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**Research Report**

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Levy Economics Institute of Bard College

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# ***Public Policy Brief***

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No. 116, 2010

## **AN ALTERNATIVE PERSPECTIVE ON GLOBAL IMBALANCES AND INTERNATIONAL RESERVE CURRENCIES<sup>1</sup>**

JAN KREGEL

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## Preface

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The stability of the international reserve currency's purchasing power is less a question of what serves as that currency and more a question of the international adjustment mechanism, as well as the compatibility of export-led development strategies with international payment balances. According to Senior Scholar Jan Kregel, export-led growth and free capital flows are the real causes of sustained international imbalances. The only way out of this predicament is to shift to domestic demand-led development strategies—and capital flows will have to be part of the solution.

Kregel outlines the effects of the gold-exchange standard and the Bretton Woods system in resolving global imbalances. In terms of the gold standard, the international balance-of-payments adjustment mechanism based on arbitrage failed to solve the problem. The asymmetry between surplus and deficit countries meant that the adjustment process reduced the global level of activity, primarily through lower output and employment.

To restore equilibrium, John Maynard Keynes recommended a clearing union, whereby the costs of adjustment would be borne equally by all countries, and by capital and labor. The Bretton Woods system instead resorted to managing the adjustment process. The imposition of par values for the U.S. dollar or gold for current-account convertibility meant that deficits were constrained by the size of a country's foreign-exchange reserves and drawings from the International Monetary Fund (IMF). However, this system preserved the asymmetric adjustment under the gold standard because it placed no active constraint on the reserve balances or of the U.S. external imbalance.

Robert Triffin's paradox is that it is impossible to have the dollar as the source of global liquidity and to fix the dollar's value in terms of gold when there is a growing global economy that requires an expansion of international liquidity. An important corollary of this paradox is that the stability of the reserve currency's purchasing power is linked to an adjustment mechanism that eliminates international imbalances; it has little to do with what actually serves as the international currency.

Resolving Triffin's paradox meant abandoning the fixed-rate system that provided the constraints on global imbalances and moving to floating exchange rates and unregulated international capital flows. Instead of IMF intervention and conditionality, a new, market-based adjustment mechanism came into play. Interest-rate differentials generated capital inflows, leading to higher foreign-exchange reserves and an appreciating exchange rate. This approach led to further deterioration in the external accounts and to exchange-rate appreciation, thus reinforcing investor belief in the stability of the process. The size of a country's deficit post-Bretton Woods is determined by the confidence of international investors that a country can continue to increase its foreign borrowing in order to meet its debt-service commitments—what Hyman P. Minsky would have called a “Ponzi” scheme.

When developing countries adopt a strategy supporting domestic industrialization by promoting net exports based on a competitive exchange rate, they forego any guarantee that the purchasing power of their external claims will remain stable. The successful pursuit of these policies requires a distortion of prices, exchange rates, or global demand, and of the purchasing power of the resulting surpluses. Changing the international currency is not a solution to the (declining) value of accumulated surpluses, says Kregel, because the problem is caused by the absence of an international adjustment mechanism that is compatible with the full utilization of global resources. China's surpluses would have been eliminated if an automatic price-adjustment process based on exchange-rate flexibility had been in place. Due to the Triffin paradox, China cannot escape the dollar losses of its foreign-exchange reserves any more than central banks could under Bretton Woods.

As always, I welcome your comments.

Dimitri B. Papadimitriou, *President*  
October 2010

## Global Imbalances: They Just Won't Go Away

The recent rapid increase of external surpluses in China, accompanied by rising U.S. deficits, has revived discussions of global imbalances and threats of a global currency war reminiscent of the beggar-my-neighbor policies of the 1930s. There have also been renewed calls for the introduction of an international reserve currency to replace the U.S. dollar. Internal trade imbalances between northern and southern Europe have also been identified as one of the factors undermining the sustainability of a single currency in the euro area.<sup>2</sup>

These discussions ignore two basic facts noted by John Maynard Keynes and Robert Triffin in their criticism of the functioning of the international monetary system. Their criticism suggests that the basic problem is not the particular national liability that serves as the international currency but rather the failure of an efficient adjustment mechanism for global imbalances. Unfortunately, this mechanism is still being discussed as if the world were on a gold standard with limited international capital movements rather than on a mixed, fixed-managed floating system in which global capital flows dominate trade flows.

## Global Imbalances under the Theoretical Gold Standard

The 20th century gold-exchange standard was based on a system of free international exchange—of goods, services, and capital. It was presumed that competition would support the law of one price for all goods traded in international markets: when there were price discrepancies, arbitrage eliminated them. Thus, if the gold price of goods in one country was below that in other countries, there was an incentive to exchange gold for goods and export them to foreign markets where the gold price was higher. The equilibrium result was the law of one gold price for similar goods irrespective of where the goods were produced. Alternatively, the purchasing power of gold over goods would be equal in all countries, so there was no potential arbitrage that would cause the physical movement of gold across borders.

During the arbitrage adjustment process, surplus countries accumulated gold, bringing about a rise in domestic prices that raised the cost of exports and reduced the cost of imports. The effect was the opposite in deficit countries, leading to the automatic elimination of international imbalances. Another consequence of this international-arbitrage equilibrium was that

the purchasing power of private savings in national currencies with a given gold parity was stable in terms of both domestic and international purchasing power. It is important to note that both of these stabilizing properties of the gold standard depended on the successful operation of the international-arbitrage process, or as we now call it, the international balance-of-payments adjustment mechanism.

## Price or Quantity Adjustment: Keynes's Critique of the Barbarous Relic

Keynes criticized this depiction of how the gold standard operated because, in practice, it was the level of domestic activity, not the arbitrage mechanism of price adjustment, that provided the adjustment mechanism. In addition, he noted two asymmetries in the adjustment process, both based on changes in the level of economic activity. The first was that the domestic adjustment would fall primarily on employment, since the price of labor would be more sticky than financial prices: "It is, therefore, a serious question whether it is right to adopt an international standard, which will allow an extreme mobility and sensitiveness of foreign lending, while the remaining elements of the economic complex remain exceedingly rigid. If it were as easy to put wages up and down as it is to put bank rate up and down, well and good. But this is not the actual situation" (Keynes 1930, 336).

Keynes also noted the now-better-known asymmetry between surplus and deficit countries. Countries that experienced a gold outflow due to an external deficit would have to cut their imports by reducing activity, since they would run out of gold before the relative price adjustment process could take place; while surplus countries could simply allow their surpluses to accumulate without changing their policies. Keynes concluded that the adjustment process would produce a tendency toward reducing the global level of activity, primarily through lower output and employment. This implied that the stability of the international purchasing power of financial claims was preserved at the expense of the value of labor.

Keynes recommended the creation of a clearing union to introduce symmetry into the adjustment process. Payment imbalances would be settled by means of a unit of account that could not be traded by individuals in private markets. But it was not his proposal to replace gold with the "imaginary money" of economic history (to use Luigi Einaudi's term) that

was important for the success of the scheme; it was the assumption that governments would agree to implement coordinated, symmetric, adjustment policies, either by rule or consultation, involving simultaneous actions to restore equilibrium by both deficit and surplus countries. The objective was a system in which the costs of adjustment would be borne equally by all countries, and by capital and labor, because this would make it possible to maintain full employment and global demand.

### **Global Imbalances under Bretton Woods**

As is well known, the Bretton Woods system did not implement this proposal to replace gold with a notional unit of settlement within a clearing union. Nonetheless, it did seek to manage the adjustment process rather than leaving it in the hands of international arbitrage in private markets. The imposition of par values for the U.S. dollar or gold for current-account convertibility meant that deficits were constrained by the size of a country's foreign exchange reserves. It was generally accepted that reserves would be sufficient if they were equivalent to the value of three or four months' worth of imports. Well in advance of running down its reserve balances, it was common for a deficit country to apply to the International Monetary Fund (IMF) for supplemental reserves. These reserves would be supplied only if the country accepted domestic-policy conditions designed to eliminate the external deficit balance and generate foreign-exchange earnings to repay the loan. These conditions were based on a theory of balance-of-payments adjustment, including absorption and expenditure switching; that is, constraining domestic expenditures and introducing exchange-rate adjustments when there was an insufficient income adjustment. When strictly applied, these measures implied that the size of a country's deficit could not depart significantly from the sum of its accumulated foreign-exchange reserves, IMF gold tranche, and any additional IMF program lending. Thus, the imposed IMF policy conditions supplanted the effect of gold movements on the domestic money supply and price levels that had operated under the gold standard. But in general, the results were similar: the accumulated imbalances were kept within a small range determined by domestic reserves and IMF drawings.

This system, however, preserved the asymmetric adjustment under the gold standard. And as Keynes pointed out, the gold standard prevented global full employment because it placed no active constraint on the policies of surplus countries. Indeed, it was the limit on country deficits that constrained global sur-

pluses and thus the overall size of imbalances. However, this adjustment process meant that deficit countries were forced into an excessive contraction in domestic incomes in order to return to balance and repay the IMF. In contrast, surplus countries were not subject to simultaneous conditionality to reduce their imbalances. Although this approach should produce a system whereby all countries, on average, are in external balance over time, this will occur only at the cost of lower average output and employment for the global economy.<sup>3</sup>

### **Triffin's Exemption to the Size of Imbalances under Bretton Woods**

There was one important exception to the Bretton Woods limit on a country's deficit, the systemic implications of which were pointed out by Robert Triffin<sup>4</sup> before they were clearly apparent to economists and government finance ministers. Since the United States had accumulated most of the world's gold after World War II and pegged its currency to gold, all other countries chose to fix a parity relative to the dollar rather than to gold. The ability of these  $n-1$  countries to maintain parity in a fixed exchange-rate system was predicated on the  $n$ th country running a payment deficit sufficiently large to accommodate the global liquidity demand for the dollar, which represented the intervention currency. Since there was no sanction on the size of surplus reserve balances, there was no effective constraint on the size of the U.S. external imbalance.

But as Triffin pointed out, there was a practical limit to accumulating dollars. This limit was determined by the willingness of the surplus countries' central banks to continue to accumulate dollars when their outstanding claims exceeded the United States' ability to meet these claims in gold at parity. Moreover, even this limit was not binding, since any attempt to convert dollars into gold would break the gold parity, producing depreciation losses on the domestic value of the central banks' reserve holdings. The Triffin paradox is that it is impossible to have the dollar as the source of global liquidity and to fix the dollar's value in terms of gold when there is a growing global economy that requires an expansion of international liquidity. The unwillingness of the surplus countries to confront this catch-22 resulted in a series of gentlemen's agreements to pretend that the dollar's gold value was unchanged, by not presenting dollars to the U.S. Treasury in exchange for gold but nevertheless doing so in private markets whenever possible.

An important, if little recognized, corollary of the Triffin paradox is that the stability of the reserve currency's purchasing power is linked to an adjustment mechanism that eliminates, either automatically or through a coordinated policy mechanism, international imbalances; it has little to do with what actually serves as the international currency. This point was recognized after the breakdown of the gold standard—for example, Gustav Cassell's proposal that national monetary management should follow a stable purchasing power–parity standard.<sup>5</sup> Keynes (1923) supported such proposals.

### **Is It Possible to Resolve the Triffin Paradox?**

It is the nature of a paradox that it cannot be resolved under the parameters of the problem. It requires a change in parameters. Resolving Triffin's paradox meant abandoning the fixed-rate system that provided the constraints on global imbalances. Indeed, once the system moved to floating exchange rates, the strong constraints on the  $n-1$  countries' deficits and the weak constraint on the  $n$ th country's deficit that had kept global imbalances within reasonable limits were relaxed. Under the “non-system” (Triffin's term) that replaced Bretton Woods, any limits on imbalances would have to result from the impact of the flexible exchange rate on the relative prices of traded goods; and, more important, on an inverse relation between the sign of the payments imbalances and exchange-rate movements. In this new system, the concept of external equilibrium lost much of its meaning, since it simply represented the exchange rate produced by the balance between the flows of goods and services, including capital.

### **Disequilibrating Adjustment to Imbalances and Capital Flows**

With the end of Bretton Woods came an acceptance—indeed, encouragement—of free and unregulated international capital flows. (Europe eliminated any residual controls in the run-up to the European exchange rate mechanism of the European monetary system at the end of the 1980s.) Now a country's deficit current-account balance could reach any level that international investors are willing to finance, independent of the surplus balance in other countries. Instead of IMF intervention and conditionality, a new market-based adjustment mechanism came into play. Rapid growth and rising interest rates in a country

with a growing external deficit would produce an increasing, positive, international interest-rate differential that generated capital inflows similar to what became known in the 1990s as the “carry trade.” Indeed, introducing tight monetary policies to reverse the imbalance would simply increase capital inflows and more than offset the deterioration in the external balance, resulting in higher foreign exchange reserves and an appreciation of the exchange rate. Both factors have encouraged international investors to increase inflows, providing governments with an excuse to delay adjustment. After all, if international investors are willing to send more money, then the existing government policies must be passing their market test.

Exchange rate appreciation produces an additional return to the positive interest rate differential in the form of a domestic currency gain for international investors. Attempts to dampen the impact of inflows through sterilization merely lead to higher domestic interest rates and raise debt-servicing costs within the government budget. Instead of supporting payment adjustments by making foreign imports more expensive, the flexible exchange rate under free capital flows does the opposite. There is a cumulative self-reinforcing tendency toward continued deterioration in the external accounts, and a seemingly unending appreciation of the exchange rate. And the ability to support the increasing imbalance is reinforced by reference to the rapidly rising foreign exchange reserves that reinforce investor belief in the stability of the process.

While the size of the U.S. imbalance under Bretton Woods was determined by the confidence of foreign central banks in the United States' ability to liquidate dollar balances at the gold parity, the size of a country's deficit post-Bretton Woods was determined by the confidence of international investors that a country could continue to increase its foreign borrowing in order to meet its debt-service commitments. Hyman Minsky would have called this a “Ponzi” scheme<sup>6</sup>—which is what it was. George Soros (1994, chapter 3) called the operation of this cumulative (non)adjustment process a form of “reflexivity” and used it to analyze the positive return on holding U.S. dollar assets, despite the deterioration of the U.S. external account and fiscal balance that accompanied the appreciation of the dollar under the Reagan administration. In this adjustment process, the limit on imbalances was based on investor confidence that the cumulative process and accumulating imbalances would continue to reinforce each other—and that investors could exit before the process reversed.

## **The New Limited Role of the IMF in the Market-based Adjustment Process**

In this process, the IMF is powerless not only to constrain surplus imbalances but also to limit deficit imbalances. Its role is limited to replacing the private capital inflows when the reversal starts and international investors decide that they can no longer profit from the rising imbalances. Unfortunately, the policy conditions that are part of this funding are the same as those under the old Bretton Woods regime, and often do not reverse the imbalances but rather lead to larger domestic income and employment losses. Indeed, the IMF support packages often simply serve to bail out the international investors that were unable to exit before the collapse. The result is a political backlash, where the government accepts policies that impose additional burdens on domestic residents in the form of income and employment losses, in addition to wealth losses, while IMF support is forthcoming only if foreign investors are compensated and made whole. The asymmetry is now between domestic labor and foreign capital.

This type of cumulative process, like any Ponzi scheme, must eventually collapse, with default on foreign commitments. The maximum size of imbalances in this system is limited by intermittent financial crises rather than by IMF conditionality. If countries choose to avoid the consequences of policy conditionality and the failure of the market-based adjustment mechanism to provide a return to equilibrium without a financial crisis, they must seek to establish an external surplus and large reserve balances, thus introducing yet another factor in the growth of global imbalances. This process was evident in the large buildup of foreign-exchange reserves in developing countries after the Asian-Russian-LTCM market meltdown in 1997–98: the policies adopted in response could succeed only if accompanied by a large increase in the U.S. external deficit.

## **International Adjustment to Imbalances and the International Value of the Reserve Currency**

It is important to recall the corollary of the Triffin paradox: in this type of adjustment mechanism, there can be no guarantee of the purchasing power versus the goods value of the international currency, or of any currency, since the denouement of the adjustment mechanism inherently involves capital losses on foreign and domestic claims.

Changing the international currency does not provide a solution to the declining value of accumulated surpluses because

the problem is caused by the absence of an international adjustment mechanism that is compatible with the full utilization of global resources. One postwar proposal to resolve this problem was a commodity reserve currency, which was widely discussed by economists as diverse as Friedrich Hayek, John Maynard Keynes (1938), Frank Graham, Milton Friedman, and Nicholas Kaldor, among others, as well as investment professionals such as Benjamin Graham (1937). Despite support from various UN agencies such as UNCTAD, under Secretary-General Raúl Prebisch (see Hart, Kaldor, and Tinbergen 1964), it was never tried.<sup>7</sup>

The question of preserving the value of accumulated surpluses should be seen from the point of view of the excessive value of those surpluses, or from the inappropriate distribution of that value between labor and capital. With respect to China's concerns over the value of their accumulated dollar surpluses, it is important to recognize that these surpluses would have been eliminated (probably through a reduction in domestic income and employment or through a financial crisis) if an automatic price-adjustment process based on exchange-rate flexibility had been in place. The introduction of special drawing rights (SDRs) or other alternative will not protect the value of Chinese holdings when the renminbi is fixed at a rate that prevents relative price adjustments. Due to the Triffin paradox, China cannot escape the dollar losses of its foreign-exchange reserves any more than central banks could under Bretton Woods.

## **International Imbalances and Export-dependent Development**

Many developing countries have chosen to adopt a development strategy supporting domestic industrialization by promoting net exports based on a competitive exchange rate. As noted above, a number of countries have adopted this strategy in order to avoid IMF conditionality or an adjustment to its external flows through financial crisis. And this strategy is in direct contradiction to the operation of any automatic or coordinated adjustment policy because its efficient operation would lead to unsustainable policies. But when this strategy is adopted, countries forego any guarantee that the purchasing power of their external claims in exchange for domestic income and employment will be stable.

These countries can be viewed as lending to the rest of the world to finance their net exports or, better, as borrowing effective demand from the rest of the world. The successful pursuit



of these policies requires a distortion of either prices, exchange rates, or global demand. The resulting surpluses will also have global purchasing power values that are “distorted” (i.e., they cannot be guaranteed at any particular value). The successful implementation of these national strategies requires a coordinated global policy that would allow semipermanent surpluses and deficits among countries at different levels of development. But it would also require an appropriate distribution of the costs of these imbalances between surplus developing countries and deficit developed countries, including a mechanism to ensure sufficient global liquidity.

The SDR might play a role here, but only as a provider of liquidity, not as a stable store of international value, since there could be no automatic market-adjustment mechanism to bring this about. Indeed, any insistence on eliminating global imbalances would be equivalent to preventing developing countries from pursuing national-development strategies based on export surpluses and competitive exchange rates.

### **Capital Flows, Development Strategies, and Imbalances**

The original Bretton Woods proposal did not envisage that international capital flows would play a substantial role in either financing payments imbalances or allocating international capital resources. The system has turned out rather differently, and private flows have been capable of creating substantial, cumulative distortions to the international adjustment mechanism. Thus, capital flows will have to be part of any successful coordination process if international adjustment is to be achieved, either to ensure the elimination of imbalances or to permit semipermanent imbalances and support the development strategies of emerging economies. Such coordination would also have a major role in the stability of the purchasing power of whatever liability is used as the international currency.

To conclude, the stability or instability of the international reserve currency’s purchasing power is less a question of what serves as the international currency and more a question of the international adjustment mechanism—whether it is automatic, cumulative, coordinated, or compatible with sufficient global aggregate demand for full employment. Even more important, it is a question of the compatibility of export-led development strategies with international payments balances. If such strategies require sustained imbalances, one cannot expect stability

in the international reserve currency, however that stability is defined. Nor can one expect the elimination of international imbalances, since any attempt to shore up a currency’s value will, by definition, undermine export-led development strategies. The only way out of this dilemma is to shift to domestic demand-led development strategies.

One reason why U.S. imbalances remain so large is that developed countries such as Germany and Japan have been unable to transform from export-led growth to domestic demand-led growth. This, along with free capital flows, is the real cause of persistent and large global imbalances, not domestic industrialization strategies driven by competitive exchange rates or the instability of the international reserve currency.

### **Notes**

1. Remarks prepared for the conference “Jornadas Monetarias y Bancarias,” Banco Central de la República Argentina, Buenos Aires, September 2–3, 2010.
2. Some of these issues have been dealt with in Levy Institute Working Paper no. 528 and Policy Note 2009/8.
3. However, if countries found IMF conditionality objectionable, they could opt for policies that kept domestic absorption at a level that produced a surplus, thus reinforcing the tendency of the system to keep global demand below the level required for full employment.
4. Triffin (1960) expands on two articles he published in the March and June 1959 issues of the *Banca Nazionale del Lavoro Quarterly Review*.
5. See Cassell (1921), which is a collection of two memoranda presented to the International Financial Conference of the League of Nations in Brussels in September 1920 and to the Financial Committee of the League of Nations in September 1921.
6. For a late exposition of Minsky’s use of the term, see Minsky (2008 [1986]).
7. A full set of references may be found at [www.bufferstock.org](http://www.bufferstock.org).

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JAN KREGEL is a senior scholar at the Levy Economics Institute of Bard College and director of the Monetary Policy and Financial Structure Program. He currently holds the positions of Distinguished Research Professor at the Center for Full Employment and Price Stability of the University of Missouri–Kansas City and Professor of Development Finance at the Tallinn University of Technology. During 2009 he served as Rapporteur of the President of the United Nations General Assembly’s Commission on Reforms of the International Monetary and Financial System. He was formerly chief of the Policy Analysis and Development Branch of the UN Financing for Development Office and deputy secretary of the UN Committee of Experts on International Cooperation in Tax Matters. Before joining the UN, Kregel was professor of economics at the Università degli Studi di Bologna, as well as professor of international economics at Johns Hopkins University’s Paul Nitze School of Advanced International Studies, where he also served as associate director of its Bologna Center from 1987 to 1990. He has published extensively, contributing over 200 articles to edited volumes and scholarly journals, including the *Economic Journal*, *American Economic Review*, *Journal of Economic Literature*, *Journal of Post Keynesian Economics*, *Economie Appliquée*, and *Giornale degli Economisti*. His major works include a series of books on economic theory, among them, *Rate of Profit, Distribution and Growth: Two Views*, 1971; *The Theory of Economic Growth*, 1972; *Theory of Capital*, 1976; and *Origini e sviluppo dei mercati finanziari*, 1996. His most recent book is *International Finance and Development* (with J. A. Ocampo and S. Griffith-Jones), 2006.

Kregel studied at the University of Cambridge, and received his PhD. from Rutgers University. He is a life fellow of the Royal Economic Society (UK) and an elected member of the Società Italiana degli Economisti.