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THE FATAL FLAW: THE REVIVED BRETTON-WOODS SYSTEM, LIQUIDITY CREATION, AND COMMODITY-PRICE BUBBLES

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ABSTRACT

Dooley, Folkerts-Landau and Garber (DFG) argue that the present constellation of global exchange-rate arrangements constitutes a revived Bretton-Woods system. DFG ALSO argue that the revived system will be sustainable, despite its large global imbalances. We argue that, to the extent that the present system constitutes a revived Bretton-Woods system, it is vulnerable to the same set of destabilizing forces - - including asset price bubbles and global financial crises - - that led to the breakdown of the earlier regime.

JEL classifications: C22, F33, N10

Keywords: Bretton-Woods system, international liquidity, price bubbles, Markov switching model

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1. Introduction

Does the current international monetary regime encourage asset-price bubbles? Following the sharp rise in U.S. share prices during the second half of the 1990s, and their subsequent sharp falls in 2000 and 2001, those prices - - along with the prices of other assets, including property, commodities, and bonds - - experienced further major upward movements between 2002 and 2007, until the onset of the financial crisis in August 2007. We argue that the present constellation of exchange-rate arrangements among the major currencies has been conducive to the creation of excessive global liquidity, which contributed to unsustainable asset-price booms.

A monetary regime can be defined as a set of monetary arrangements and institutions that constrains the ability of the monetary authorities to influence the evolution of the macroeconomic aggregates (Bordo and Schwartz, 1997, p. 1; Eichengreen and Temin, 2010, p. 4). Regimes have both domestic and international components. The domestic component relates to the policy actions and institutional arrangements of the monetary authorities. The international component concerns the monetary relations - - including exchange-rate arrangements and permittable degree of capital mobility - - among economic entities (Bordo and Schwartz, 1997, p. 2). In what follows, we focus on the international component of monetary regimes.

What kind of exchange-rate arrangement characterizes the current international monetary system? 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 U.S. dollar. This circumstance has provoked a series of articles by Dooley, Folkerts-Landau, and Garber (hereafter DFG), who argue that the present constellation of global exchange-rate arrangements constitutes a revived Bretton-Woods, or Bretton-Woods II (BWII), regime.[1] The original Bretton-Woods regime lasted for about a quarter of a century. DFG argue that the present regime, despite its large global imbalances, will also be sustainable.

[1] See DFG (2003, 2004a, 2004b, 2005, 2006, 2009).

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 lifespan – lasting from about 1970 until the collapse of the system in 1973. Whatever may have been the underlying stability characteristics of the initial part (i. e., from 1947-1969) 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 metamorphosized into a revived Bretton-Woods regime, the revived regime resembles the original regime a circa 1970-73, so that the revived regime is also prone to high global liquidity creation and asset-price bubbles.

The remainder of this paper is structured as follows. First, we compare both variants of the original Bretton-Woods regime with the 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.

2. Bretton-Woods regimes, old and new

Here is the Bretton-Woods story. The original Bretton-Woods regime was a formal fixed-exchange-rate arrangement under which, Western European countries and Japan maintained undervalued exchange rates against the dollar, accumulating large amounts of dollar reserves, in the pursuit of export-led growth. The United States was at the center of that earlier system. It played the role of world banker, running balance-of-payments deficits, and supplying dollar reserves to other countries. As world banker, it 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 U.S., for its part, fixed the price of the dollar at 35 dollars per ounce of gold, freely buying gold from, and selling gold to, official bodies at that price. During the 1960s, however, the U.S. Fed 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, and as we will document, 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 behavior, with the Fed ignoring external factors in setting interest rates but the policy makers in the periphery focusing 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 U. S. plays the role of world banker, providing financial-intermediation services for the rest of the world, especially the periphery.

- As noted, the earlier regime lasted for 25 years. The authors of the revived Bretton-Woods story argue that the present system, which they say began in the early 2000s, will also be long-lasting.

3. International liquidity and asset price bubbles

Although there is much insight in this story, it overlooks a fundamental change that took place in the late-1960s and early-1970s, a change that led to a surge of global liquidity, a commodity-price bubble, and a crisis, contributing to the breakdown of the earlier regime. That change has carried over to the revived Bretton-Woods system and appears to have 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, presented in Table 1. The table reports data for four periods: 1960-69, 1970-74, corresponding to the final years of the earlier Bretton-Woods regime plus a year added for lagged effects, 1975-2002, and 2003 to 2007, corresponding to the new regime up until the year of the crisis. During the periods 1960 to 1969 and 1975 to 2002, the average annual growth rates of global liquidity were 7 percent and 9½, respectively. During the final years of the earlier Bretton-Woods regime the rate of increase of global liquidity surged - - to 30 percent a year. During the years corresponding to the new Bretton-Woods regime until the crisis, the growth rate of global liquidity was almost 20 percent a year. What about commodity prices? We use a comprehensive index of 30 commodities published by the European Central Bank.[2] Commodity prices grew by 1 percent a year during the period of 1960 to 1969 and by about only 2½ percent during 1975 to 2002. During the final years of the earlier Bretton-Woods system they grew by 34 percent a year. During the period 2003 through 2007, the rate of increase was over 20 percent a year. We can, therefore, conclude that both commodity prices and global liquidity grew at very modest rates in the periods 1960-69 and 1975-2002, but surged in the periods 1970-74 and 2003-2007.

How does global liquidity affect asset prices? 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, and, thereby, reduce the rates of

[2] The figures in the text refer to this comprehensive measure of commodity prices. Table 1 includes three additional categories of commodity prices: (1) commodities excluding gold and energy, (2) energy, and (3) gold. The prices of these three categories exhibited similar movements to that of comprehensive category.

returns on these instruments (Baks and Kramer, 1999, p. 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, pp. 88-89). Second, according to the Austrian view of financial crisis, 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, p. 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.[3] 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, other things being the same, to higher prices of commodities. (2) In turn, the initial price increases can lead to expectations of further increases, making commodities more attractive as an investment vehicle.

What happened in the final years of the earlier Bretton-Woods regime to cause the growth rate of global reserves to surge upward? Under that regime, discipline on the United States, the center of the system and the main supplier of global liquidity, was imposed in two ways. First, the U. S 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 I regime from a regime based on the convertibility of the U.S. dollar into gold (at a fixed price) to a regime based on fiat money. In this connection, prior to 1958, less than ten ten 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 two-thirds of the U.S. cumulative balance-of-payments deficits were financed from U.S. gold reserves (Cohen, 2002, p.6). When the Bretton-Woods regime started, the United States held about three-quarters of the world's monetary stock (Meltzer, 1991, p.56); by 1968,

[3] See, for example, Borio and White (2003).

the share had declined to about one-quarter. To preserve its remaining gold stock, the following measures were taken to sever the link between the dollar and gold.

- A run on sterling and the dollar into gold brought a collapse of the gold-pool agreement in March 1968. Created in 1961 by eight major countries (Belgium, France, Federal Germany, Italy, the Netherlands, Switzerland, the United Kingdom, and the United States) to stabilize the U.S. dollar 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.[4] 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, p. 63).

- In March 1968 the Federal Reserve removed the 25-percent gold backing requirement for the issuance of Federal Reserve notes. As Bordo (1993, pp. 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."[5]

- Following a sharp rise in the U.S. balance-of-payments deficit in the first quarter of 1971 and a resulting run against the U.S. dollar, in August 1971 President Richard Nixon ended U.S. gold loss by announcing that the United States would no longer sell gold to foreign central banks. This action severed the remaining link between the dollar and gold.[6]

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,

[4] See Yeager (1976, pp. 425-27) and Eichengreen (2007, Chapter 2).
[5] Similarly, Yeager (1976, p. 575) argued that "with convertibility at an end, the world was on a *de facto* dollar standard rather than a genuine gold-exchange standard."
[6] 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, p. 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."

1993); the Fed's monetary policy "concentrated almost excessively on domestic objectives" (Meltzer, 1991, p. 79). As foreign central banks accumulated U.S. dollar reserves, the United States came under the threat of a convertibility crisis. To address this threat, the U.S. government and the Federal Reserve 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.[7] As a result, growth of global liquidity exploded in the early 1970s (Section 4, below) 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 re-introduced. We don't 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, and without a convertibility constraint, there are some striking similarities between the regime of the early 1970s and the regime that emerged in the 2000s.

Consider some salient characteristics of the global financial system in the five years ending in 2007.

- As we saw, sharp rises in global liquidity and commodity prices, and, in the U.S., share prices and real-estate prices, occurred.

- As reported in Table 2, U. S. current-account deficits averaged about 5½ percent of GDP, compared with about 1½ 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). To what extent did

[7] Meltzer (1991, p. 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 lied with the periphery countries, which made few efforts to adjust their policies. Bordo (1993, p. 73) argued: "without gold convertibility, there was no commitment mechanism to constrain the United Stated to follow a stable monetary policy.

these deficits relate to the surge in global liquidity? The increase in global liquidity during the same period was 2.43 trillion SDRs, almost the same amount.

- 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.

4. Conclusions

Under the earlier Bretton-Woods regime, the United States had a formal obligation to maintain a peg for the dollar. Under the new regime, the peg has been unilaterally maintained by the Asian periphery. The Fed has delivered what it was supposed to deliver - - low inflation, but the policy of the periphery has created a situation conducive to large U.S. current-account deficits, high global liquidity creation, and asset-price bubbles. The crisis that erupted in August 2007 led to a sharp contraction in U.S. growth, bringing down the U.S. current-account deficits, but, 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 that operates in the absence of a convertibility constraint, 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.

Table 1. Commodity prices and international reserves, 1969-2007

Annualized percent changes

	1960-1969	**1970-1974**	**1975-2002**	**2003-2007**
Reserves	6.8	30.5	9.7	17.1
Real GDP (world)	N/A	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
Gold	0.2	42.2	5.1	19.8

Notes: 1. *Reserves*; the data are from the IMF's *International Financial Statistics,* line 1ds; reserves are denominated in SDRs and exclude gold holdings

2. *Nominal GDP* (world) and real GDP (world) are from the World Bank online database, *World databank*

3. *Commodities, commodities* excluding gold and energy, and *energy* are from the European Central Bank database. 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.

4. The price of *Gold* is from the IMF's International Financial Statistics. It is the spot price in U.S. dollars on the London market.

Table 2. Current Account Balances and International Reserves, 2003-2007

	United States Current Account	Change in reserves									
Year	Percent GDP	Amount (billions of SDRs)	World	China	Hong Kong	India	Korea	Malaysia	Singapore	Taiwan	Total of seven Asian economies
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*

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