CENTRO STUDI SUL FEDERALISMO
PERSPECTIVES ON FEDERALISM

ISSN: 2036-5438

Global Imbalances and the Transition to a Symmetric World Monetary System

by

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Perspectives on Federalism, Vol. 2, issue 1, 2010

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Abstract

This article investigates some of the causes of the financial crisis – global imbalances and unsatisfactory regulation of world liquidity – and supports the need to reform the present asymmetric international monetary system based on the dollar as a dominant reserve currency. Part I examines global imbalances, the causes of the US external deficit and the consequences of the international monetary asymmetry. Part II seeks to overcome this asymmetry and the Triffin dilemma by examining two models for a new world monetary system: an international model, without a world central bank (WCB), and a supranational model with a WCB. Two urgent reforms are proposed: the adoption of a global monetary target for the industrialised countries and the issuing of UN Bonds to allow countries to substitute dollar reserves with SDR reserves.

Key-words:

Financial crisis, global imbalances, international monetary asymmetry

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"The problem of maintaining equilibrium in the balance of payments between countries has never been solved … The failure to solve this problem has been a major cause of impoverishment and social discontent and even of wars and revolutions … To suppose that there exists some smoothly functioning automatic mechanism of adjustment which preserves equilibrium if only we trust to methods of laissez-faire is doctrinaire delusion which disregards the lessons of historical experience without having behind it the support of sound theory."
J. M. Keynes, First Memorandum for an International Currency Union, 1941

1.Introduction[I]

The dramatic consequences of the financial crisis are visible: bank defaults, collapsing industrial production, rising unemployment and social discontent all over the world. Identifying the causes is a very difficult task, but one that is essential if the reforms necessary to avoid a new world crisis are to be put in place. In this article, we investigate some of the causes – global imbalances and unsatisfactory regulation of world liquidity – and the need for reform of the present asymmetric international monetary system, based on the dollar as a dominant reserve currency. Finally, we propose a new, symmetric system, founded on equal participation by all the countries of the world in its management[II].

In London, the G20 meeting of April 2009 invited the Financial Stability Board to put forward proposals for monitoring global financial stability and for expanding its membership to include representatives from all G20 countries, effectively turning the FSB into something like an overarching global financial regulator. In effect, since the banking and financial systems already have worldwide reach, the new regulations should extend to all the nations of the world. However, such regulations cannot be limited to the micro-level, but should equally concern the macro-level. The link between the two levels is highlighted clearly in the De Larosière Report (2009) in paragraph 32: "The crisis

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eventually erupted when inflation pressures in the US economy required a tightening of monetary policy from mid-2006 and it became apparent that the sub-prime housing bubble in the US was going to burst amid rising interest rates. Starting in July 2007, accumulating losses on US sub-prime mortgages triggered widespread disruption of credit markets, as uncertainty about the ultimate size and location of credit losses undermined investor confidence. Exposure to these losses had been spread among financial institutions around the world, including Europe, inter alia via credit derivative markets".

An inquiry into the role of global imbalances between emerging market and industrialised countries, and into the management of world liquidity can shed some light on the crisis. There is lively debate among economists over the existence of a global saving glut that originates mainly in Asian countries and feeds the US current account deficit. The strong flow of finances from emerging countries into the American economy has helped to bolster the market for Treasury bonds and even to smooth interest rates. In the USA, the macroeconomic environment has provided a good breeding ground for innovative financial techniques. Hence, there is some reason to agree with the conclusions of an article that *The Economist* (2009) devotes to the problem of global imbalances: "America, Britain and other deficit countries have drowned themselves in cheap credit from abroad. Because the structural forces behind the global saving glut are unlikely to abate quickly, there is a real risk that the dangerous imbalances will persist – with America's public sector as the new consumer of last resort. It would be foolish to focus on fixing the financial industry only to find that the public finances are left in ruins".

As a result of these complexities, reform of the international economic order should concern not only the monetary system, but also the – private and public – financial system. The task is surely very complex and difficult. Nevertheless, there is a starting point. At Bretton Woods, in 1944, the architecture of a new international monetary system was laid down. On this pillar, the post-war economic order was slowly shaped. The GATT became the framework for important tariff cuts. Europe was able to abandon bilateralism and autarky, and the process of European integration began. In the following decades, an interdependent global economy emerged. Today, we can follow the same path to reform the old international order. At the London G20, Russia and China proposed that an alternative to the dollar as a reserve currency be found. This problem cannot be ignored. Indeed, the financial crisis and fears of an inflationist policy to lift the US economy out of

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stagnation are good reasons to question the role of the US Fed as central bank to the world and of the dollar as an international reserve currency. Besides Russia and China, Europe too should take an active part in such reform. The European Monetary Union (EMU) represents a new model of monetary cooperation among nation states. The world economy needs a similar form of monetary cooperation.

The aim of this essay is not to design a precise plan of reforms, but only to outline two possible paths and to clarify the relationship between political and economic problems: the problem of monetary sovereignty cannot be ignored. In the last paragraph, we put forward some urgent reforms. A climate of confidence and positive expectations is a fundamental component of any recovery policy. The will to cooperate, heralded in London, is an empty box without new institutions. A global economy needs global governance.

Part I – Global imbalances

As mentioned in the introduction, in 2007 the burst of the subprime bubble in the USA was the event that, in the space of just a few months, led to the US banking system collapse of 2008 and gave rise to the severe international economic crisis we are currently experiencing. However, its subsequent worldwide spread was also the result of external real and financial imbalances dating back years: a growing American current account deficit financed with a huge inflow of foreign capital, mainly from Asian and oil producing countries.

A current account and trade deficit has been a "standard" feature of the US economy since 1982, but it was in the 1990s that a steady deterioration began, reaching an unprecedented negative level in 2006. This trend is depicted in figure 1 along with the corresponding, increasingly positive financial account balance that represents foreign funding of the trade deficit. Since the current account balance drives the accumulation/decumulation of foreign assets[III], the necessary implication of a continuous deficit is that the US net foreign asset position is deteriorating and the stock of gross foreign debt is becoming ever bigger. US Treasury data shows that, at the end of 2008, foreign debt was above 13 trillion dollars and its ratio to GDP was very close to 100%: at

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the present time the USA is thus the biggest debtor in the world economy. Turning to the real side of the economy, the huge trade deficit means that for many years the USA has been the "buyer of last resort" in the international trade arena, allowing exporting emerging countries such as China to grow at a very high rate. As a result, the recent slowdown of domestic demand in the USA is causing a large negative real shock that is fuelling the spread of the American recession worldwide.

The above picture raises several questions we shall try to answer in the remainder of these sections: how could the USA sustain such a prolonged and growing foreign imbalance without running into a balance of payment crisis? Since current account deficit has to be financed, why were foreign investors so willing to finance the American economy, despite clear signs of rapid current account deterioration and foreign debt accumulation? Lastly, can the world economy overcome the crisis without the long-term rebalancing of the US external position and reform of the international financial and monetary systems? We would like to stress that the last question is linked to the first two because one source of global imbalances is the asymmetric nature of the international monetary system in which a national currency, the dollar, plays a central role. As we shall explain later in the paper, it was because of this asymmetry that, in the 2000s, emerging countries accumulated dollar reserves that were reinvested in the US financial market. As a consequence, a continuous flow of foreign financial investments allowed the USA to ignore balance of payment external constraints and favoured the financing of the sub-prime bubble. Now it is clear that this kind of game has to stop. However, if we want to prevent the recent pattern of global imbalances from appearing again in the future, fundamental changes and reforms of the international monetary system have to be implemented.

Figure 1: US Current Account and Financial Account (1990-2008, USD billions)

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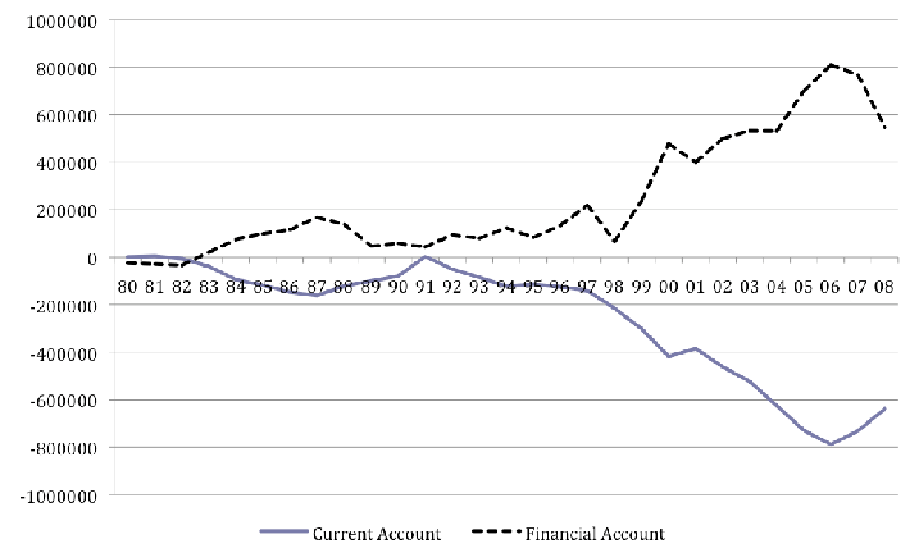

Source: US Census Bureau and FED

2. The causes of the US external deficit (1): the saving glut hypothesis

The recent debate over the causes of the US current account deficit focused on the saving-investment disequilibrium issue and the emergence of the so-called "Bretton Wood II" system among Asian countries (mainly China) and the USA[IV]. The starting point of the saving-investment debate is quite simple. According to national accounting definitions, in the aggregate the current account balance of a country is equal to the difference between national saving (*S*) and national investment (*I*), $CA = S - I$. Therefore, a current account deficit occurs whenever domestic investment exceeds domestic saving. The crucial point, however, is to understand why saving has been systematically below investment in the USA. Does it depend on internal factors or is it the result of international disequilibria to which the USA economy has passively adapted? According to Bernanke (2005) the latter is the case. This view, known as the Global Saving Glut hypothesis (GSG), states that the US current account deficit is the final result of an excess of world saving that was invested in the efficient American financial market, keeping long run interest rates at a very low level. Low interest rates in turn caused an expansion both of domestic credit demand and of household consumption that depressed saving and gave rise to the current account deficit we are witnessing.

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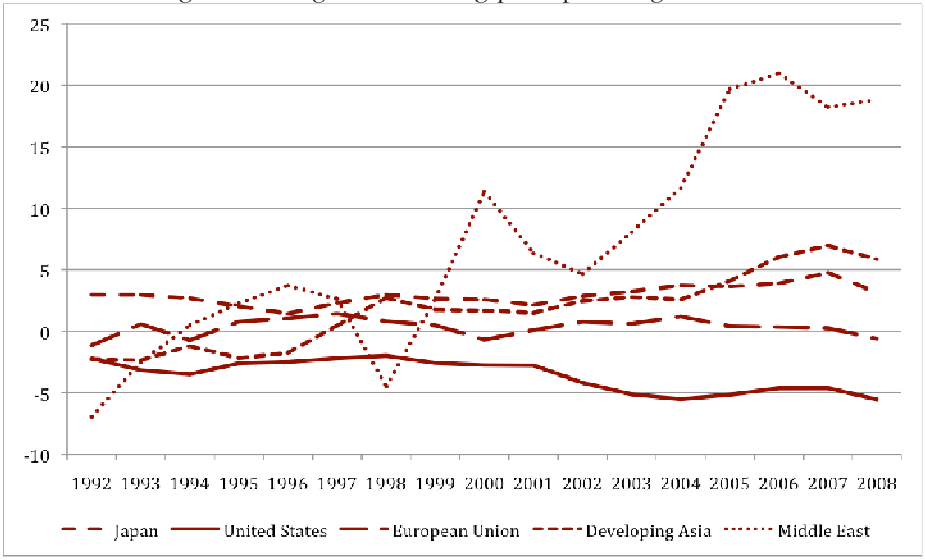
Figure 2: Saving – Investment gap as a percentage of GDP



Source: IMF World Economic Outlook

What can we say about the GSG hypothesis? Obviously, at worldwide level saving and investment must be balanced so that a saving glut cannot arise, but if we look at the actual distribution of saving and investment we can easily identify surplus and deficit areas. As shown in figure 2, Asian and oil producing countries have an excess of saving over domestic investment while in the industrialised countries group, only the USA displays a deficit since Japan has a surplus and the EU area is roughly in equilibrium. Looking at the specific US situation, we can also see that a negative saving-investment gap already existed in the 1990s but that it was quite stable up to end of the decade, oscillating slightly between -2% and -3%. A common explanation of this trend is that huge investments in ITC were made in the US economy during the 1990s, raising the GDP growth rate and making the country an attractive place for foreign investors seeking high real returns. In this view, it was a rise in investment and not a fall in saving that drove the saving gap, after the positive Federal Budget contribution to national saving was accounted for[V]. At the beginning of 2000s, however, the gap grew steadily both due to the deterioration of the Federal Budget under the Bush Administration and a steady increase in the American household consumption rate.

The fact that the lack of saving is essentially an American problem seems to support Bernanke's explanation of the US current account deficit as a passive response to external dynamics. However, if he is right, we should see a strict time sequence between

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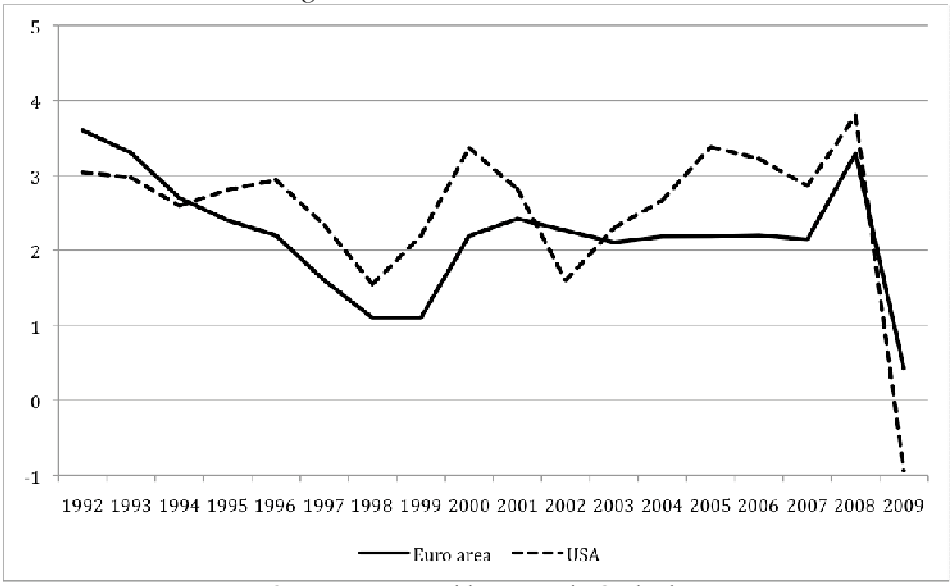
the trade surpluses of other countries and the decrease in the American saving rate. Since China has become the largest surplus country engaged in bilateral US trade in the last ten years, moving from fifth to first position in total bilateral American trade, we should observe a close relationship between the high Chinese net saving rate and the low American one. However, as the Governor of the People's Bank of China, Zhou Xiaochuan, (2009) recently pointed out, in the USA the saving rate actually started to decline *before* the surge in the Chinese current account surplus. In fact, in the 1990s, the US saving rate as a percentage of GDP increased, reaching 18.227% in 1998; subsequently it declined steadily, mainly due to a reduction in the household saving rate (IMF World Economic Outlook). On the other hand, it was only after 2001 that the Chinese current account surplus soared, from a mere 1% to about 10% of GDP in 2008. Domestic factors seem therefore to be as important as international ones in explaining the recent external imbalances of the US economy. Saving surpluses outside the USA couldn't have caused such a huge trade deficit without a policy choice by the Fed to accommodate the rapid growth in the supply of credit that ultimately led to the sub-prime bubble. In other words, domestic monetary policy along with household attitudes toward debt-financed consumption played an important role in the dynamics of US internal and external imbalances.

Figure 3: US and EMU inflation rates



Source: IMF World Economic Outlook

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The Fed pursued expansionary policies throughout most of the 1990s and 2000s. Such a stance in monetary policy shows up in figure 3, which depicts annual consumer price inflation rates for the USA and the EMU area from 1992 to 2009[VI]. In the sub-period 1995-2008, with the exception of 2002, US inflation rates were above EMU rates. A look at the 2000s shows that, between 2002 and 2007, the US inflation rate almost doubled while in Europe inflation was stable, and slightly above the ECB target of 2%. The sharp decline of estimated inflation in 2009 is obviously a consequence of the recession caused by the current international economic crisis.

As far as interest rates are concerned, we can see a decrease in US short-term rates in the first half of the 2000s (figure 4), a period of rising US inflation. According to Taylor (2008: 2) such behaviour by US interest rates shows a sharp downward deviation from the path followed in previous years, signalling loose monetary policy. The temporary decline of inflation in 2006-2007 is, interestingly, associated with US interest rates overtaking European ones (figure 3), evidence of a tightening of the Fed's monetary policy over previous years. This increase in domestic interest rates contributed to the development of the sub-prime financial crisis. It should be noted, in fact, how the rise of interest rates in the USA after 2005 was a shock that caused widespread household defaults in the mortgage sub-prime loans market. Since real estate was the main collateral in that market, household defaults forced banks to sell a growing number of newly purchased houses, leading to the decline in house prices and to the ultimate burst of the sub-prime bubble.

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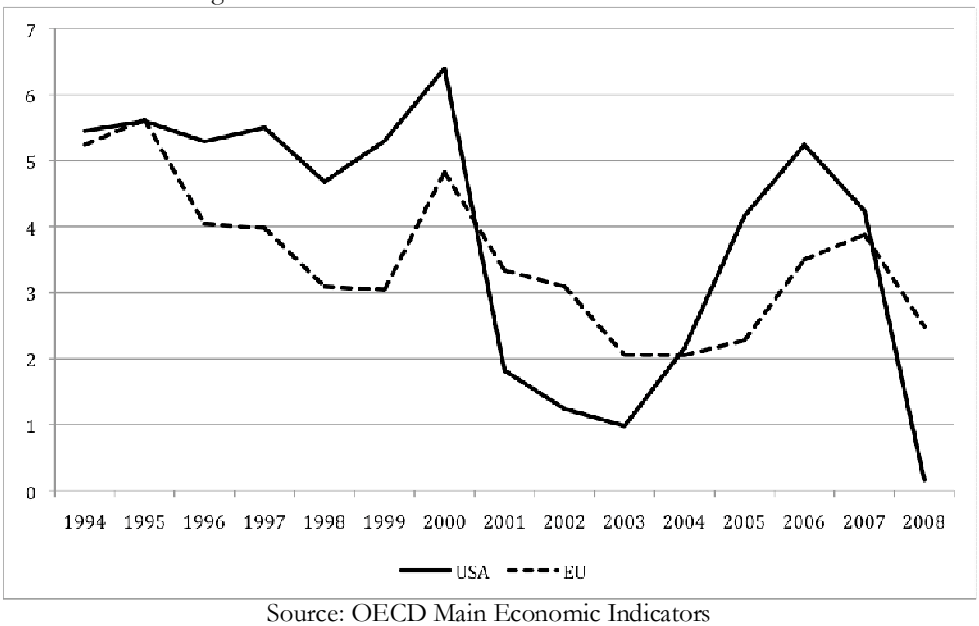
Figure 4: short-term interest rates in the USA and the EU



Source: OECD Main Economic Indicators

Summing up, we think that the GSG hypothesis alone cannot explain the sharp decline in the US saving rate. Other US domestic and external factors have to be taken in account. In particular, useful insights come from the analysis of US domestic monetary policy along with an investigation into the causes that led to a situation in which surplus countries have been accumulating surpluses and have simultaneously opted to invest them in the US financial market. The latter issue has to do with the key role of the dollar in the world economy, a topic we shall deal with in the following section.

Insofar as the problem of why emerging economies have willingly been financing the US economy in the 2000s is concerned, some insight may be gained by looking at figure 2 again. It can be seen from the graph that Asian countries were importers of savings until the severe economic and financial crisis that hit the region in 1997. Subsequently, these countries increasingly became positive net savers. According to Wolf (2008), it was precisely the Asian crisis at the end of the 1990s that induced countries to switch their development strategies from a model based on domestic investments financed through foreign debt to an export oriented model in which trade surpluses and foreign asset accumulation were key ingredients. We agree with Wolf's view but we would like also to stress that the specific international role of the dollar helped the USA to attract foreign capital flows on a scale no other country could reach. The bottom line is that thanks to the asymmetric nature of the dollar standard monetary system, the USA has been so far able to

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ignore balance of payments constraints that are usually binding in the rest of the world (Fiorentini 2002, McKinnon 2005).

3. The causes of the USA external deficit (2): the "Bretton Woods II" hypothesis

The second explanation of the US external imbalances mentioned above, the "Bretton Woods II" (BWII) hypothesis, was forcefully expounded in a series of papers by Dooley et al (2003, 2009) and is based on the existence of an implicit bargain among emerging Asian countries and the USA. The basic idea of the proponents of the "Bretton Woods II" hypothesis is that emerging Asian countries have very high saving rates yet their financial sector is not efficient enough to transform national saving into an adequate flow of domestic investment, so that they have mainly to rely on foreign direct investments (FDI). In order to attract FDI, after the Asian crisis of 1997 these countries started accumulating foreign exchange reserves in dollars, running current account surpluses mainly with the USA. The rationale for this strategy is that if a country has enough reserves to service foreign debt, for say at least 12 months, then its solvency is well established. In other words, foreign reserve accumulation through trade surpluses is both a way to offer collateral to foreign investors and to buy assurance against sudden capital flights and financial crises. This strategy implies a constant flow of financial investment from emerging countries to the USA and a fixed exchange rate policy against the dollar that produces a "de-facto" fixed exchange rate regime in the Pacific area. China, for example, after the 40% devaluation of the renminbi in 1995, kept a constant 2.27 RMB/dollar exchange rate up to 2005 when the Chinese Government allowed it to slightly revaluate by 10% in three years, a rather modest revaluation indeed.

In this picture, the role of the US financial sector would be to transform incoming Asian saving into an outflow of efficient FDI that, going back to the originating countries, enhances the economic development of the area. Since the BWII regime is based on unilateral pegging to the dollar by countries that have bilateral trade surpluses with the USA, the consequences for the American economy are that a current account deficit necessarily arises and domestic long run interest rates are kept low. According to Dooley et al., the implicit bargain is therefore the following: the USA offers FDI, international liquidity and collateral in the form of growing dollar reserves held by Asian countries. The

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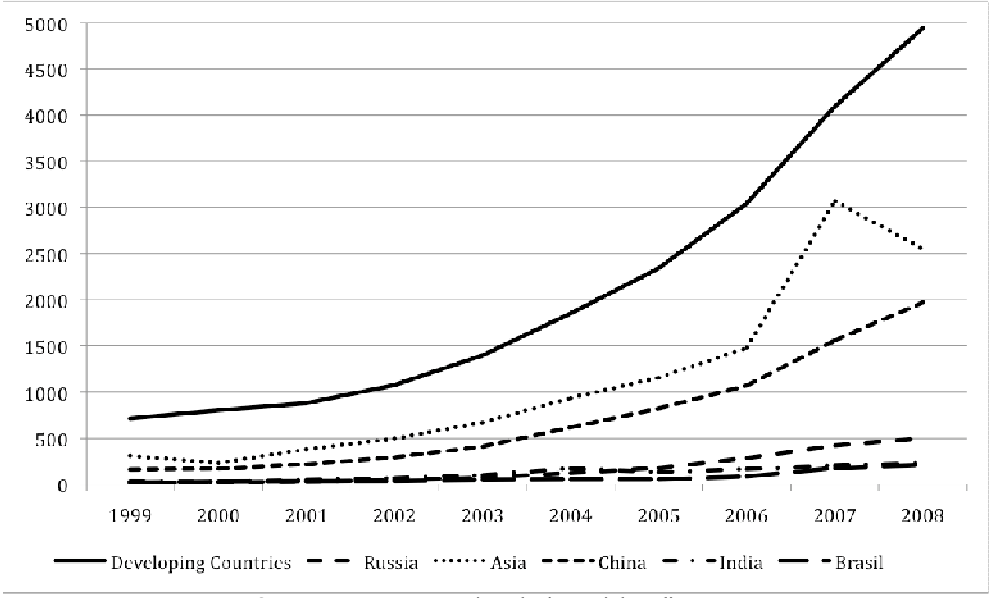
latter finance the US current account deficit by buying American assets, providing a supply of low cost credit to US households and firms.

Figure 5: Holdings of foreign exchange reserves (millions of dollars)



Source: IMF International Financial Indicators

The official data available actually reveals the huge accumulation of foreign exchange reserves by developing countries. In absolute values, figure 5 shows that Asian countries, including China, are the most active players in this field. Similarly impressive is the dramatic growth of the reserve/import ratio (IMF). In developing countries as a group, the ratio started from a value of 46.3% in 1998, almost doubling in ten years and peaking at 86.7% in 2008. Even more striking is the level of that ratio for Asian countries: it rose from 58.6% in 1999 to 114.8% in 2008. This means that, today, Asian countries are able to finance one year of imports out of their foreign exchange reserves without exporting any commodities!

Complete data on the composition of central banks' foreign exchange reserves is unfortunately not available: many central banks, including the Chinese bank, disclose no information on this. However, recent estimates by the ECB (2009) show that, at constant exchange rates, about 60% of international reserves are held in dollars, with a euro share of around 30%. These shares appear to have been reasonably stable over the last decade, with no sign of diversification away from the dollar seen until now. The impact of the euro in this context was significant in 1999-2002 when its share rose from 20% to 30% of

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international reserves, but in the years that followed the euro share did not change in any significant way.

The above evidence supports some aspects of the BWII story, which is less generally relevant than its proponents claim. In fact, the so-called Bretton Woods II appears to be quite specific to the USA-China link rather than global (Wolf, 2008: 145). In any case, the phenomenon of huge accumulation of dollar foreign exchange reserves in emerging countries helps us to clarify once again that the pattern of global financial imbalances is closely related to the asymmetric nature of the current international monetary system that allows one country to avoid external constraints thanks to its own currency being used and held abroad for trade and precautionary purposes. This kind of imbalance, in which the core of the world economy (the USA) acted as "buyer and borrower of last resort" by absorbing production and excess saving from less developed countries, contributed no doubt to the stabilisation of the world economy after the long wave of international financial crises that characterised the 1990s. However, such a pattern is no longer sustainable: even the reserve currency country is now facing a binding external constraint.

In fact, the USA cannot delay the re-balancing of its external position both in real and financial terms. The credit crunch produced by the explosion of the domestic financial crisis associated with the fall in US production and households real income have reduced GDP and demand for imports with a negative impact on international trade flows and financial surpluses abroad. On the other hand, foreign investors' confidence in US dollar assets has been eroding because of the fear of excessive devaluation of the dollar exchange rate. A declining dollar exchange rate is necessary in order to eliminate the US current account deficit but, at the same time, it reduces the value of US assets owned by foreign investors so that their willingness to purchase dollar bonds, securities and equities may be impaired. In the end, in the present situation we expect US consumers and firms to be unable to afford to purchase large amounts of foreign goods in exchange for cheap credit as they did in the recent past.

4. Global imbalances, sustainability and asymmetry

There are several reasons that help explain the ability of the USA to run a very long sequence of current account deficits, but the core explanation relies on the asymmetric

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nature of the dollar exchange standard that has shaped the international monetary system. In some way, both the GSG and the Bretton Wood II hypothesis discussed above have as a key ingredient the willingness of emerging countries to invest their trade surpluses in the USA. In the GSG view, such willingness is due to the better investment opportunities and returns offered by the US financial market; according to the BWII hypothesis, foreign countries need collateral that is well accepted by international lenders. In any case, the USA recently attracted far more foreign funds than what would be normal for any other country.

A look at US assets held abroad shows that a large share of foreign portfolio investments consists of assets with returns that are not particularly high in comparison to those earned by US owners of foreign assets. At the same time, countries accumulating huge dollar reserves are foregoing better domestic and foreign investment opportunities since returns on foreign currency reserves are lower than returns on FDI or other securities. This fact is well documented, among others, by Gourinchas and Rey (2005) and Forbes (2008). The latter, for example, shows that in 2002-2006, total average returns (including exchange rate movements) on US assets abroad came to 11.2%, while returns on US foreign liabilities were just 4.3%. Looking at returns on private sector investment positions, Forbes finds that, when all securities (equities and bonds) are included, American investors earned an average return on their foreign portfolio of 14.3%, compared to a much lower 5.9% earned by foreign owners of US liabilities. Even worse is the differential in the case of FDI: figures are 16.3% for American investors in contrast with a meagre 5.6% on foreign investment in the USA. In general, the GSG assumption that foreigners prefer US assets because of their superior performance therefore seems not to be supported by real data (Wolf, 2008: 136). So we are back to our starting point of why international financial flows go from less developed countries to the USA. Our answer lies in the role of the dollar in the current international monetary system.

Since the end of WWII, the dollar has been the main world reserve currency; due to hysteresis, it maintained this role even after the end of the Bretton Woods era in 1971. In the international economy, there were simply no real alternatives to the dollar as a medium of exchange and a reserve currency. Even today, after the birth of the euro, the dollar is the most-used currency in international trade and finance (ECB, 2008). As issuer of the de-facto international reserve currency, the USA is able to borrow from abroad by issuing assets in its own currency. A consequence of the capability of borrowing in domestic

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money is that the debt burden does not depend on exchange rates. This contrasts with well-known episodes of balance of payments and currency crisis that hit several developing countries with large external debt stock denominated in foreign currency (dollars), such as Mexico, Brazil, Argentina and Indonesia, in the 1980s and 1990s. The Asian crisis of 1997 is a clear example of the difficulties that countries unable to sell domestic bonds abroad may incur. When investors stop funding a foreign country for any reason and start withdrawing their investments, a sudden devaluation and a dramatic rise in the foreign debt burden creates panic and economic turmoil. In so far as the dollar is accepted worldwide, the USA has therefore the privilege of becoming indebted by issuing dollar-denominated international bonds.

As for *net foreign debt*, we must remember that while the US sells dollar foreign debt, at the same time US international assets consist in securities, bonds and equity denominated in foreign currency (yen, euros, sterling), so that any devaluation of the dollar *improves* the US net foreign assets position. This asymmetry in US international portfolio composition helps explain why America has so far been able to finance its increasing trade deficit with a cumulative real depreciation of the dollar by 40% since 2001. This phenomenon is known in literature as "valuation effect" (Gourinchas and Rey, 2005) and had a substantial positive effect on the US net foreign debt position. Alessandrini and Fratianni (2009), using official BEA data, show that, in 2001-2007, dollar exchange rate depreciation increased the dollar value of US foreign assets by $950 billion. That figure helps explain why, in the same period, the increase in the US net foreign debt position was just a quarter of the cumulative current account deficit.

Another asymmetry of the international monetary system is the fact that the most important commodities, raw materials and oil are invoiced in dollars. Almost half of world trade is carried out with the dollar (Salvatore, 2000) and the USA invoices about 95% of its exports and 85% of its imports in domestic currency (Golberg and Tille, 2005; Salvatore, 2000; BCE, 2008). The privilege of being the issuer of the international medium of exchange enables the USA to exploit so-called *seignorage*: once again, insofar as the rest of the world is willing to accept the key role of the dollar, the USA can gain foreign real resources simply in exchange for domestic money. All other countries have to export something in order to obtain the foreign currency they need to pay for their imports. The limit is that an excessive creation of dollars would fuel world inflation by eroding trust in

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the dollar as a valuable reserve currency. An increase in world inflation would help to ease the US foreign debt burden but at the cost of a loss of status for the US currency. Countries like China which hold most of the world dollar reserves are well aware of this problem yet are in a difficult position. Their accumulation of dollar reserves was the consequence of a deliberate political strategy to exploit the opportunity of rising domestic expenditure in the USA. The recent crisis of the US economy would seem to suggest diversification in the currency composition of international reserves. However, a relevant switch away from the dollar, toward the euro for instance, would result in rapid depreciation of the dollar, reducing the net foreign asset position of dollar holding countries. It is clear that if the need for foreign currency holdings were removed, the dilemma would be resolved and the stability of the international economy greatly enhanced.

Summing up our discussion, we can say that, up to now, the USA has been able to run big trade deficits financed with foreign debt because of asymmetry in the international monetary system that allows the country whose money acts as reserve currency to avoid normal balance of payments constraints. It is not therefore surprising that in the last decade several emerging countries found the accumulation of low return dollar reserves to be useful. The origins of the global imbalances we are talking about lie in the mutual interests of the USA, eager to finance its excess of domestic consumption over production at a low cost, and emerging countries, keen to avoid a repetition of the 1990s financial crisis through export-led growth and accumulation of dollars, the reserve currency. The cost of such a strategy, one that assured ten years of rapid worldwide growth, is now evident: excessive domestic and external debt in the American economy, and excessive reliance on the US market by developing countries. This mutual relationship is the main reason for the rapid worldwide spread of the US recession. At the time of writing it is not clear how long the crisis will last, but we think that stable recovery requires profound reform of the international monetary system to avoid a return to the pattern of recent global imbalances. The solution we propose is to create a symmetric monetary system in which none of the national currencies takes on the role played by the dollar so far. This amounts to the creation of a *supranational world money*. We shall try to outline the proposal in the remainder of the paper.

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Part II – Looking for a world symmetric monetary system

5. The failure of the dollar standard

Nixon's declaration of inconvertibility of the dollar into gold marked the end of the gold-exchange standard. The 2008 global financial crisis marked the beginning of the dollar standard's agony. Historically, a system of flexible exchange rates served to accelerate the opening of the international capital market, which was impossible with the Bretton Woods rules. But after forty years of floating rates, the flaws of the dollar standard are unmistakable.

Before the collapse of the Bretton Woods system, some eminent economists promoted a system of flexible exchange rates. In 1967, in a letter to the *New York Times*, W. Fellner, M. Friedman, H. Johnson and F. Machlup declared that they were in favour "letting the market determine the dollar rates without pegging operations of any sort", because the "United States has the most widely used currency in the world. The strength of the dollar has been obscured by the administrative restrictions of recent years, but it would express itself very clearly in free, unmanipulated markets, unless we should adopt irresponsible monetary and fiscal policies for an extended period of time" (Meier, 1982: 86-7). This statement very clearly asserts the ideology of the "house in order" which is one of the pillars of the system: if every country keeps their house in order, with a low inflationary monetary policy and moderate public debt, the exchange rate market will find an equilibrium according to the purchasing power parity theory. More or less, this is also the ideology backed by leading national governments, like that of Ronald Reagan in the USA and Margaret Thatcher in the UK. And that ideology was so embedded in international thinking that when the EMU was created, as a refusal of floating rates among European currencies, nobody opposed the choice of a floating euro in the international market.

The reality of floating exchange rates is very different from the model depicted by its proponents. Forty years' experience shows that the harmonious gravitation towards an equilibrium rate of exchange never happened. The end of the Bretton Woods system was marked by worldwide inflation, in the USA, in Europe and in many other countries. The

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idea that the USA could play the role of anchor for the world market was very soon abandoned. Every country tried to maintain its own inflation and exchange rates with an active policy pursued by its central bank on the international market. A system of managed rates thus replaced the ideal system of flexible rates: this means that not only the market but also national governments determined (see Triffin's point of view below) the level of exchange rates and that, of course, the stronger governments and the stronger economies had a greater chance of pushing a certain exchange rate in a desired direction.

However, government intervention in the exchange rate market was not enough to avoid some major problems, like persistent misalignment of the more important currencies (dollar, euro and yen) and dramatic financial and monetary crises. The crucial factor beyond the control of central banks and governments was the growing quantity of cross-border capital movements. According to the purchasing power parity theory, the difference in the exchange rate should be more or less proportional to the difference in the rate of inflation between two countries. In actual fact, there was much greater variability of rates of exchange than inflation. This happened "because the extensive variability in cross-border capital flows has led to much larger movement in exchange rates than would have been forecast on the basis of the contemporary difference in national inflation rates" (Aliber, 2000: 51). The outcome was a long period of misalignment of exchange rates from the theoretical equilibrium level.

Cross-border capital flows represent an opportunity to increase productivity and employment, but also a risk, if the currency of the host country is different from the key world currency. The Asian crisis of 1997 is a good example of the ambiguous effect of capital flows. Many banks in Thailand, Indonesia, Malaysia, Korea and the Philippines borrowed at low interest rates, in dollars and yen, on the international capital market and lent to local firms at higher rates. But, since the local currencies were pegged to the dollar, when the yen depreciated against the dollar, these countries had growing difficulty in exporting their production in Asia. Fearing devaluation, some foreign investors removed their capital, selling local currencies and buying dollars. At that point, devaluation of these currencies became inevitable, local banks stopped lending to local firms and the failure of a great number of banks and firms followed, with devastating consequences on the level of output and employment.

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The present dollar standard is undermined by an "inbred" inconsistency. A system of flexible exchange rates should favour international capital flows and also, therefore, greater integration of the international economy. But, the international capital flows split the world into two groups of countries. On one hand we have the industrialised countries (USA, Europe and Japan), with sound financial systems, where governments and firms borrow mainly in local currency; these countries are accustomed to dealing with long periods of exchange rate misalignment that hinder trade and the efficient division of labour. On the other hand we have the emerging countries, where governments and firms are obliged to borrow in foreign currencies (mainly dollars) and where the domestic financial system is underdeveloped; these countries run the risk of sudden flights of capital. In this way, the floating monetary system has created an asymmetric international economy where, as the Stiglitz Report (2009: 17, 95) observes, an "excess supply of liquidity" exists in the USA and, simultaneously, in the emerging economies, with a current account surplus, reserve accumulation creates "a reduction in global aggregate demand".

The dollar standard's flaws are revealed by a long-term movement to escape from the floating system that started very early in Europe, where the European countries had planned the EMU since the 1970s. The European countries decided to abandon the floating monetary regime because it was incompatible with the proper functioning of the European internal market. During the same years, the emerging countries realised that in order to integrate their economy into the global market it was necessary to offer internal and external investors some guarantee of monetary and financial stability. To this end, given the weakness of their internal financial institutions, some countries pegged their currencies to the dollar, while others tried the experiment of a currency board or so-called "dollarisation". The China-USA relationship is the best example of the fact that trade, growth and financial exchanges require fixed (or nearly fixed) rates of exchange. Moreover, in every continent some experiment of regional monetary integration is under way. Efforts at regional monetary integration, following the example of the EMU, were made in Latin America, in Africa and in Asia. In Africa, the West African Economic and Monetary Union (WAEMU) unites eight countries (Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo); the Central African Economic and Monetary Community (CAEMC) unites six countries (Cameroon, Central African Republic, Chad, Congo, Gabon and Equatorial Guinea). These two monetary unions were established after the Second

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World War with the political and economic support of France, therefore before the establishment of the dollar standard. Recently, both reaffirmed their will to pursue monetary union by cooperating closely with the EMU. In Asia, in response to the 1997 monetary and financial crisis, Japan proposed the creation of an Asian Monetary Fund (AMF), but the proposal was strongly opposed by the United States. Nevertheless, in 2000, at Chiang Mai in Thailand, the ASEAN+3 (China, Japan, South Korea) countries started a regional monetary cooperation process, the Chiang Mai Initiative (CMI). One of the goals is to create a reserve pool or a full-fledged AMF. The CMI is important for the coordination and integration of a region growing at a very high rate outside the dollar area (Kenen, Meade, 2008).

The movement to escape from a floating monetary regime is not the only evidence of the failure of the dollar standard. A flexible exchange rate system, in theory, should reduce the need for reserves to zero or near to zero. In Part I, it was shown that exactly the opposite happened. World reserves in fact increased progressively. In 2007, the total volume of reserves was 11.7% of world GDP, while it was 5.6% a decade earlier (Stiglitz Report: 95).

Finally, the recent financial crisis shows that the US economy cannot be considered a "house in order" and an "anchor" for the international economy. Indeed, many countries, especially the so-called BRIC, ask for substituting the dollar with a more reliable international currency. In the last decade, the integration of the emerging economies (mainly China and India) in the world market has reduced the price of a great number of manufactured goods, averting the danger of inflation in industrialised countries. A combination of low interest rates and accommodating fiscal policy has created the conditions for transforming the US into a "borrower and consumer of last resort" of the international economy. The financial crisis shows that American interests, as far as monetary and financial stability is concerned, do not coincide with the interests of all the other countries. R. McKinnon (2005: 26), in a crystal clear analysis of the problems connected with the asymmetric role of the dollar, affirms that, in order to overcome the "unfair" asymmetry, the IMF should play the role of "lender of first resort" and the United States itself that of "lender of last resort". But, the financial crisis showed that neither the IMF, nor the US government were able to play these roles. The US economy is only a fraction (albeit an important fraction) of a larger global economy. If the crisis has a

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worldwide impact, the response should come from worldwide supranational institutions. The dollar standard is a partial, insufficient and incoherent reply to the problem of global governance. In the next paragraph, we shall investigate the historical and theoretical roots of this problem.

6. The Triffin dilemma half a century later

A scholar is regarded as a classic when the present generation is unable to understand current events properly without his thought. In recent decades, Keynes had been out of fashion as an economist. With the onset of the financial crisis, every government recognised the need for recovery plans to boost aggregate demand. Now, the time has come to consider Robert Triffin's analysis of the international monetary system a crucial paradigm for understanding the present international problems and for building a sound economic and political order. In effect, in the run up to the London G20, the Governor of the People's Bank of China, Zhou Xiaochuan (2009), proposed the "creation of an international currency unit, based on the Keynesian proposal" to substitute the dollar as a reserve currency with SDRs issued by the IMF. This reform is necessary, according to Zhou Xiaochuan, because the country issuing a reserve currency is "constantly confronted with the dilemma between achieving their domestic monetary policy goals and meeting other countries' demand for reserve currency … The Triffin dilemma … still exists". This statement shows that the present dollar standard regime is open to question and that Triffin's work provides the theoretical basis for the critique. Therefore, a reconstruction of Triffin's thought and its relationship with the Keynes plan for an International Clearing Union can be useful as a guideline for the impending reforms.

The historical background in which Robert Triffin examined the international monetary problem is the transition from the Middle Ages to modern times, when, for current transactions, people discarded the natural currency (gold and silver) in favour of the more convenient fiduciary money, the value of which was guaranteed by an appropriate institution, usually a central bank. This change was accomplished in many countries in the course of the 19th century and, albeit partially, at an international level, during the gold standard. At Bretton Woods, the solution agreed was a compromise: national currencies were to be convertible into gold, with the practical outcome that only the strongest

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currency amid all the others could become a reserve currency. In effect, it was soon clear that the dollar was superseding the pound sterling as a reserve currency. But, according to Triffin, the new international monetary system, a gold-exchange standard, suffered from an acute internal contradiction. In *Gold and the Dollar Crisis* (1960), his pre-eminent book, he foresaw the breakdown of the fixed exchange rate system a decade in advance. The reasoning was quite straightforward. The world demand for international reserves was bound to increase at a rate greater than the growth of mined gold. Therefore, an increasing amount of US dollars had to circulate all around the world with the inevitable consequence that, at a certain time, the promise of the US government to pay 35 dollars per ounce of gold would no longer be credible. There were two alternatives to a dollar crisis: either a revaluation of gold (i.e. a devaluation of the dollar) or a system of floating exchange rates. Triffin dismissed both possibilities. On the one hand, a return to the gold standard was a historical step backward, after the experimented advantages of a fiduciary monetary system; on the other hand, a floating exchange rate system was only an illusory solution: in a world of sticky wages and prices, national governments and central banks will certainly intervene to avoid excessive fluctuations, so that an "equilibrium level" of the exchange rate will never be found. Without radical reform of the Bretton Woods institutions, there was a real danger of a repetition of the 1931 collapse of the international monetary system. According to Triffin, "the logical solution of this dilemma would lie in the 'internalisation' of the foreign exchange component of monetary reserves. The use of *national* currencies as *international* reserves constituted indeed a 'built-in de-stabiliser' in the world monetary system. The free choice of reserve holders will normally tend to concentrate on the 'safest' currencies available for this purpose, i.e. on the currencies of the major creditor countries. In accumulating such currencies as reserves, however, reserve holders are really extending 'unrequited' loans to these countries, and further increasing the natural hardness of their currencies" (Triffin, 1960: 87).

The reforms proposed by Triffin were twofold: the first directed at international level, the second at regional level. In order to substitute the national reserve currency with an international reserve, "the IMF lending capacity would be based, as in the Keynes plan, on the accumulation of bancor accounts – in the form of deposits with the IMF – by member countries as part and parcel of their total monetary reserves, alongside gold itself and fully equivalent to it in international settlements" (Triffin, 1960: 103). Moreover,

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Triffin suggested that, to avoid inflationary issues of bancor reserves, a system of qualified majority vote should be agreed by the IMF Board whenever the bancor issue exceeded a certain yearly percentage. The total amount of international reserves could increase as well as decrease, according to the needs of the world economy. The second reform suggested by Triffin concerned the European Community, because the Common market project required, for its completion, the creation of a monetary union. A first step toward that goal could have been the creation of a European Clearing House or Reserve Fund, with the deposit of a minimum quantity of national reserves, in order to ease payments among member States. "A European Community Reserve Fund could become a powerful instrument to bring about the fuller integration of monetary policies that will ultimately be required by the formation of a single trading area, free of internal barriers, and by the conduct of a uniform commercial policy with respect to the external relations of the Community" (Triffin, 1960: 141).

Triffin acknowledged his intellectual debt towards Keynes. His proposals for reforming the IMF drew on the April 1943 Clearing Union White Paper. According to Triffin "the Keynes plan was bold. It was lucidly written. It was intelligent" (Triffin, 1957: 93). We can sum up the Keynes plan (Keynes, 1980) as follows. If we consider the world economy as a closed system, deposits are necessarily equal to overdrafts. Therefore, if every central bank has an account – let us say in bancor or a certain quantity of gold – in the books of the clearing union, every member of the Union can settle its debts with a bancor transfer to another central bank having a credit account. Of course, it is necessary for every member of the union to accept without limit bancor transfers, instead of gold or other national currencies. Moreover, for Keynes, the Governing Board of the Union is entitled to create new liquidity according to the needs of the world economy, as happens in a closed banking system when a bank lends an amount greater than its deposits. This is a crucial point. Keynes was concerned about the deflationary bias of the gold standard. The historical experience was that a surplus country was able to avoid the required adjustment by means of sterilization policies, while a deficit country was obliged to reduce its imports and its income. After the war, Keynes envisaged an acute problem of scarcity of international reserves for deficit countries. The possibility for the Union to issue an international currency – the bancor – represented a real alternative to the shortcomings of the gold standard.

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The destiny of the Keynes' Plan is well known. At Bretton Woods, the White Plan, based on very different principles, was adopted. That outcome was inevitable considering the overwhelming power and national interests of the USA compared to those of the UK. But Keynes' proposal was not buried. Triffin understood that Keynes' fundamental idea was the key to solving a problem that the new Bretton Woods system was unable to tackle: the convertibility of the European currencies. Seizing the new atmosphere of international cooperation created by the Marshall Plan, Triffin proposed a plan to the IMF and to the Committee of European Economic Cooperation (CEEC). The goal of the plan was to create a full multilateral system of intra-European settlements in order to remove all bilateral hindrances to intra-European payments. In this way, even restrictions to trade could be eliminated. The means to build a multilateral system of payments was a clearing union, exactly as Keynes had originally proposed, but on a regional scale. In effect, Triffin was able to overcome all practical and political obstacles to that project, and in 1950, the European Payment Union (EPU) started to function. A central banker who took part in the experience affirmed that "the EPU simply put into practice Triffin's belief that regional integration was the most efficient – perhaps the only – road to full international integration based on free multilateral exchange and full convertibility. … this position was not widely accepted by economists, especially in the United States, and it was the United States, through the European Cooperation Administration, that was to be primarily responsible for the financing of the EPU" (Carli, 1982: 165). It should only be added that the EPU was a success and that, in 1958, convertibility and multilateralism were fully restored in Europe.

The practical success of Triffin's ideas did not stop at the regional level. At the end of the 1960s, when the stability of the Bretton Woods system was questioned, a debate opened on the adequacy of international reserves. The rate of growth of world reserves slowed down in 1965-1967. The addition of gold to international reserves ended. Private demand for gold increased as did its price. In 1967, at Rio de Janeiro, the IMF approved an agreement for a "facility based on special drawing rights". The way for a reform of the IMF was open. President Johnson, while signing in 1968 the US Special Drawing Rights Act, declared: "For the first time in the world's financial history, nations will be able to create international reserves by deliberate and joint decision, and in an amount needed to support sound growth in world trade and payments" (Meier, 1982: 91). This statement suggests that Keynes' bancor, as proposed again by Triffin in his *Gold and the Dollar Crisis*, was on the

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brink of becoming the reserve money. It looked as if the IMF had acquired the power to create reserves that it had not received at Bretton Woods. However this is a rather hasty conclusion. The present position of the IMF is that "the floating exchange rate regime and the growth in international capital markets facilitated borrowing by creditworthy governments. Both of these developments lessened the need for SDRs. Today, the SDR has only limited use as a reserve asset, and its main function is to serve as the unit of account of the IMF" (*Factsheet* of the IMF, February 2009).

Considering this stance, it is clear that, in order to restore Keynes' and Triffin's proposal, the IMF needs radical reform. But, before discussing that problem we wish to emphasise the analytical relevance of the Triffin dilemma in the 21st century, the age of the global economy. Triffin was rather critical of the dollar standard, which he re-named "World Monetary Scandal" because, as he noted in one of his last essays, "the deficits of a reserve-centre country may be financed mostly – or even over financed – by an increase of world foreign exchange reserves" feeding in this way "a spiral of inflationary reserve increases" in which "poorer and less adequately capitalised countries" lend to richer countries (Triffin, 1991). In this short statement, written at the end of the 1980s, we can read a fairly accurate description of the present international monetary problem, including the so-called phenomenon of global imbalances analysed in the first part of this essay.

To conclude our excursus into the Triffin dilemma and thought, we should retain two lessons: the first is that a national currency cannot become an international reserve currency without causing unsustainable asymmetries; the second lesson is that regional monetary integrations, if successful, show the way for reforms of the world monetary order.

7. Two models for the new world monetary system (1): the international way

To tackle the problem of the transition from an international monetary system, which worked for almost sixty years with the US Fed as the world central bank, to a new symmetric international system, in which the control of world liquidity can be managed by several countries – in the last resort, by all the countries of the world – we need to consider two models. The first is an international monetary system, in which national central banks retain the power to issue national monies and to manage the exchange rate. The second

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model concerns a supranational monetary union, with a central bank, similar to the EMU. Our aim is to explore the mainly political difficulties connected with the construction of these two models.

To begin with, let us suppose that the G20 – or the General Assembly of the UN – decides that the IMF should provide the world economy with an international reserve money, using the institutional instrument already in existence: SDRs. This decision does not imply the transformation of the IMF into a world bank. SDRs are to be used only for settlements among central banks. As in the past, national central banks issue national currency and the management of exchange rates is subject to the consent of national governments. Of course, national governments are allowed – and encouraged – to find an agreement for establishing an appropriate international monetary system, founded on fixed or managed rates. In fact, this proposal is very similar to the original Keynes and Triffin plan. Triffin affirmed, on several occasions, that he did not propose a world central bank, but only a world clearing union.

However, the present international economy is very different from the way it was in Keynes' and Triffin's time. Today, the free circulation of capital is an irreversible process. The dollar standard and the floating exchange rate regime have stimulated the opening of national frontiers and the birth of a global financial system. This process is irreversible but badly managed. The present financial crisis shows that better regulation is urgently required. One of the causes of the poor regulation is mismanagement of world liquidity. If the main task of the new international monetary system is to provide adequate and controlled liquidity to the world economy, a system of fixed exchange rates should be restored. A fixed exchange rate (for instance, in terms of a unit of SDR) limits the scope of national monetary policy. In a fixed exchange rate regime, every country should rely on a certain quantity of reserves (i.e. SDRs), provided by the IMF, and the issuing policy of the central bank must be in tune with maintenance of the agreed rate of exchange. The powerful objection to this reform is the so-called "incompatible triad": a fixed exchange rate has a very short life in an economy with free movement of capital and free national monetary policies. Now, let us assume for a moment that all the countries have reached an agreement to establish a monetary system of very large fluctuation bands, an adjustable peg or a managed peg, and let us enquire into the problems linked to the use of the SDR as reserve currency.

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Since a fundamental feature of our international monetary system is that the issuing power of central banks is maintained at national level, we assume that only a certain minimum ratio of national reserves should be constituted of SDRs, provided by the IMF. Moreover, let us assume that the G20 decides that the SDRs are used as a currency for interbank settlements. At the very beginning, SDRs should compete with dollars, euros, yen and pounds sterling. Therefore, an international agreement to oblige every central bank to buy a certain quantity of SDRs (for instance a share of the sum of imports and exports) should be considered as a starting point. This undertaking does not imply that the IMF determines the volume of national liquidity. Every national economic system can decide the required reserve ratios of commercial banks and, therefore, also the total volume of credit. In the last resort, the level of the interest rate and the exchange rate can be determined at the national level. Nevertheless, the IMF, by providing SDRs – in a greater or lesser quantity – can facilitate or hinder international payments and trade.

Now, let us take into consideration the problems of SDR allocation. At present, SDRs are allocated to members of the IMF according to their quota (based broadly on the relative weight of each country in the world economy). This rule derives from the original concept of the White Plan. Every founding country had to confer a certain quota, in gold or in reserve currencies, to accumulate working capital, like a private bank. But the political function of the IMF was to guarantee an international public good: a stable and effective international monetary order. Accordingly, decisional power in the form of voting rights within the IMF closely reflected national quotas. The present situation is that the USA has 16.8 percent of votes, the European Union (EU-27) 29.2, Japan 6, India 1.9, China 3.7 and Russia 2.7 percent. But since the European Union countries vote according to their nationality (Germany has 5.9; France and UK 4.9, Italy 3.2 percent), in effect, only the USA has a veto right, because a certain proposal needs 85 percent of votes to be approved. The absurdity of allocating SDRs according to national quotas is now clear. If the IMF worked as a clearing union and SDRs functioned as an international currency, surplus countries should be paid in SDRs and deficit countries should pay in SDRs. Therefore, there should be some relationship between the volume of international trade and the circulation of SDRs. A country, regardless of its quota, can sometimes have a surplus and sometimes a deficit. To sum up, the present allocation of SDRs is a form of allocation of *seignorage* by a central bank to its shareholders.

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This does not mean that SDRs cannot be useful for trade settlements among different countries. The original Agreement (1968) states that this facility "is intended to meet the need, as and when it arises, for a supplement to existing reserve assets". Nevertheless, as we have already seen, the IMF has not followed this directive. Today, the bulk of money reserve assets are in dollars or other strong currencies, like euros, yen, and pounds sterling. In 1979, to face the problem of the "dollar overhang", the IMF established a "substitution account" to facilitate the deposit of foreign exchange reserves for an equivalent amount of SDR-denominated claims. "The provisions of the Account – writes the Report of the Executive Committee – reflect the principle that its costs and benefits must be fairly shared between the depositors, on the one hand, and the United States, on the other. The Account is intended to bring about a long-term change in the compositions of reserves". Therefore, the substitution account could have represented the right step forward toward the use of the SDR as a reserve currency. But, very soon the attitude of the American administration changed. In 1980, the US government announced that it was not willing to pay higher interest rates than those on US Treasury bonds (Meier, 1982: 250).

The question of the rate of interest on SDRs deserves an explanation. The rate of interest on SDRs is equal to 80% of the weighted average of the rates of interest on short-term debt in the money markets of the SDR basket of currencies (US dollar, pound sterling, euros and yen). The interest paid on SDRs does not constitute a charge for the IMF. In effect, in a clearing union, debt and credit amounts cancel out. A country with holdings of SDRs in excess of its allocations earns net interest on excess holdings and a country with holdings below its allocation pays net charges at the same rate as on its net use of SDRs. Now, it is clear that the SDR can compete with a national Treasury bond only if it can promise a higher interest rate and better risk conditions. But the IMF does not represent a real alternative to the US economic and political system. A country prefers to accumulate reserves in dollars because it can invest its dollars at an attractive interest rate in US Treasury bonds. To conclude, in order to substitute the dollar with SDRs we need world institutions as strong, reliable and trustworthy as the US Fed and the US Treasury. In short, we need a supranational system of global governance.

To clarify that radical conclusion, let us recall the history of the European Monetary System (EMS) created in 1979 as an "area of monetary stability in Europe". The EMS can

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be considered the ancestor of the EMU. It was designed as a symmetric system: every member country agreed to peg its exchange rate to the European Currency Unit (ECU), a weighted average of the European currencies, and acknowledged the obligation for its national central bank to intervene when the market exchange rate approached a "threshold of divergence", established at 75 per cent of the maximum spread fixed for each currency. Moreover, the European governments affirmed their will to create, "not later than two years after the start of the scheme" a final system which "will entail the creation of the European Monetary Fund ... as well as the use of the ECU as a reserve asset and a means of settlement". Nevertheless, the EMF, a pool of national reserves in gold and other reserve currencies, was never established and the ECU never became a reserve asset. One of the reasons for this outcome was the negative assessment of the Bundesbank. In 1989, its President, Pohl, affirmed that "mixing central bank function together with areas of government responsibility within a single Fund bars the way to a European central bank with a decision-making body that is independent of governments and is thus to be rejected" (Gros, Thygesen, 1992: 55). In other words, the Bundesbank feared that the EMF could become an instrument of political decision making, because it was under the control of ECOFIN, the Council of Finance Ministers. Since the main target of the EMS was exchange rate stability, inflationary governments could have resorted to the financial facilities of the Fund to avoid realignment. The second reason is strictly linked to the first: use of the ECU as a reserve asset could have allowed ECOFIN to create disproportionate international liquidity, leading to an inflationary process inside the system.

From the European experiment, it is worth recalling that although the EMF was never set in motion, the ECU became a kind of parallel money (Triffin 1977; Ludlow, 1982), used both by the private market and officially. From 1981 to 1985 the share of ECU issues in the international bond market reached 5 percent, and in 1989, on the eve of the EMU, it stood at 10 percent, even though the ECU was never widely used as a unit of account in the private sector. The reason for this success was that for private investors ECU bonds offered a less risky investment than putting money in a national currency (like the Italian lira). Moreover, certain governments – those of France and Italy, for example - issued ECU bonds as a political choice, i.e. as an alternative to the DM.

The EMS was designed as a symmetric system, but ended up as an asymmetric system. The reason is that the supranational institutions created were too weak compared

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with national forces, notably the German economy. The final assessment of the EMS experience, proposed by Gros and Thygesen (1992: 157), is appropriate: "The EMS, as a European mechanism, was doubtless originally designed to be as symmetric as possible. The desire for symmetry conflicts, however, with the basic N-1 problem, which implies that in a fixed exchange rate regime only one country can, in the long run, determine its own monetary policy. This policy then constitutes the anchor that ties down the price level and money supply in the other countries as well. This basic proposition implies that a system like the EMS has to be asymmetric if exchange rates are really to be kept fixed". If we transpose this observation from European level to world level, it can be said that the real problem is not the exchange rate system. The dollar standard is a system of floating rates, nevertheless the US dollar became "the anchor" (despite being unstable) of the world economy. The German mark became an anchor, because the other European countries were already integrated in the European Community. For the survival of the European market and the very process of European integration, it was necessary to adopt a low inflationary economy model, the only one acceptable to all the member countries.

After the Second World War, the USA became the hegemonic power because it was able to provide crucial public goods to the Western countries, like military security, an open international market and monetary stability. When the Bretton Woods system collapsed, there was no economic and political alternative in sight. Therefore, even though the American economy was not a virtuous low inflationary model like the German one, it was still to the advantage of every Western country to accept the dollar as their international currency. After the fall of the Berlin wall, even certain Eastern countries, including Russia and China, adopted the dollar as a unit of account and as a reserve currency. Accordingly, the hegemonic role of the American economy was confirmed and strengthened. We should not be surprised if the IMF, like the EMF, never had the opportunity to become a supranational bank: the US government was not interested in dismantling the American hegemonic system. Today, an international currency, alternative to the dollar, to become a "world anchor", should be issued by world institutions at least as good and reliable as the Fed and the US Government.

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8. Two models for the new world monetary system (2): the supranational way

At the beginning of the new century and after the world financial crisis, the international political environment is quickly changing. A multipolar political system, with new great powers, like China, India, Brazil, Russia and the European Union, is emerging. The US superpower cannot ignore the new reality. Moreover, this multipolar system must face new dramatic problems, like the looming ecological crisis that did not exist when the Bretton Woods institutions were created. Finding a good model of governance for the world economy is a challenge that cannot be avoided. Our task is to outline the institutional framework of a symmetric monetary system (i.e. non-hegemonic) for a multipolar world, in which every country can have a voice in the governing board. Apropos this problem, the European experience of monetary unification will be helpful, but for the world economy new original solutions should be sought. Our hope is to show that a world monetary union is technically feasible and politically desirable.

To begin with, we need a new approach compared to the White Plan philosophy: the IMF was designed as a private bank, financed by the shareholders, but managed by US governments and their allies. Today, we can think of the world monetary order as a global public good provided by common institutions: at the centre, there is the world central bank (which could be a reformed IMF, or the Bank for International Settlements, or a new institution). This project can take stock of European experience. The ECB was designed on the model of the Bundesbank when all the European countries accepted, as a common monetary policy, the fundamental target of "price stability" and, as a complementary target, also certain limits to their public deficits and their indebtedness, as a percentage of GNP. The first target was achieved, in Maastricht, with the creation of the ECB that is independent of instructions from national governments and European Authorities. The second target was achieved with the Growth and Stability Pact (GSP) that imposes budgetary discipline on member States. In terms of reform of the international institutions, we propose that the governing board of the world central bank (WCB) should be designed following the European model or the European Federal System. This requires radical changes to the IMF voting system to allow the IMF to function as a public institution. As far as fiscal regulations are concerned, we propose to depart from the European model.

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The proposal of a world monetary union (WMU) is a very bold step. We are aware of the political hurdles we need to overcome. Therefore, it is necessary to clarify the political pact that national governments should agree to. A world monetary union is a project that establishes a stable and fair international monetary system. If it is not fair, governments will reject it; in order to be fair, the system should also include a commitment to create common policies to face the major global challenges, like world poverty and the environmental crisis. In the modern state, monetary policy and fiscal policy are the two fundamental pillars of economic policy. Money is a public good complementary to other public goods, like policies for lowering regional imbalances and social inequalities, cleaning the environment, etc. Hence, a project for a monetary union cannot omit some form of fiscal provision (Montani, 2002). Moreover, the new world monetary system should be designed as a work in progress, because there is no world Leviathan to ensure that it is built at a given time by all countries. Gradually, all the people of the world should understand that it is in their interest – their real national interest – to give up an empty symbol of national sovereignty in exchange for real power: participation in government of the world economy. This process of understanding requires time. The establishment of the world monetary system should be achieved step by step, with a core group of countries starting a union open to all other countries of the world.

First of all, let us consider the establishment of the WCB. The transformation of the IMF into a world central bank can be achieved by obliging national central banks (NCB) to open a special account in SDRs at the WCB, in which to deposit a certain percentage of their monetary base. Indeed, a similar proposal was envisaged for the creation of the ECB (Gros, Thygesen, 1992: 378-9). Just as the national commercial banks are compelled to maintain a certain percentage of their deposits in a special reserve account at national central banks, so every NCB will do the same at the WCB. In this way, a three-tier system of reserve requirements will be created. The WCB, by controlling the reserve requirement at the world level, can control indirectly the world monetary base. This reform does not entail the substitution of national monies with common world money. Dollars, euros, yen, rupees, renmimbi, real, etc. can circulate as in the past. What is essential, for monetary union, is a single centre responsible for controlling the overall monetary base. The advantage of preserving national currencies in circulation is that the commodity markets, for instance the oil market, can continue to issue invoices in the traditional currency, in this

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case dollars. Moreover, a crucial advantage of a centralised WCB is that it will ease the regulation and monitoring of global finance. To avoid a new world financial crisis, an effective world regulatory power is necessary: NCBs and national regulatory powers cannot govern global finance.

Every national central bank will also have the power to determine the short-term interest. We can imagine a WCB which has the power to fix a central rate of interest on SDR deposits, but allows each NCB to fix its own national rate of interest. Of course, the two rates cannot be completely independent. The long run trend will be towards a uniform interest rate in the whole Monetary Union. But we envisage a degree of national freedom in the beginning.

In addition to control of the world monetary base, the WCB will also gain control of the exchange rate. In Europe, exchange rates were permanently fixed on December 31st 1998, and from January 1st 1999 the ECB merely had to decide the appropriate level of liquidity for entire EMU. At world level, we can envisage a different path. Growth and inflation rates for each country are so different that the sudden imposition of a uniform monetary policy will raise insoluble problems. The best way to act is to create concentric circle of countries with different inflation propensity. For instance, a group of countries, with a similar propensity to monetary stability – let us imagine the EU, the US, Japan and the UK – adopts a 0-3 percent inflation range. Among this group of countries – with an important share of world trade and finance, so that they can be considered an embryo of the WMU – the exchange rated is fixed in terms of a unit of SDR. Now, it may happen that the EMU is able to achieve, for several years, an average inflation rate of 2 percent, while the US endures an inflation rate of 3 percent. If financial operators think that a devaluation of the dollar is likely to happen, they will start selling dollars against euros. The WCB has two alternatives. The first is to accept that the time is ripe for dollar devaluation and to establish a new parity. The second is to provide the necessary quantity of SDRs to the US Federal Reserve System, which can buy euros and sell euros against dollars on the market until the speculative attack ceases. Of course, this policy implies that the monetary base of the USA will be reduced (if the US Fed pays for the SDRs received by the WCB in dollars). However, the point in discussion here is that the WCB has the power to control the exchange rate market and to avoid speculative attacks. Therefore, the WCB is not only the lender of last resort; it is also the stabiliser of last resort of the exchange rate market.

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The establishment of the WCB allows member countries of the Union to fix crossed exchange rates without fearing the "incompatible triad" effect.

The previous example of a small group of industrialised countries forming a monetary union is useful to show that the stability of the world financial market can be assured even if not all the countries of the world belong to the WMU from the start. But of course, the importance of a WMU is to put together industrialised and emerging countries. For instance, all the NAFTA countries (USA, Canada and Mexico) should become members of the founding group. What is really important is that the WMU is so designed that the doors are open to other countries. From that perspective, a second group of countries aiming at an inflation range of 0-5 percent could be formed. A third group may prefer a range of 0-10 percent. The WCB should therefore differentiate its monetary policy for every group of countries. This type of monetary policy is complicated but not impossible. The quantity of SDRs distributed to every NCB should be decided as if every group of countries had its own central bank. In any case, it should be clear that the power to intervene on the exchange market belongs to the WCB and not to the NCBs. Only on that basis would the NCBs have no need to accumulate foreign reserves.

A world market divided among countries accepting very different inflation ranges is imperfect and instable, because some revaluation or devaluation would be bound to happen from time to time. A WMU should aim, in the very long run (measured in decades, not in years), to favour a process of convergence, from the higher level of inflation ranges to the lower one. That means that, at a certain point, the emerging countries should become able to compete in a common world market with the industrialised countries. A parallel process should be envisaged inside the WTO as far as trade rules are concerned.

Now, we have to discuss how a monetary union can be fair; in other words, the relationship between fiscal policies and monetary policies. The convergence process cannot be entrusted only to market forces. The creation of SDRs was followed by debate on their use for international policies (Triffin, 1971). This debate showed that the creation of an international reserve currency could be exploited to finance national policies, if SDRs were allocated according the member's quota in the IMF, or international policies, if they were allocated to an international institution, like the UN. The history of monetary integration in Europe can be useful to clarify this issue. Agreement on the ECB was achieved only when every European country accepted a central bank independent from political powers. The

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Maastricht Treaty states that: "… neither the ECB nor a NCB, nor any member of the decision-making bodies shall seek or take instruction from Community institutions or bodies, from any Government of a Member State or from any other body" (art. 107). The independence of the central bank from political powers should be considered as an essential feature also for the WCB. Monetary policy is a very important part of a material constitution of a country. A country can entrust its monetary policy to a supranational body only if it is certain that it will follow a previously agreed line and not the will of some other national government. A symmetric monetary union is a supranational pact among countries accepting a common policy target, for instance a yearly inflation rate no higher than 3 per cent.

In Europe, the relation between monetary and fiscal policy is poorly defined: the EU has an ECB, but not an integrated fiscal system. The EU has a Community budget of 1 percent of GDP and a Stability and Growth Pact (SGP) restraining national indebtedness. At present, the Community budget is not considered big enough for effective fiscal policy at the European level, since it represents only 2 percent of total European expenses. The meaning of the GSP was well explained by the President of the ECB, Trichet, on the occasion of the financial crisis: "the Stability and Growth Pact – he said – is the legal framework we have as a *quid pro quo* for the fact that we do not have a federal budget and a federal government" (Trichet, 2008). Accordingly, the European member countries are obliged to provide common public goods, like the financial crisis recovery plan, by coordinating their national plans. But, since coordination usually fails, Europe does not have an effective budgetary policy.

For the WMU, it is preferable not to follow the European example of a common fiscal policy based mainly on national budgets. A GSP at world level is not desirable and is not necessary. Every country belonging to the WMU will have to accept a certain inflation target. If the WCB pursues an appropriate monetary policy, every country will receive the quantity of money necessary to finance its growth without exceeding the agreed inflation rate. But, if a national government decides to issue an excessive quantity of Treasury bonds to finance its budget, leading to a national inflationary process, the lenders of the global financial market will demand higher interest rates. And that's that. The risk of sovereign default exists today and will exist tomorrow. The WMU can, in the last resort, impose sanctions against a misbehaving country. What really matters, for a WMU, is the existence

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of a world budget to finance some crucial global public good. Today, the UN does not have a system of own resources. All the policies and missions it accomplishes are financed through national budgets. To stimulate a worldwide convergence process, a common budget is necessary. It is worth recalling that with a Community budget of 1% of the GDP the EU was able to ensure an effective convergence process among its members, and some important European policies: the regional policies, the common agricultural policy, space exploration and the fight against climate change. If, at world level, the UN could rely on a budget of a similar size, a more united and integrated world could certainly be built. Not only do we need a WMU, but a World Eco-Monetary Union (WEMU), where "eco" means "eco-logical and eco-nomic", two strictly interdependent aspects of human life in the 21st century.

9. Together, out of the crisis

The world recovery will be weak, fragile and uncertain if the firms and operators of the global economy fail to perceive that world institutions will be reformed in such a way as to avoid a second financial crisis. A global economy without global governance is like a ship without a course. Efforts to create a worldwide system of financial regulations will be vain if the agents of the global economy perceive that one of the pillars, international money, is no longer an "anchor". The old monetary order is slipping. The countries willing to lead the world economy should be brave enough to take a step forward towards a WEMU. A step, even a modest step, but in the right direction, may be enough to transmit confidence and positive expectations to market forces. The WEMU is a long run project. It will take decades to build and to work properly. But some partial reforms are enough to start with.

There are two very urgent problems to be solved. The first is to ensure that the present international currency, the dollar, will not be devalued, i.e., that the US government and the Fed will not provoke an inflationary process. If this happens, creditor countries will be badly damaged and world trade will turn upside down. The second problem is to stop the "built-in destabiliser" analysed by Robert Triffin: the USA prints dollars and imports goods paying in dollars; the exporting countries accumulate dollars as international reserves; to get a positive interest rate, they reinvest their dollars in US Treasury bonds. This asymmetric advantage of the USA must stop, even in the interest of the USA.

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The first problem can be solved if the main economic powers acknowledge that the doctrine of putting the national house-in order does not work in a global market when the world house is not in order. Let us consider the European Union. In both the Maastricht Treaty and the GSP, meticulous rules were established to secure a stable monetary and financial order in the EMU. But practically nothing was said about the international economic order: the euro was left to float freely in an anarchical global economy. Now, the outcome is that the financial crisis has severely hit the European economy, scuttling the pact: every national government is obliged to issue a huge quantity of national bonds, violating the GSP rules and thus initiating an inflationary process in the EMU, despite the ECB's independence and virtuous monetary policy. Since region-wide rules are insufficient, it is time to look for worldwide rules. A first step is Taylor's (2008: 18) proposal for a "global inflation target". The aim is to base national government economic policy on a common diagnosis of the state of the world economy and on a common rationale for intervention. A global inflation target, according to Taylor, "would help prevent rapid cuts in interest rates in one country if they perversely affect decisions in other countries. Policy makers could then discuss global goals for inflation and the impact that one central bank might have on global inflation". This proposal does not entail reform of international institutions. It is an acknowledgement that the interdependence of the global economy compels central banks to cooperate with one another to insure good governance of the world economy. A similar form of cooperation among central banks was considered one of the "rules of the game" of the old gold standard. A more demanding step is Richard Cooper's "Proposal for a Common Currency among Rich Democracies". According to Cooper a single monetary policy among USA, EU and Japan, could be assigned to a common Board of Governors. "One of the advantages of a common currency in the core of the world economy – Cooper says – is that countries could confidently frame their exchange rate policies with respect to this common currency – either fixing it, if that seem best, or maintaining a managed float against it. It would provide monetary stability for the world economy" (Cooper, 2006: 392). Such a project should obviously be open to other countries willing to join the leading group. A world monetary union should be conceived as a centre of gravity. If it is sufficiently strong and well managed, step-by-step all the other countries of the world will recognise that their real interest is to join it.

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The second problem concerns the gradual substitution of dollar reserves with an international reserve currency, as Triffin originally proposed. We can follow the lines suggested for the "substitution account", but giving the IMF the possibility of offering a real alternative to US Treasury bonds for creditor countries. This can be done if the IMF functions as a world central bank which buys Treasury bonds issued by a UN Treasury and, afterwards, it sells the UN bonds to the national banks eager to substitute their US bonds with similar financial assets.

Of course, this proposal entails a first reform of the UN, which should be endowed with a budget and its own financial resources. The Stiglitz Report (2009: 74) proposes the creation of a Global Economic Coordination Council (GECC) with the mandate "to assess developments and provide leadership in economic issues while taking into account social and ecological factors". GECC representation "could be based on a constituency system designed to ensure that all continents and all major economies are represented". The GECC should have the power to decide how to use the financial resources of the UN budget. The UN budget should be financed, in part, by aggregating the present plethora of world funds created for a great number of emergencies –famine, health, disease, poverty, environment, etc. – that are badly managed due to their overlapping functions and lack of coordination and, in part, by national contributions (for instance 0.5% of GDP of every country).

Moreover, the GECC can authorise the IMF to raise new funds by issuing UN bonds, which can be bought only by national central bank. The UN bonds should be denominated in SDRs, reformed in order to include all the national monies of the countries willing to take part in the WEMU project. The new SDRs can be redenominated World Currency Units (WCUs). The interest rate on UN bonds should be established in relation to rates of interest of national bonds, in order to avoid speculation by NCBs. The main purpose of UN bonds is to stabilize the value of reserves held by NCBs, at the same time as ensuring a fair rate of interest. In such a way, it will become possible not only to gradually substitute the dollar reserves of creditor countries with an international currency but also to create financial resources for truly global economic governance.

This reform will allow NCBs to diversify their reserves, but it is not the radical solution necessary to ensure a sound world monetary system. Even with UN bonds available, some NCBs will find it more profitable to maintain reserves in dollars, euros or

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in some other strong currency. The world monetary system will continue to be based on the dollar, on floating rates and an ever-weaker debtor country of last resort. Even the Stiglitz Report (2009) does not overcome the limits of our "international model", because it proposes "a global reserve system". The real solution is to eliminate the need for every country to accumulate reserves, building a world central bank that issues WCUs.

We are well aware of the political difficulties raised by these proposals. Is a radical reform of the UN necessary to build a WEMU? Probably it is. But our enquiry stops at that point. Our aim was only to explore and clarify the relationship between economic and political aspects of the new world monetary order. All this is not a dream: the problem was raised, even if indirectly, by the London G20 governments as a reaction to the financial crisis. Surely, many economists and politicians will consider our proposal utopian. The best way to reply to these critics is to remember that Keynes faced the same critiques when he proposed his plan for an International Currency Union. "It is complicated and novel and perhaps Utopian – Keynes said – in the sense, not that is impracticable, but that it assumes a higher degree of understanding, of the spirit of bold innovation, and of international co-operation and trust than it is safe or reasonable to assume" (Keynes, 1980: 33). Today, we hope that it is reasonable to assume that that spirit is alive.

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I The Authors would like to thank Giuseppe Iannini, Silvana Malle, Maurizio Mistri, Angelo Zago and the participants at the Second European Seminar on the Future of the European Union held in Ventotene 3rd-4th September, 2009 for their useful comments and suggestions on previous versions of the paper.

II There is a growing literature on the issue of the reform of the international monetary system and the introduction of some form of international or supranational money along the lines described in this paper. See among others, Alessandrini and Fratianni (2009a, 2009b), Constabile (2009), D'Arista (2009), Kregel (2009), Piffaretti (2009), Ussher (2009).

III Remember that the change of foreign asset stock ΔB is equal to *minus* the financial account balance *CF*, namely $\Delta B = -CF$. Since the sum of current account *CA* and financial account is zero, it follows that a negative current account implies $-CA = CF = -\Delta B$.

IV See for example Bernanke (2005), the NBER debate in Clarida (2005), Dooley et al (2003, 2009), Edwards (2005, 2007), Feldstein (2008), Obstfeld (2005). A very good review of the above issues may also be found in Wolf (2008).

V Remember that, in the 1990s, under the Clinton presidency the Federal Budget was in surplus.

VI 2009 data is taken from IMF estimates.

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