The contemporary monetary role of gold

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Introduction

“Nobody could ever have conceived of a more absurd waste of human resources than to dig gold in distant corners of the earth for the sole purpose of transporting it and re-burying it immediately afterwards in other deep holes, especially excavated to receive it and heavily guarded to protect it” (Triffin 1960, p.89)

C’est la vie, Mr. Triffin; capitalism is absurd. And the worst is that wastes of human resources like the one mentioned above emerge without needing anyone to conceive them. It is almost trivial to note that problems concerning the International Monetary System (IMS), world money that functions in the world market and the monetary role of gold are all children of capitalism in the phase of imperialism. Still, this note won’t provide us with the contemporary monetary role of gold. This paper focuses in the recent history of gold, attempting to extract useful conclusions and questions out of several seemingly absurd phenomena.

The story begins with gold leaving the sphere of (domestic) circulation as a consequence of its nature as medium of circulation. Additionally, it is not used as collateral for domestic paper-credit money, as it has never been. Gold withdraws from the internal market as final means of payment, as the credit system expands and the banknotes of the central bank retain their ability to circulate even in the crisis, “because the nation with its total wealth backs [it] up […]”2 (Marx 1981). This process had well developed before its official demonetization in 19763 and the subsequent amendment of the Articles of IMF.

Up to that point, gold’s monetary role was to anchor the IMS by backing the US dollar and function as final means of payment, in rare necessary occasions. Backing the US dollar was of dual character: first, gold guaranteed the function of the US dollar as world money, since any dollar balances accumulated abroad would be convertible to gold. As strong as the dollar might have been, even in 1944, it could not impose itself to the world market without the gold patronage. Second, gold provided dollar with a value in the world market that the latter could not assume by

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2 Marx is referring here to the case of the Bank of England. It is implied here that this is the case for all advanced capitalist economies. The full quotation follows.
3 Jamaica meeting of the IMF Interim Committee (see Tew 1988)
itself. The last officially managed relation of gold and the US dollar was $42.22 per ounce – keep this figure in mind. In this sense, the US dollar, during the Bretton Woods could express exchange value in the world market and give its form to world prices. In this dual sense, gold was altering the quasiness of contemporary world money, which is national credit money with legal tender with no official backing from gold or other commodity.

After the collapse of Bretton Woods, the patronage relation was severed but the patron stayed where it was, namely in the same vaults of the major imperialist countries and the IMF, as a “barbarous relic”, in Keynes words. Yet, this cannot imply that inertia, externalities or statutory requirements were driving gold’s persistence, as Bordo and Eichengreen argue (1998). Although the literature is very poor and the issue is very perplexed, requiring thus further research, an approach of the contemporary monetary role is attempted here. It is argued that gold functions as hoard to back quasi-world money. Seemingly, and certainly officially, gold is no longer providing for a value anchor for national credit money in the world market, be that the US dollar, the euro or other. But, apparently it guarantees the ability of the latter to function as such. If the huge US gold reserves, kept motionless for 30 years are not good proof of that, then the establishment of the ECB provides with enough material to argue that much.

Far from solving the monetary role of gold, this paper focuses on the trivial absurdities of gold reserves which nonetheless do not attract the attention of monetary theory. The current crisis has provided further material and will continue doing so as it unfolds. The matter at hand acquires further importance in times of upheaval. This is because gold is money inasmuch as it isn’t. In real life phenomena are not observed in their pure form, opposites come together and everything exists in development and change only. The framework employed here draws heavily on the Marxist theory of money and the theoretical contribution of Anikin (1983) concerning the monetary role of gold.

4 In his Monetary Reform (1924)
Gold as money

The most easily spotted monetary role of gold in nowadays is that of hoard. This can be observed in the balance sheets of central banks and especially central banks of imperialist countries. Actually, “[…] gold is the only commodity held as reserves by monetary authorities” (Tcha 2003). It is peculiar though, and should be further examined, that gold, the commodity money par excellence, is still alive, 39 years after President Nixon’s proclamation, in August 1971 in an altered, but nonetheless monetary, role. This monetary role of gold is the issue at hand in this paper.

Before moving further, it should be noted that the monetary role of gold is almost exclusively concentrated to the sphere of world market, having left domestic circulation. A major event in this process that had long started was WWI. It was then that gold was heavily withdrawn from circulation and concentrated to the Central Banks; and these banks have not released it ever after. More than 90% of the monetary gold was held by central banks and governments in the early 1930s (Keynes 1971). This move was necessary for gold to be delegitimized as means of circulation, a function that could be well served by symbols already.

“[…]. almost throughout the world, gold has been withdrawn from circulation. It no longer passes from hand to hand […]. Gold is out of sight […]. But when gods are no longer seen in a yellow panoply walking the earth, we begin to rationalize them; and it is not long before there is nothing left.” (Keynes 1971, p. 260)

Further measures were taken to economize on gold in the interwar period. By reducing the gold cover for domestic currencies, gold was freed for international use and in the end of WW II it was concentrated in the US, either to be secured against the threatening situation and finally the outbreak of war, or as a result of the US surpluses before and during the war. Until 1944, the US held 60% of the world gold stock (Hansen 1965).

The role of central banks was essential in this process. The challenges of imperialism dictated the establishment of central banks in the countries that didn’t

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5 “The nearest thing to gold seen as money are the central reserves belonging to governments or central banks.” (Anikin 1983)
have one\textsuperscript{6} and the transformation of the already existing into a banker’s bank and a government’s bank. With the backing of the state, the central banks gradually monopolized the issuance rights of domestic legal tender (see selectively Kindleberger 1993, Itoh and Lapavitsas 1999).

“[…] the universal disappearance of gold coin from active monetary circulation has deeply modified the significance of Central Bank liquidity. Reserves need no longer be held to convert bank deposits and paper currency into legal tender for purposes of domestic circulation.” (Triffin 1960, p. 32)

The “disappearance of gold coin” and the mere circulation of tokens with legal tender – coins the nominal value of which has no reference to their metallic content, domestically, derives by the function of money as medium of circulation. Circulation is not only indifferent to the material of the medium of circulation, but transforms commodity money, gold, into a symbol of itself, into a token that can circulate only with the head of some king printed on top of it\textsuperscript{7} (see also De Brunhoff 1976). Even at the time that gold circulated domestically as a coin, its material was potentially indifferent; it was a symbol that the underdeveloped bourgeois state could not just yet replace with something cheaper, or even totally valueless. In circulation, money is condemned to fly away materializing the transformation of commodities and only its quantity matters. Debasement of coins made this reality uncomfortably evident from time to time, and pushed towards the replacement of gold from circulation.

Besides coin, credit money, banknotes, bills of exchange and other, circulate domestically as well. The circulation of the latter was never dependent upon gold reserves and therefore gold was not collateral for paper-credit money. “[bank]Note circulation is just as independent of the state of the gold reserve in the vaults of the bank which guarantees the convertibility of these notes, as it is of the will of the Bank of England.” (Marx 1981) The fact that these notes are no more convertible to gold does not alter the case in the normal course of business\textsuperscript{8}, since “[t]he quantity of

\textsuperscript{6} It is revealing that the Federal Reserve System was established just one year before the outbreak of WW I, in 1913, while the Swiss National Bank was established in 1907.

\textsuperscript{7} “In its role as mere medium of circulation, it can be said about money that it ceases to be a commodity (particular commodity), when its material is irrelevant and it meets only the needs of circulation itself, and no other direct need: gold and silver cease to be commodities as soon as they circulate as money.” (Marx 1973, emphasis in the original)

\textsuperscript{8} “Finally, in a period of crisis, the circulation of bills collapses completely; nobody can make use of a promise to pay since everyone will accept only cash payment; only the bank-note retains, at least thus far in England, its ability to circulate, because the nation with its total wealth backs up the Bank of England.” (Marx 1981, emphasis added)
circulating bills of exchange, therefore, like that of bank-notes, is determined solely by the requirements of commerce […]” (ibid). Thus gold has been replaced domestically as a medium of circulation and it does not function as collateral for credit money.

The function of world money was served best by gold, in the form of bullion and the apogee of gold’s significance as such was during the years of the Gold Standard. The need for such a function of money, in the first place, stems from it being recognizable when leaving the home sphere of circulation. The main point is the universal reflection of the value of commodities that speak different languages. Bagehot claimed that “[t]he advantage in a universal money is not as medium of exchange, […], but as unit of account, in enabling foreigners to understand English price language […]” (Kindleberger 1993, p.69, emphasis in the original).

The content of that function rests not in revealing the differences in the levels of productivity, exploitation and intensification of labour in the production of those commodities; on the contrary, it rests in suppressing those differences so that the norm of value can be expressed in a recognizable form (Marx 1973).

“When money leaves the home sphere of circulation, it strips off the local garbs which it there assumes, of a standard of prices, of coin, of tokens, and of a symbol of value, and returns to its original form of bullion. In the trade between the markets of the world, the value of commodities is expressed so as to be universally recognised. Hence their independent value-form also, in these cases, confronts them under the shape of universal money.” (Marx 1976)

This is exactly why gold had to be in the form of bullion and not in any other form, subject to debasement or any other kind of manipulation.

After the collapse of Bretton Woods, the function of world money was performed by the US dollar (Williamson 1976, McKinnon 1993) the latter having being characterized recently as quasi-world money (Lapavitsas 2009), its quasiness coming from the fact that it carries no value and therefore can only imperfectly perform the measure of value function. The US dollar is primarily national credit money with legal tender, with no official relation to gold, or other commodity, not subsumed to the laws of commodity production, but only conforming to them.

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9 “We should be clear about just what is absurd in the existing system. It is not the free determination of prices on the foreign-exchange market (rates are not freely flexible anyway). The absurdity consists in what those prices are the prices of.” (Yeager 1996, emphasis added)
The question is whether gold’s persistence as hoard is the remnant of a glorious history that is fainting away or a significant service that money cannot do without. In favor of the former view, Bordo and Eichengreen (1998), after noting that “[a] striking aspect of the subsequent system of generalized floating is the continued role of gold”, they argue that simple inertia, network externalities and statutory requirements are the three historical explanations. They go on concluding that “the future is not rosy” for gold and that, such sources of persistence, like the ones mentioned above, “tend to die out over time”.

Contrary to the predictions of the authors, some seven months after they published their views, the countries that formed the European Monetary Union went on buying a significant amount of gold which they provided as dowry to the newly established European Central Bank. Nota bene that these very countries were already big holders of gold reserves. Additionally, the Fed’s tendency to hold gold doesn’t seem to “die out”, while the Chinese appetite for gold seems insatiable, for good reasons. We’ll return to this point in the second part of the paper.

In a Marxist framework, gold hoards come about as the result of the metamorphosis of the commodity, from the commodity form to the money form. “With the very earliest development of the circulation of commodities, there is also developed the necessity, and the passionate desire, to hold fast the product of the first metamorphosis. […] Commodities are thus sold not for the purpose of buying others, but in order to replace their commodity-form by their money-form. […] this change of form becomes the end and aim. […] The money becomes petrified into a hoard, and the seller becomes a hoarder of money.” (Marx 1976) The dominant function of the hoards used to be the adjustment of monetary circulation10.

Nevertheless, to the extent that the means of payment function of money gains ground over the medium of circulation, hoards cease being related to the process of circulation and relates increasingly to credit. “The development of money into a medium of payment makes it necessary to accumulate money against the dates fixed for the payment of the sums owing. While hoarding, as a distinct mode of acquiring

10 “[…] along with the continual fluctuations in the extent and rapidity of the circulation of commodities and in their prices, the quantity of money current unceasingly ebbs and flows. This mass must, therefore, be capable of expansion and contraction. At one time money must be attracted in order to act as circulating coin, at another, circulating coin must be repelled in order to act again as more or less stagnant money. […] This condition is fulfilled by money taking the form of hoards. These reserves serve as conduits for the supply or withdrawal of money to or from the circulation, which in this way never overflows its banks.” (Marx 1976)
riches, vanishes with the progress of civil society, the formation of reserves of the means of payment grows with that progress.” (ibid)

As capitalist relations expand and deepen and the world market becomes the main field of antagonism between capitalists, hoards are increasingly related to the international means of payment, world money. This was evidently the case until the collapse of Bretton Woods. Gold hoards were explicitly supporting the US dollar by moving from vault to vault and the stability of the International Monetary System was based on their adequacy (Triffin 1960). Both the dollar shortage first and the succeeding dollar glut were related to gold. As a matter of fact, they were referring to gold reserves perversely: the dollar shortage was relative plethora of gold reserves and the dollar glut was relative shortage of gold reserves backing the international function of the dollar.

“The very countries that should lend to the others [referring here to the US primarily, but also the UK, GL] are thus unwittingly borrowing short term capital from them. These capital movements do not, by themselves, relieve the gold shortage, but merely disguise it as a shortage of the key currencies in question.” (Triffin 1960, p. 145, emphasis added)

From the early 1960s onwards, gold was obviously not enough and new production could not keep up with the rise of the world output, even if we consider that the development of the financial system must have raised the velocity. The proposal of rising gold’s price was put forth but it was left aside, because it was considered that such a devaluation of the dollar would open the floor for its further devaluation. Further, the process of integration of world market demanded an unpredicted allocation of gold reserves, which only by accident would coincide with the actual allocation and the potential acquisition of gold through direct or indirect control of gold mines. The issue of quantity of gold thus should be seen as a complex issue of quantity, allocation and timing.

After the collapse of Bretton Woods, the huge balance of payments deficits and surpluses did not lead to any international movement of gold. They were financed by various forms of credit, especially due to the money markets and the function of loanable capital. Gold was left in the vaults of the central banks, “massive and
motionless.”¹¹ The role it was attributed was that of a hoard of last resort for a country’s foreign solvency (Anikin 1983). A hoard of last resort could be called upon in the case of a monetary collapse, either nationally or internationally, no matter where the latter comes from. This implies the return of gold in circulation, even temporarily and with representatives. Moreover, the hoard of last resort could be misleadingly considered as petrified until the time for its weakening comes. Nevertheless, hoards are not to be considered as “frozen money”, petrified and forgotten in chests under the earth. If so, they play no role. Hoards are standing by to enter circulation or act as means of payment. (Arnon 1984) This should hold for gold hoards as well.

Besides, after the Jamaica meeting (1976) where the formal demonetization of gold and the abolition of its official monetary functions were decided, the reserve function of gold has not been reduced, but rather enhanced. This was attributed to the sharp rise of its price, although the opposite was happening: gold’s price rose exactly because of its reserve function – and as a compensation for it being undervalued for about 20 years. “Gold is being driven out of the door […] and returned through the window of the free market” (Anikin 1983).

The World Gold Council (2010), in an article titled “Why central banks hold gold”¹², provides the following explanations, among others. “Gold is a unique asset in that it is no one else’s liability” which means that it is a carrier of value itself, not a carrier of someone’s promises; it is commodity money, not credit money. “Owing gold is [thus] an option against an unknown future. […] Gold is liquid and is universally acceptable as a means of payment”. Further, “[i]ts status cannot be undermined by inflation in a reserve currency country” (ibid).

It seems thus that gold’s monetary role consists in supporting quasi-world money. It should provide both a guarantee for the function of national paper-credit moneys as world money and insurance in case everything goes wrong. The former function has no evident mechanism for manifesting itself. It could be argued that gold

¹¹ [Gold’s] “consumption consisted in lying there”, [into the vaults of state treasuries, GL], “massive and motionless. At first, it was thought that this gold served as reliable collateral for paper-credit money. Later, the formal connection of the gold reserve with the domestic money supply was severed in practically all countries, and its real significance in this role was reduced to nothing. The functions of central gold reserves were concentrated in the foreign economic sphere, and gold began to be regarded as the last line of monetary defense, as a guarantee of a country’s foreign solvency.” (Anikin 1983)

¹² Available at http://www.reserveasset.gold.org/why_hold_gold/
backs quasi-world money only because it is a hoard of last resort. Yet, as it has been
argued, hoards are not petrified money; gold is actually moving, although much less
than in the past. Its potential function as means of payment should manifest itself
from time to time. For this, movements of gold should be examined closely. The next
section provides evidence of the most prominent movements of gold, the last 30
years. With the important exception of Russia in its phase of transition to capitalism,
where gold was employed actually as means of payment, all the other well known
official moves of gold seemed to consist proprietary change.

As for its role as “the last line of monetary defense”, against “war, an
unexpected surge in inflation, a generalized crisis [...] a regression to a world of
currency or trading blocs, or the isolation of a country” (ibid), unquestionably, the
existential gold reserves won’t be able to sustain current output and in the case of a
frantic rush on gold, a severe contraction would occur. On the other hand, such a rush
would be the result of a confidence shake of the credit pyramid under the above
mentioned events.

At this point, it should be noted that gold is also hoarded privately but there
are no reliable data for this. Private hoarding used to be quite high and in the early
1960s some estimates place the amount of private hoards at around one third of the
aggregate monetary gold at the time, well over $15bn (Hansen 1965). Kolloch (1983)
argues that in 1981 private hoards were half the monetary gold which was estimated
altogether at 80,000 tons or 2,570 million ounces.

In a report prepared for the WGC by Cheng and Klapwijk (2001), it is
estimated that new demand for private hoarding has not declined in the period under
examination, namely 1993-2000 and it averaged 240 to 380 tons for a selection of
countries that are estimated to account for close to 90% of the turnover in the retail
investment market. The gold stocks of privately hoarded gold in the group are
estimated to reach 22,500 tons or 723.5 million ounces in 2000. Cheng and Klapwijk
argue that 40% of private hoarding takes place in Europe, 16% in North America and
44% in the rest of the world. Private hoarding has risen during the current crisis of
2007-2010 which is still unfolding and this has provided with evidence concerning the
potential role of gold as international means of payment.
What is argued essentially here, contrary to Bordo and Eichengreen (1998) is that capitalism cannot do without gold.\textsuperscript{13} The role of the latter has changed; it had been restricted to the world market and the IMS already before the collapse of Bretton Woods. It used to back both the value of the US dollar and the ability of the latter to perform the world money function. It appeared from time to time to clear balances through the conversion of dollar surpluses held abroad.

After the collapse of Bretton Woods, gold hoards remained a vital guarantee for the US dollar as quasi-world money, with its mere existence. It provided the same services to the ECU and lately to the euro and the establishment of the ECB. It is in the plans for the backing of a new world currency\textsuperscript{14} that have seen the light of day during the crisis, mainly from countries that hold huge reserves in US dollars like Russia and China.

Gold is not expected to return to circulation as coin, or to travel around to clear balances. Still, it is needed in order to back the quasi-world money and to hedge against the collapse of the latter. It performs these functions as a hoard, although this implies its movement. Gold today therefore is money as much as it isn’t. It seems that no country or monetary union that claims to issue paper-credit money with international appeal, namely quasi-world money, can do so, without some hundreds of millions of ounces of gold in its command.

The evolution of gold hoards in the post-Bretton Woods area

Overview of world gold reserves: 1971-2009

In the next section, the world gold reserves are examined as for their effect on the role of world money. First, a general overview is given for world gold reserves; then we examine the gold reserves of the US; the case of the core European countries follows along with the establishment of the ECB, which is most intuitive; in suite, the Central Bank Gold Agreements are presented; finally, the case of some other key

\textsuperscript{13} […] “with the development of the credit system, capitalist production continually strives to overcome the metal barrier, which is simultaneously a material and imaginative barrier of wealth and its movement, but again and again it breaks its back on this barrier.” (Marx 1981) “Modern capitalism cannot base its monetary system on gold, but at the same time it cannot manage without it. This contradiction is being resolved in the struggle of different trends of development and is a constant source of tension and bitter collisions.” (Anikin 1983)

\textsuperscript{14} http://www.telegraph.co.uk/finance/financetopics/g20-summit/5072484/Russia-backs-return-to-Gold-Standard-to-solve-financial-crisis.html
countries provides with interesting observations. The unit used in most figures is millions of fine troy ounces\textsuperscript{15}. When necessary, for reasons of comparison, the prices of the London gold market are employed (IMF, IFS 2009).

Figure 1 shows the evolution of the official world reserves and those of the advanced economies, namely the reserves held by central banks, treasuries or governments, including quotas in the IMF\textsuperscript{16} (IMF 2000). The figure portrays the period from 1971, when Nixon dissociated gold with the US dollar, up to 2009.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fig1.png}
\caption{Official gold reserves, in millions of Fine Troy Ounces. Source: IMF, IFS, July 2010}
\end{figure}

Several notes can be made on this figure. First, the so called advanced economies, that is countries with advanced capitalist relations, account for the largest part of world gold reserves throughout the period. Among them, the US holds almost one fourth of world reserves and in the Euro area one may find more than one third of official gold reserves. Four banks, namely the Fed, the ECB, the Swiss National Bank and the Bank of Japan command 70\% of world reserves.

In the end of the 1970s, with a series of auctions the IMF and the US wanted to make clear that gold was demonetized for good, that it would play no significant role in the IMS from then onwards and it would remain an ordinary commodity. “In 1976-77 it looked as though the Fund would gradually sell off its gold. But in four or

\textsuperscript{15} Alternatively, metric tons (mt) are used. The relation between the two units is 1mt = 32,150.7466 oz (troy)

\textsuperscript{16} “Monetary gold consists only of gold held by the central bank or government (or by others subject to the effective control of the central bank or government) as part of official reserves. Gold holdings that are not part of official reserves are classified as nonfinancial assets.” (IMF 2000)
five years the situation has changed. Gold has again showed its effectiveness as a central reserve of international liquidity” (Anikin 1983). Actually, the US didn’t really reduce her share of gold reserves, as will be shown in a moment. The immediate result of these auctions was for gold to change hands with advanced economies reducing their share in total and developing countries seeing their share rising.

Overall, gold reserves remained high even after the Jamaica meeting of the IMF Interim Committee in January 1976 and the amendment of the IMF Articles concerning gold, according to which “pegging could never be at parities expressed in terms of gold” (Tew 1988). They remained practically stable throughout the 1980s and starting falling modestly in the 1990s. This observation led Bordo and Eichengreen (1998) argue that the days of gold are over. With the burst of the crisis, the falling trend is subverted.

Note that the figure portrays official stocks of gold; private hoarding is not incorporated. Still, the role of gold is not performed only by official hoards, but by all available hoards. A trade-off should be expected between official and private hoarding, at least in the normal course of business. Indeed, private hoarding has risen in the 1990s (Cheng and Klapwijk 2001). Yet, the relation between official and private hoarding should be explored further. For the scope of this paper, it is enough to note that private hoarding is significantly high and should be taken into account, even by using rough estimates.
A comment is related to the price of gold in US dollars. Given the long-term upward trend in the valuation of gold, official reserves in terms of US dollars rise, despite the contraction of the actual size of gold reserves. Figure 3 depicts the price of gold in US dollars per ounce in the London market for the period 1971-2008. Nevertheless, there is a fall in the official gold reserves during the second part of the 1990s that cannot be explained with the above terms. It can be seen that this contraction didn’t come from the advanced countries; on the contrary, there’s a jump on the figure because of the establishment of the ECB.
**The gold reserves of the US**

The Fed’s gold reserves stand at very high levels, by any measure. The US commands today 27% of official world gold reserves, which is as high as it was in the late 1960s. Figure 4 and 5 provide interesting information, if read together. As for the auctions of 1979 that reduced the US gold stock by more than 10 million ounces, it seems that they restored the share that has been risen since 1976 and it picked in 1978. Second, by keeping her gold reserves flat, the US has seen their share rising at the same period that world reserves are falling.

![Figure 4 US gold reserves, in millions of Fine Troy Ounces. Source: IMF, IFS, July 2010](image1)

![Figure 5 US gold reserves, as a share of world gold reserves. Source: IMF, IFS, July 2010, own calculations](image2)
Still, the most remarkable result is that the US, the issuer of world money, the US dollar, which accounts for a bit less than 65% of global foreign exchange reserves, is holding 262 millions of ounces of gold idle for 30 years. It seems as if the Americans have forgotten about it. Indeed, in the website of the US Mint one may read: “The only gold removed has been very small quantities used to test the purity of gold during regularly scheduled audits. Except for these samples, no gold has been transferred to or from the Depository for many years.”\(^{17}\)

But this is not the only controversial issue about the US holding so much gold, while seemingly the US is the last to need it. “The gold is held as an asset of the United States at book value of $42.22 per ounce.”\(^{18}\) That seems really absurd and incomprehensible. The market price of an ounce is 28 times higher today. Why should someone keep an asset idle and undervalued? Moreover, storing gold is quite expensive. Average annual salaries in Fort Knox, as of December 2001, reached $400 million\(^{19}\) or 9.5 million ounces of gold at book value.

To begin with, the “book value of $42.22 per ounce” is the last officially led depreciation of the US dollar against gold, on the 12\(^{th}\) February of 1973, marking thus the end of the Smithsonian agreement. Up to this point, gold was still officially anchoring the value of world money and the depreciation of the US dollar left the gold values of other currencies unchanged (Tew 1988).

It seems that the choice of the US to keep so high reserves of gold and value it at $42.22 per ounce is symbolic of the monetary role gold still plays in the IMS. US gold backs the function of the US dollar as quasi-world money by its mere existence as a hoard. It is not a hoard of last resort since, as such, it should be valued at market prices. It is hardly making sense that the US, the GDP of which reached $14tr, keeps a hoard of $11 bn as their last line of monetary defense for the last 30 years. Additionally, during the crisis of 2007-2010, the US didn’t turn to her gold reserves, although she found herself in the most demanding need for liquidity; she neither revalued nor used her gold reserves. Rather, she provided liquidity of almost $1.5tr dollars.

*The ECB*

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17 [http://www.usmint.gov/about_the_mint/fun_facts/?flash=yes&action=fun_facts13](http://www.usmint.gov/about_the_mint/fun_facts/?flash=yes&action=fun_facts13)

18 [http://www.usmint.gov/about_the_mint/fun_facts/?flash=yes&action=fun_facts13](http://www.usmint.gov/about_the_mint/fun_facts/?flash=yes&action=fun_facts13)

“The central bank is the pivot of the credit system. And the metal reserve, in turn, is the pivot of the bank.” (Marx 1981) This is what the architects of the ECB must have considered very carefully and provided the newly established central bank of the EU with 400 million ounces (402.758) or 37.37% of world gold stocks at the time (1999).

One may claim that the ECB was launched with 24.03 million ounces, which is true, but “all gold and foreign exchange reserves [of the national central banks] are, under the terms of the Maastricht Treaty, at the disposal of the ECB” (WGC 2010). The fact that the participating countries didn’t transfer all their gold to the ECB enhances the importance of gold: member countries wouldn’t take leave of their gold, especially given the low trust relations between them and the uncertainty of the venture. It is hard to forget how many years it took gold that flew to the US before WWII in order to be secured against German invasion to repatriate.

The gold dowry of the ECB is interesting in other aspects as well. As it is well known, the ECB was launched on the 1st of January, 1999. The total amount of official gold of the 10 out of the 11 countries that participated in the Eurozone from the beginning two months before the launch was 319.831 million ounces. In December 1999, these 10 countries bought another 79.95 million ounces, rising their stock by 25%. They did so, only to provide the ECB with 24 million ounces (IMF 2010). The next day, these countries of the Eurozone found their national stocks risen by 56 million ounces, or by 17.5% compared to the stock that they used to carry for two decades (fig. 6).

It must be said in advance that the absence from the literature of such a policy choice is extraordinary. It is easy to understand that this fact is hardly compatible with theories that explain the persistence of gold with inertia or statutory requirements. Since the rationale behind this move is not common knowledge, even from the perspective of the architects, the analysis here encounters barriers that would require further research for their bypass. Still, conclusions can be drawn, in the theoretical framework presented in the previous part of the paper.

20 “EMU, the ECB and Gold” available at http://www.reserveasset.gold.org/emu_and_gold/
21 Namely, Austria, Belgium, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal and Spain. The 11th country was Luxembourg for which data is not available. Still, from the small amount of gold that country used to hold and the overall size of the country it is very improbable that its exclusion will alter the results of the analysis.
As it can be seen from figure 6, gold reserves of Germany, France and Italy are completely motionless for 20 years. After the huge purchase they did in the end of 1998, their reserves returned to the pre-1979 levels. The questions that emerge are the following: why gold was so necessary for establishing the Euro? Why did they keep such high gold reserves motionless for 20 years? And why did Eurozone countries consider their gold stocks as inefficient in backing the Euro?

The WGC (2010), in an article concerning the “Central bank agreements on gold”\(^{22}\), wrote on the issue of the new ECB deciding to hold gold:

“This decision indicated that European central bankers continued to believe that gold strengthened the balance sheet of a central bank and enhanced public confidence in the currency it issued. As one of the world’s major central banks had with this decision reaffirmed that it needed to own gold and to show gold on its balance sheet, in that sense this decision symbolized the failure of previous attempts to write gold out of the system.”

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\(^{22}\) Available at [http://www.reserveasset.gold.org/central_bank_agreements/](http://www.reserveasset.gold.org/central_bank_agreements/)
This was written for ECU, not for the Euro. ECU was even more closely linked with gold than the SDR. The reason is that for the establishment of the ECU, member countries of the European monetary System advanced 20% of their dollar and gold reserves (valued at market prices) to acquire their quota (ibid). This advance is portrayed in fig 6 by the sharp fall of gold reserves of the three countries, in March 1979.

It is apparent thus that it wasn’t the first time that the European countries turned to gold to back their internal monetary system. Further, the fact that the euro was the successor of the ECU and that the EMS was the predecessor of the EMU might provide for an explanation for the policy, at least of the core countries, towards gold. On the one hand, the involvement of gold in the structure of the EMS and the ECU explains the coordinated policy of core countries23, as portrayed in figure 6.

To recap, the core countries of the EMS that moved on to the EMU, backed initially their unit of account, the ECU with 20% of their gold reserves which were very high. Then, they kept their reserves untouched for 20 years, although world reserves were declining. When the ECB was established, the same countries bought a significant amount of gold, passed a part of it to the ECB and kept the rest of it, increasing thus their reserves. From the above, it is more than clear that gold is backing the euro. The question is: in what? It is argued here that it is not the circulation of the euro internally that had to be backed; for that, fiscal policy should be restricted and inflation should stay low and converging. It was the claim of the euro to acquire features of world money that gold came to turn as credible.

Finally, a coincidence is worth noting: the amount of gold that the ECB was given in its launch was almost the same as that of the Bank of Japan (the ECB started with 24.03, while the Bank of Japan was holding 24.23 million ounces). It could be the case that the architects of the ECB took the Bank of Japan as an example. The issue of how much gold would the ECB hold, given the fact that it commands all gold of the member states, is a technical issue of secondary importance, but it can still be revealing.

\textit{The CBGAs}

\footnote{\text{The other countries of the EMS and the EMU follow similar patterns but not so in line, as the three countries used above. In some cases, there are just time lags or even opposite movements. The case of Belgium and Netherlands, although outstanding, should be considered separately.}}
Special reference should be made to the Central Bank Gold Agreement (CBGA), which was an agreement between European central banks for selling gold, also known as the Washington Agreement on Gold. This is a 5 year agreement that was initially signed on the 26th of September, 1999 (CBGA 1) and was renewed every 5 years. Indeed, CBGA 2 was signed on the 27th of September, 2004 and CBGA 3 followed on time, on the 27th of September, 2009. The signatory banks of CBGA 1 accounted for around 45% of global gold reserves of the time.

The Joint Statements on Gold that followed all three agreements start with the following: “Gold remains an important element of global monetary reserves”. They then define the ceilings of sales and close with the clause that the agreement will be renewed upon its expiration. The collective ceilings were 12.86 million ounces per year (or 400 tons) for CBGA 1; 16.075 million ounces per year (or 500 tons) for CBGA 2 and again 12.86 million tons for CBGA 3. The current CBGA expires in September 2014.

Table 1 visualizes actual gold sales by the signatory central banks. Yellow, orange, and red cells respectively represent central banks’ selling of more than 5%, 10%, or 15% of their gold reserves in a single calendar year. The total percentage decline in each central bank’s gold reserves between the end of 1999 and Q2’09 is shown in the right column (Hamilton 2009). Table 2 provides gold holdings of the major signatory central banks for the year 1997, that is before CBGA 1 and before the big purchase of gold from the Eurozone countries.

It can be seen that the percentage decline provided by table 1 is misleading. Germany, Italy and Austria found their reserves higher in 2009 that before the establishment of the ECB, while France has almost the same reserves. The other countries have essentially declined their reserves. Nevertheless, the overall reserves of the Euro area were not essentially reduced after the CBGAs. Given the sharp rise in the price of gold, the decline of gold reserves was fully offset (Scheller 2006). The Euro area held in 2009 85.6 million ounces of gold more than the US and its share of world reserves reached 36%.

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24 The signatory banks of CBGA 1 were the following: Oesterreichische Nationalbank, Banca d'Italia, Banque de France, Banco do Portugal, Schweizerische Nationalbank, Banque Nationale de Belgique, Banque Centrale du Luxembourg, Deutsche Bundesbank, Banco de España, Bank of England, Suomen Pankki, De Nederlandsche Bank, Central Bank of Ireland, Sveriges Riksbank and European Central Bank. In CBGA 2 the Bank of Greece was added. Accordingly, in CBGA 3, the Central Bank of Cyprus, the Bank Čentralni ta’ Malta/Central Bank of Malta, the Banka Slovenije and the Národná Banka Slovenska were added to the signatory banks.

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>407</td>
<td>377</td>
<td>347</td>
<td>318</td>
<td>318</td>
<td>307</td>
<td>302</td>
<td>289</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>-31%</td>
</tr>
<tr>
<td>Belgium</td>
<td>258</td>
<td>258</td>
<td>258</td>
<td>258</td>
<td>258</td>
<td>258</td>
<td>228</td>
<td>228</td>
<td>228</td>
<td>228</td>
<td>228</td>
<td>-12%</td>
</tr>
<tr>
<td>ECB</td>
<td>747</td>
<td>747</td>
<td>767</td>
<td>767</td>
<td>767</td>
<td>767</td>
<td>720</td>
<td>640</td>
<td>563</td>
<td>554</td>
<td>501</td>
<td>-33%</td>
</tr>
<tr>
<td>Germany</td>
<td>3,469</td>
<td>3,469</td>
<td>3,457</td>
<td>3,446</td>
<td>3,440</td>
<td>3,433</td>
<td>3,428</td>
<td>3,423</td>
<td>3,417</td>
<td>3,413</td>
<td>3,413</td>
<td>-2%</td>
</tr>
<tr>
<td>Italy</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>2,452</td>
<td>0%</td>
</tr>
<tr>
<td>Nether.</td>
<td>982</td>
<td>912</td>
<td>885</td>
<td>852</td>
<td>777</td>
<td>777</td>
<td>695</td>
<td>641</td>
<td>621</td>
<td>612</td>
<td>612</td>
<td>-33%</td>
</tr>
<tr>
<td>Portugal</td>
<td>607</td>
<td>607</td>
<td>607</td>
<td>592</td>
<td>517</td>
<td>462</td>
<td>417</td>
<td>383</td>
<td>383</td>
<td>383</td>
<td>383</td>
<td>-37%</td>
</tr>
<tr>
<td>Spain</td>
<td>523</td>
<td>523</td>
<td>523</td>
<td>523</td>
<td>523</td>
<td>523</td>
<td>458</td>
<td>417</td>
<td>363</td>
<td>282</td>
<td>282</td>
<td>-46%</td>
</tr>
<tr>
<td>Sweden</td>
<td>185</td>
<td>185</td>
<td>185</td>
<td>185</td>
<td>185</td>
<td>185</td>
<td>168</td>
<td>158</td>
<td>149</td>
<td>137</td>
<td>132</td>
<td>-29%</td>
</tr>
<tr>
<td>Switzer.</td>
<td>2,580</td>
<td>2,419</td>
<td>2,198</td>
<td>1,917</td>
<td>1,633</td>
<td>1,354</td>
<td>1,290</td>
<td>1,290</td>
<td>1,145</td>
<td>1,040</td>
<td>1,040</td>
<td>-50%</td>
</tr>
<tr>
<td>UK</td>
<td>679</td>
<td>857</td>
<td>855</td>
<td>814</td>
<td>813</td>
<td>812</td>
<td>811</td>
<td>810</td>
<td>810</td>
<td>810</td>
<td>810</td>
<td>-51%</td>
</tr>
<tr>
<td>Greece</td>
<td>132</td>
<td>133</td>
<td>123</td>
<td>122</td>
<td>107</td>
<td>108</td>
<td>108</td>
<td>112</td>
<td>113</td>
<td>113</td>
<td>112</td>
<td>-13%</td>
</tr>
</tbody>
</table>

The case is slightly different for the non EMU countries, especially the UK and Switzerland. The decline of their gold reserves due to the CBGA was offset by the rise of the gold price, but their reserves were essentially depleted.

The rationale behind the CBGA was to stabilize the gold market at a point that gold prices were low and falling for almost 15 years. It has to be reminded that the ECB values gold at market prices. The result was to reheat the gold market, although it could be expected that such an agreement would lower prices, by adding to the supply.
“Now with worldwide gold production running 2540t in 1999, an additional 400t a year in supplies from CBs was not trivial. CBGA 1 effectively increased the annual gold supply by 16%. You’d think this was bearish, right? On the contrary, it was very bullish! Over the 3 trading days after this Agreement was announced, gold rocketed 13.7% higher.” (Hamilton 2009)

CBGA 3 stops because of the crisis. Not only had the ceilings returned to the levels of the first agreement, but until recently only a small fraction of sales had materialized with no foreseeable intention from the countries involved to follow the agreement. Since the euro is shaken from the crisis, all available gold will be kept to cover it.

It is not clear why the Eurozone countries moved on to an agreement on selling gold, less than a year after they bought quite a few million of ounces. The issue demands further research and is of great importance since it can reveal aspects of the economic relation between gold hoards and quasi-world money. The particular case of the euro is even more representative than the case of the dollar, since the euro was set up from scratch25.

For the time being, it is enough to notice that gold is moving, its movement being actually that of a hoard changing hands. It would be very tempting to examine whether gold moved physically, even to some extent. It might not have, although it appears to be important who is actually holding gold, and not only on whose possession it is.

Other key countries

The reserves of Japan are exactly the same from December 1979 until June 2000 and equal to 24.23 million ounces, as noted above. In July 2000, Japan actually rises its gold reserves buying gold, although too little (320,000 ounces). Compared to the gold reserves of the US and those of the EMU, Japan’s gold reserves are considered to be quite low. Yet, Japan is not an exception as far as its stance towards keeping gold is concerned. Two issues are worth further examining: first, why Japan holds so low gold reserves compared to the US and the EU; second, and more important, is there any relation between the low use of the Yen as reserve currency and the low gold reserves of Japan? If so, then the former issue becomes central,

25 The birth of euro can be set no later than 1979, when the ECU was set, as the unit of account for the EMS.
given the attempts of Japan to establish a currency in Asia and the corresponding failures.

Switzerland used to keep very high gold reserves. This is not so peculiar for the vault of the world. What is striking is the swift in the gold policy of Switzerland in April, 2000. Having kept its reserves completely motionless for 24 years, since August 1976, at the size of 83.28 million ounces, the Swiss National Bank (SNB) decided to diminish them, selling 60% of those, under the CBGA. Two things should be noted. First, Swiss reserves are still very high, double than those kept by the ECB, two thirds of those kept by the Bank of Japan and as much as China managed to acquire so far, namely 33.44 million ounces. The SNB, until recently, was the third gold holder, after the Euro area and the US. In terms of US dollars, Swiss gold reserves are today higher than before the 2000s.

Second, Swiss new gold policy must be related to the euro and the EMU. This argument derives from the timing of the new policy as well as from the position and role of Switzerland in the continent. Probably, the ECB claimed part of the role the SNB used to play and the euro undertook good part of the role the Swiss franc was previously assuming. It might also be the case that Switzerland took over the responsibility to cover the core EMU countries against the CBGA and its incentives.

Let us now turn to three key developing countries, namely China, Russia and India. It has to be reminded that both Russia and India have a special relation with

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26 If Eurozone’s gold reserves are taken together. Otherwise, it was fifth in 2008, behind the US, Germany, France and Italy.
gold, but it is out of the scope of this paper. Russia might be the most interesting of
the three for the reason that it used its gold as means of payment during the transition
to capitalism. As it can be seen in figure 8, the Russian gold reserves are not
motionless during the 1990s, as in all the cases presented above. After 2007, Russia
buys gold systematically. In the press, it is argued that Russia pays no attention to the
price of gold in her policy of buying. If this is combined with Russia’s pressure
towards a “new world currency”, it is clear that Russia is preparing herself for the
case of issuing, or participating in issuing, quasi-world money rather than diversifying
her portfolio of foreign exchange reserves.

China is buying as much gold as it can. She tripled her gold reserves in 9 years
reaching appreciable levels. China was the third gold holder in 2009, leaving
Switzerland fourth, in Eurozone countries are taken together. China is a gold producer
herself. It is argued that China is diversifying her portfolio of reserves, but it is more
likely that she is led by reasons similar to those of Russia.

Conclusions

The evolution of gold reserves is interesting in that it answers almost as many
questions as it raises. Once more, the absence of the study of the issue from the
literature is stunning. It can be explained by two factors, namely the difficulty of the
issue and the policy implications. The former comprises the contradiction between
current monetary theory and declared policies on the one hand, and mere facts on the
other. It is quite hard to explain the monetary role of gold in a framework that doesn’t
acknowledge the world money function of money as a distinct function. Further,
treating gold as an asset like any other or, at best a hoard of last resort, leaves little
space for explaining its persistence in the portfolios of the most advanced economies,
the means of payment of which are recognizable in the world market.

Policy implications constraints consist in the fact that quasi-world money is
credit money and as such it is based on trust. The revelation that this trust is not
enough would undermine the ability of national means of payment to perform the
function of world money. The main reason why this trust is not enough rests in the
quasiness of world money. Not being a carrier of value itself, it always spreads doubts

on two levels; first, the ability of world money to express world prices is always contested and inflation is the phenomenon under which this contest manifests itself. Second, the trustworthiness of the state that issues world money might seem hard to be downgraded, but even the central bank of the most powerful state can go bankrupt and this is known.

Let alone the difficulties of the issue at hand, the evolution of gold reserves indicates that gold is held as hoard to back quasi-world money. The US that issues the quasi-world money par excellence is the biggest gold holder, with one fourth of world reserves. She hasn’t touched her reserves for 30 years, nor does she seem to be willing to do in the foreseeable future. It is hard to raise the argument about the US using her gold to diversify her portfolio of reserves for many reasons. US gold is valued at the historical and symbolic price of $42.22 per ounce, while its market price is 30 times higher. The US essentially keeps no other reserves (in 2006, the US foreign exchange reserves were $55bn, IMF 2010) and has practically no need of doing so, since she has the privilege of issuing the US dollar. After all, no one can argue that 262 million ounces of gold is an optimal figure for 30 years, and that no reason appeared for it to decline or rise in the meantime. The US seem to have frozen both the quantity and the price of their gold in the levels of the Smithsonian agreement, declaring hence their commitment to gold as an anchor.

The Eurozone countries, just before, and upon, issuing the euro, considered as necessary to move on to a huge purchase for the standards of the gold market. Note that the core European countries were the largest gold holders after the US and the amount of gold that they launched the ECB with was only a small fraction of the gold they were holding even before the purchase. In this case as well, gold plays the same monetary role. From birth, the euro claimed to function as world money and compete the US dollar in the world market. Apparently, it needed a lot of gold behind it in order to make its first steps. The reason for which Eurozone countries had to move on buying more gold should rest on the political diversification of the Eurozone or, to put it differently, to the lack of political entity that covers the Eurozone. Eurozone countries needed gold for themselves and for the common currency. In the event of an unfortunate end of the venture, each should return to its previous state and gold would matter a lot in reissuing an internationally reliable Mark or Franc.

The CBGAs can be partly understood in this framework. Since the European countries value gold at its market price, they wanted to remove insecurity from the
gold market and so they did with the agreement. It is not clear whether this was already decided in December 1998, when they were buying gold and the issue requires further research. After all, the gold reserves of Germany and Italy were higher in absolute terms after the agreement than they were in 1997, and France has almost the same reserves as before the launch of the ECB – especially if its quota to the ECB is considered. In US dollars, the reserves of all signatory central banks have risen significantly, due to the sharp rise of the US dollar price of gold. Still, this last argument cannot go well with the framework employed here, since it has been argued that gold is not treated as an asset that is managed according to its price.

The case of Japan could be revealing. Yen’s portion in the portfolios of foreign exchange reserves is quite low and, although Yen is internationally accepted, it doesn’t share features of world money or, it does in a limited scale. This should explain the fact that Japan is obliged to keep huge foreign exchange reserves. It should be tested whether the low Japanese gold reserves are of any importance to the Yen’s deficiency. In such a case, it would seem absurd that Japan has not tried to raise its gold reserves the last 30 years.

On the other hand, Russia, China and India are systematically buying gold, additional to the gold they are producing themselves. It is expected that these countries, especially the first two, will keep on this policy, until they reach high levels of hoards that would allow them to support a scheme of quasi-world money, led by them. Russia has explicitly declared her intentions and along with China, the two countries possess, at least officially, a bit less than one fourth of the US reserves and a sixth of the euro area reserves.

Although the monetary role of gold seems clear, that being hoard behind quasi-world money, the relation between the two is not clear. Presumably, gold is altering the quasiness of world money is some sense and more research should be made towards this direction. The issue though cannot be resolved by itself. The relation is mediated and no mechanism is expected to be found. As for the absence of a mechanism, the case of the US is determinative. The establishment of the ECB is considered as the best case to study.
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