to prevent arbitrage between the private and official markets for gold, central banks agreed not to sell in the private gold market (Meltzer 1991: 63).
- In March 1968, the Federal Reserve removed the 25 percent gold backing requirement for the issuance of Federal Reserve notes. As Bordo (1993: 70–72) argued, "The key effect of these [two] arrangements was that gold was demonetized at the margin. . . . In effect, the world switched to a *de facto* dollar standard."[2]
- Following a sharp rise in the U.S. balance-of-payments deficit in the first quarter of 1971 and a run against the U.S. dollar, President Richard Nixon ended U.S. gold outflows in August 1971 by announcing that the United States would no longer sell gold to foreign central banks. That action severed the remaining link between the dollar and gold.[3]

[2]Similarly, Yeager (1976: 575) argued that "with convertibility at an end, the world was on a *de facto* dollar standard rather than a genuine gold-exchange standard."

[3]Nixon announced that the suspension of convertibility would be temporary. At the Smithsonian Agreement of December 1971, gold was repriced at $38 per ounce but the dollar remained de facto inconvertible. Meltzer (1991: 80) observed that the action by the U.S. government in August 1971 "formalized the restriction that had been in effect for more than three years by refusing to sell gold."

Why did the United States sever the links between the dollar and gold during the late 1960s and early 1970s? Beginning in the early 1960s, the Federal Reserve implemented expansionary monetary policies, which led to rising inflation, declining competitiveness, and growing balance-of-payments deficits (Meltzer 1991, Bordo 1993); the Federal Reserve "concentrated almost excessively on domestic objectives" (Meltzer 1991: 79). As foreign central banks accumulated U.S. dollar reserves, the United States came under the threat of a convertibility crisis. To address that threat, the U.S. government and the Fed severed all links between the dollar and gold. However, those actions transformed the international monetary system from a commodity-based system to a fiat-money system. The Bretton Woods regime was set adrift without an anchor.[4] As a result, growth of global liquidity exploded in the early 1970s and, in early 1973, the old regime collapsed, ushering in a new regime of managed floating exchange rates.

With the recent re-emergence of a large periphery that maintains pegged, undervalued exchange rates against the dollar, the conditions that led to the breakdown of the earlier Bretton Woods regime have been reintroduced. We do not want to push the Bretton Woods metaphor too far. Clearly, many major currencies, including the euro, float against the dollar, and some Asian emerging market economies do not follow tight pegs. Nevertheless, to the extent that a large and rising share of U.S. external trade is conducted under fixed rates within a pure fiat money regime, there are some striking similarities between the Bretton Woods system of the early 1970s and the regime that emerged in the 2000s.

The Global Financial System, 2003–07

The salient characteristics of the global financial system in the five years ending in 2007 are reminiscent of the 1970–74 Bretton Woods system:

- During 2003–07, there were sharp rises in global liquidity and commodity prices; U.S. share prices and real estate prices boomed.

[4]Meltzer (1991: 82) noted that "discipline [on the Federal Reserve] was lacking once the *de facto* embargo on gold was in place after March 1968." Meltzer also pointed out that some of the responsibility for the breakdown of the earlier Bretton Woods regime lay with the periphery countries, which made few efforts to adjust their policies. Bordo (1993: 73) argued: "Without gold convertibility, there was no commitment mechanism to constrain the United States to follow a stable monetary policy."

- U.S. current-account deficits averaged about 5.5 percent of GDP (Table 2), compared with about 1.5 percent in the preceding 30 years.
- Measured in terms of Special Drawing Rights, the cumulative total of the U.S. current-account deficits amounted to 2.68 trillion SDRs (Table 2). The increase in global liquidity during the same period was 2.43 trillion SDRs.
- Seven Asian emerging market economies—economies that form the core of the new periphery—accounted for more than 45 percent of the rise in global liquidity (Table 2).
- U.S. interest rates were at very low levels for much of the period.

The relationship among these characteristics is marked by interconnected feedback loops. Consider the following:

- The exchange rate policy of the Asian periphery, under which the periphery accumulated reserves and invested in U.S. financial assets, pushed up the prices of those assets and decreased U.S. interest rates.
- The exchange rate policy of the periphery led to higher growth in the countries concerned, underpinned by exports, increasing the demand for commodities as inputs into production, pushing up the prices of those inputs. In turn, the price rises made commodities more attractive as investment vehicles.
- Higher commodity prices widened the U.S. current-account deficits. They also widened the current-account surpluses of commodity exporters, including oil exporters, many of which maintain dollar pegs. Those surpluses resulted in higher global reserves and lower U.S. interest rates.
- Low U.S. interest rates contributed to higher U.S. domestic demand, increasing the current-account deficit and contributing to higher U.S. asset prices.
- Higher U.S. asset prices led, through wealth and balance-sheet effects, to an increase in U.S. economic growth, raising the current-account deficit and pushing up asset prices further.

There are other feedback loops, but we think our point is clear: the current BWII system, like the waning years of the BWI regime lacks the discipline of dollar convertibility into gold. Without a credible anchor, the global monetary system is prone to crises.

TABLE 2
CURRENT ACCOUNT BALANCES AND INTERNATIONAL RESERVES, 2003–07

Year	United States Current Account		Change in Reserves								Total of Seven Asian Economies
	Percent GDP	Amount (billions of SDRs)	World	China	Hong Kong	India	Korea	Malaysia	Singapore	Taiwan	
2003	−4.7	−372.4	265.5	60.6	−2.7	16.8	16.2	5.0	4.3	20.1	
2004	−5.3	−426.2	377.5	121.0	−0.1	14.9	23.8	12.9	7.7	16.7	
2005	−5.9	−506.8	581.2	179.1	7.4	11.7	19.0	6.5	8.8	21.5	
2006	−6.0	−546.2	455.4	135.5	1.6	21.2	11.6	5.9	9.3	−1.0	
2007	−5.2	474.7	745.1	258.1	6.1	55.5	7.1	9.3	12.5	−6.8	
Cumulative Balance		−2,680.8	2,424.6	754.1	12.3	120.1	77.7	35.6	42.8	50.5	1,093.1

SOURCE: International Monetary Fund, *International Monetary Statistics*.

Conclusion

Under the early Bretton Woods regime, the United States had a formal obligation to link the dollar to gold. That system broke down in the late 1960s and early 1970s. Under the new Bretton Woods system from 2003–07, the Federal Reserve delivered low inflation, but its monetary policy took essentially no account of external factors and the implications of its policy stance for global liquidity creation, while the periphery—in particular, emerging market economies in Asia, especially China—pegged their currencies to the dollar at artificially low levels to promote exports. Like the BWI system from 1970–73, the new Bretton Woods regime is conducive to large U.S. current-account deficits, high global liquidity creation, and asset price bubbles.[5]

The crisis that erupted in August 2007 led to a sharp contraction in U.S. growth, bringing down the U.S. current-account deficit. Yet, to the extent that the revived Bretton Woods regime was one of the main reasons for the crisis, the underpinnings of the next crisis are in place.

In a world comprised of fiat currencies and a large powerful center country whose central bank operates in the absence of a convertibility principle linking the dollar to gold, floating exchange rates among all the major currency areas, including the countries of the periphery, would provide a mechanism for the adjustment of global imbalances and a safeguard against a future crisis.

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[5]A formalization of the above argument is provided in Dellas and Tavlas (2011).

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