

# **‘GLOBAL IMBALANCES’ AND THE WORLD ECONOMIC CRISIS: A CRITICAL APPRAISAL**

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## **Abstract**

The aim of this paper is to examine the validity of one the most widespread explanations for the current economic crisis, the one that emphasizes the disruptive effects of ‘Global Imbalances’. The conventional wisdom, probably based on the traditional Hume’s ‘Price-Monetary Flux’ mechanism, was that sooner or later, the U.S. external deficit would lead to an explosive debt dynamics and thereby, foreign investors would stop buying American assets. Consequently, the adjustment process required to restore equilibrium would imply a depreciation of the dollar and a reduction of consumption and investment in the United States. However, the current economic crisis has shown us that once again “reality does not behave as the orthodox model predicted”. While neoclassical economists expected a crisis characterized by a fall in the dollar, a loosening of China’s peg to the dollar, a rise in the currencies of key emerging economies and higher interest rates on the U.S. governments borrowing, the recent macroeconomic episode has been defined by a rise in the dollar –at least in its first phase-, a tightening of China’s peg, a sharp fall in emerging market currencies and a fall in the U.S. governments borrowing costs.

In this regard, we attempt to show that Global Imbalances should not be blame for the crisis. From a Keynesian point of view, the U.S. current account deficit is not unsustainable *per se*. The United States enjoys the degrees of freedom associated with the fact that the dollar is considered nowadays the “world money”. Moreover, if investment determines saving and not the other way around, as Keynes pointed out, then the U.S. current account deficit provides a source of effective demand for emerging economies and thus, promotes global production and employment.

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## INTRODUCTION

Nowadays, the world economy is suffering a crisis that due to its extension and severity has been compared by many experts to the Great Depression of the 1930s. The crisis started at the U.S. financial system and then was progressively translated to its real sector. But was the crisis generated inside the United States or the American economy just suffered the adjustments motivated by developments in the rest of the world? Moreover, was the monetary policy implemented by the U.S. Federal Reserve (FED) at least in part responsible for this disruptive macroeconomic episode?

Alan Greenspan, former FED chairman, has recently expressed that the financial crisis was caused by a speculative euphoria in the housing market that ended with massive households' defaults<sup>2</sup>. He believes that the force driving the reduction in global long-term interest rates that stimulated the bubble was the excess of global intended savings relative to intended capital investment created by a surge in growth in China and a large number of other emerging market economies. The other possibility, which Greenspan obviously strongly rejects, is that the housing bubble could have been motivated by the "easy money" policies of the Federal Reserve between the years 2000 and 2005. In his defense, he asserts that the relevant interest rate was not the federal-funds rate (the one controlled by the monetary authority), but the rate on long-term, fixed-rate mortgages, whose correlation with the short-term U.S. rates was by that time insignificant, in contrast to the close linkage observed in previous decades.

We consider that Greenspan's position is very naïve and also fails to set the current trends in historical perspective. In effect, in order to achieve a consistent explanation for the crisis we should not start with the developments of the last decade, but with the structural features of the current international monetary system, whose roots date from the 1970s. With this purpose, the paper is structured as follows: in Section I we explore the most prominent views on the nature of 'Global Imbalances' and their potential consequences on the world economy. We also present a critique to their unsustainable nature derived from the questionable validity of the 'Price-Monetary Flux' mechanism. In Section II, we introduce a Classical-Sraffian standpoint on the current state of the

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<sup>2</sup> The FED Didn't Cause the Housing Bubble, The Wall Street Journal, March 11, 2009.  
<http://online.wsj.com/article/SB123672965066989281.html>

world economy, according to which the U.S. current account deficit and the Asian economies' counterpart are not unsustainable *per se* in a world where the dollar exerts its hegemony as the international means of exchange, payments and reserve of value. Section III offers an explanation for the current world crisis compatible with the theoretical framework developed in the previous section. The paper finishes with some concluding remarks.

## **SECTION I: The Global Imbalances. Their Supposed Causes, Unstable Nature and Expected Adjustment Mechanisms**

### A) Possible Determinants:

The term 'Global Imbalances' has been used in academic and policy-making arenas to describe the recent trend of international trade and financial transactions where the United States has experienced large current account deficits, matched with external surpluses of the oil-exporters and Asian emerging economies, especially China (see Box 1).

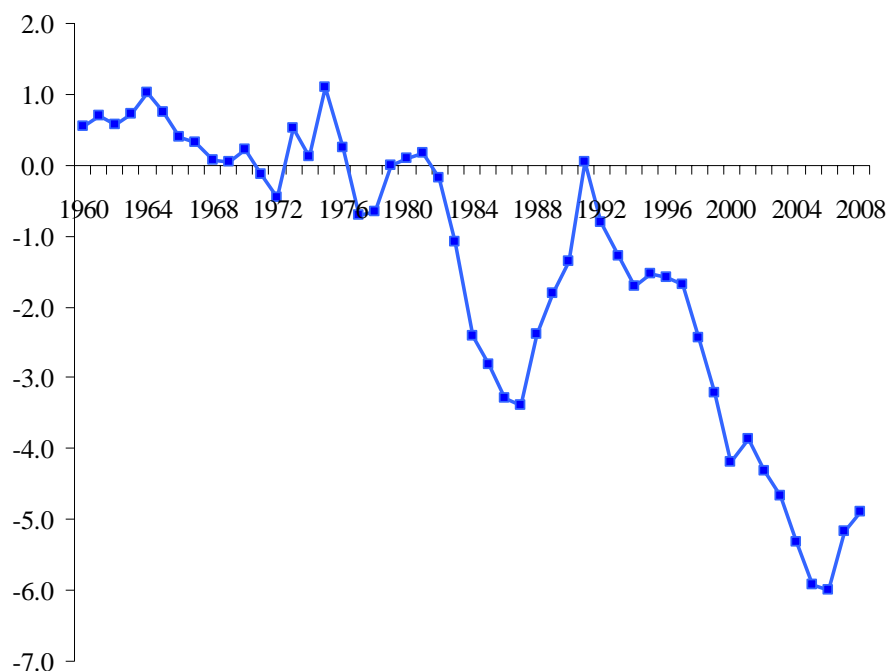
Box 1: Current Account Balances (US\$ bn)

	1997	2000	2005	2006
United States	-141	-417	-755	-811
Japan	97	120	166	170
Germany, Netherlands, Switzerland	41	5	230	263
Hong Kong, Korea, Singapore, Taiwan	39	80	88	91
Other advanced economies	29	-58	-166	-230
China	34	21	161	250
Other Developing Asia	-27	18	-4	28
Central and Eastern Europe	-21	-32	-62	-88
Commonwealth of Independent States	-9	48	88	98
Middle East	11	72	197	234
Western Hemisphere	-67	-48	35	45
Africa	-6	8	16	29
Discrepancy	14	-179	7	87
NB: fuel exporters	16	151	348	423

Source: Cooper (2007)

Figure 1 shows the progression of the United States current account as a percentage of GDP since 1960. As it can be clearly seen, U.S. external deficit has experienced a sharp increase over the last 16 years, and now stands at around 5 percent of GDP.

Figure 1: U.S. Current Account Balance, 1960-2008 (as % of GDP)



Source: Author's elaboration based on data from the U.S. Bureau of Economic Analysis.

There exist many views regarding the determinants of Global Imbalances and their potential disruptive effects on the world economy. A useful starting point to organize such positions is to consider the National Income accounting identities. As equation (1) shows, the current account deficit ( $M - X$ ) –in this case, the one corresponding to the U.S. economy- equals the excess of domestic private investment over domestic private saving ( $I - S$ ) (i.e., the saving of households and firms), plus the fiscal deficit (i.e., the excess of public expenditure over tax collection).

$$(M - X) = (I - S) + (G - T) \tag{1}$$

Similarly, condition (1) can be seen from the perspective of the rest of the world (\*). But the U.S. external deficit matches exactly the external surplus of the rest of the world

(that is,  $M - X = X^* - M^*$ ). Then, we obtain the following expression connecting the saving-investment schedules in the world economy:

$$(I - S) + (G - T) = (S^* - I^*) + (T^* - G^*) \quad (2)$$

Therefore, any theory that pretends to explain the current trend in international trade and financial patterns should, in order to convert this identity into a causal relationship, define which of these gaps (the private sector's, the fiscal or even a combination of them in both the U.S. economy and the rest of the world) can be considered as the engine driving the imbalances and what are the transmission channels that motivate the endogenous adjustment of the other gaps.

In this regard, we can identify in the recent literature<sup>3</sup> at least five alternative explanations for the Global Imbalances. We will try to organize them based on two different criteria: the first one is which term of equation (2) is emphasized as the main responsible for the imbalances, and the second one is what are the consequences of each position regarding the sustainability of such configuration in the long-run.

Let us start with the 'twin deficit view', held by Roubini and Setser (2004). The authors blame the decline in U.S. savings rates on fiscal policy. They observe that a sharp decline in public saving occurred in the U.S. since 2001. Thus, considering equation (2), the second term on the left, that is,  $(G - T)$ , would be the force driving the American external deficit. Regarding its sustainability, Roubini and Setser remark the pervasive effects of the excessive external debt accumulation, which would induce, sooner or later, the improvement of the U.S. trade balance via interest rate increases.

*“The rapid deterioration of US net external debt position implied by large trade and current account deficits cannot continue indefinitely. At some point, the interest rate that the U.S. needs to pay to attract the external financing it needs to run ongoing deficits will rise, slowing the U.S. economy and improving the trade balance even as higher interest rates increase the amount the U.S. must pay to its existing creditors. The vulnerabilities associated with being a major net debtor are attenuated by the*

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<sup>3</sup> For a brief survey on many of these views, see Eichengreen (2006).

*dollar's continued position as a reserve currency, but not entirely eliminated"*  
(Roubini and Setser, 2004, p. 3)

However, this position has been largely criticized even by orthodox economists due to its lack of empirical support. In effect, Blanchard and Cooper, among others, object that over the long run there is only tenuous evidence of strong positive co-movements of the budget and current account balances. The federal budget went from deficit to surplus to deficit again during the past 1990s, while the U.S. current account deficit grew continuously (see Box 2).

Box 2: U.S. Current Account Deficit, Investment and Saving (as % of GDP)

	Current Account Deficit	Investment	Saving		Statistical Discrepancy
			Private (% GNP)	Public	
1993	1.1	17.5	16.2	-1.8	-2.1
1994	1.5	18.5	15.7	-0.6	-2
1995	1.2	18.5	16.2	-0.3	-1.4
1996	1.3	18.9	15.8	0.7	-1.2
1997	1.3	19.7	15.6	1.9	-0.8
1998	2.1	20.2	15.2	3.1	0.2
1999	3.0	20.6	14.3	3.7	0.4
2000	4.0	20.7	13.5	4.4	1.3
2001	3.7	19.1	13.8	2.5	0.9
2002	4.4	18.3	14.9	-0.7	0.2
2003	4.7	18.3	14.8	-1.6	-0.4
2004	5.3	19.2	14.9	-1.2	-0.2
2005	5.9	19.8	14.3	-0.4	0
2006	6.0	19.9	13.5	0.5	0.1
2007	5.3				

Source: Cooper (2007)

A second potential explanation that has received much attention is the global 'saving glut' hypothesis. This is the one highlighted by authors such as Ben Bernanke. These savings gluts would have been caused by a combination of demographics, rapid growth, high oil prices, and financial development that encouraged saving outside the United States. In the words of the current FED chairman,

*"[...] these developments could be explained, (...) by the transformation of many emerging-market economies--notably, rapidly growing East Asian economies and oil-*

*producing countries--from net borrowers to large net lenders on international capital markets” (Bernanke, 2007)<sup>4</sup>*

That is to say, the excess of saving in China and the oil exporter economies is what has allowed an excess of investment in the United States, induced by a sustained decline in long-term world real interest rates. In this case, the term in condition (2) that is being emphasized is the first one on the right side (i.e.,  $S^* - I^*$ ).

To the question of whether current account imbalances might become a serious problem, despite Bernanke recognizes some virtuous effects of such phenomena in the short run<sup>5</sup>, he believes that the U.S. current account deficit is unsustainable:

*“(...) the large U.S. current account deficit cannot persist indefinitely because the ability of the United States to make debt service payments and the willingness of foreigners to hold U.S. assets in their portfolios are both limited. Adjustment must eventually take place, and the process of adjustment will have both real and financial consequences (...). Ultimately, the necessary reduction in the trade and current account deficits will entail shifting resources out of sectors producing nontraded goods and services to those producing tradables. The greater the needed adjustment, the more potentially disruptive and costly these shifts may be” (ibid).*

A third view is the one held by authors such as Cooper (2007), which Eichengreen denominates the ‘New Economy View’. According to this position, the U.S. deficit reflects the relative attractiveness of investing in the United States with respect to the rest of the world and the consequent capital inflows that finance the country’s current account deficit. Therefore, while as in the case of the saving glut hypothesis the term that leads the phenomenon is ( $S^* - I^*$ ), the emphasis is now placed on the behavior of investment and not on the existence of an excess of foreign savings. The author’s

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<sup>4</sup> Bernanke, B. (2007) “Global Imbalances: Recent Developments and Prospects”, Speech at the Bundesbank Lecture, Berlin, Germany. September 11.

<sup>5</sup> For instance, they can help reduce tendencies toward recession, on the one hand, or overheating and inflation, on the other, such in the case of the developing Asian economies that had experienced financial crises and consequent collapses in domestic investment during the late 1990s. These countries benefited from being able to run trade surpluses, which helped strengthen aggregate demand and employment and the trade deficits run by the United States in the same period, which allowed domestic demand to grow strongly without creating significant inflationary pressures.

explanation for such pattern is based on demographic trends in the U.S. *vis-à-vis* other rich countries and many developing countries, and in his perception of U.S. financial assets as “*claims on a robust, innovative economy offering good returns, liquidity, security and relative stability*” (p. 246).

A strong difference between this position and the first two potential explanations for the Global Imbalances is that the ‘New Economy View’ considers that a large U.S. current account deficit can *-ceteris paribus-* continue indefinitely, because it is both comprehensible and welfare-enhancing from a global point of view, reflecting intertemporal trade.

In addition, some authors such as Blanchard and Eichengreen combine all the previous reasons, but preserve the unsustainable bias of the ‘twin deficit’ and ‘global saving glut’ hypotheses. In effect, for the first author, the U.S. deficit and the corresponding foreign surpluses have, among their determinants, the existence of low U.S. saving, reflecting primarily low private saving, but also budget deficits, high foreign saving, particularly from Asia<sup>6</sup>, low foreign investment, in both Europe and Asia and a strong preference by investors for U.S. over foreign assets. All four factors are supposed to be needed to explain the combination of current account balances, the strong dollar, low world real interest rates, and apparently low expected returns on U.S. assets. Similarly, Eichengreen (2004, 2006) considers that the Global Imbalances result from the budget deficit and other policies making for low national savings rates at home, rapid productivity growth in attracting investment finance and encouraging Americans to spend, demographic, financial and macroeconomic factors making for high savings rates in the rest of the world and increased risk aversion following the crisis of 1997–8, which led Asian countries to run their economies under less pressure of demand.

Finally, Dooley and Garber (2005) hold a position that, like Cooper’s, conceives the ‘Global Imbalances’ as sustainable. This is the denominated ‘Bretton Woods II’ hypothesis, according to which the current international monetary system presents, among its features, the emergence of an important group of countries (mainly in Asia) with currencies managed *vis-à-vis* the dollar to support export-driven growth and the

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<sup>6</sup> According to Blanchard, within a rational expectations framework, this is due to the lack of retirement benefits and health insurance in China, which motivates precautionary saving.



U.S. as center and reserve currency country providing financial intermediation services for Asian savings through its national balance sheet and willing to accept large current account imbalances. Therefore, the current trade and financial patterns across the world would not necessarily lead to disruptive adjustments, given that they benefit all the participants involved in such transactions<sup>7</sup>. In effect, Asian economies are able to grow based on their export performance and the United States needs external financial support to offset its low domestic saving rate<sup>8</sup>.

#### B) Supposed Unstable Nature and Expected Adjustment Mechanisms:

Behind those positions that conceive the U.S. current account deficit and Asian economies' external surpluses as unsustainable, there is an implicit acceptance of the traditional "Price-Monetary Flux" mechanism proposed by David Hume more than two centuries ago and later readopted by Marginalism (see Cassel 1927, 1932). This doctrine is also present in the work of Obstfeld and Rogoff (2004), two of the most prominent proponents of the mainstream consensus in International Economics and defenders of the Purchasing Power Parity (PPP) hypothesis<sup>9</sup>. In effect, they consider that the U.S. current account deficit anticipates a deep collapse of the dollar<sup>10</sup>. This position is shared by Nobel laureate Paul Krugman<sup>11</sup>, who argues that:

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<sup>7</sup> In contrast, Summers (2004) emphasizes the existence of some risks like a need to raise interest rates sharply in the United States, a dramatic increase in protectionist pressures and difficulties of monetary control in the Asian economies resulting from the exchange rate administration.

<sup>8</sup> Eichengreen believes that the current international monetary system cannot last, because eventually there will be recognition in Asia that policies of export-led growth have reached the point of diminishing returns and, growth will thus require balanced investment in nontraded and well as traded goods sectors. Doing so will require allowing the real exchange rate to rise (Note that Eichengreen's adjustment does not reside in the impossibility of sustaining a depreciated exchange rate, but on technological issues. The reduction of external surpluses in Asian economies would be policy-based and not endogenously determined).

<sup>9</sup> The PPP states that the value of one currency in terms of another must be such that the same set of goods has identical value independently of the standard in which it is measured (analytically,  $E = \frac{P}{P^*}$ , where  $E$ ,  $P$  and  $P^*$  are respectively, the nominal exchange rate, the domestic general price level and the foreign general price level).

<sup>10</sup> Their baseline scenario is an exchange rate depreciation of 30%!

<sup>11</sup> Krugman distinguishes between the question of whether there will be a dollar plunge and whether this plunge will have nasty macroeconomic consequences. While the author considers that the first point is unavoidable, he believes that the answer for the second question is less clear.

*“There is little doubt that the dollar must eventually fall from current levels. Trade deficits on the current scale cannot continue forever – and we are all fond of quoting Stein’s Law: ‘If something cannot go on forever, it will stop’”* (Krugman 2007, p. 438)

Why do they prescribe this sort of disruptive adjustment? Hume tried to show that the goal pursued by the European States (i.e. to sustain trade surpluses with the rest of the world in order to accumulate gold reserves) had logical impossibilities by using the *Quantity Theory of Money* (QTM). If in a certain country the amount of gold money would be incremented by a trade surplus, the several prices of regular merchandises would be increased as well —and even in the same proportion—, making profitable to import those goods. Accordingly, differences in trade balances among countries could not be but only transitory, because gold would stop moving from one country to another when the initial surplus was null. As it can be clearly demonstrated<sup>12</sup>, Hume’s mechanism rests on the implicit assumptions that money in circulation can be *exogenously* increased in an unlimited quantity and that the working force cannot be *persistently* unemployed, (i.e. real product must remain in its potential level, at least in the long run)<sup>13</sup>.

However, the essential principle over which the neoclassical approach can state the tendency to full employment is the *factor substitution mechanism*, whose logical consistency has been proved to fail by authors such as Sraffa (1960), Garegnani (1966, 1970) and Pasinetti (1966), who showed the plausibility of ‘perverse behavior’ in factor demand schedules (that is, reswitching of techniques and reverse capital deepening).

In addition, a critique of the QTM could be exclusively stated on the nature of money<sup>14</sup>. As Lavoie and Wang (2009) point out, if money supply is endogenous<sup>15</sup>, then a

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<sup>12</sup> See Dvoskin and Feldman (2008).

<sup>13</sup> Consequently, any attempt to “artificially” increase production must necessarily face a further increment in costs (because labor supply is inelastic) and then in prices.

<sup>14</sup> Let us note that the critique based on the non-existence of a tendency to full employment is more general, given that its validity does not depend on the assumption regarding the very nature of money supply.

<sup>15</sup> As Lavoie and Wang emphasize, this kind of endogeneity has nothing to do with the one recognized by neoclassical authors when analyzing open economies with fixed exchange rate regimes. While according to mainstream authors the endogeneity process is *supply-led* (that is, the money supply increases endogenously, but independently of the demand for money expressed by the economic agents, the endogeneity discussed here is *demand-led* (the money supply grows because more of it is being demanded by the various agents of the economy).

recurrent balance of payments surplus will not lead to an excessive amount of money in the economy –even when a potential gap between supply and demand in the money market would induce rising prices-. This result is based on the validity of the *compensation mechanism*: in the external surplus case, when commercial banks have additional reserves as a consequence of selling their newly acquired stocks of foreign currency to their central bank, they will do their best to get rid of this additional liquidity. Considering that banks have already granted all the loans that they could make to credit-worthy borrowers, they will usually comply in getting rid of these excess reserves (that usually carry no interest) either by reducing the advances that they have taken from the central bank, or by purchasing risk-free assets, such as government securities or central bank bills. Of course, the central bank of the surplus country, just like the other central banks, is simply attempting to keep its main interest rate constant, so bills are provided to those who demand them at the target rate of interest (that is, the bonds' supply curve is horizontal at the target rate level).

To sum up, without the restrictions imposed by the Quantity Theory of Money, we can conclude that external surpluses in Asian economies do not necessarily lead to an appreciation of their real exchange rate (either via a nominal appreciation or via inflation)<sup>16</sup>. Furthermore, the special role that the U.S. economy plays in the international monetary system allows it to sustain its current account deficit. This last feature will be explored with further detail in the next section.

## **SECTION II: The Surplus Approach and the Current State of the World Economy**

In the preceding section, we intended to show that those positions conceiving the U.S. current account deficit -and the Asian economies' surpluses- as unsustainable rest on weak theoretical foundations. We believe that the modern Classical Surplus Approach developed by the followers of Piero Sraffa allows us to offer a more robust –both theoretically and empirically- explanation for the current developments in the world economy.

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<sup>16</sup> Of course, the situation is very different if the economy is running a balance of payments deficit. In that case, the central bank will eventually run out of reserves and will be forced to adjust through currency devaluation, rising interest rates or imposing controls to capital flows.

To begin with, we should specify what characteristics turn the standpoint a Classical-Sraffian one. They consist basically of three features:

- In order to find a solution for the system of long-period or normal prices, one of the distributive variables (either the real wage or the profit rate), the dominant productive techniques and the level and composition of final demand have to be taken as given (i.e., as problem's data). This methodological issue reveals a major difference with respect to the Neoclassical approach to value and distribution: while in the Marginalist apparatus, both prices and quantities are solved simultaneously, in the Classical theory relative prices -and the distribution of social surplus- and normal quantities are analyzed in two different spheres<sup>17</sup> (see Garegnani 1984, 1990; Eatwell 1977). Also, it reveals that political and institutional factors affect income distribution, relative prices and inflation dynamics.
- The Central Bank is able to exogenously set the long-period interest rate (Pivetti, 1985, 1991 and Panico 1985), which by its own nature, is a monetary phenomenon<sup>18</sup>. Thus, the monetary authority can influence income distribution in the long run through the determination of the capitalist profit rate –at least its floor-.
- The quantities produced in the long run and the levels of employment are determined by the *principle of effective demand* (Garegnani 1978, 1979, Serrano 1995). This approach to the theory of growth may be denominated “Keynesian” because his contributors consider that, not only in the short run but also in the long run, potential output is governed by the evolution of effective demand (or equivalently, that investment determines savings). Therefore, capitalist economies tend to operate with unemployment and underutilization of productive capacity.

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<sup>17</sup> This fact does not imply denying the existence of several links between the theory of value and distribution and the one of production and employment. But such effects can only be explored in a sequential manner, through comparative static exercises.

<sup>18</sup> The notion of a monetary determination of the interest rate is already present in Keynes' *General Theory* (Chapter 13):

*“The ‘equilibrium’ interest rate is not constrained at a ‘natural’ level depending on ‘real’ forces, but it can be at any level, depending on what is considered ‘normal’ by ‘common opinion’, which is often relevantly influenced by the decisions of the monetary authorities” (Keynes 1936, pp. 202-204).*

Let us see how these characteristics operate at the world level. The current international monetary system can be denominated a ‘floating dollar standard’ (Serrano, 2003)<sup>19</sup>. It exhibits many of the features that Dooley and Garber recognize in his ‘Bretton Woods II hypothesis’. The central country, in this case the United States, stimulates effective demand in the rest of the world with its trade deficit, and at the same time, by investing long and borrowing short term, provides liquidity for the other economies in the system. In contrast to the ‘gold-dollar standard’ that characterized Bretton Woods Era (which lasted from the end of the Second World War to 1971), the central economy can avoid two constraints: the impossibility of experiencing chronic deficits in the current account<sup>20</sup>; and making changes in the official price of gold in terms of the local currency (that is, to depreciate the exchange rate<sup>21</sup>). Under the new configuration, the U.S. can have chronic and growing current account deficits and move its exchange rate without disruptive consequences because its balance of payments is settled in its own national currency. Thus, as Serrano remarks, the greatest advantage of the absence of convertibility to gold for the U.S. is the actual elimination of the external constraint (that is, without any concern about the fact that their net external liabilities may be increasing, for these ‘external’ liabilities are denominated in the American currency and not convertible into anything else).

In addition, given that the US dollar is the world money (that is, the accepted means of exchange and payments and reserve of value), if any country wants to take part in the international monetary economy, it has to accept the accumulation of dollar bonds or cash. This means that the U.S. does not have to vary its interest rate to attract capital and protect its foreign reserves. In fact, the financing of the U.S. current account deficit is completely automatic at any given interest rate. Then, the U.S. is completely free to set its interest rates according to domestic objectives<sup>22</sup>. In the floating dollar standard the

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<sup>19</sup> For a deep analysis of the institutional, political and economic conditions that led to the current monetary system, see Serrano (2004).

<sup>20</sup> As Serrano (2004) points out, under the Bretton Woods regime, if the U.S. had current account deficits would progressively lose its gold reserves, which would stimulate the idea that the dollar was not as *good as gold*. Then, international payments would tend to be made directly in gold instead of U.S. dollars and the dollar would tend to lose its status as a key currency.

<sup>21</sup> If the official dollar gold price started to change this could induce massive speculative movements and possibly the abandonment of the U.S. dollar for international transactions.

<sup>22</sup> According to McKinnon (2007), the key to maintaining the dollar standard in its present form is the ability of the U.S. Federal Reserve to maintain a stable general price level, because although foreigners creditors see no default risk in holding U.S. Treasury bonds, in the presence

international economy works de facto as a closed economy which uses the US dollar as currency. Thus, the U.S. is the central bank of the world and accordingly sets the world's basic interest rate.

Where does the hegemony of the dollar in the international monetary system emerge from? Serrano argues that the answer is the current economic, political and especially military power: (1) the U.S. is still the biggest market for most products and services, so not accepting dollars means being excluded from it; (2) about a third of the U.S. current account deficits are due to American multinational corporations that export back to the U.S. from other countries, who will not refuse dollar payments; and (3) given the present military superiority of the U.S.<sup>23</sup>.

Even when this international monetary regime seems to be mutually virtuous for both the central economy and the rest of the world, it promotes some problems for the latter countries. As McKinnon (2004) suggests, the floating dollar regime encourages financial fragility in the periphery, because developing countries cannot borrow internationally in their own currencies (the 'original sin') and are prone to capital flight and devaluations<sup>24</sup>.

### **SECTION III: An Explanation of the Current World Crisis from the Surplus Approach**

Up to now, we have seen that the 'Global Imbalances' are not unsustainable *per se*. Given the main features of the current international monetary system, with hegemony of the dollar in trade and financial transactions, the United States are able to maintain a

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of high inflation they would balk at a substantial loss in the dollar's real purchasing power and would no longer be so anxious to stop their currencies from appreciating against the dollar, and would withdraw from being dominant buyers of U.S. Treasuries. This is a manifestation of Triffin dilemma (i.e., the problem of using a national currency as the international reserve currency): the value of the international means of payments in terms of other currencies is dependent on the willingness of surplus countries to hold the currency.

<sup>23</sup> For McKinnon, the dollar's continued international predominance results from the need for one common international money, really a natural monopoly, to facilitate complex multilateral exchanges in goods and capital flows. Once a particular national currency becomes predominant internationally, economies of scale and network effects make it hard to displace.

<sup>24</sup> From the central country's viewpoint, the current account deficit leads to a distribution of capital ownership weighted towards non domestic residents, which may be undesirable, but such situation is not an issue about whether low domestic saving is acting as a constraint to domestic investment (Dalziel and Harcourt, 1997).

persistent trade deficit. However, the *composition* of the U.S. external deficit does matter for an explanation of the current world crisis<sup>25</sup>. In effect, it is not the same whether the sector holding a deficit position is the government or the private sector. While the public sector has the Central Bank and the possibility of collecting taxes in order to repay its debt, families and firms may be forced to default in case they face a high debt/income ratio.

As we confirmed when analyzing the alternative explanation for the U.S. external deficit, most experts agree that the private sector has led the indebtedness process. We also know the end of the story: a financial crisis à la Minsky. Then, we have to explain why American families appealed to credit in such a magnitude and how the financial sector was able to satisfy this demand for liquid funds. For both questions, Barba and Pivetti (2009) provide interesting answers. They assert that the rising household indebtedness should be seen principally as a response to stagnant real wages and retrenchments in the welfare state (that is, because of a reduction in workers' bargaining power)<sup>26</sup>. The authors doubt the long-run sustainability of the process of substitution of higher wages for household debt.

In the United States, the period since the first half of the 1980s has been characterized by an upward trend of consumer credit, which reached a peak of 25% of disposal personal income in 2006 (see Box 3).

Box 3: Household debt as percentage of disposable personal income

Year	Consumer credit	Home mortgages	Other	Total debt
1980	17.8	46.2	8.1	72.1
1985	19.6	46.5	9.9	76
1990	19.2	58.3	9.1	86.6
1995	21.6	61.6	10.3	93.5
2000	24.2	66.7	11.7	102.6
2005	24.5	97.5	11.1	133.1
2006	25.1	102.3	12.3	139.7

<sup>25</sup> Palley (2006) offers a similar viewpoint when he claims that, contrary to Dooley and Garber hypothesis, the Bretton Woods II regime is unstable due to the weakness of the US credit market and the American consumption boom.

<sup>26</sup> See also Kregel (2009a).

Source: Barba and Pivetti (2009).

The rising household debt is explained as the effort by low and middle-income households to maintain, as long as possible, their relative standards of consumption in the face of persistent changes in income distribution in favor of households with higher incomes<sup>27</sup> (Box 4). In a context of financial deregulation and an easing of liquidity constraints on low and middle-income households<sup>28</sup>, household debt rose quickly.

#### Box 4: Household after tax income distribution

Year/quintile	First	Second	Third	Fourth	Highest	Top (10%)
1980	6.8	12.1	16.5	22.3	42.8	27.9
1985	5.5	10.9	15.8	22.0	46.7	31.7
1990	5.3	10.8	15.8	21.9	47.3	32.3
1995	5.5	10.9	15.9	21.9	46.8	31.9
2000	4.9	9.7	14.7	20.2	51.3	37.1
2004	4.9	10.0	15.0	21.1	50.0	35.5
2005	4.8	9.6	14.4	20.6	51.6	37.4

Source: Barba and Pivetti (2009)

In practice, the rise in the household savings rate that would have been brought about, *ceteris paribus*, by the concentration of the increases in total income that occurred over a long period of time on the upper 10% of the income distribution, was more than compensated, thanks largely to increased access to consumer credit, by the fall in the savings rates of the remaining 90% of the distribution.

Why did this process turn explosive? The key for the long-run sustainability of substitution loans for wages is the difference between the rate of interest and the rate of growth of income. For an indebted household that eventually resolves on keeping consumption expenditure equal to its disposable income -which would correspond to a balanced primary budget in the dynamic of public debt- the debt/income ratio actually

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<sup>27</sup> For an analysis of the irreversibility of consumption expenditure resulting from its social nature, see Trezzini (2005).

<sup>28</sup> In particular, the securitization of mortgage loans was especially relevant. As Kregel (2008) points out, following the decline in the earnings of commercial banks in the United States in the 1980s, regulations limiting banks to deposit-taking and short-term lending were relaxed to allow a wider range of capital market activities.



keeps on rising if the interest rate is higher than the rate of growth of the household's disposable income (in this case, the real wage). Beyond certain levels of indebtedness, the service of the debt on the part of the indebted households actually becomes no longer collectable.

This situation reminds us of Minsky's *financial fragility hypothesis*. In his theory, economic cycles can be described by a progression through three debt units: hedge financing units, in which the buyer's cash flows cover interest and principal payments; speculative finance units, in which cash flows cover only interest payments; and Ponzi units, in which cash flows cover neither and depend on rising asset prices to keep the buyer afloat. Minsky's Ponzi debt units are only viable as long as the levered assets appreciate in price. But when the price of the assets decline, as we've seen in the U.S. housing market, Minsky tells us we must go through the process of increasing risk-taking in reverse – with all its negative consequences<sup>29</sup>.

*“Financial crises take place because units need or desire more cash than is available from their usual sources and so they resort to unusual ways to raise cash”* (Minsky, 1972 p. 15).

As Barba and Pivetti remarks, the macroeconomic sustainability of the process of substitution of loans for wages is prone to being significantly protracted by two means: (i) by the expansion of the population caught in it, i.e. by trying to involve an increasing number of wage and salary earners in the indebtedness process. The considerable expansion over the last few years of the so-called subprime loans may be regarded as the most conspicuous aspect of this first means of protracting the process; (ii) by a policy of progressive lowering of interest rates, such as that followed by the Federal Reserve over the 1995–2005 decade<sup>30</sup>.

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<sup>29</sup> Kregel (2008) considers that although the current crisis has all the attributes of a Ponzi financing scheme, it is not the result of a traditional endogenous Minsky process in which narrowing margins of safety lead to fragility. Conversely, in his opinion the cushions of safety have been insufficient from the beginning.

<sup>30</sup> Declining interest rates, in sum, contained over a few years the share of DPI of indebted households required to service the increasing outstanding stock of their debt, thus freeing up income that could be devoted to consumption expenditures (largely through huge flows of mortgage refinancing).

Then, contrary to Greenspan's claims, the U.S. Federal Reserve was partially responsible for the explosion of the financial crisis with its policy of higher interest rates since 2006 aiming to fight inflation pressures. Also, it could have implemented other policies to diminish its scope<sup>31</sup>. For instance, as Kregel (2009b) emphasizes, Fed could have supported financial asset prices before the crisis, lending to all financial institutions, but it did too late and too aleatory.

Finally, the economic crisis originated inside the United States then propagated worldwide through the decline in the demand for exports of most emerging markets.

## **CONCLUDING REMARKS**

Throughout the present work, we tried to show that the current configuration of international trade and financial transactions between the United States and the rest of the world, commonly denominated 'Global Imbalances', is not unsustainable *per se*. The special role that the U.S. economy has been playing in the international monetary system since the 1970s, with the dollar representing the world money, allows this country to sustain its current account deficit. In addition, the external surpluses in Asian economies do not necessary lead to an appreciation of their real exchange rate, given that the 'Price-Monetary Flux' mechanism that justifies such adjustment does not rest in solid theoretical foundations.

However, the composition of the U.S. external deficit does matter for an explanation of the current world crisis. While the government has the Central Bank and the possibility of collecting taxes in order to repay its debt, American households may be forced to default in case they face an excessively high debt/income ratio.

The rising household indebtedness should be seen principally as a response to the decline in real wages that characterized the U.S. economy since 1980s. American families tried to maintain their consumption levels substituting wages for credit. This process ended with a financial crisis à la Minsky.

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<sup>31</sup> "Presumably the central bank should intervene before a collapse of market asset values that will lead to a serious depression" (Minsky 1972, p. 80).

In conclusion, the American regime of consumption-led growth based on credit showed its inherent instability.

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