

International hoards in the era of quasi-world money

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Abstract: The establishment of quasi-world money, an alloy form of money with novel features, has led to changes in international hoards. This change is not the same for all countries; on the contrary, the pattern differs depending on whether the country is a quasi-world money issuer or not.

In this paper, data is provided about the international official reserves, by country and by form. Informed by the Marxist approach of money in general and world money in particular, the paper provides an explanation of this change that relates to money's taking various forms with particular dynamics of their own and in specific contradictory relation one to the other.

Keywords: form of money, international reserves, quasi-world money

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1. The line of reasoning

According to the Marxian line of reasoning adopted here², money emerges spontaneously through the evolution of the forms of value in four stages (see also Lapavistas 2003; 2005a; 2005b). As such, money is a form of value; the most developed one. By definition money has two functions, these being the measure of value and the medium of exchange. From the whole process the most advanced *form of value* is the most primitive *form of money*, namely the commodity form in the concrete form of precious coins. The standard of prices is a function that is incorporated in the measure of value and cannot be without it. The fact that money, born with the form of commodity, is a measure of value, legitimizes the precious metals to provide their bodily divisions as denominations; the standard of prices accrues as a scale of weights with corresponding names.

The two initial functions of money contradict with each other because, according to the first, money must allow value to break all time and space limits, while, according to the second, it is constrained by the particular circulation which it is called upon to serve. Money, as measure of value, is the universal equivalent, but, as a means of circulation, this universality is limited in time and space; that is, money is not the universal equivalent. The third determination, money as money, emerges out of this contradiction of its first two functions and transforms money from a means to an end, to an end in itself. This complex function comprises the breaking of time limits through hoarding and the means of payment, and the abolition of space limits through world money.

A closer examination of the primitive form of money, the commodity form in the concrete forms of coin and later bullion, makes clear the process through which this form gives birth to its symbol, the most pure form of which is fiat money. On the other hand, the break of the sale from the purchase and the relatively better position of the buyer against the seller, due to the ability of money to preserve value, contrary to the commodity, gave birth to credit money (Marx, 1976; 1982, pp.591-598). Not only credit money is bound to commodity money by definition, since it is a promise to pay

² Marx's theory on money was evolving from his *Economic and Philosophic Manuscripts of 1844* (1970) and the *Poverty of Philosophy* in 1847 (1955) to *Grundrisse* (1980; 1989; 1990; 1992), his notebooks of 1857 to 1861 and the famous *Contribution to the Critique of Political Economy*, first published in 1859 (1981b; 2010). The exposition here is based on the *Capital* (1954; 1976; 1978a; 1978b; 1979; 1981a), but takes into consideration the above mentioned works, and especially the *Contribution* (1981b).

the latter, but the expansion of credit money is constrained by the quantity of gold (Marx, 1978b). This issue is of utmost significance for the emergence of a new form of money, the alloy form of central bank money declared as legal tender.

In all cases, and in all advanced capitalist states, the leading commercial bank was upgraded to central bank, namely the bank of the state and the bank of the banks, entitled to issue the king of the bank notes and keep the hoards of the nation. That resulted in the demise of the commercial banknote, the diminution of hoards in all the lower layers of the economy and thus the economizing on gold almost fully in the domestic circulation, so that it would be freed to perform as world money, dominantly as bullion. The outburst of WWI allowed the acceleration of all these processes, the drastic collection of gold from domestic circulation and, later, the prohibition of holding gold in all the non-official layers. The new form prevailed domestically and gold was deified internationally.

What is interesting to stress is that, while central bank credit money declared as legal tender is a logical evolution of the previous forms of money, an evolution that we may observe in all states where capitalist relations prevail, only some national moneys of this kind managed to exit the borders of their domestic circulation. These were the moneys that were issued by major capitalist central banks and guaranteed by leading capitalist states. This observation indicates that the reasons and the paths through which this money evolved should be historically imposed and closely linked to the processes of imperialism. Indeed, money in the new form exited actually the borders of the country by lending its form to, or accompanying, the exported capital, or through imperialist war related processes and intrastate flows of money.

The analysis of money, its functions and the relating forms leads us to the identification of a new form that is so much related to fiat money as it is to credit money, but it is neither. This form of money has appeared in the literature under different names. The most commonly used name for this form of money is “international reserve currency” which contains a minor supererogation, but is chiefly *contradictio in terminis*. The supererogation lies in the fact that there is no national “reserve currency”, while the contradiction lies between the hoarded, immobilised “reserve” and the flowing “currency”. Obviously the term attempts to capture the underlying functions that this form serves, rather than the form itself. This confusion of the form with the functions that it serves is clearer in the term “international means

of payment” that also appears in the literature³. McKinnon (2005) addresses the dollar as world money, and in particular the “world’s dominant money” (p.478) which is much closer to the approach taken here but leaves little room for other moneys of the same nature⁴. As the most appropriate, among the available ones, I accept the term “quasi-world money” which was originally coined by Makoto Itoh (Lapavistas, 2013).

With quasi-world money, a non-commodity form manages to break the national borders for the first time in the history of capitalism. To be exact, both fiat money and especially some concrete forms of mostly London based credit money could pay in the world market, but only in special cases and temporarily; gold bullion was lurking behind them. “Most circulating currency has been virtually “fiduciary” [...]. Such money, which depended on the domestic conditions of the country where it circulated *could never be confused with the international currency*” (Vilar, 1976, p.344, emphasis added). For this novelty, both aspects of the new form played their role, namely both the central bank and the state of particular countries, but the latter is decisive.

Presumably, the new form expands immensely the metal limits of credit money in the world market because of its particular seal of imperialist state. These metal limits were actually consisting the (gold) reserves which were mostly kept by major capitalist countries. The establishment of quasi-world money was fuelled by and, in turn, led to a new status in the distribution of world reserves that relates to the form in which these reserves are kept and the cardinal holders.

This paper focuses exactly on these changes. The next section presents a brief historical overview. The third section provides a review of theoretical approaches that are relative to the matter at hand. The presentation of data that proves the change in the distribution and form of world reserves comprise the fourth section. The last section concludes the paper by discussing the results.

2. Brief historical overview and preliminary notes

Hoardings of world money have always played an important role in the function of world money. In the 19th century and well into the 20th, they used to be related

³ There are also variations of the term that imply the direction of the solution proposed. For example, Fields and Vernengo (2011) use the term “hegemonic (international) currency”.

⁴ “[...] a single world money for clearing international payments, setting exchange rates, and invoicing trade and capital flows [...]” (McKinnon, 2005, p.485). Interchangeably, McKinnon (2005) uses the term “international money”.

primarily to trade flows in two ways. First, by their mere existence, hoards were providing the necessary collateral for the circulation of commodities and, second, they were providing the necessary means of payment for clearing trade balances. In this period, hoards comprised mostly of gold bullion, which was also the best concrete form of world money. Newly found central banks were entrusted to carry the hoards of the whole economy and, in this way, economize on them. The mechanism of transfer of hoards from commercial banks to the central bank became well known as minimum reserve requirements. Finally, it was a period where the possession of hoards was a symbol of economic and political power.

In the period that followed the end of WW I, until the collapse of Bretton Woods hoards do play a significant role as well, although altered. For the largest part of the period they take the concrete form of gold bullion, although for some years they also take the form of quasi-world money. First, and foremost they provided for the official anchor of the IMS, through the exchange rate with quasi-world moneys. Second, they provided a measure to the expansion of national credit money declared as legal tender by a leading capitalist country, and therefore a measure to the degree of the latter's parallel presence in the world market. Third, they provided the pool for the final payment of those credit moneys through the transformation of the emerging and rising hoards in US dollar banknotes, from several major capitalist countries into US gold. Finally, they were still used to clear balances although less and less. Through all these processes, gold hoards supported quasi-world money.

For the largest part of 20th century, hoards in all forms were in the possession of major capitalist countries and were still symbolizing economic and political power. The fact that the US had gathered practically all the monetary gold of the capitalist world in 1944, was decisive for the formation of the agreement of Bretton Woods and could provide the indispensable collateral for the expanded issuance of US dollars, that was more than necessary for the reconstruction of the capitalist world. Hoards of dollar banknotes and bank deposits were gradually formatted, through their expansion, by the major capitalist countries – Germany, France, Japan and, to a lesser extent, the UK, which was privileged to issue a credit money declared as legal tender, with features similar to those of the dollar (Eichengreen, 2007).

The US dollar (banknote and bank deposit) has emerged as the quasi-world money *par excellence*, through a historical process. Accordingly, hoards of quasi-world money support the latter, through their existence and flow. But the last three

decades, changes accelerate. In short, the collapse of Bretton Woods releases capital flows. Their bulk originates in, and is destined to, leading capitalist countries but a portion is led to developing countries. This portion is small compared to total capital flows, but quite significant compared to the magnitude of the recipient economies. The latter are led to hoard quasi-world money forming thus huge official reserves.

Moreover, these developing economies exchange the hoarded quasi-world money not with gold, as the European imperialists were doing during the Bretton Woods and in the interwar, but with securities of the very countries that issue quasi-world money. This way, quasi-world money is partly returning to its issuer, verifying its being partly credit money. “The precise composition of international reserves is not known, but there is little doubt that the bulk – perhaps two thirds – comprises US dollars” (Lapavitsas, 2009, p.15)⁵. For the case of the USA, dollar banknotes and bank deposits do return to their issuer through the purchases of US securities, which might be US Treasury securities or issued by the Government Sponsored Agencies that are the backbone of the US housing market (ibid).

“When central banks hold foreign exchange reserves, they usually invest these holdings in (quasi-) risk-free, liquid assets (so the assets can be mobilised quickly for interventions in the foreign exchange market at no cost). At the global level the assets are largely represented by securities issued (or guaranteed) by governments, notably US treasuries as well as debt issued by euro area governments” (Alcidi, de Grauwe, Gros and Oh, 2010, p.2).

Therefore, US Treasuries, UK gilts, German Bunds and Japanese Bonds can be considered as the best examples of these securities. In what follows, the term “mother bond” will be introduced for securities of quasi-world money, implying thus the relation of these bonds with the circuit of quasi-world money and distinguishing them from all other securities and bonds⁶.

The term “foreign exchange” will be used for the concealing summation of a monetary with a non-monetary form; a contract for future payment of quasi-world money with interest, namely a loan on the one hand and quasi-world money, on the other.

Further, the term “international reserves” is misleading since it should include all forms of money that are hoarded and not exclusively foreign exchange, part of which is not money after all. International reserves will be considered as comprising

⁵ Data from COFER (IMF, 2012b) verify this conclusion.

⁶ “Safe haven”, “haven” assets, “flight to quality” etc are some of the various terms for securities of quasi-world money that appear quite often in the newspapers (Milne and Wigglesworth, 2012).

all forms of money and essentially both quasi-world money and commodity money in the concrete form of gold bullion. “Reserves” and “hoards” will be used interchangeably as equivalent terms.

3. Various approaches to international reserves

The process of forming reserves of foreign exchange from developing countries has been captured in the literature from several different angles, the most prominent of which are the following. First, the reserve accumulation approach, which focuses on the one side of the issue and portrays one quarter of the picture. This is argued because the reserve accumulation approach does not examine the issue of dehoarding from major capitalist countries and, furthermore, restrain the trend in the years following the Asian Tigers’ crisis (Cheung and Qian, 2007; Cheung and Ito, 2008). True, there’s a regime break in the end of the century which is also shown here, but the trend is evident since the 1980s and is inescapable not to observe since 1990. It is worth noting that some authors do find a difficulty in the latter issue. Thus, although they recognize that the process was only accelerated by the 1997-8 crisis, they do not provide for an explanation for the whole period, overstating the effect of the crisis (Aizenman, 2008; Aizenman and Lee, 2008).

The second approach addresses the issue as global imbalances. This approach captures both sides and relates them through capital mobility and the structure of the IMS. In this sense, it is considered as very insightful to the matter at hand. Nevertheless, it fails to raise the issue of the form of money prevailing in the current IMS, focusing mostly on the relation between the US and China (Eichengreen, 2007).

A third strand is the one provided by the work of Dooley, Folkerts-Landau and Garber (2003; 2004a; 2004b; 2004c) which refers to the current standard as Bretton Woods II. The authors relate the US deficit with the reserves of developing countries, through Foreign Direct Investment (FDI) from the former to the latter. In particular, the purchase of US securities and the export of commodities from developing countries act as collateral for the continuing inflow of FDI. According to Dooley et al, Bretton Woods is a system of center and periphery, with FDI flowing from the former to the latter and reserves being accumulated by the periphery. In the 1950s the US was in the center and the periphery comprised of Europe and Japan. After the upgrading of the old periphery to center, there was no periphery until 1989-91, when the Soviet Union was overthrown and the countries of the east bloc took the place of the

periphery (2004c). Their take is insightful and very relevant to the approach followed here. Core countries could be seen as quasi-world money issuers and periphery countries as dependent ones in the current standard.

Yet, this explanation does not recognize that, in the 1950s and 1960s, the US dollar performed in the world market as quasi-world money only with the backing of gold. Even until the collapse of Bretton Woods, the expansion of the US dollars faced a measure on the US gold reserves. The latter were supporting the dollar even with their mere existence, as stock, although from time to time they had to flow, especially after the French and others' pressures, in order to buy back US dollars (Zolotas, 1965, p.10).

4. The distribution of international reserves in the era of the quasi-world money standard

4.1. Notes on the data

For approaching the relevant data, the difficulties that had to be dealt with are the following. First, there are many levels that cannot be portrayed altogether. Analytically, the official international reserves must be examined by form, by country and by various measures, in their evolution in time.

The forms are not distinguished properly. The reason for that is not poor workmanship in the relative statistics. It is intentional to blur the composition of the reserves, especially for countries that are not quasi-world money issuers. In the opposite case, they themselves would provide all the necessary elements for arbitrage and the so-called speculative attacks. Moreover, in the case that a country would wish to upgrade the status of her money, like China, she would like to have the element of surprise. Finally, in the case of a crisis, some mother bonds may lose contact with quasi-world money and the degree that a country is exposed to these mother bonds is best to be concealed. The composition of reserves is of utmost importance and that is why the relative data is not transparent.

The countries examined here are thirteen, seven advanced (US, UK, Switzerland, Germany, France, Italy, the Netherlands, Belgium) and six developing (Brazil, Russia, India, China and South Africa). Japan should be treated separately due to the peculiarities of the Japanese economy and the lasting crisis that it is experiencing.

The time range is from 1948 to 2010 and the period that attracts interest is closely after the collapse of Bretton Woods, namely from the mid-1970s to the early 1980s.

Let us turn to the appropriate measure that should be used. The evolution in reserves is quantitative because in terms of quality, reserves comprise today the same forms that used to at least during the Bretton Woods. Moreover, the absolute levels are irrelevant; even when they are used, they attempt to stimulate the reader's general references. The only case where the level can be useful is when we have an absolute decrease and this is less rare than expected. Therefore, when one confronts reserves, one should choose what reserves should be measured against.

The discussion on this topic does not share agreement in the literature and would require examination in depth (Cheung and Qian, 2007). The measure should relate hoards to their scope, but since the latter is multifold, different measures could apply. Indeed, various measures have been proposed and applied. The most relevant measure compares the level of national reserves with the level of imports (McKinnon, 1979; Cheung and Ito, 2008). In particular, it is examined how many months of imports can a country "cover" with its reserves, the rule of thumb in this case being a level worth three months of imports. Another measure is against GDP, although this measure has been characterized as misleading (Obstfeld, Shambaugh and Taylor, 2008). Reference should be made to the Guidotti-Greenspan rule, according to which countries should hold enough reserves to redeem foreign debt falling due within a year. Finally, Rodrik (2006) measures reserves of emerging market economies as a share of M2, relating thus hoards with domestic circulation.

The most relevant measure seems the one accruing from Dooley, Folkerts-Landau and Garber (2004c), namely against direct investment in the reporting country that relates reserves with this particular international capital flow. Yet, there are several problems, beyond the availability of data which is limited for dependent countries. Note that direct investment is equities investment above 10 percent, with this threshold being an ad hoc indication of commitment to the investment. Nevertheless, it is apparent that some part of equities investment even below 10 percent should be taken into consideration, especially in countries with less developed financial markets, where in and out is not relatively easy. Moreover, reserves should be related to FDI with a time lag and causality runs both ways, for money inflow that is temporarily hoarded precedes the investment, and accrues from the latter as well.

Therefore, three measures were chosen and constructed, one against GDP, in months of import and against FDI. They neither are considered nor treated equally; on the contrary, the most relevant measure is the last, but data quality is the poorest for this one. The best measure thus is in months of import: quality of data is relatively good, data is comparable across countries and trade is one of the sources and the scopes of hoards. Nevertheless, elements from all three measures will be used.

4.2. Overall allocation of reserves for selected countries

The distribution of official reserves can be vividly and eloquently portrayed in figure 1. In that, one may observe the historical evolution between 1948 and 2010 of the share in total world reserves of thirteen selected countries. All forms of officially held reserves are taken into consideration and gold is estimated in market rates for all years, rather than taking the historical cost. The figure captures the whole picture of the post-WW II period in reference to official reserves and to the selected countries. Hence, some series that are negligible, like the ones of the ECB (below China, dark shadowed) and of South Africa (on top), were included only to secure the reader that they are indeed negligible. The point of the figure is to provide with a general overview of the basic trends. Each country is treated separately in more detail below.

Note that the series in the figure are cumulative so that the upper series indicates the share of all thirteen countries to the total. Each country's share accrues if one subtracts the lower point of the series from the upper.

Having said that, one may draw various observations. First, in the beginning of the period under examination that starts immediately after the war, these thirteen countries accounted for the three quarters of total world reserves, while at the end of the period they ended up accounting for only half. The group reached a minimum of one third in 2000.

As it is evident from the figure, after WW II the vast majority of international reserves was held by the US. Apparently, in 1948 the US was holding more than half of total official world reserves. During the Bretton Woods, the US reserves were depleted to a large extent, while other major capitalist countries, like Germany and France, have seen their share of total world reserves rising. It will be shown below that this redistribution was also a process of transformation of official reserves.

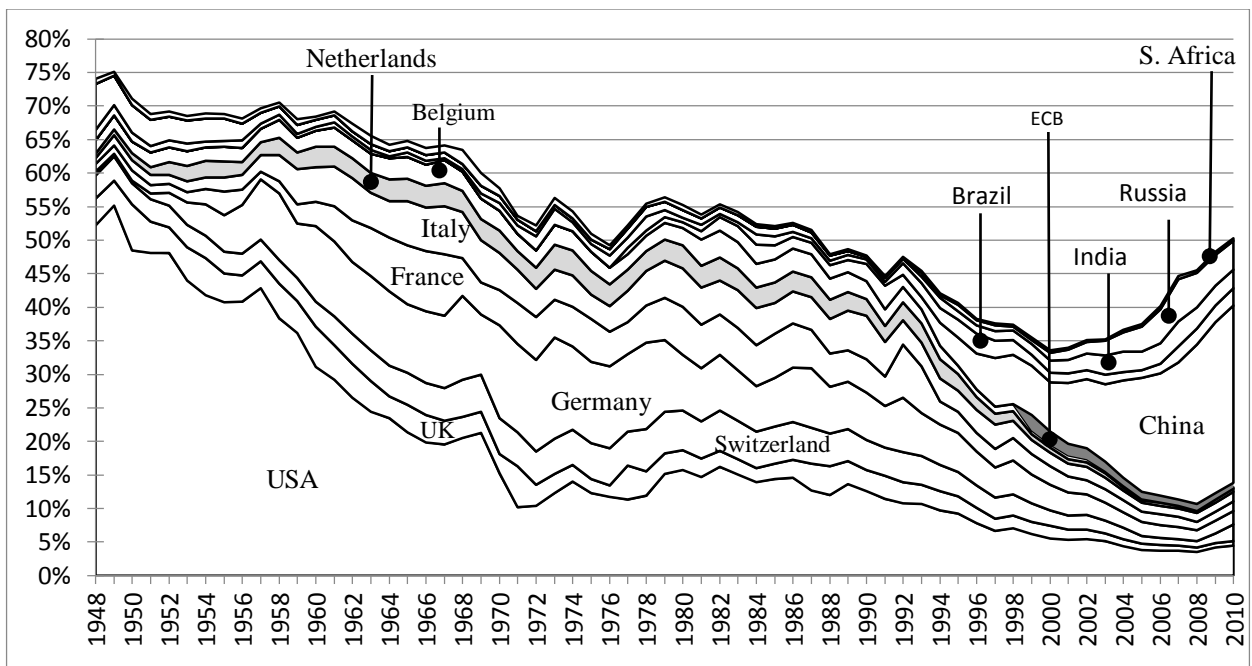


Figure 1 Share in world reserves, all forms, 1948-2010, selected countries. Source: IMF, 2012a; 2012c; own calculations.

From the establishment of the quasi-world money standard onwards, in the early 1970s, we observe the official reserves of all issuers of quasi-world money collapsing. At the same time, a series of other countries started accumulating reserves, with China leading the way. What is argued essentially here is that international hoards have been systematically depleted from major capitalist countries, and hoarded from dependent in the imperialist system countries, with China leading the way. The process in Europe was accelerated by, and underpinned, monetary unification. This process has been prominent in the last three decades and materialized through capital mobility, on the one hand, and the features that quasi-world money lent to the IMS, on the other. In turn, this process has inflamed capital mobility in a world scale and supported, if not broadened, the function of IMS.

Hence, figure 1 reveals a key finding, namely that the counterpart of hoarding from dependent countries is dehoarding from major capitalist countries that issue quasi-world money, and because of that.

Rodrik (2006), in a very insightful paper, observes that the foreign exchange of developing countries “stand at levels that are multiple of those held by advanced countries (in relation to their incomes or trade)” (p.255). The problem here is not so much that Rodrik doesn’t take into consideration the gold component of international reserves, but that he doesn’t observe that the reserves of advanced countries are actually falling. The reason that leads him to consider the reserves of advanced

countries flat and slightly rising is that he incorporates Japan in the group; but Japan is an outlier, and the only one.

Therefore, the figure implies that the so-called reserve accumulation, namely, the hoarding process that many developing countries have experienced, has as a counterpart the process of dehoarding from major capitalist countries and it is not the mere result of a general rise in international reserves although the latter seem to have risen generally, at least as a percentage of world's GDP, misleading as this measure might be. From 3.8 percent of world GDP, world reserves have risen to 15.3 percent (IMF, 2012c; 2012d).

4.3. The accumulating dependent economies

It could be said that the characteristic figure is the following and belongs to China. It depicts the total reserves of China in months of imports and it is cumulative. The basic observations though are the same for all the examined countries and will be summarized now. First, there is a clear opposite tendency between the two main components of the reserves, namely gold and foreign exchange; the percentage of gold is falling persistently and after the 1990s it seems negligible. This holds even for South Africa that is a prominent gold producing country. Further, the parts of reserves that correspond to allocated SDRs and the position in the IMF are negligible, for all countries and all measures. In most figures they are hardly observable, squeezed between the other two.

Second, total reserves are above the three months threshold for the whole period and they skyrocket in the 2000s. This is particularly true for China, Brazil and India, while South Africa and Russia are below the 3-months threshold before the 2000s. Nevertheless, this finding for South Africa and Russia is mostly related to high imports rather than low reserves.

Moreover, third, the process of keeping high and rising reserves is not the result of the Asian Tigers' crisis. Russia is the only country that starts accumulating reserves after the crisis, but this is because of the particularity of this country that changed its socioeconomic system in the early 1990s. All the other countries present certain volatility in reserves that follow shorter or longer cycles before the early 1990s. Before that, they keep high reserves but they seem them deplete in various instances that are related to various crises. After that, and well before the crisis of

1997-8, the accumulation of reserves is uninterrupted. For China, the year is 1992; for India and Brazil, it is 1990.

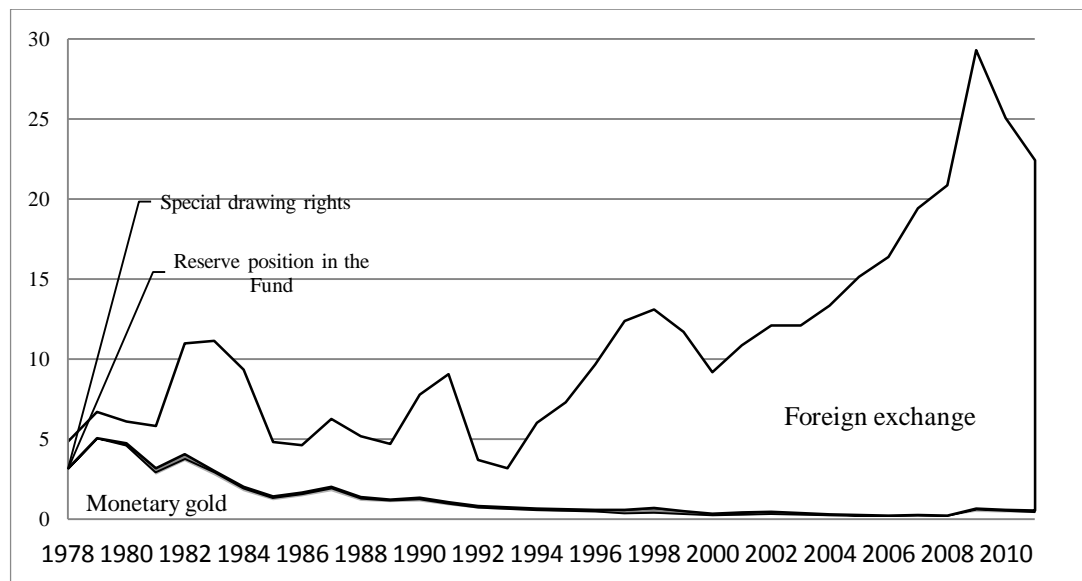


Figure 2 Official reserves of China in months of import, by form, 1978-2010. Source: IMF, 2012a; 2012c; own calculations.

The results are the same if the other two measures are considered, namely reserves over GDP and over FDI. In terms of GDP, the picture is the same as before. The rising trend is evident, although there is significant divergence for the countries of the sample. It is interesting to note that China's reserves are rising since 1980. Of course, the trend seems flat due to the sharp rise after the 2000. There is an evident regime break that is related to the Asian Tigers' crisis of 1997-8 and is discussed widely in the literature (see, for example, Cheung and Ito, 2008). Nevertheless, from 1980 to 1990 total reserves over GDP have more than doubled for China. It should be stressed that China was holding in 2010 almost half of its huge GDP in international reserves (48.95 percent) and Russia was keeping the same year 60 percent. India, more modestly, was holding 18 percent and Brazil 13.5 percent.

In terms of FDI, the results are poor due to bad data quality, with the exception of China, but, where available, the trends are the same for all countries. The next figure portrays the reserves in terms of realized direct investment in China. The falling trend of the golden part of reserves is verified here as well. It is worth noting that even at its lowest point, in 1993, the reserves were fully covering all realized foreign direct investment. Of course, this is only one of the purposes of international reserves.

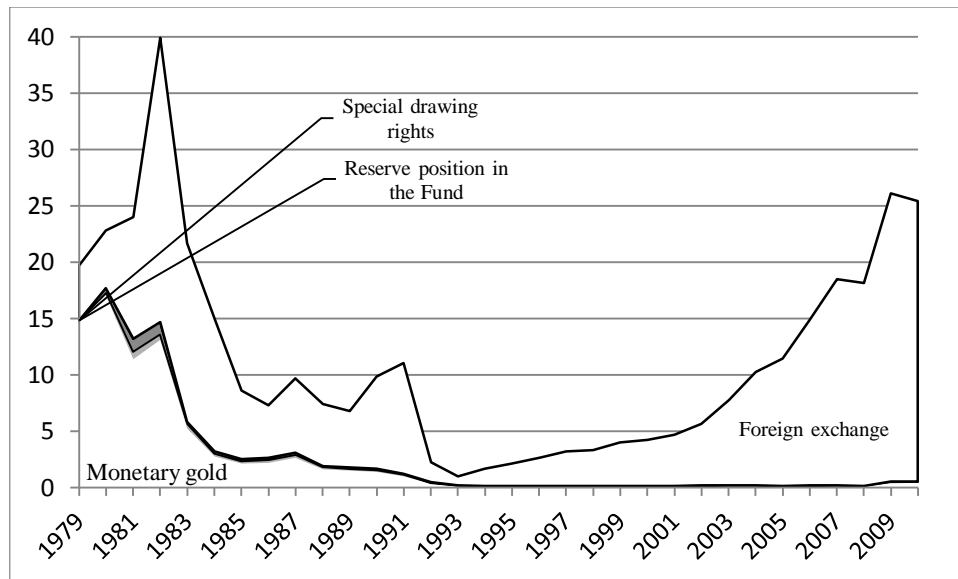


Figure 3 Official reserves of China as a share of FDI, realised value, by form, 1979-2010. Source: IMF, 2012a; 2012c; MOFCOM, 2013; own calculations.

The surge in the reserves in terms of FDI in the early 1980s might be a product of FDI itself. There is a short boom in FDI in the years 1978 to 1981; it declined for 4 years and then it surged after 1985. The sources of this FDI were the major capitalist countries and the bulk of it⁷ was flowing between them. Still, the mass of capital that flows into the developing countries was critical, especially if seen in relation to the size of those economies (Graham and Krugman, 1993). FDI by itself contributes directly to the creation of hoards of quasi-world money. Capital flies in, in the form of quasi-world money – USD bank deposits primarily or other quasi-world money bank deposits, like DM, British pounds and, lately, Euros. This is exactly one of the things that quasi-world money can do; exit the country of origin as a form of capital. The central bank of the host country will absorb this money in exchange for central bank credit money declared locally as legal tender which is demanded for the investment.

In the case of China, the trend is clear cut. FDI flows increasingly in China during the 1980s, and rises from \$57mn in 1980 to \$3.5bn in 1990. The same holds for the other countries, although there were some breaks, due to historical specific reasons. The main argument is that capital has flowed persistently from major capitalist countries that issue quasi-world money, into developing countries from the late 1970s, which is reflected in the acceleration of FDI in these countries.

⁷ G-5 was host to 57% of this FDI and the OECD developed countries absorbed 81%. Of the share of 19% of developing countries, an overwhelming majority went to a small group of countries: Brazil, Mexico and the Asian newly industrialized countries (Graham and Krugman, 1993).

Let us now examine the issuers of quasi-world money and see whether the leading capitalist countries are also holding so high reserves; whether they have abolished the gold component of their reserve and whether they seem to be anxious in covering both the incoming capital in the form of FDI and the imports of commodities.

4.4. The quasi-world money issuers

Starting with the United States, the figures that correspond to the three measures are almost identical. Here, we reproduce the one that corresponds to the months of imports, because it is covering all the period from 1948 to 2010. Figure 4 is almost the opposite from the ones that come from the developing countries for the same measure; all trends are reversed completely. Specifically, the US has never kept any foreign exchange, and her reserves have been gold throughout the period. While in the beginning of the period, the US keeps reserves as high as 30 months of imports, this is misleading because at the time her reserves were huge and she could not import practically anything from anyone; therefore imports were really low. Moreover, the two peaks that appear in 1974 and 1979 signal the delimitation of the fixed rate of gold to dollar and its boom respectively⁸.

⁸ Nixon's declaration was made in 1971 but until 1973 the rate of gold to dollar was highly regulated and officially settled. It was finally let completely afloat in 1973 (see below in this section). Yet, the boom came in 1979. Both peaks coincide not accidentally with the two oil crises of the 1970s (see Tew, 1988). Remember that the ratio (reserves to imports) is calculated through dollars, and hence the peaks.

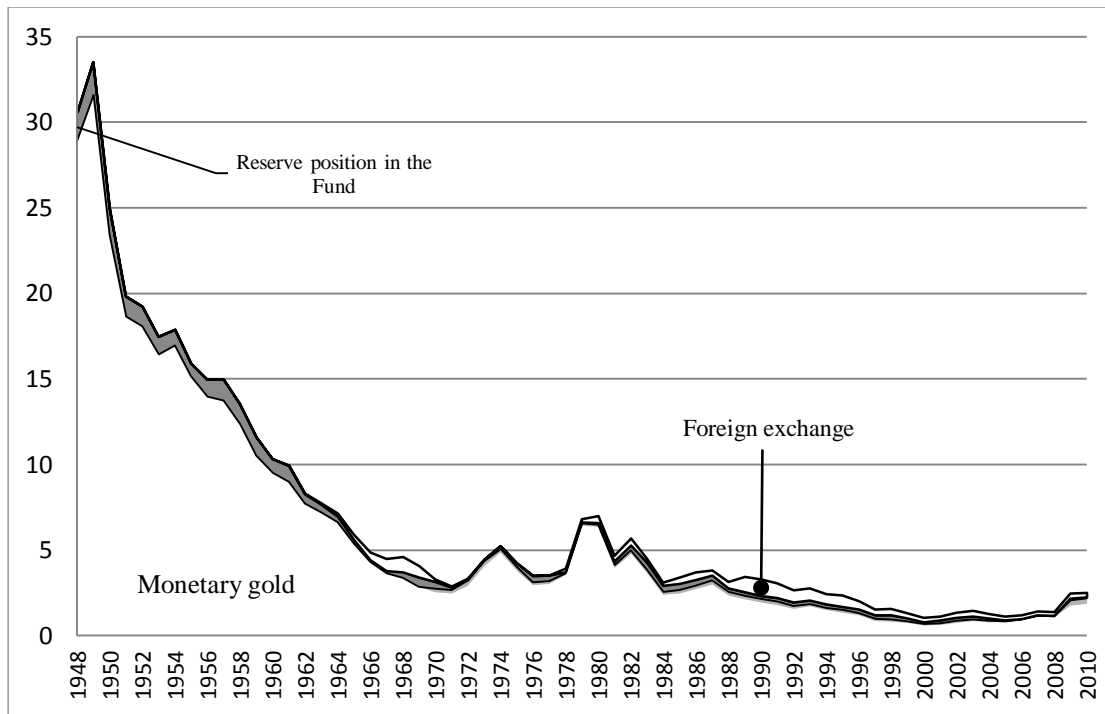


Figure 4 Official reserves of USA in months of import, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

The same holds when the other two measures apply. For FDI, there is data since 1980, when the ratio was two, but it fell to one, only one year later, in 1981. The ratio is falling consistently and uninterruptedly, and was before the crisis at the level of 10 percent. In terms of GDP, and prior to the crisis, the level of reserves, mostly gold, were fluctuating around 2 percent.

Since the reserves of the US are mostly gold, we should examine their volume as well. Although the US started auctioning its gold after the collapse of Bretton Woods, in an attempt either to convince about her intention to get rid of it, or to satisfy the sudden famine for gold that followed the withdrawal of the barriers in gold holding, finally she sold only a very small part of her gold reserves and the latter remain almost unchanged since 1979 at the level of 264 million ounces. They now stand at 261.5 million ounces. Almost half of it is stored in Fort Knox, a city of 40,000 people – soldiers, family members and civilian employees – that guard it. Finally, the US keeps her gold at book value of \$42.22 per ounce, which was the last officially assigned and guaranteed rate between gold and the dollar, before the complete deregulation of that rate in February of 1973 (Tew, 1988).

The case of the US is an extreme example, but the trend is the same for all quasi-world money issuers. Of course, the component of foreign exchange is not inexistent, as in the case of the US, but is still small. Overall reserves are falling

measured against all possible measures and the foreign exchange part is falling faster, depending on the strength of the quasi-world money.

The case of Germany is illustrative for various reasons. First, it was the country with the highest reserves after the US in the Bretton Woods era. Then, it is a surplus country and one may think that, as such, she will see her reserves rising, especially in foreign exchange. Far from that, Germany is differing from other countries only because it has a slightly larger foreign exchange component, which is shrinking. The accumulation of US dollars in the 1960s and her role in the Snake, contributed also to this difference.

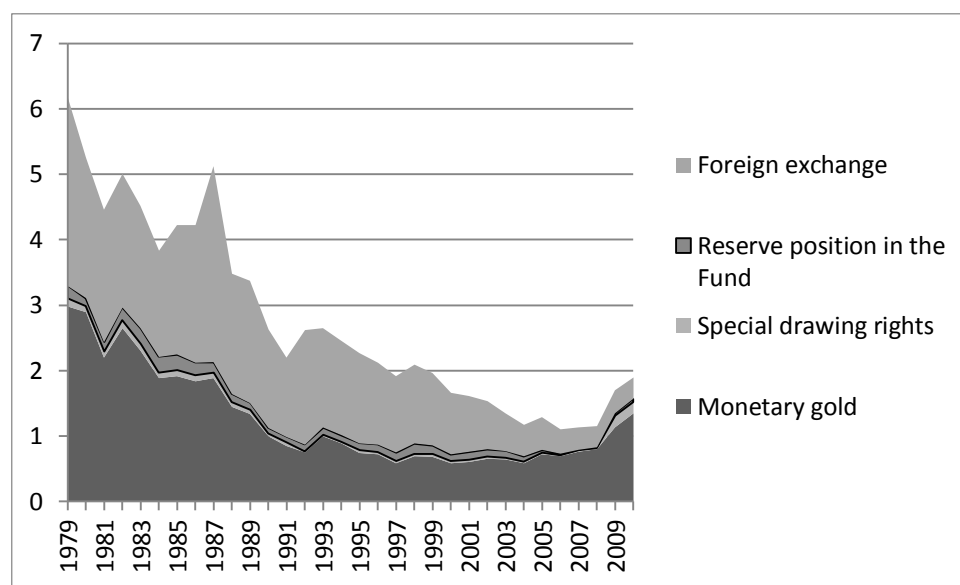


Figure 5 Official reserves of Germany in months of import, by form, 1979-2010. Source: IMF, 2012a; 2012c; own calculations.

Germany was holding quite high reserves and she went on depleting them, like all Eurozone countries. Both figures 5 and 6 are very typical for all the Eurozone countries in the sample. Moreover, from these figures it is evident that the process is starting in the late 1970s, for all quasi-world money issuing countries, irrespective of their balance of payments or other difference.

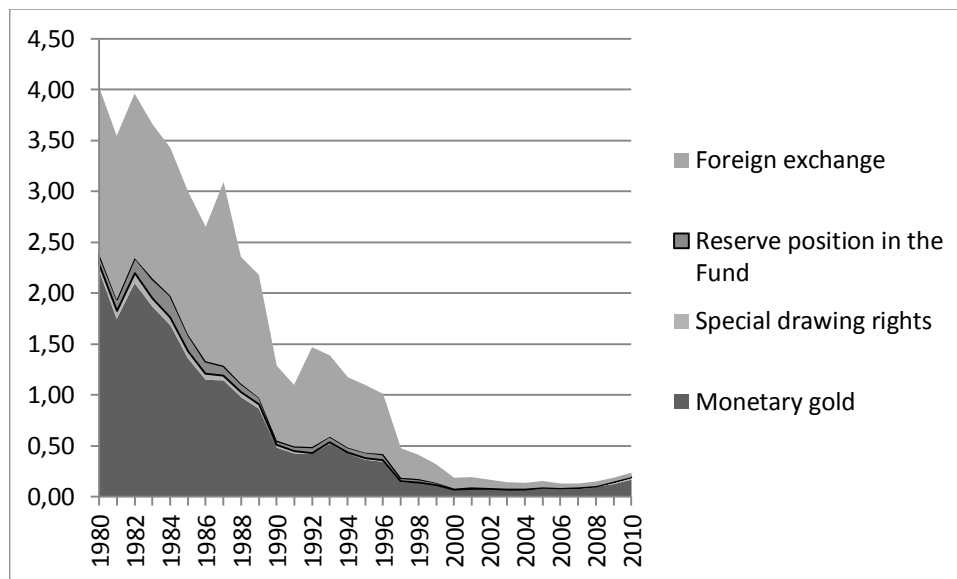


Figure 6 Official reserves of Germany as a share of FDI, by form, 1980-2010. Source: IMF, 2012a; 2012c; own calculations.

Especially in terms of FDI, Germany was holding high reserves even as late as the mid-1990s and she managed to eliminate them only after the introduction of the euro. This is the case for all Eurozone countries that are examined here, while the non-Eurozone countries of the sample, namely the UK and Switzerland, still have part of their small reserves in foreign exchange.

Japan seems to be following the same trends and levels until the mid-1980s. Thereafter, its reserves start rising and, especially after 1992, they skyrocket to unprecedented levels. This response is indisputably relevant to the structural crisis of the Japanese economy (Lapavitsas, 1997), but it should be related also to the weakness of the Yen as quasi-world money (Tavlas and Ozeki, 1992). Using COFER as a proxy, claims in Japanese Yen are falling as a share both of total and of allocated claims, almost throughout the period that there are available data, namely from 1995 (6.8% of allocated claims) to 2009 (2.9%), while rising modestly in 2010 (3.6%) and 2011 (3.7%). Thus, Japan is an outlier.

To conclude thus far, the trend of falling reserves is followed by all major capitalist countries, with the exception of Japan after 1990, no matter if they have persistent surpluses in their current account, like Germany, or persistent deficits, like the US. It is a process that relates to the form of quasi-world money and its functions. Even if more leading capitalist countries are taken into consideration, the trend is evident and starts in the late 1970s.

This trend unfolds in the interior of the group of advanced economies. Here, the so-called G-10⁹ was considered only for the foreign exchange component of reserves. In 1980 the reserves of G-10⁺ accounted for the 85 percent of international reserves minus gold of all advanced economies, while in 2008, even with Japan included, the same ratio was only 54 percent.

If Japan is taken out from both sides (G-9⁺ over advanced economies minus Japan), the trend is even more significant and it is depicted in figure 7. The figure portrays the result of the ratio of the reserves (only foreign exchange) of G-9⁺ to the reserves of all OECD advanced countries. Until the early 1980s these 10 countries were holding over 70 percent of all advanced countries but Japan. Thereafter, their share is falling to as low as 14 percent before the current crisis.

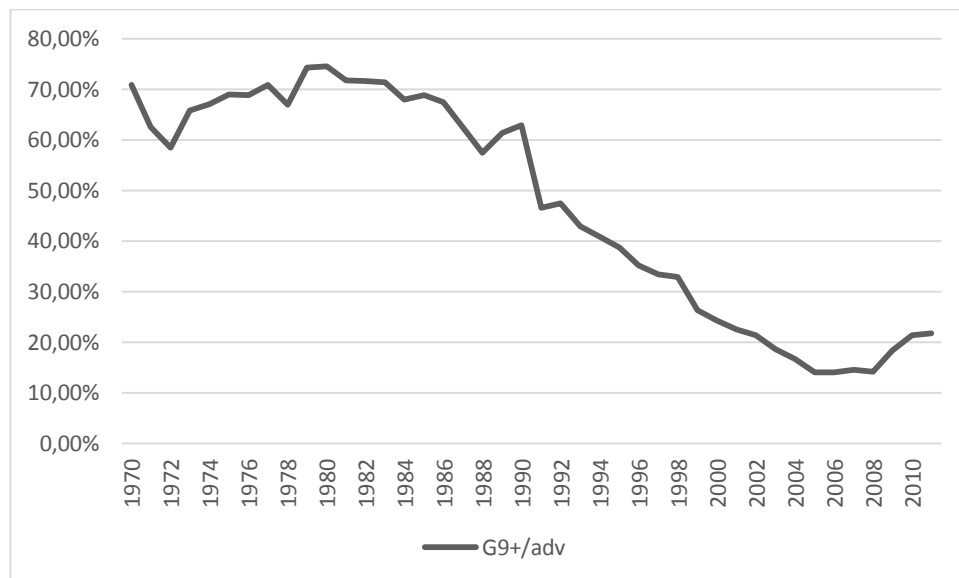


Figure 7 Share of G-10⁺ minus Japan total reserves minus gold, in the total reserves minus gold of all advanced economies. Source: IMF, 2012c; own calculations.

The same holds if one narrows the sample further. For example, the collective reserves of the US, the UK, Germany, France and Germany as a share of G-9⁺ fell from 70 percent in 1980 to 44 percent in 2011. Apparently, foreign exchange change hands, not only from the vaults of advanced capitalist countries to those of developing countries, but even from the core of the advanced countries to the periphery.

Table 1 below leaves no doubt. It shows the absolute level of reserves (minus gold) for the G-10⁺ minus Japan for a selection of years. The total reserves minus gold of the UK, Germany and France stood in 2006 to the level of \$40bns each. Those of the US, for the same year, were less than \$55bns, while the current account deficit of

⁹ The group of ten comprises the US, the UK, Germany, France, the Netherlands, Japan, Canada, Italy, Belgium, and Sweden – plus Switzerland (Tew, 1988).

this country was \$800bns and imports of goods were standing at \$1.8tr. Some countries have even seen their reserves shrink in absolute terms, since 1980. The US, Germany, Italy, Belgium and the Netherlands were keeping in 2006 fewer reserves, in absolute terms, than they did 16 years before that.

Country / Year	1980	1990	2006
United States	15.60	72.26	54.85
United Kingdom	20.65	35.85	40.70
Switzerland	15.66	29.22	38.09
Germany	48.59	67.90	41.69
France	27.34	36.78	42.65
Italy	23.13	62.93	25.66
Netherlands	11.65	17.48	10.80
Belgium	7.82	12.15	8.78
Sweden	3.42	17.99	24.78
Canada	3.09	17.85	34.99

Table 1 Total reserves minus gold of major capitalist countries, \$ bns, Source: IMF, 2012c; own calculations.

5. Critical analysis of the findings

There have been major changes in relation to reserves and in comparison with the Bretton Woods era. First, when reserves in all forms are considered, the cardinal holders have changed. They used to be the strong, leading capitalist states and now, the strongest a state, the less total reserves it maintains and therefore the US keeps the least. On the other camp, the biggest reserve holders are not the weakest countries, but the potential candidates for issuing quasi-world money. China is leading the way and Russia is following suit. This should be examined against historical evidence which implies that potential issuers should hold substantive total reserves, with the component of gold being prominent. This is an experience coming also from the euro project in two occasions, namely in the set-up of the ECU in 1979 and in the launch of the ECB in 1999.

At this point, thus, it seems imperative to turn to the form of reserves. Reserves are not homogeneous because they are formed through a series of channels and they are destined to accomplish multiple tasks. The most interesting part is that reserves are constantly changing in form; it is a mechanism of transforming money from one monetary form to another or to non-monetary forms. This transformation takes place exactly because of the multiplicity of sources and destinations of reserves and is undertaken by special departments in the relating institutions. The process of transformation itself, reserve management, has its own dynamics that are beyond the scope of the analysis here.

Let us turn to the final forms in which reserves are kept. In this sense, the mother bond is considered as a final form, although initially quasi-world money was accumulated, mostly in the concrete form of bank deposit. This distinction is put forth because statistics provide data for outstanding amounts at the end of the period and thus hide the transformation process itself. For example, if intervention is about to take place by China, in order to keep Yuan undervalued in terms, say, of the US dollar, the People's Bank sells (releases) Yuan and buys (collects) US dollars. The release of Yuan is easy; it could come from new issuances, but let us assume here that the bank utilizes part of her stock of Yuan coming from minimum reserve requirements against the domestic banking system. The potential buyers could be American multinationals that invest in China and need Yuan. The US dollars that are collected are mostly in the concrete form of bank deposits. These deposits are consequently transformed in US Treasury bills; the bank deposit is now property of the previous holder of the mother bond; potentially the same American multinational. At the end of the year, the stock of securities will be higher for China, although her reserves will have changed from the form of local central bank credit money with legal tender, in the concrete form of Yuan bank deposit, to quasi-world money and, from there, to mother bonds. All this transformation process is lost in the statistics of end-year outstanding stocks.

An important case is the one where transformation cannot take place, i.e. when the chain is disrupted. Evidently, the weak link is that between quasi-world money and bonds, on the one hand, and that between quasi-world money and domestic credit money with legal tender. In the past, they have both been contested, although the issuer was to blame at the end of the day and not the forms and their deficiencies.

Having said that, reserves appear to take the following five final forms: gold, mostly in the concrete form of bullion and to a lesser extent that of coin; quasi-world money in the concrete forms of banknotes and bank deposits; securities of issuers of quasi-world money (mother bonds); IMF position, namely a claim that accrues from the deposit in a supranational institution; and SDRs, the credit money that is issued by the IMF.

The IMF position is not a special form of money and therefore it will not attract our interest further. It is the equivalent of a deposit to the ECB by a Eurozone member central bank. These deposits were made in gold and national central bank credit moneys with legal tender, some of which were quasi-world moneys. These gold

deposits bring the IMF third in the listing of the biggest gold holders. In a sense, the IMF functions thus partly as one supranational trustee of gold reserves.

As for the SDRs, these would require special treatment. In principle, this is a form that was designed to become universal quasi-world money, issued by the IMF with the trustworthiness of all its member states. It was established, like the first attempts of the euro, in close relation to gold, and in particular one SDR was equivalent to 0.888671 grams of gold, as late as 1978. The idea was “to establish a global currency system based on the SDR. While it was very desirable, we have to admit that failed; at least for the moment we have not seen any movement in that direction” (Yoshimura, 2000, p.51). Since the SDR is a very small part of countries’ reserves, we may omit it without loss of accuracy.

Therefore, we may assume that reserves tend to take mainly the monetary forms of gold and quasi-world money and the non-monetary form of mother bonds. Under this light, it is easily understood why the quasi-world money issuers hold quasi-world moneys and mother bonds in negligible quantities that are inversely proportional to the strength¹⁰ of their quasi-world money. The strongest the money, the less the foreign exchange component of the reserves of its issuer. The US again, has the smallest foreign exchange component. The reason is straightforward and relates both to the source and the scopes of hoards. The US exporters are not getting paid in anything else but dollars and there is little scope for the US to intervene and manipulate the exchange rate of the dollar by using her foreign exchange reserves. If she wishes to do so, she can simply use her monetary policy.

In general, having examined the nature and emergence of quasi-world money, the part of this form in international reserves of any country is not particularly troubling. What seems still troubling is the golden part, especially since the countries that issue quasi-world money hold most of their reserves in gold and the golden part of their reserves rises. Not only that; these countries keep the highest reserves in the world with the US being first in the list and the Eurozone countries following suit.

On the contrary, the emerging economies that have seen their reserves skyrocket hold mostly foreign exchange and their gold component shrinks throughout the period and is today negligible. The reasons for accumulating quasi-world money

¹⁰ Measuring the relative strength of various moneys is a complex issue. An index could be COFER (IMF, 2012b). The problem with COFER is that since 2000 the component of unallocated reserves is consistently rising from slightly above 20 percent to almost 50 percent in 2012.

in the first place and its mother bonds consequently, as well as their uses, are apparent, but it is worth summarising them here. The mother bond is the closest to quasi-world money in normal times, and quasi-world money itself is the best form if money is to exit the status of hoard.

Therefore, foreign exchange should be kept to anticipate sudden massive outflows of capital and avoid crisis that would induce output losses and investment contractions. “Absent speedy and credible help from an international lender of last resort, rapid outflows of this type would be difficult to manage without a large war chest” (Obstfeld, Shambaugh, and Taylor, 2008, p.6). Hoards do function in this form as self-insurance (Aizenman, 2008) and in the evolution of the current crisis they have proved indispensable for developing countries in absorbing the effects.

The developing economies, and especially some of them, have been restructuring their economies in the last 30 years, raising their productive capacity. This restructuring has definitely been accelerated by the overthrow of the USSR and the so-called east-bloc; capital has managed to force its way into new countries (“virgin markets”) and to deepen its penetration in some others, like China. FDI has played an important role in the whole process¹¹. A third significant component of the capitalist restructuring of those countries and a factor that makes them very attractive as a destination for FDI is a big mass of potential labourers from rural areas.

In any case, the fact is that developing countries have raised their productive capacity especially in the “traded goods sector”, namely in the industry of commodities that are demanded abroad, and in particular in the very countries where FDI originates. Therefore trade flows have risen and many developing countries have gathered huge trade surpluses. Note also that part of these exports refer to raw materials, primarily but not exclusively oil. Russia, for example, is and will be an oil exporter (Dolley et al., 2003).

From the perspective of this paper, the case of a sharp rise in the price of exported commodities has the same effects as a rise in the volume of exports. The most notable case is, of course, oil exports and especially the sharp rises in the price of oil twice in the 1970s.

Persistent trade surpluses, accompanied by capital inflow lead inevitably to persistent current account surpluses and accumulation of foreign exchange. The two

¹¹ “Rapid industrialization requires a large inflow of direct investment; [...]” (Dooley et al., 2004a, p.6).

oil crises of the 1970s in particular resulted in huge hoards of dollars in the countries of Middle East and elsewhere. Since 1990, China, India, Brazil, and Russia are hoarding foreign exchange through this channel: exports rise, imports do not keep up; these countries sell more than they buy and hoard the residual.

Moreover, after the collapse of Bretton Woods, the stability of the exchange rate had to be managed, primarily through central bank intervention. No matter what scheme a country chose in the first two decades of the post-Bretton Woods era, the necessity of foreign exchange was evident. In the case of pegging the currency to the dollar this is straightforward. In order for the developing economies to stabilize their currency the central bank had to intervene, buying or selling USD (Eichengreen, 1996).

This process has been emphasized through the crises of the IMS that are known as currency crises¹². “Currency crises [...] have become a defining force for economic policy in much of the world” (Krugman, 2000, p.1). Yet, from the analysis above it is clear that this force has asymmetric effects in leading and dependent countries, and even among leading capitalist countries. The US that issues the quasi-world money *par excellence* does not face the same constraints as a developing country that has to defend the ability of its money to transform into quasi-world money in general, and with a certain exchange rate in particular.

In the case of export oriented countries, and to the degree that developing countries’ exports were gaining in significance, supporting the dollar and keeping it, if possible, overvalued relative to their currencies became a widespread strategy. The reasons that lie behind this strategy are multiple and quite clear. On the one hand, developing countries gain competitiveness through an undervalued currency, since their commodities are relatively cheap. On the other hand, keeping the dollar strong, sustains capital flows from the US to them. The way of supporting the dollar is through open market purchases. This intervention is resulting in huge hoards of US treasury bonds and in the return of quasi-world money to its issuer.

“The development strategy of fixed exchange rate “trade account” countries requires rapid export growth and large inflows of direct investment in order to absorb rapidly an initial stock of underemployed labor. The primary policy

¹² “Currency crises have been a recurrent feature of the international economy ever since gold and silver coins were replaced by paper; [they, GL] played a large role in the economic turmoil of the interwar era, in the breakup of Bretton Woods, and in the early stages of the Latin American debt crisis of the 1980s” (Krugman, 2000, p.1).

tool is a real exchange rate that is undervalued by conventional measures and accumulation of international reserves” (Dooley et al., 2004a, p.2).

Finally, intervention is made for the support of the exchange rate of the dollar, so that already formatted hoards are not devalued. This is an incentive from which straightforward political fetters emerge. This results in even more hoards.

Hoards of US dollars or other quasi-world moneys find their way back to their issuers, namely to the major capitalist countries. “In these circumstances, the safest way for developing countries to accumulate dollars has been to purchase US public debt” (Lapavitsas, 2009, p.15). Aizenman and Jinjark (2009) call this an enigma of the “poor” financing the “rich”¹³. Yet, there is no enigma to this per se; the return of quasi-world money home seems natural, in the current architecture of the IMS¹⁴.

In conclusion, the processes that lead to reserve accumulation are related to the export of capital and trade, that is, to flows of capital in both the money form and the commodity form. These processes distinguish countries between those that have surpluses and those that have deficits in the capital account and the trade balance correspondingly. Despite that distinction, quasi-world money issuers do not accumulate reserves because of their being issuers of quasi-world money. The following three processes are specifying this proposition and account for the different pattern between issuers and non-issuers of quasi-word money. First, the intervention that is necessary for the management of quasi-world money, demands building reserves in that form or some other form that can immediately turn into that form. The issuers have by definition immediate access to quasi-world money and they need not build such reserves. Second, initial inflows are transformed from the monetary form of quasi-world money into its mother bond. Third, the occasion of massive sudden outflows affects asymmetrically issuers and non-issuers because the former are more immune and even when it occurs to them, they may finance it by issuing quasi-world money or mother bonds. Therefore, the differentiation in pattern is not grounded in the inflows of money in one country, but in their transformation, which follows.

¹³ “Interestingly, the impact of US demand variables is larger on the current account of developing countries than the current account of OECD countries, supporting the enigma of the poor economies financing the rich ones” (Aizenman and Jinjark, 2009, p.431).

¹⁴ “In contrast to the usual assumption that capital “should” flow from capital rich countries to capital poor countries to equalize rates of return, we reach the opposite conclusion. [...] a successful development strategy generates net capital flows from poor to rich countries. [...] this is what it means to be the “center country” or the provider of the “reserve currency”—it is simply the country that is the best depository and manager of collateral” (Dooley et al., 2004a, pp.2-3).

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