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The process of managing the contradictions of world money and its limits

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Abstract

This dissertation discusses the forms of money, in order to focus on the form of world money, while drawing useful conclusions from the evolution of the International Monetary System since the collapse of the Bretton Woods agreement. It is shown that the form of money performing in the world market is an alloy form of central bank credit money declared as legal tender by a major capitalist country. This new form of money has been termed as quasi-world money. The exposition of its historical emergence following its most prominent concrete forms, namely the US dollar and the euro, has revealed interesting features of this money and the IMSs that were related to it.

Moreover, official hoards of money proved as essential as revelatory for the functioning of the current IMS, the quasi-world money standard. The examination of the official hoards revealed the main monetary role of gold as the reserve pylon of quasi-world money. The relation of the two had been exposed by the fundamental contradiction that gave rise to quasi-world money in the first place. Yet, the same contradiction determines the limits of proper quasi-world moneys like the US dollar, or peculiar ones, like the euro. In the case of the latter, additional constraints apply.

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List of Abbreviations

Bank of England	BoE
Bank for International Settlements	BIS
Bretton Woods	BW
Central Bank Gold Agreement	CBGA
European Central Bank	ECB
European Currency Unit	ECU
European Economic Community	EEC
European Monetary Co-operation Fund	EMCF
European Monetary Institute	EMI
European Monetary System	EMS
European/Economic Monetary Union	EMU
European Payments Union	EPU
European System of Central Banks	ESCB
European Unit of Account	EUA
Exchange Rate Mechanism	ERM
Foreign Direct Investment	FDI
International Bank for Reconstruction and Development	IBRD
International Clearing Bank	ICB
International Monetary Fund	IMF
International Monetary System	IMS
Longer-Term Refinancing Operations	LTRO
Main Refinancing Operations	MRO
National Central Banks	NCB
Open Market Operations	OMO
Optimum Currency Area	OCA
Single European Act	SEA

Chapter 1. Introduction

1.1. General introduction

The idea for this dissertation was born during my undergraduate years, and especially from the courses of macroeconomics, in contrast to those of the Marxist political economy. The superficiality with which mainstream economic theory defines money might be a reflection of the predominance of English practicalism, but it remains very frustrating in its insufficient phrasings. On the other hand, Marx's analysis in *Capital* was profound and promising, but the relation with the reality of the 21st century was not straightforward. Of course, at the time, Marx's scripts were seen as containing answers to questions that have never been posed to Marx himself.

Money is obsessive and troublesome, no doubt about it. On the one hand it is something everyone is, at least partly, acquainted with, while on the other it is mysterious and obscure. Yet, I was not attracted by the challenge of it; rather in many instances I thought that this quest is an impasse. The siren song comes from the perception that the study of money is necessary both for the struggle of the working class against the bourgeoisie and for the establishment of socialism.

At the time that these lines are written these arguments should not sound very weird, even to the most conservative ear. The euro project is shaken by the ongoing crisis that started back in 2007; in Greece the debate about money has been one of the main items in the agenda of the double elections of 2012; and even in the US, the Republicans seem to be advocating the return to the gold standard. The outburst and evolution of the crisis has legitimised the study of world money and its forms, allowing for a reference to gold, without the person who does so being considered as gold digger or totally crazy.

Nevertheless, this was not the major impact of the crisis on this research. The crisis has turned the world so far, and it still does, into a lively experiment for the purposes of this study. This is as useful and fortunate a condition as it could be; but it is also a very precarious framework. Things that are stable until now may fall tomorrow and this has already happened in quite a few instances in the course of the crisis.

Further, the turbulent years that we are experiencing especially in Greece, where official unemployment has reached 27 percent and is rising, push the researcher to argue about things that do not accrue directly from the analysis. Suddenly, the theoretical examination of world money from irrelevant and boring becomes demanding. The

degree to which I managed to escape from these Clashing Rocks will be judged by the reader; I hereby only state that I was aware of them, or at least became aware of them at some point during the conduction of the research.

After all this research, my main conclusion is that the understanding of money cannot grow in the least if the question refers to money in general. That was somehow, mostly by instinct, perceived in the beginning when the main question was narrowed down to world money. But even that is misleading, because the world money is a name for both a function and a form. Although general laws can be formulated for money, the analysis of reality should focus on particular forms, and further on particular concrete forms of these forms, whenever forms appear to be vague and abstract.

In this framework, names should be scrutinized as much as possible. Money is quite an age-old convention to carry cabbalistic signs that mean nothing today while the only thing they can achieve is to mislead the researcher. The dollar is one of these signs that should be decomposed to the penny to see through it its actual modern content that is totally different from that of one hundred years ago.

From one point of view, that should be easy to see. How could the dollar be the same before and after the establishment of the Fed that took over its issuance? It is not so easy though, and one of the reasons is that the Bretton Woods period was so peculiar that attracted all the interest from the First World War and the interwar period that followed. All the questions about the US dollar were referring to 1971 and, indeed, the dollar was the same before and after the August of that year. Should it not be for the BW, this pleasant interlude of history, product of the capitalist crisis of 1929 and the subsequent WWII, the quasi-world money standard could have been established from the 1920s and the new form of money would have appeared more clearly.

The past was equally blurred for the euro project, but thankfully the vital lead here was easier to follow. Because the euro seems to be starting out of the blue in the 1990s, but it is the heir of the ECU which, in turn, is the heir of the EUA, which is the product of the Barre Plan and the Snake. The story goes back in the 1960s, long before the collapse of Bretton Woods, indicating that the euro project was not a reaction to the events of the early 1970s, but to the emergence of a new form of world money.

I only mention these issues to argue that the forms of money are easily blurred by the historical zigzags and the events that attract all the interest. Among one of the questions that seem to monopolise the interest is the exchange relation of the dollar, the euro and other moneys with gold. The issue is presented under various schemes and

phrasings, like the hedge property, the anchoring role or the measure of value function of gold. Nevertheless, how could one express an opinion on the exchange relation of gold with the dollar if the dollar is an empty name with a vague content? Having this question in its various versions monopolising the interest is the same *mutatis mutandis* like considering the 15th of August of 1971 as the day that changed the International Monetary System (IMS).

The question of the exchange ratio of one concrete form of quasi-world money with another concrete form of gold is of importance, but the answer presupposes this phrasing, which in turn is the result of this dissertation. Now that the question can be phrased, there are some chances that it will be answered. Nevertheless, it will prove that, apart from the gold industry, the bullion banks, the arbitragers and the various hoarders of gold, the issue of this convertibility ratio is not as important as it is thought. The system is functioning, using the London pm fix, which reflects some underlying mechanism. Of course, that fix could be proven heavily manipulated, like the LIBOR.

I should conclude this introduction by saying that the matter at hand expands in all directions and it was consistently necessary to preclude various theoretical paths. From one point of view, this is not something pertaining to this dissertation. The only difference arises from the perplexity of the matter at hand, even at the simplest context. Marx was considering of examining the world market at the end of his work in a plan that was inspired and ambitious even for Marx himself. It would be thus a sign of verbosity to argue that I bypassed all these missing links of Marx's analysis.

The fields that analysis tends to expand are numerous and include those of the state theory, the theory of international relations, the theory of international trade and the theory of international flows of capital. The interest rates seem to be related to world money with unbreakable bonds and so is the issue of inflation. At some instances, it seemed impossible not to discuss the interest rates.

None of the above issues can be discussed without an analysis of the forms of money. After having established the distinction of the basic forms of money, the theoretical questions that relate to all the above issues can be expressed in a manner that will make their answer easier. My contribution is thus quite modest; it could be described as the preliminary work, necessary for all projects like the arrangement of a small space on a desk full of papers is necessary for finalising a manuscript.

1.2. Key research questions

This dissertation focuses on the economic category of the money that functions in the world market. Since the beginning of the twentieth century, the IMS is experiencing ups and downs that not only result in winners and losers, but also in the contestation of the IMS itself. WW II led to the Bretton Woods agreement that gave birth to high expectations as for the sustainability of a communicational channel between the major actors of the world market. The collapse of Bretton Woods dispersed the illusion of a concerted IMS, where unilateral actions are impossible and where all countries combine their efforts for the common good, at least of the western, civilized, advanced, or, in short, non-communist world. It seems that the declaration of Nixon, a turning point in the process of the collapse of Bretton Woods and in the history of the IMS, spread great confusion and unleashed theoretical demons in the form of old arguments; from that moment, all issues with reference to money were widely open again; the international monetary affairs were turned up-side-down and the IMS was about to collapse within minutes.

The confusion though was greater due to the ambiguity concerning the future. Apart from the practical consequences, many theorists left open the likelihood that this turn was temporary and short-lived and, as such, it wouldn't pose any theoretical problems in relation to the, so-called, international currency. Moreover, some theorists were calling for the anchoring of the IMS anew, since such a system would not go far. As time was passing by, most authors were becoming aware of the persistency of the new system. After all, theoretical adventures were not without reason since a series of new events seemed to accompany the change of the IMS: frequent financial crises, uncontrollable flows of capital, outsourcing towards the so-called "developing" countries and shift of the trade balances, huge reserve accumulation, are just some of the phenomena that seem to be closely related to the IMS, although the causalities are far from clear.

One of the most difficult issues in the seemingly new era was the formation of the appropriate questions. It is obvious from the literature that various authors attempt to explain phenomena answering different questions. Some reasons for this found their place in chapter 2. Yet, a more general remark refers to bourgeois economists who don't seem to be interested in understanding the IMS, as long as it works. An eloquent admission of this fact was given by Padoa-Schioppa (1989, p.200, emphasis in the

original), while discussing the ECU: “What matters [...] is not so much the *nature* of the ECU [...], as the *motivations* of those who intervene in the ECU market”. In the same spirit, McKinnon (2005) argues that “[...] Americans, including most professional economists, are blissfully unaware of how the dollar standard works [...]” (p.484) and Mundell (2005) notes as for the establishment of floating that “[in 1976] there was no economic treatise showing how that such an arrangement would be efficient from a theoretical standpoint, and there was not even any comprehensive analysis of how flexible exchange rates would work in practice – then or even now!” (p.466). This is not necessarily insulting their intelligence, since understanding leads to the exposure of interests that hide under the apparent mal-functioning of the IMS and, after all, lie behind those bourgeois economists.

It is thus essential to turn to the key questions that will set off the analysis here, reexamining binding terms. The essence of the function “world money” starts with the universal reflection of the value of commodities that speak different languages; 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 commodities; on the contrary, it rests in suppressing those differences so that the norm of value can be expressed in a recognisable form (Marx, 1980). This recognisability was inherent in gold which used to function as world money, along with silver. The money that functions in the world market today though is not gold, at least not primarily, nor is it any other product of human labour. On the other hand, gold is still hoarded by central banks and this makes authors like Aizenman and Inoue (2012) note that “[...] the case of holding mostly passively, large piles of precious commodity remains an enigma” (p.2).

Mundell (2005), on the contrary, argues that the period of the last 30 years “is unique in the history of civilization when there has been no money that could even approximately be called a universal currency” (p.466). He reminds with felicity that the system of flexible exchange rates was claimed to “make international reserves of gold or foreign exchange unnecessary”, but “international reserves are more necessary under floating than under fixed, and actual reserves have exploded since floating began, not just in absolute terms but as a percentage of international trade” (p.467). Foreign exchange is in dollars to a great extent, but not exclusively. So, to recap, international reserves should have been eliminated after the collapse of Bretton Woods, but they were

not and they were kept in gold and in foreign exchange which is partly denominated in dollars. To a lesser extent it is in euros, or in Deutschmark before that.

As soon as these peculiarities are recognised, the range of the palette widens to include more profound problems. Questions like the following arise: What is the US dollar? An international currency? Paper money? A symbol of gold? What is paper money, after all? A money that is different from copper money and therefore different from bank deposits? Is the British Pound of the same nature and form as the US dollar? When we speak about the US dollar do we have something particular in mind or the name is sufficient? Do dollar legal tender coins differ from dollar banknotes as much as they appear to differ? To cut a long story short, the main question that is put forth in this dissertation is: what lies behind the names of the various moneys? – no matter if these names come from the eighth century A.C. for the case of the sterling, or from the end of the twentieth, for the dollar.

In a stricter wording, the key questions revolve around the nature, functions and forms of money in general, and of world money in particular. In the methodological framework applied here, which draws heavily from Marx, world money is both a distinct function and a distinct form of money, and that should not perplex the issue further; it should be clear at all times whether reference is made to one or to the other. In order to answer questions referring to the IMS, world money must be well understood in all its evolving forms.

The questions referring to the nature of money begin with its emergence and whether the latter is spontaneous or voluntary. The issue of convenience troubles many theorists since it is not clear whether convenience is an outcome of the use of money or the very reason of the existence of money. No matter what the answer to the previous question is, it is questioned whether money enters circulation with a value or acquires one from circulation. This is a matter of the value theory implied. A third layer of issues arise from the position one takes on the relation between the nature of money and its functions with some theorists arguing that money is what money does and some others the exact opposite. Again regardless of the answer given to the previous dilemma, it is not generally agreed which are the functions of money. Especially world money is acknowledged only in the Marxist tradition as a special function and there's a great confusion between the measure of value and the standard of prices, hidden often under the term "unit of account" which usually stands for the standard of prices. Finally, as implied above, there are profound issues referring to the forms of money and the

abstraction that should apply so that families of forms are established. It is not clear in which cases the material out of which money is made plays a role or not and whether the form should be perceived in a literal and visualized way.

In this framework, the role of gold should be part of the picture, as implied by Aizenman and Inoue (2012). When the US hold more than 8,000 tons of gold and the countries of the euro area slightly less than 10,800, while the world official gold reserves amount to 31,300 tons, then it is not necessary for a yellow “buy gold” shop to open in your neighbourhood to admit that gold plays a monetary role.

To conclude, this dissertation aspires to contribute to the discussion on the nature and current forms of money, with special reference to world money. One of the main findings of this thesis is that names are often misleading and that one should feel confident with one category, before moving to another. But, on the other hand, this finding is not new at all; it is an integral part of the Marxist method, which will be exposed in the next section.

1.3. The method

In this thesis, I followed the method that Marx himself suggested¹ developed and applied, along with Engels in all their work and which can be found in a series of Marxist textbooks under various names like dialectic materialism (Politzer, 1976; Tsagolov, 1978) and systematic presentation (Fleetwood, 2000), to mention two. This method is actually a mixture of dialectics and historical materialism. The basic principles of the method are presented briefly in this section.

The research of real phenomena begins with the observation of the concrete, analyses it and, through abstraction, ends up with simple (abstract) economic categories. The economic categories are scientific abstractions that express certain production relations (Tsagolov, 1978). Nevertheless, once these categories have been established, synthesis must take place so that the real phenomenon is reconstructed, keeping only these elements that comprise a logical sequence². In Marx’s own words:

¹ It is noteworthy that there is only one instance that Marx published his views on the method of political economy, in Engels’ *Anti-Dühring* (1978), in a chapter entitled “Subject matter and method”. There is another note on the method of political economy that was not intended to be published, in *Grundrisse* (Marx, 1980). Therefore, various authors have attempted to introduce the reader with Marx’s method. The section is informed by Politzer (1976), Tsagolov (1978), Foley (1986) and Fleetwood (2000).

² “The presentation, therefore, unfolds from abstract to more concrete categories by successfully grounding them” (Fleetwood, 2000, p.175).

“As soon as these separate elements had been more or less established by abstract reasoning, there arose the systems of political economy which start from simple conceptions such as labour, division of labour, demand, exchange value, and conclude with state, international exchange and world market. The latter [the synthesis of the concrete, complex and real from the general, simple and abstract, GL] is manifestly the scientifically correct method” (Marx, 1980, p.34)

Moreover, once the essence of an economic phenomenon is revealed we may realise the reasons that demand for this essence to be expressed in one form and not another.

Nevertheless, the ascendancy from the general to the particular, or from the abstract to the concrete, is not a mechanistic process or an addition of consolidated forms that combine in different ways like pieces of lego that have no interaction with each other. On the contrary, the logical reconstruction process should be informed by the laws of dialectics. After all, both the revelation of the simple economic categories and their use for the interpretation of social relations are artificial, albeit logical, processes against which real phenomena stand stonily indifferent. Therefore, when we pass from one category to another and, accordingly, from one form to another, we should be aware of their internal relation that combines them as an indivisible whole (Tsagolov, 1978, p.84).

This internal relation is formed by three elements. First, all phenomena in nature and in society are evolving and, along with them, all the social relations and the forms that cover them are changing continually. Therefore there is a path dependency in the economic categories and their form that is very informative; in other words, there is history that should be taken into consideration (Foley, 1986). The reasons that lead to the predominance of one form every time, as well as the weaknesses that will lead to its demise, are exactly the object of the research. Through this prism, the sperm of every form should be detected in a previous form.

Overlooking this principle leads to absurdities, like the assertion that the kings of Babylonia were holding equities of banks during the Neo-Babylonian period (Theocharis, 1983, p.36) or that “the form of economy of Phoenicia may be considered as a form of capitalist economy” 800 years BC (ibid., p.44). In relation to the matter at hand, namely, the money form and the forms of money, the most common expression of closing one’s eyes to the importance of the historic evolution is found in the attempt to impose current forms of money onto the past, arguing essentially that money was

always like this or like that. This is particularly relevant for arguments that deny the historical emergence of money, as we will see in the following chapters.

The second element of the ascendance from inferior to superior forms is that there are turning points in the evolution where accumulated quantitative changes turn to changes in quality (Politzer, 1976). In the case of money, things are much more complicated, although this principle is very relevant. Various turning points can be spotted in the monetary history and in the corresponding forms of money, although it is not equally easy to spot the small cumulative changes that led to these turning points.

The final element that completes the method of synthesis refers to the driving force of these changes, that being the internal contradictions of every form with the content that it expresses and with itself. One form should not be considered as being in perfect accordance with the content of which it is a form, but in persistent conflict. The very existence, and the implicit necessity, of a form that is distinct from what it is a form of, provides the ground for these contradictions to arise. Every new form is the product of a historical solution that is given to the contradictions it was carrying.

For example, the form of world money should reflect the necessities of an evolving world market, one of which is a stable and well understood IMS. Note that the evolution of world market, in turn, depends on the evolution of the participating national economies and big corporations, and of their relation. It is evident that there is not such an international system that, once agreed and generally accepted, will be able to express the interests of those who will implement it, since these interests will be different, even slightly, before the ink is dry.

The solution to every contradiction will not only be a new form that has emerged from a previous one, but also it will be the negation of the previous one (Rubin, 1929a, pp.48-49).

“From the point of view of Marx, a certain group of phenomena, due to internal contradictions that pertain to it, takes other form, contradictory to the initial form, a more developed and perplexed form. [...] In other words, the emergence of contradictions is necessary in a group of phenomena that constitute a certain unity”³ (ibid).

³ Own translation. The text, translated from Russian in Greek: “Από την άποψη του Μαρξ, μια δεδομένη ομάδα φαινομένων, εξαιτίας των εσωτερικών αντιφάσεων που προσιδιάζουν σε αυτήν, παίρνει άλλη μορφή, αντίθετη προς την πρώτη μορφή. [...] Με άλλα λόγια, η εμφάνιση αντιθέσεων είναι αναγκαία σε μια ομάδα φαινομένων, που σχηματίζουν μια ορισμένη ενότητα” (Rubin, 1929a, pp.48-49).

To recap, the scientific method that was followed in this thesis starts with the abstract economic category of money and its forms of appearance in order to explain the internal contradictions of the current form of world money. The exposition is informed by the historical evolution of the relevant issues, focusing selectively on the relevant turning points and revealing the reasons for the various passages of one form to another. Although the task to apply such a method is already high demanding, two more sources of difficulties arise from the outset of the research and comprise actually part of the method. They are discussed in turn.

From the presentation of the method above, one might draw the conclusion that there is some kind of parallel development of the logical ascendancy from the abstract to the concrete with its historical evolution. This parallelism is though contested. Marx posits the question eloquently:

“But have these simple categories no independent historical or natural existence antedating the more concrete ones? *That depends.* [...] Yet this much may be said, that the simple categories are the expression of relations in which the less developed concrete entity may have been realized without entering into the manifold relations and bearings which are mentally expressed in the concrete category; but when the concrete entity attains fuller development it will retain the same category as a subordinate relation” (Marx, 1980, pp.35-36, emphasis added).

Marx proceeds by acknowledging that for money in particular, one may argue that it has appeared historically before capital, banks and wage labour, although there is the case of “highest forms of economy, e.g cooperation, a developed division of labour, etc.” existing without the appearance of any kind of money (ibid., p.36). Tsagolov (1978, pp.86-87) proposes a selective reading of history by the political economist so that the historical zigzags are omitted. This proposal though is far from easy to apply.

The issue of the relation between the logical and the historical evolution of the economic categories penetrates every analysis in political economy, either consciously or unconsciously. Its significance to the method of political economy is brought forth by an open debate in the young Soviet Union that started in 1927 and expanded in the following years. The debate was about abstract labour and was closely related to the issue of commodity production in the frames of constructing the basis for socialism (Karantanis, Magganas and Charisis, 2005).

The second source of difficulty refers to the interdependence of a series of phenomena that are evolving in all ways and by all means along with world money. In

particular, international commerce and the relating flows of commodities are shaping in good part the world market, along with the flows of money-capital, in the frames of certain international relations, that is relations between national states. Since world market is the terrain that world money appears, several generalisations and the corresponding assumptions have to be made concerning the flow of capital in the form of commodities and in the money form, as well as the national states and their relation.

For the application of the Marxist method to the examination of the particular form, namely, world money, various tools were mobilised. They are examined in the next section.

1.4. Research tools

The necessity of good knowledge of the related economic history is stemming straight from the presentation of the method above. Library research is necessary for these readings of history, which capture the evolution of the form of world money, to come to fore. These readings can be found mostly either in the section of the history of the IMS or in the proceedings of conferences, debates and various official or unofficial meetings that were made in order to discuss the reform of the IMS. Apart from the IMS, the literature that referred to the establishment of the euro was very informative. Needless to note that, as many secondary readings of the history of the form of world money as possible were taken into consideration. Finally, the legal framework of both the IMS and the European monetary arrangements was also considered. The results of this research are imprint in chapters 8 and 9.

Apart from the study of history, two other tools were used. First, relevant data referring to international reserves in all forms was gathered and processed. Additionally, data concerning the international uses of various national moneys was considered. Data especially from the International Monetary Fund (IMF) has been extensively used. The IMF maintains several databases, most of which have been used. The most relevant databases are the International Financial Statistics (IMF, 2012c), the Currency Composition of Official Foreign Exchange Reserves or COFER (IMF, 2012b), the Balance of Payments Statistics or BoPS (IMF, 2012a) and the World Economic Outlook or WEO (IMF, 2012d). Apart from the IMF, data was extracted from the ECB's Statistical Data Warehouse (SDW, 2013), the World Gold Council or WGC (<https://www.gold.org/>), the Thomson Reuters Gold Fields Mineral Services or GFMS (<http://www.gfms.co.uk/>), the Ministry of Commerce of China (MOFCOM,

2013) and, of course, from the literature. Several notes on the specific data used find their place in the chapters 5 and 6 that they appear and a summary of these notes with details concerning the variables used can be found in the corresponding appendices.

Nevertheless, there are issues for which there is no literature and data cannot be very informative either because it is not analytic enough or because it doesn't even exist. Issues that revolve around the form of reserves fall under these restrictions and in these cases I used qualitative open personal interviews with specialists, professionals or academics that have a special involvement with the matter at hand as a whole or with parts of it. The scope was the collection of relevant information and the grasp of what is called "common practice". The combination of quantitative and qualitative analysis is well established and lately it is known as mixed methods. The structure of the interviews, the related choices that had to be made in advance, the discussion of the questionnaire and, of course, the results are presented in chapter 7. The questionnaire itself and the results are found in the appendix of chapter 7.

1.5. Selection of countries

An important issue was the selection of the countries that would be examined. Since money that functions in the world market is at the heart of the analysis, theoretically all countries that comprise or participate in the world market should be taken into consideration. Yet, this is practically very difficult and, moreover, it becomes unnecessary. A representative group of countries, selected with criteria relevant to the matter at hand and following the literature, should suffice. It should be noted at this point that the selection of the countries was made well after the research had started. Actually, the group was formed as the research was unfolding and more countries were entering the picture gradually and inevitably.

The criteria for the selection of the countries should refer both to the importance of their moneys in the world market and to the reserves that these countries hold. As for the latter, decisions can be made easier, since there is reliable data concerning the level of the national reserves and the decision of inclusion or exclusion is made upon an ad hoc threshold. On the contrary, the importance of a national money should be elicited from various proxies that refer to international trade, flows of capital and denomination of commodities. For the latter case various such proxies were taken into consideration. Which countries should be included then in our sample?

For one, the USA would be in any such group. The IMS revolves around the US dollar and the USA is the holder of the largest gold reserves. For the US in particular little argumentation is needed but, in general, the countries that attract interest for the role of their moneys in the international arena should be included and these are definitely the UK, Japan, Germany and, lately, the Eurozone. It could be said that the issuers of moneys that are known with a symbol⁴ should be in the group. In that sense, Eurozone countries should be examined, and especially France and Netherlands. Moreover, Germany and France were among the biggest holders of gold reserves and played a particular role in the evolution of both the international and the European monetary system.

The case of Japan is very particular. It should be included in the group because of the role of its money (see, for example, IMF, 2012b) and because of its high reserves. For the same reasons, Switzerland should be included. Nevertheless, Japan should be treated differently, for it is deviating from a pattern followed by all the other countries mentioned so far. The reasons for these deviations should be the object of a separate research that would illuminate the peculiarities of the Japanese economy and the lasting crisis that it is experiencing (Lapavitsas, 1997). At the same time, the Eurozone is very particular and should be also treated separately.

Therefore, in this dissertation I decided to focus on the US dollar and the euro, and thus examine closer the US and the Eurozone countries. The UK, Switzerland and other countries do appear in the relevant chapters but they are not examined in depth. There is a short estimation for the deviation of Japan in chapter 5.

The countries that have been considered thus far appear often under the name of “advanced”, “industrial” or “core” countries. In a sense they are imperialist countries, in terms of the level of the concentration of production and of capital that has led to the creation of monopolies which play a decisive role in economic life. Moreover, for these countries, export of capital is acquiring eminent importance, in distinction to the export of commodities and they are the dominant forces in international capitalist unions which have been formed for the re-division of the world (Lenin, 1964). Nevertheless, Lapavitsas (2009a) argues that the amalgamation of industrial capital with banking capital into finance capital – a process typical of imperialist countries according to

⁴ There is no metaphysics employed here, as it will become evident from the following chapters. The symbols implied here are, apart from the USD (\$), the GBP (£), the JPY (¥) and, of course, the Euro (€).

Hilferding (1981) and Lenin (1964) – was not a universal process; rather it was confined in the bank-based or German-Japanese financial systems, in contrast to the market-based or Anglo-American financial systems.

The issue of the term becomes essential when these countries exhibit a pattern in the qualitative features of their moneys and in their reserve holdings. Further, it seems that this pattern is conditional upon the evolution of their financial systems in the twentieth century. Having said that and for the purposes of this thesis, it would suffice to call these countries leading or major capitalist countries. From the end of the third chapter onwards these countries will be called issuers of quasi-world money.

Further countries should be taken into consideration for their reserve holdings. This implies Brazil, Russia, India, China and South Africa (the countries that are known as BRICS). They are all registered as middle income developing countries in official statistics. In terms of reserve holdings, more countries could be included but it is argued that the inclusion of more countries would not add to the analysis.

For these countries the adjectives “developing”, “emerging” and “periphery” have been used in order to grasp their inferior position in comparison to the leading capitalist countries. The antithesis “west” – “east” should be seen under this light and, although it is much shallower, it claims to capture the peculiar case of Japan. For the purposes of the thesis, the term “dependent” will be employed, since the choices of these countries in the monetary field seem to be conditional on the acts of the leading capitalist countries. The relation between all the actors in the international scene is dialectic and “dependent” countries participate as well in the management of world money, as we will see in the following chapters.

Therefore, the countries that have been examined are both leading capitalist countries and dependent countries. In the former, one may find the USA, the UK, Germany, France, Italy, Switzerland, Belgium and the Netherlands. These countries used to be part of the Group of 10⁺ (G-10⁺)⁵. Moreover, the Eurozone is examined as a group where Greece and Portugal are treated specially, due to their involvement in the current crisis and their character as periphery in the Eurozone. In the group of dependent countries which comprise of the BRICS, special treatment has been given to China due to its importance as reserve holder and as host of exported capital.

⁵ The group of ten comprises the US, the UK, Germany, France, the Netherlands, Japan, Canada, Italy, Belgium, and Sweden – plus Switzerland (Tew, 1988).

1.6. The structure of the thesis

The main argument of this dissertation is that the form of money that functions in the world market has changed in the course of the twentieth century since the outburst of WWI. Moreover, this form of money, it is argued, is a new form that appears as a synthesis of older forms and has its own laws in terms of its performing the various functions that money should perform in the world market. Despite the fact that tons of pages have been written on money, it seems that very essential questions referring to its nature, functions and forms are open⁶.

The next chapter thus, opens the discussion by providing arguments as to why the issue of money is of such perplexity. Five sources of difficulty are put forth, based on major distinctions that have been spotted in the economic category of money. An overview of the literature in lines of reasoning was preferred, instead of following the practice to present the arguments by school of thought. The fact that Marx's views, along with authors following his legacy are presented separately doesn't undermine the previous planning, since this is taken as a distinct line of reasoning particularly on money, not a school of thought.

In the second section of chapter 2 the definition of money is approached in two consequent steps. First, the theories of emergence of money are presented. From these, the various definitions of the content of money accrue naturally and comprise the second step. The third section refers to the functions of money, the forms and the relationship between the two, following the theoretical reasoning of the previous section. The last section summarizes the arguments and the various lines of reasoning and concludes with a critique that refers to the unit of account and the world money. The chapter concludes revealing the fact that the issues addressed are widely open, hence the necessity of further research.

Chapter 3 unfolds the Marxist line of reasoning to the major questions that have been opened in chapter 2, in relation to the emergence, functions and forms of money. In particular, the chapter starts with the emergence of money through the evolution of the forms of value and with the commodity form. The section draws heavily on Marx himself, although the contributions of de Brunhoff (2005), Foley (2005), Hilferding (1981), Lapavistas (2003, 2005a, 2005b) and Moseley (2005) are taken into

⁶ It is indicative that, recently, various works have been published with sonorous titles such as "What is money?" (Smithin, 2000) and "The nature of money" (Ingham, 2004).

consideration. The second section considers the functions of money along with the corresponding forms and it is argued that the two should be examined together since the function determines the form. The exposition is highly abstract up to a point, although, by the end of the section, reference is made explicitly for developed capitalism. The section is organized by function and the function of hoarding is examined twice.

Having exposed the theory, the third section turns to the alleged lacunae of the Marxist theory of money. The perceptions of various authors in the Marxist tradition are presented, focusing on their argument of what is missing from the Marxist theory of money. It is shown that there is widespread, almost universal, agreement that there is a problem that makes the theory irrelevant, but there's very little agreement in relation to what this problem is and where it comes from. The section reveals the missing link that lies in the recognition of the multiplicity of the forms of money.

Chapter 4, thus, examines these forms analytically. The first section starts with the basic forms and how they emerge. Commodity money is the archetypal form from which fiat money and credit money emerge logically, although through different processes. The section introduces the distinction between forms and concrete forms.

The second section is about the new form of money and is the main contribution of this dissertation. The section coins the term quasi-world money for the new form, while providing its basic features, its sources and its contradictions. It is shown that quasi-world money is central bank credit money of leading capitalist country with legal tender in that country, and the preconditions are examined for such an alloy form to occur and sustain. The new form is not the logical evolution of the forms of money but it is historically imposed.

The last section thus examines the relation of quasi-world money with commodity money through a retrospection of convertibility. The latter is defined properly for the scope of the analysis, while its features are presented in detail. It is shown that the Bretton Woods is a peculiar arrangement in terms of convertibility and that what should be explained is not its demise but its establishment in the first place.

In the preceding chapters the role of hoards was addressed in relation to various topics, but it was not properly analyzed. The second part posits in its center the hoarding process and the relation of hoards in the international level with the management of quasi-world money. The part has three chapters.

Chapter 5 has three parts. The first provides a brief historical overview, introduces the reader to the corresponding literature and provides necessary notes on the data. The second section is the core of the chapter and examines the distribution of international reserves in the era of the quasi-world money standard. First, data on the overall allocation of reserves for selected countries is provided and then the two groups, namely dependent and major capitalist countries are examined in turn. The last section provides critical analysis of the findings that suggest the further examination of the Eurozone countries. All the data used and the necessary notes can be found in the first appendix which is the complement of chapter 5.

Chapter 6 presents the data for the Eurozone. The chapter has four sections altogether, the first being a short introduction to the in-house of the euro. The second presents the relation between the euro and gold that is typical of quasi-world money in the making. The third section provides data on the reserves of the European System of Central Banks (ESCB) in various subsections. The chapter is complemented by an appendix for the necessary notes on the data. Useful comments are drawn from the data in the last section of the chapter, although many issues remain open without an answer in the literature and with no available data.

These open issues are the motivation of chapter 7. As a matter of fact, the lack of material led to the solution of qualitative interviews, as it has been argued above. After a short introduction, the chapter comprises of a presentation of the method in section 2 before moving to the results, in the last section. The questionnaire, the results and the evaluation forms of the interviews can be found in the third appendix.

Chapter 8 opens the third part of the dissertation by grounding historically the analysis, namely by examining the historical process of the ascendance of the US dollar to the throne of quasi-world moneys; by doing so, the USD established a new IMS, namely the quasi-world money standard. The chapter has three sections apart from the introduction. In the first, the passage from the gold standard to the so-called gold exchange standard is explained in terms of the emergence of quasi-world money. The fundamental contradiction of the era is identified and its solution is discussed. The second section focuses on the peculiar Bretton Woods agreement and the Keynes Plan. The chapter concludes with the events that led to the collapse of the Bretton Woods and to the establishment of the quasi-world money standard. The last section underlines that the new IMS had other major actors apart from the US, implying that research should cast light on Europe and the attempts of other quasi-world moneys to appear on scene.

Therefore, chapter 9 concludes the historical emergence of quasi-world money, by unfolding the euro project as quasi-world money. The main arguments of this chapter are that the euro project must have started sometime in the 1960s or even earlier, and definitively before the collapse of Bretton Woods; in other words, the euro was not a reaction to the collapse of Bretton Woods but an attempt for a European quasi-world money to be created. The lining up of the historical events reveals the special role of Germany which is examined in the second section of the chapter. In particular, it is questioned why Germany took the lead among other European countries and in particular against France.

It is then questioned whether the emergence of euro has a theoretical framework that can explain its creation. It is shown that the related theories are either not applicable to the case of the euro or inconsistent with basic elements of the theory of money. From this result, it accrues that the euro is a peculiar quasi-world money, a quasi- quasi-world money with further weaknesses that appear in the form of contradictions. These weaknesses are more evident during the current crisis and through the comparison between the management of money that the Fed and the Bank of England have followed, on the one hand, and the choices of the ECB, on the other.

The last chapter essentially summarizes this dissertation by discussing the findings of the previous chapters. In the second section, after the introduction, the main theoretical findings are repeated, along with the historical particularities. In the next section, the results on hoards are summarized by sources and destinations, and by holders and forms. A small part concerning private gold hoarding finds its place in this section. The fourth section treats the modern appearance of the contradictions of the two main forms of world money, namely gold and quasi-world money. They are briefly presented and commented only to lay the ground for the last section where the prospects of the two quasi-world moneys, the US dollar and the euro are discussed. From this discussion a comment is made about the evolution of the IMS in relation to gold.

Part 1. The logical evolution of the categories “money” and “form of money”

“We are all intimately familiar with money, but we seldom consider what a strange thing money really is” (Samuelson and Nordhaus, 1998, p.465).

“[...] familiarity with money often obscures its peculiar and contradictory character as an economic asset” (Lapavistas, 2003, p.49).

Chapter 2. From the emergence of money to its forms: various approaches

2.1. The difficulties

Before proceeding in the analysis of money and the approach to the issues that relate to money in general or the money that performs in the world market in particular, there follows a review of the relative literature. The review is organized primarily according to the response that various authors give to the questions at hand and only secondarily, when possible, according to broader schools of thought. Nevertheless, not all authors' views that have been assessed find their place here. In particular, Marx's views and these of authors that follow the Marxist tradition are exposed in the next chapter. Finally, although reference is made here to Keynes, his arguments are also part of following chapters for functional purposes that will be understood as the analysis unfolds.

It should be noted that reviews on money have been made by various authors, as part of their quest for the emergence, nature, functions and forms of money, or as a self-subsistent contribution. It is argued that these reviews are not sufficient for the present dissertation for the following reasons. Most of the reviews do not recognize the form of world money as a special, distinct form of money, because their authors do not recognize world money as a distinct function of money. But even if this is not the case, the existing reviews do not attempt to explain the form of world money, one of the most complex forms of money, through the evolution of the underlying function,

and the latter, in turn, through the nature of money and the emergence of the latter. The closest to my approach is the reviews of Lapavitsas (2003; 2005c), who nevertheless leaves world money out of the picture⁷.

The approaches to money are often cited by school of thought. There are two problems with this mode of survey. First, authors that comprise a school of thought may not necessarily, and do not actually, agree on all issues that refer to money. The attempt to suppress these differences in order to present the general attitude of a school of thought is counter-intuitive. Second, and even more important, the agenda is generally different for each school of thought, fundamental terms differ and it is difficult for the survey to be coherent (Smithin, 2003). In what follows, therefore, I will review the existing theories under the light of a common agenda which is informed by the relation of the emergence of money with its forms, through the definition and the functions of money. Needless to note, this structure is not usual at all.

Money in general enters into the economic theory in a “peculiar manner” (Keynes, 1973, p.xxii) and its “riddle” (Lapavitsas, 2005a, p.553) was attempted to be solved mostly on islands: the island of Robinson Crusoe, with or without his assistant (Engels, 1978, p.190), the islands of the Hesperides, but also in Atlantis or some Eden of Central Asia (Keynes, 1971a, p.12), the Society Islands where Mademoiselle Zélie had a unique experience (Jevons, 1896, p.1), the Malay Archipelago (ibid, p.2), the island of Uap or Yap (Friedman, 1991; Bryan, 2004), etc. “Enigmatical character”, “fetishism” and a difficulty of “where to have it” (Marx, 1954) seem properties of a special “thing” which combine in a very interesting way: having it is a curse, whilst not having it is disastrous. The reasons for this peculiarity are briefly commented below.

The first difficulty arises from the theoretical approach as such, which must be historical and logical (Rubin, 1929a), the relation of the two requiring very high dialectics and, further “it depends” which precedes the other, as we have seen in the previous chapter (Marx, 1980). This issue was

⁷ Itoh and Lapavitsas (1999) recognise explicitly the function of world money and the relative forms, but they haven't examined it thoroughly.

mentioned also in the discussion of the method and will be present throughout this dissertation. The recognition of the difficulty might be of some assistance in avoiding some deadfalls, at least the most apparent ones.

Secondly, money was confused with its functions, leading to it being defined from what it does, rather than having the money functions derived by its nature. Although classical political economy had established the relation of money with value, with Marx providing the most sophisticated proposal, this relation is now implicitly or explicitly rejected by the majority of monetary theorists. This issue will be discussed in more detail below.

The third catch stems directly from the previous and is related to the forms of money; the latter are mixed up with the functions of money⁸. This issue becomes more complicated due to the ability of one form to perform, and thus reflect, multiple functions (Arnon, 1984). Then the potential of money to be symbolised and its realisation seemed to trouble many theorists who confused the symbol of money with the symbolised money (Rubin, 1979). Alongside with these theoretical slips, some authors seem to be troubled to accept that money assumes multiple forms, implying that money has only one real form. Language is expressing this mystification since money is used mostly in singular, although in most languages plural is not strictly precluded⁹.

A last source of confusion closely related to the previous, concerns the forms of money and their tangible, concrete form, that being metallic, with face value related or not to its content; of various metals; of various concrete forms, but mostly categorised as coin and bar; paper of various issuers, who fall under the broader categories of private, public and the central bank; book entry of the banks; and, lately, electronic. An opposite extreme is Innes (1914) who states that “[a]ll forms of money are identical in their nature” (p.154), arguing that the material is completely indifferent.

⁸ “The difficulty in understanding the matter comes from confusing the different functions of money with the different types of money (government paper money and credit, [...])” (Hilferding, 1910, p.50). Although Hilferding stresses this source of confusion, he’s himself liable to confuse the form of money with the material that is wrapped.

⁹ In French, for example, the word “argent”, which means also “silver”, doesn’t have a plural form. The word “monnaie”, though, of the same Latin root as money, which references to the “unit”, does accept the plural form.

Commodity fetishism blurs the analysis because social relations in production are ascribed to their vehicles: it appears as if those relations are relations between commodities while they are relations between the commodity owners (Marx, 1954; Rubin, 2005a; 2005b; Foley, 1986). Money embodies this fetishism and evolves it into money fetishism. The most common example of money fetishism is the perception that human needs cannot be satisfied but through money¹⁰, while the most usual expression of money fetishism is the comprehension of money, the embodiment of a social relation, as a *thing*¹¹ with own properties¹². The mystification is even greater with other than the commodity, forms of money, where these properties cannot come up from the material that money is made of.

Commodity fetishism lies in the heart of the “money neutrality” doctrine. According to the latter, the apprehension of the fact that “money does not *do* anything, in and of itself” (Stiglitz, 1997, p.717) leads to the conclusion that money is a veil of “real economy”. Friedman (1968) has given a clear exposition of the neutrality doctrine, arguing effectively that money is of no importance for the real economy. Friedman’s view is consistent with what is presented as an axiom of the neoclassical analysis by McCallum (1989), namely that only real magnitudes are of interest, and not monetary ones. Additionally, Hahn (1982) argues that most economists would accept this axiom, calling it as the axiom of the absence of money illusion, “which it seems impossible to abandon in any sensible analysis” (ibid, p.34).

“With regard to this subject,” Marx (1954, p.115) writes

“we may notice two methods characteristic of apologetic economy. The first is the identification of the circulation of commodities with the direct barter of products, by simple abstraction from their points of difference; the second is, the attempt to explain away the contradictions of capitalist production, by reducing the relations

¹⁰ “Money bewitches people. [...] It will not feed you, clothe you, shelter you, or amuse you unless you spend it or invest it.” (Federal Reserve Bank of Philadelphia, 1957 cited in McConnell, Brue and Flynn, 2009, p.629).

¹¹ Some authors use the term “asset”, since they feel uncomfortable with using the term “thing” while arguing for the social roots of it (see, for example, Smithin, 2003).

¹² Only selectively, in Begg, Fischer and Dornbusch (2003) one reads that “[m]oney is a symbol of success, a source of crime, and it makes the world go around” (sic); “[...] the money of account is the *description* or *title* and the money is the *thing* which answers to the description” (Keynes, 1971a, p.3, emphasis in the original). See also, Bell (2001, pp.151-152, 157).

between the persons engaged in that mode of production, to the simple relations arising out of the circulation of commodities.”

Marx’s criticism roots out another source of difficulty in the analysis of money related to the fact that money is often identified with money-capital¹³, the two being economic categories with different natures, since money is a category that pertains to the commodity production in general, whilst money-capital belongs to generalised commodity production (Lapavistas, 2003). After all, “money does not bear a label announcing it as capital” (Hilferding, 1981, p.69). Functions of the former are often ascribed to the latter and vice versa (Marx, 1954; 1978b). Prior to capitalism, other modes of production, like feudalism and even slavery, were to some extent monetized because commodity production existed, although anaemic (Wray, 1993).

To conclude thus far, it is apparent, albeit justifiable, that money is troubling most schools of thought. “The best developed model of the economy”, that being the Arrow-Debreu version of a Walrasian general equilibrium, “cannot find room for it” (Hahn, 1982, p.1). This is in contrast to Keynes’ quote, referred above, that “money enters into the economic scheme in an essential and peculiar manner” (Keynes, 1973, p.xxii) and, whilst the two approaches share little in common, they stamp with their elegance of style the theoretical difficulties that money poses in general.

The chapter presents the basic arguments referring to the definition of money in the next section, in order to pass from there to the discussion of the functions and forms of money in the third section. The final section concludes the chapter.

2.2. Definition of money

Starting with the definition of money, the latter comprises the answer in a series of questions that were cited in the previous chapter. From one point of view, relevant to the approach employed here, these questions collapse into two. The first refers to the emergence of money, the process

¹³ A typical case of this confusion can be found in Theocharis (1983), which was mentioned in the previous chapter, and in Wray (2002). Also, Innes (1914, p.151) writes that “[...] there is only one kind of capital, and that is money”.

with which money comes into being. The issue is not of archaeological interest for two reasons. To begin, the emergence of money defines in good part and is crucially informative of its nature and its content. This is true for every phenomenon, not only in social sciences. Then, and for various reasons, money has to re-emerge repeatedly. Among these reasons one may find wars and social revolutions, crises of various sources, including the dissolution of a monetary union, and other, less violent, disruptions of economic life, like the formation of a monetary union. The position taken by a theorist regarding the emergence of money may, and usually does lead to the preference over one of its functions, but it cannot, by itself, explain these functions. To conclude, the first group of questions could be represented by this: *how* does money emerge?

The second issue is closely related to the previous and refers to the content of the economic category of money. The question here cannot be other than: what *is* money?¹⁴ Put seemingly differently, the second issue refers directly to the theory of value. The essence of money cannot be irrelevant to value, no matter how the latter is perceived. Moreover, the content of money leads comfortably to the discussion of its functions. These either derive from or define the content of money.

The two questions usually come in turn for each theorist or school of thought, although often there's special focus on one or the other and there's hardly a case outside the Marxist tradition that these two questions are integrated. They will be examined thus separately, since interest is focused on the arguments and, especially, the weaknesses of the answers given. It is reminded that the answers to these questions will determine the perception of the forms of money.

2.2.1. Emergence of money

Many authors raise explicitly the importance of the origins of money in the quest for knowing its nature (see, among others, Innes, 1913; Menger, 1950; Marx, 1954; Harrod, 1969; Ingham, 2000; Smithin, 2000; Lapavistas,

¹⁴ The question appears as such from time to time as the title of a paper, a chapter, or a book (Innes, 1913; Smithin, 2000; Ingham, 2004; Mellor, 2010).

2003). Harrod, for example, argues that “[i]t is not possible to understand the principles of money in depth without some knowledge of how it has evolved to its present condition” (1969, p.ix). Moreover, distinction should be made between logical and historical analysis, since the emergence of money is usually perceived as either-or. Even if the process of genesis of money is conceived as both historical and logical, the stress is often put on the historical evolution, or some logical abstraction is enforced on the historical data while not ensuing from it. The method that I follow on this very essential topic is treated in length in the previous chapter.

Regarding the question of how money emerges, there are two answers; one argues that money emerges spontaneously, historically and objectively, while the other argues that it is brought into scene voluntarily, more or less consciously. Menger (1950), in reviewing the theories of the origin of money, distinguishes between those thinkers that derive the “genesis of the money character of the precious metals from their special characteristics” (p.318), identifying John Law as the “founder” of this “correct theory” (ibid); and those that seek the origins of money in an “agreement between men” (p. 315), namely from public authority. In other terms, and more specifically, one strand argues that the process of the emergence of money is endogenous to the market, while another strand denies that the market leads to the spontaneous emergence of money (Lapavistas, 2003, p.112). The two approaches are examined in turn, since the second is brought about by the weaknesses of the first.

The approach to the spontaneous emergence of money from the market starts the discussion with barter and, actually, draws a line between barter and monetary exchange, considering the two as different modes of economy. More specifically, the discussion on money opens with an appeal to the reader’s imagination, with a *motto* like the following: “imagine a barter economy...” (Begg, Fischer and Dornbusch, 2003, p.313) or “it is easy to imagine the difficulties [...] of barter” (Korliras, 2000, p.13). It is then argued logically that barter is not convenient because each commodity owner and potential consumer of a commodity, other than the one that he or she owns, should find the corresponding commodity owner of the commodity in demand and, moreover, the two (owners, not commodities)

should agree on the terms of the exchange, most important of which appears to be the rate. The physical properties of the commodities and, especially, their divisibility, durability and ability to transfer would impose further objective obstacles in the exchange. The process should be repeated every time that an exchange should take place with precarious and often disappointing results.

The argument is often based on the lack of the “double coincidence of wants” in barter economies, a reference attributed either to James Mill (1844), more often to Jevons (1896) or, less frequently, to Adam Smith^{15,16}. Nevertheless, none of the three offered a solution referring to the logical and historical passage from barter to monetary exchange. They all argue similarly, appealing to vague circumstances and it is considered worth quoting them in length:

“To obviate these difficulties [of barter, GL], it would be *fortunate* if a commodity could be found, which every man, who had goods to dispose of, would be willing to receive, and which could be divided into such quantities, as would adapt themselves to the value of the articles which he wished to obtain” (Mill, 1844, p.128, emphasis added).

“Although many commodities may be capable of performing this function of a medium more or less perfectly, some one article will usually be selected, as money *par excellence*, by custom or the force of circumstances” (Jevons, 1896, p.13, emphasis in the original)

“In order to avoid the inconveniency of such situations, every *prudent* man in every period of society, after the first establishment of the division of labour, must *naturally* have endeavoured to manage his affairs in such a manner, as to have at all times by him, besides the peculiar produce of his own industry, a certain quantity of some one commodity or other, such as he *imagined* few people would be likely to refuse in exchange for the produce of their industry” (Smith, 1993, pp.31-32, emphasis added).

¹⁵ “In exchanging commodities for one another directly, or in the way of barter, the wants of individuals could not be easily supplied” (Mill, 1844, p.128). “[...] to allow for an act of barter, there must be a double coincidence, which will rarely happen” (Jevons, 1896, pp.3-4). “The butcher has more meat in his shop than he himself can consume, and the brewer and the baker would each of them be willing to purchase a part of it. But they have nothing to offer in exchange, except the different productions of their respective trades, and the butcher is already provided with all the bread and beer which he has immediate occasion for. No exchange can, in this case, be made between them” (Smith, 1993, p.31).

¹⁶ Interestingly enough, Rochon and Vernengo (2003, p.66) argue that the double coincidence of wants is usually associated with Menger (1892).

The barter mode is considered to be the “real” economy and is derived axiomatically “from an inaccurate historical conception of a small-scale, pre-capitalist ‘natural economy’ or the ‘village fair’” (Ingham, 2000, p.17). Graeber (2011) observes sharply that the barter argument “is not presented as something that actually happened, but as a purely imaginary exercise” (p.23). Wray (1993) in criticizing Samuelson makes also the point that the orthodox story is hypothetical, with no historical or institutional reference. It is a logical construction, out of time and space, with no past and thus no future or, to put it differently, with such a long history that determines an ever-lasting future. Ingham (2000) argues that this construction stems from the (neo) classical perception of an immutable world, therefore implying that there is no evolution.

It is interesting to note though that the classical version of barter was not always presented as imaginary, but as properly in existence. Jevons (1896), for example, argues that “[i]n the present day barter still goes on in some cases, even in the most advanced commercial countries, but only when its inconveniences are not experienced” (p.6) providing with numerous examples (pp.1-7). By the time of Innes (1913), the historical evidence of the barter story was already conversely proportionate to its establishment among economists, namely scant (pp.377-378). The reasons for which the argument evolved into a purely logical one and that historical evidence is not provided should lie either to the inexistence of such evidence (Ingham, 2004)¹⁷; or to the diminution of the evolutionary character of social forms, conscious or not; or, most probably, to both. Further analysis though, on this issue would go beyond the scope of the chapter.

In any case, there is obviously a link missing between the adduced necessity for “money”, stemming from the inconvenience of barter, and the actual emergence of money. In other words, once money was there, it seemed nonsense to reject it (McCallum, 1989), but how money got there in the first place, is not clear (Lapavitsas, 2003). Ingham puts it neatly as follows. “Money clearly does have efficient consequences, but unless they

¹⁷ Innes (1913) argues that “none of this theories rest on a solid basis of historical proof – that in fact they are false” (p.378). Wray (2000) argues that barter was more convenient and less costly than issuing coins, in the early times, especially for retail trade.

can be shown to have been in the minds of the earliest users of money, they cannot be taken to be causes of origin” (2004, p.70).

A way out of this theoretical conundrum is attempted by Menger (1950, ch.8)¹⁸. Menger understands exactly the process of emergence of money as an outcome of the spontaneous actions of economizing, utility maximizing individuals that engage in exchange transactions. He also stresses the difficulty of barter, which he characterizes as insurmountable¹⁹, but then he feels obliged to explain how this difficulty was surpassed; namely, how money comes into being. This happens as economizing individuals, gradually, exchange their commodities, not necessarily for commodities that they would like in return, but with commodities of greater, or the greatest, marketability, at each point of time²⁰. Marketability, he has already argued (pp.241-256), is a property that some commodities retain in greater extent than others due to reasons that pertain to exchange and are purely social. To conclude, some commodities acquire greater marketability than others; “the most discerning and most capable economizing individuals” recognize this property of the corresponding commodities and, by using it in their interest, they lay the basis for these commodities to apply for moneyness; the best candidate wins the round, always in the process of exchange, which is *de novo* the field that marketability grows. In Menger’s own words

“[...] only a small number of economizing individuals will at first recognize the advantage [...]. This advantage is *independent of a general acknowledgement of any one commodity as money*. [...] Since there is no better way in which men can become enlightened about their economic interests than by observation of the economic success of those who employ the correct means of achieving their ends, it is evident that nothing favored the rise of money so much as the long-practiced, and economically profitable, acceptance of eminently

¹⁸ Lapavistas (2003, p. 114) argues that this is “the most powerful neoclassical answer for the question of the money’s emergence”. He also provides a very good account of Menger’s approach and a relevant critique (pp.114-117) and what follows draws heavily on it.

¹⁹ “This difficulty would have been insurmountable, and would have seriously impeded progress in the division of labor, and above all in the production of goods for future sale, if there had not been, in the very nature of things, a way out” (Menger, 1950, p.258).

²⁰ “As *each* economizing individual becomes increasingly more aware of his economic interest, he is led by this *interest, without any agreement, without legislative compulsion, and even without regard to the public interest*, to give his commodities in exchange for other, more saleable, commodities, even if he does not need them for any immediate consumption purpose.” (ibid, p.260, emphasis in the original)

saleable commodities in exchange for all others by the most discerning and most capable economizing individuals. In this way, custom and practice contributed in no small degree to converting the commodities that were most saleable at a given time into commodities that came to be accepted, not merely by many, but by all economizing individuals in exchange for their own commodities.” (p.261, emphasis in the original)²¹

With this proposition, the neoclassical reasoning reached its limits in providing an answer as for the logical mechanism of emergence of money that would be rudimentarily consistent with historical evidence. The focus then shifts onto the necessary source of the recognition of the advantage of money, by some enlightened individuals; that is, the question of how money emerges becomes this: where does the enlightenment of the enlightened come from? (Lapavistas, 2003, pp.115-116)

The purely logical argumentation and its incompatibility with historical evidence, let alone its major theoretical lacuna spotted above, led to the opposite side, that is, in the quest of the origins of money in “records of ages still earlier than that of the great king Hamurabi” (Innes, 1913, p.391). Innes (1913) argues that the origins of money should be perceived as historical and his reading of history leads him in maintaining that money emerges as credit. Starting himself as well from the inconveniences of barter, he argues that these could be overcome with credit from the “seller” to the “buyer” and that this was actually how it happened. He presents ample evidence from the antiquity referring to the existence of various objects that he considers as credit contracts that represented the earlier forms of money, long before any medium of exchange.

The cornerstone of Innes’ argument is that credit is generated by honesty; it is facilitated, enforced and closely supervised by social conventions like law and religion institutions; the apex of these institutions, the state, issues debt in the most unfussy way, that is “by law obliges certain selected persons to become its debtors” through taxation (ibid, p.398).

Innes though doesn’t consider the state as a necessary precondition²². There are two necessary assumptions for Innes’ construction. First, the

²¹ Note that Menger’s “economizing individual” reminds of Smith’s “prudent man”.

²² “The issue of money is not an exclusive privilege of government [...]. Money in one form or another is, in fact, issued by banks, merchants etc.” (Innes, 1914, p.168)

whole process is generated in the internal of a society; money emerges inside a particular community. This is essential for credit to come about from well established social relations. The second assumption is that the measure of value is of almost no importance for credit to emerge. Innes presupposes some “relative values current in the village market” (1913, p.391) for the origin of which he does not give any account. Note that these relative values are irrelevant of the scale that it will be used to express them, but refer only to the ratio that the quantities of two commodities would be exchanged. Finally, the two assumptions seem to combine in an implicit third, according to which relative values were set by some nebulous social agreement. For that, Innes argues that a sale is defined as “the exchange of a commodity for a credit” and not for another commodity (ibid).

As we shall see in the next chapter, this was not the case and money emerges in the margins of a community, where one community is adjacent to another. Yet, the major flaw of this approach is logical. An exchange presupposes equal counterparts in some respect and Innes cannot and could not give any common element between a commodity and credit on which qualitative equality could lay the ground for a quantitative exchange ratio. More relevant to the issue discussed here, Innes approach employs voluntarism by the trading parts which is the natural product of their pre-existing social bonds, and as such arises spontaneously. The roots of money are thus chased out in non-economic realms which are poorly explored.

Innes’ line of reasoning is followed and developed by Wray (1993; 2002) who argued that money emerges from the penal system of the tribal society. “Over time, authorities transformed this from fines paid to victims of *crimes* to a variety of payments *to* the state” (2002, p.28, emphasis in the original). This “authority” is an “evolving institution [...] with varying degrees of sovereign power” (ibid). Therefore, money lurks behind infringing behavior, however that was defined in each particular epoch, and especially at the point that this behavior was spotted and perceived as a debt in the moral sense. Actually, Wray develops here an argument of the German Historical School that ascribes the emergence of money in ancient

social institutions the most prominent of which is *Wergeld* or “bloodwealth” (Williams, 2000; Wray, 2002; Graeber, 2011)²³.

That is one possible development of Innes’ argumentation, according to Ingham (2004), the other referring to the “need to calculate economic equivalencies of goods in the agrarian command economies of the ancient Mesopotamian and Egyptian empires” (p.91). Ingham finally maintains that money sees the light “as a means of calculating obligations and debts in pre-market tribal and clan society” (p.105). The “conceptual basis for money of account” is formed socially and politically, though an assessment of corresponding obligations (ibid).

In other words, it is attempted to establish the economic category of credit on primordial moral grounds. Moreover, both approaches ignore the almost natural linkage between the emergence of money and the exchange of commodities, arguing effectively that this linkage has come about historically and logically much later. When the commodity exchange is to begin, the unit of account has been already established for reasons unrelated to the commodity exchange. Barter has never taken place because money exists before the market. The difference between the two approaches is essentially whether this process emerges spontaneously from a social process or is enforced in order to solve social problems.

The previous reasoning led effectively to emphasize the role of the state or the law, or in general of an authority, as the institution that would solve the problem of the exchange ratios between commodities. With the appearance of the state in the picture, as a necessary precondition, there is irreversible denial of the spontaneous emergence that Menger asserted in the most explicit way²⁴. Therefore, money was considered as the product of the state, forming thus the state theory of money, which is the title of Knapp’s 1905 seminal book (1924). It should be stressed that the theoretical grounds of this approach were set long before Knapp, with Menger positing

²³ According to Graeber (2011) *Wergeld* is “money presented to the family of a murder victim so as to prevent or resolve a blood-feud” (p.133).

²⁴ “Money is not an invention of the state. It is not the product of a legislative act.” (Menger, 1950, p.261) “Money is not the product of an agreement on the part of economizing men nor the product of legislative acts. No one invented it. [...] money is a natural product of human economy [...]” (ibid, p.262).

them in the antiquity and Plato (Menger, 1950, pp.315-320; see also Bell, 2001, p.154) and Rubin (1979, ch.8) attributing the modern version of the law or state theory of money to Nicholas Barbon, John Locke and David Hume in the late 17th c.

Knapp begins his book with the following assertion: “Money is the creature of law. A theory of money must therefore deal with legal history” (Knapp, 1924, p.1). The state is implied as an authority that has always been there, or at least four thousand years now (Keynes, 1971a, p.4). Keynes describes the role of the state as follows

“The State, therefore, comes in first of all as the authority of law which enforces the payment of the thing which corresponds to the name or description in the contract. But it comes in doubly when, in addition, it claims the right to determine and declare *what thing* corresponds to the name, and to vary its declaration from time to time [...]” (ibid, emphasis in the original).

The essential parts of this argumentation are promoted explicitly by Lerner (1947) and Wray (2002).

From one point of view, the state theory of money is in line with the debt (or credit) theory of money since it expels conveniently fundamental issues from the economic relations to a vague state or government. It could provocatively be argued that this is an exogenous approach to money *par excellence*, and this is the gist of the contribution of Rochon and Vernengo (2003) who maintained that “sovereignty, understood as the power to tax and collect in the token of choice, is not the main explanation for the existence of money [...]” (p.65), stressing the importance of other institutions, with the banks being the most prominent of which. In any case, the emergence of money rests in the actions of an “extra-market authority” be that the state or some other social institution; the roots of money are to be found “in the realm of credit” and “money emerges as abstract unit of account” (Lapavitsas, 2005c, p.395).

Therefore, there seem to be three approaches to the emergence of money, in relation to their spontaneity and in consideration to their coming from the economic system or not. The first is stemming spontaneously from barter, making money the medium of exchange. The second is originating in debts spontaneously arising in a society, which money comes to calculate

as a unit of account. This process could also imply that money emerges spontaneously or that it is imposed as a unit of account for the calculation of obligations. The third rejects the spontaneity, arguing that money is a product of the state and comes about through its exercise of power and, in particular, through the imposition of taxes, penalties etc. According to the latter, money emerges primarily as a unit of account for the obligations against the state, but almost simultaneously as a means of payment of these obligations. The third approach does not necessarily preclude the second; the former could be seen as the evolution of the latter.

2.2.2. What is money? or the content of it

Let us turn to the question of what money *is*, what is the nature or the content of it. One way to approach it has been the following: money has a content that defines its functions or the other way round, its functions are exactly the content of money. Another way refers to the issue of value underlying the monetary form. This is contested with two proposed solutions: one strand argues that value is the content of money, but then it is disputed how this value is defined, while another strand argues actually that money has no other content but its functions, leaving the issue of exchange value levitating^{25,26}. This debate is the essence in the dispute referring to whether money enters circulation with a value or acquires value through circulation, and the answer given to it is the backbone of every theory of money.

If money comes into being as a medium of exchange in order to remedy the illnesses of barter, then it is identified with what it is supposed to be doing. From the outset, it is *the* medium of exchange and not something else that functions as *a* medium of exchange. Therefore the content of money is, in general, allowed to be defined by its function (or functions); the most crucial and definitive function is that of the medium of

²⁵ Eloquently, McNamara (2008) argues that “money is inherently subjective: its value and meaning are not intrinsic but constructed, both socially and through political power” (p.441). Apparently, for McNamara, political power is not social.

²⁶ The point here is not the existence of a theory of value, but whether value is the content of money. In this sense, Walrasian marginal theory of value does not qualify and most authors that accept this theory of value argue that money’s content is nothing else but its function(s).

exchange in circulation; money enters circulation without any predetermined exchange relation with commodities; by practicing its being, namely by functioning as medium of exchange or by being exchanged with commodities, money establishes an exchange relation with the latter that is conditional upon its quantity. This is the fundamental basis of the quantity theory of money.

The authors that build their conception of money on the above tenets are numerous and indeed they form the mainstream approach to the nature of money, laying thus the ground for the further expansion of various obsessions to flourish. Textbooks of economics with multiple editions reproduce these arguments, embellished with *clichés* and tautologies. Some of these expressions are mentioned selectively below, for their elegance or frankness, although the list is almost ever-lasting.

The best form of the tautology mentioned above can be found in Capie and Wood (2001) who inform us that “[m]oney is after all only what is acceptable as money” (p.29). In Begg, Fischer and Dornbusch (2003)²⁷ one reads that “[m]oney is any generally accepted means of payment for delivery of goods or settlement of debt. Money is the *medium of exchange*” (p.313, emphasis in the original). It is “anything that serves as a commonly accepted medium of exchange or means of payment” (Samuelson and Nordhaus, 1998, p.466). For Korliras (2000) “by the term ‘money’ we mean a ‘good’ that intermediates in transactions between economic units and which, as generally accepted means of transactions, functions at the same time and as a unit of account of economic values” (p.13)²⁸. Yet, the most sincere phrasing can be found in McConnell, Brue and Flynn (2009) and Stiglitz (1997) who argue explicitly that money is, what money does²⁹.

²⁷ Here, the 7th edition is taken into consideration, although this textbook already counts 10 editions, with the addition of a new co-author, Gianluigi Vernasca, in the last one of 2011.

²⁸ “Με τον όρο «χρήμα» εννοούμε ένα «αγαθό» που μεσολαβεί στις συναλλαγές μεταξύ οικονομικών μονάδων και το οποίο, ως γενικά αποδεκτό μέσο συναλλαγών, λειτουργεί ταυτόχρονα και ως μέτρο υπολογισμού των οικονομικών αξιών” (Korliras, 2000, p.13, own translation).

²⁹ “Just what is money? There is an old saying that ‘money *is* what money *does*.’ In a general sense, anything that performs the functions of money *is* money” (McConnell, Brue and Flynn, 2009, p.630, emphasis in the original). “Money is anything that is generally accepted as a medium of exchange, a store of value, and a unit of account. Money is, in other words, what money does” (Stiglitz, 1997, p.720).

The problems with the mainstream definition begin exactly with the identification of money with (one of) its functions, that being an epistemological absurdity. The approach appears always solid ex post since whatever does the job of the medium of exchange, and for as long as it does, is awarded with the title of money, but few things can be said ex ante, or even in relation to the evolution of the functions and the forms of money. The problem, it should be stressed, doesn't lie with the particular function of the medium of exchange. The limits of this analytical line have been dramatically exposed during the current crisis.

Further critique has been exercised from various angles. Hahn (1982) has argued that the neoclassical premises leave practically no room for analysis consistent with economic reality and they should not be taken literally. Lau and Smithin (2002) add that “[t]his theory is obviously not defensible on the grounds of historical verisimilitude” (p.7). Clower (1967) reflects both sides by maintaining that “the conception of a money economy [erected on Walrasian foundations] is *empirically and analytically* vacuous” (p.81, emphasis added).

A response claiming to fill the vacuum has come from the tradition of nominalism, or chartalism, which is preferred to the former so that it references to Knapp. Coming either from the spontaneously arising debt relations that evolve up to the state, or arguing that the state created money from the outset, money is identified with the function of the means of payment, or with that of the unit of account, or with both. In this sense, money is what it does; this proposal is not so different from the previous mainstream approach apart from the fact that now money is not a medium of exchange, but a unit of account (or a means of payment). The quintessence of this alternative approach in its modern twentieth-century version starts from Innes; it is based mostly on Knapp; it borrows the glamorous and prestigious support of Keynes, who added a stroke of the brush; and it is fully brought to light by the frankness of Lerner.

Starting with Innes, who pertains that “credit and credit alone is money” and that “[t]he monetary unit is an abstract standard for the measurement of credit and debt” (1914, p.168), the state (“government”) has not the exclusive privilege of issuing money, but as “a great buyer of

services and commodities” the state has an advantage against “banks, merchants etc” who also issue money “in one form or another” (ibid).

Knapp has a much clearer definition stating that “[m]oney always signifies a Chartal means of payment. Every Chartal means of payment we call money. The definition of money is therefore ‘a Chartal means of payment’” (1924, p.38). He had previously introduced the term Chartal as an adjective for ticket or token³⁰, thus pointing at the insignificance of the material form of money for its moneyness. Lerner takes this definition to its extremes when he argues that “[m]oney [...] is what we use to pay for things. The basic condition for its effectiveness is that it should be generally acceptable.” (1947, p.313) This basic condition is provided by the state. Actually,

“The modern state can make anything it chooses generally acceptable as money and thus establish its value quite apart from any connection, even of the most formal kind, with gold or with backing of any kind. [...] if the state is willing to accept the proposed money in payment of taxes and other obligations to itself the trick is done” (ibid)

Keynes argues similarly. Having said that “[m]oney of account, namely that in which debts and prices and general purchasing power are expressed, is the primary concept of a theory of money” (Keynes, 1971a, p.3), he goes on to argue that “[t]o-day all civilized money is, beyond the possibility of dispute, chartalist” (p.4). Chartalism, for Keynes, begins “when the State *designates* the objective standard which shall correspond to the money of account” (p.10, emphasis in the original). Keynes moves on by arguing that the essential characteristics of Chartalism are already present, even when money passes by weight and not by tale, provided that it is the state which designates the commodity and the standard of weight.

Ingham’s approach seems to be different since he defines money as a social relation (2000; 2004). Nevertheless, in two subsequent pages (2004) he states

“[...], the focus on money, as a *medium of exchange*, results in a category error in which specific forms of money are mistaken for the

³⁰ “Perhaps the Latin word ‘Charta’ can bear the sense of ticket or token, and we can form a new but intelligible adjective – ‘Chartal.’ Our means of payment have this token, or Chartal, form.” (Knapp, 1924, p.32)

generic quality of ‘moneyness’” (2004, p.69, emphasis in the original).

“Money of account is logically anterior to any form of money that bears the abstract value [...]. ‘Moneyness’ is *assigned* by the money of account, not by the form of money” (ibid, p.70, emphasis in the original).

These are typical examples of confusion between functions, forms and the nature of money. Even if one bypasses the cyclical definition, according to which moneyness is assigned by money (of account), and the fact that a seemingly core notion like ‘abstract value’ is not defined at all, it is inevitable to skip noticing that the medium of exchange and the “money” (or unit) of account are beyond any doubt functions of money, not forms. What is relevant to the discussion here is that, according to Ingham, the unit of account³¹, again a function of money, defines money.

Interestingly enough thus, it seems that theorists who reject the mainstream definition of money, follow the spirit by identifying money with its functions. It is of secondary importance if they reject the means of exchange function as the content of money and they propose the unit of account or the means of payment function.

To summarize thus far, money is either spontaneously emerging to remedy the illnesses of barter and its content is the function of the medium of exchange; or it is the creature of some authority, emerging as a unit of account imposed from above. The two approaches are presented as uncompromising because the former is presumably leading to a *laissez-faire* monetary policy, while the latter suggests the enhancement of the role of the state (Smithin, 2003). Nevertheless, as it will become clearer in the next chapters, the spontaneous emergence of money is not necessarily precluding a significant role for the state, as long as it is acknowledged that money has a content that defines its functions, rather than vice versa; moreover, that there are various forms of money which accrue from these different functions.

³¹ Ingham (2000; 2004) uses the unit of account and the money of account interchangeably.

2.3. The functions of money, the forms of the latter and their relation

In the preceding discussion, many references were made to the functions of money, since they have proven to play effective role in the understanding of the nature of money for numerous authors. Fewer references so far touched on various forms of money, while there has been no implication as for the relation of the two. These issues will be treated now in more detail.

Functions should derive from the nature of money. If money is what it does, defined essentially by one of its functions, then all other functions should derive from this first one, no matter what this will be. The main problem that arises in relation to the functions is that it is not always easy to derive them from the main defining function. This argument, standing distinctly against the previous definitions and particularly relevant for the functions of hoarding (store of value) and world money, will expand in the next lines with various examples. As far as forms are concerned, various problems arise in relation to the functions and independently.

2.3.1. The functions

The discussion of the functions of money in the literature is chaotic. Functions are not well defined in most cases and they are confused, not only with the content, but also with the form of money³². Following thus the lines of reasoning exposed above, one strand argues that the predominant function of money is that of the medium of exchange (Smithin, 2003). The function emerges naturally from barter and the exchange of commodities, as we have seen.

It seems that there is little to add to this function, apart perhaps from the fact that it is often identified with the means of payment, or at least, the two terms are often used interchangeably without any further distinction (see, selectively, Clower, 1967; Begg, Fischer and Dornbusch, 2003). The

³² For example, Wray (2002) writes: “Turning to the “nature” and “origins” of money, many heterodox economists reject the orthodox notion that money is essentially a commodity that functions primarily as a medium of exchange, invented to reduce transactions costs” (p.27).

implicit argument is that it is a matter of indifference whether money buys or pays, which implies a vague definition of the sale itself³³. In general, one buys a commodity when it comes to one's possession and, simultaneously, one pays what is worth for it and the medium of exchange comes to the possession of the initial owner of the commodity. If one buys on credit, the commodity comes to one's possession now, but is going to be paid later, and one undertakes with all legal means this responsibility signing a form of obligation. When the time for payment comes, one pays in exchange for (cancelling) this form of obligation; the exchange then concerns the media of exchange with the form of obligation. The confusion arises when the forms of obligation become media of exchange themselves and it appears as if, in the later case, no exchange takes place. Yet, it is at least naïve to maintain that paying now in exchange for a commodity and paying later, after having taken and partly or wholly consumed the commodity, is one and the same.

For most authors that choose the medium of exchange, the unit of account is also acknowledged, but its importance is considered as minor. Ostroy and Starr (1993) argue that it is the least significant of money's (three) roles and that there is widespread agreement on that. The reason is that the unit of account, which is a pure convention, cannot derive easily from the medium of exchange, but should be imposed on money. The proposed solution is that the medium of exchange provides the unit of account with its bodily form; these units are usually weight units (Dowd, 2000). The difficulty becomes even greater, and more profound, when there is no theory of value or when the marginal cost theory is involved. In the frames of the latter, it is not so clear how the unit of account function can be performed, especially in the case of paper money (Hahn, 1982).

As we have already seen, the unit of account is the fundamental function of money for theorists who favor some form of nominalism, namely the conscious and voluntary imposition of money on the economy. The state defines the unit of account and the mechanism is related to its ability to tax,

³³ An extreme case is that of Innes (1913; 1914) who argues that "a sale and purchase is the exchange of a commodity for a credit" (1914, p.152).

but also to spend or even to produce and sell (Rochon and Vernengo, 2003). The nature of the state seems essential for this function, but there is no developed state theory by the advocates of the homonymous theory of money. In a rare occasion, Lau and Smithin (2002) inform the reader that “government is a main economic actor, and a *mediator/intermediary* between the three groups” (p.17, emphasis added), these being Keynes’ classes, namely the investing class (financiers / rentiers), the business class (entrepreneurs) and the earning class (workers) (ibid; Keynes, 1924; 1973).

In general, and to summarize thus far, “the monetary authority possesses the legitimate power to construct and maintain both the money of account and standard of value” (Ingham, 2000, p.31). Note that Ingham identifies here the unit of account with the standard of value. Elsewhere, he also uses the term “measure of value” as equivalent to the unit of account (ibid, p.21). Ingham is not the only one who does so (see, also, Innes, 1914; Dow and Smithin, 1999; Smithin, 2003; Mellor, 2010). Interestingly enough, McCallum (1989) points this out explicitly by distinguishing between what he calls the medium of account and the unit of account. This point is considered as very important and it will be discussed separately in the next section.

The conventional textbook triad comprises the medium of exchange, the store of value and the unit of account (McCallum, 1989; Samuelson and Nordhaus, 1998; McConnell, Brue and Flynn, 2009; Plaschke, 2010). It is time to turn to the store of value function or, simply, hoarding. At first sight, there seems no reason for agents to hold money. Hoarding and the formation of reserves seem very absurd in the neoclassical framework (Hahn, 1982). After all, if money is a medium of exchange and has no value outside circulation, hoarding is logically impossible. Samuelson and Nordhaus are explicit on that by stating that “[t]he only utility of money comes when we get rid of it” (1998, p.465). Obviously, hoarding is not included in the functions of money for these authors³⁴.

³⁴ For the same reasons, “[t]he functioning of money as a store of value has been somewhat neglected in classical monetary theory” (Harrod, 1969, p.4).

Apparently though, it has been neglected by the chartalist approach as well. For Chick (2000), the store of value is almost omitted; if there is need for money, she argues, new money is created and that leaves little scope for hoarding. From another point of view, Dow and Smithin (1999) conclude similarly that “[t]he *store of value* aspect of money is of much less importance because there will usually be other stores of value, possibly with better rates of return, which do not perform monetary functions” (p.79, emphasis in the original). After all, if money is a unit of account, defined by the state, hoarding should be very precarious and subject to manipulation. Needless to note, the storing value in the international level is even more difficult to explain in this framework.

Finally, it is questioned whether the performance of money in the world market comprises a separate function or it is simply an extrapolation of the national functions in the international level. To begin with, the very term (“money”) disappears when it comes to the world market. Instead, “currencies” are projected in the international monetary system performing the same functions as they do at the national level, although in a more complex way (Tavlas and Ozeki, 1992). Moreover, if “[...] the chartalist view supports the notion that the state is the monopoly supplier of currency [...]” (Rochon and Vernengo, 2003, p.60) that leaves little room for world money, in the absence of a world state.

2.3.2. The forms

The analysis of the forms of money not only reflects all the contradictions we’ve dealt with so far, but generates some own problems. All the debates that were described above in relation to the emergence, definition and functions persist and are developed when the forms are under examination. For example, if money’s main function is that of the medium of circulation, which comes from the inefficiencies of barter, the analysis will focus on forms that arise from barter and pertain to circulation; money

will thus assume naturally the commodity form³⁵ (Samuelson and Nordhaus, 1998; Begg, Fischer and Dornbusch, 2003).

From the same perspective, whatever form is accepted as a medium of exchange is a money form, even if it is not a commodity form. The non-commodity forms appear often under the broader form category of paper money, although the stress is laid on the fact that they are non-commodity forms, since some of them are not actually made out of paper, like the bank accounts (Samuelson and Nordhaus, 1998). Alternatively, these forms are also called fiat money and are perceived as symbols (McCallum, 1989). Usually, this approach starts by acknowledging the form of gold historically, moves on to coins, banknotes and bank deposits and then discusses other forms, like bonds, credit cards etc, according to their acceptance in exchanges, and rejecting them as a rule. Moreover, there is no convincing analysis as for the transition from one form to another, other than an implicit or explicit convenience argument (Georgakopoulos et al, 1995; Korliras, 2000).

An interesting transition theory emerges easily from Menger's notion of saleability with which he explains the passage from cattle to metals (copper, silver, gold and, in some cases, also iron) through the economic evolution from nomadism and simple agriculture to the developed industrial economies. Of course, all forms examined are commodity forms (Menger, 1950, pp.262-271).

From one point of view, Innes supports the argument when he states that “[a]ll forms of money are identical in their nature” (1914, p.154), but definitely that nature is not their being commodities. On the contrary, Innes argues that “the precious metals could not have been a standard of value nor could they have been the medium of exchange” (19313, p.390). All forms are promises to pay, instruments of credit or tokens of indebtedness (1913; 1914).

Apparently the previous two approaches to forms, consistent as they may be, and they are, with their initial premises, they have lost touch with

³⁵ “The use of money – *any commodity* generally accepted in payment for goods, services, and debts – makes trading simpler and more efficient” (Begg, Fischer and Dornbusch, 2003, p.313, emphasis in the original).

reality. The most striking argument is that all money is identical in nature and Keynes elaborated on it with his elegant style of compromising. It should be noted that Keynes' perspicacious contribution in the forms of money is not frequently quoted, if not neglected.

Keynes (1971a) introduced a sophisticated classification of money that unfolds in, at least, five levels. The classification is introduced with a distinction between money of account and money the former being the "description or title", while the latter is "the thing which answers to the description" (p.3). Keynes moves distinguishing between State money or money proper and bank money or acknowledgments of debt, considering the latter as a serviceable substitute of the former in the settlement of transactions (p.5). He ends up with four forms of money, which he also calls "instruments of exchange" (p.8), these being commodity money, managed money, fiat money and bank money. The first three are forms of state money; the second and the third are forms of representative money; the fourth is not money proper, but an acknowledgement of debt.

Keynes gives the definitions of these forms and their relation, especially between the three forms of state money. Note that Keynes explicitly differentiates a form from the material that it is made; the source of the form and the governance of its supply are rather the criteria for differentiating a form. Therefore, the interference of the state is crucial. The state controls the issuance of fiat money, not at all that of commodity money; while managed money is somewhere in between, a "hybrid between the other two" (p.7). Keynes' emphasis is exactly on this latter form. These four forms are the basis for all the other classifications that he makes according to who is holding or who is receiving money (pp.8-9).

Nevertheless, this part of the Keynesian legacy was not followed by authors who consider themselves as inspired by Keynes, it is not quoted and, generally there is no reference to it, to my knowledge. The departures from the Keynesian approach to the forms of money are seemingly towards various directions, but the essential point is the argument that there is only one form of money, which is often identified with a name. Chick, for instance, states that "to Post-Keynesians, money is bank liabilities, that is, deposits (cash is irrelevant here)" (2000, p.130). In the terms of Keynes this

is bank money, and in a sense, if Chick is right, Post-Keynesians reject all the forms of money proper altogether.

Bell (2001) ends up with as many forms as tickets or cards³⁶ denominated in the unit of account, which is actually identified with a name, and for example, “[i]n the United States, the unit of account is the dollar” (Bell, 2001, p.158; see also, Wray, 1993, p.7). Wray ends up with many forms that bear a label, which he doesn’t name systematically (1993; 2000; 2002; 2010). In the same line, Ingham argues that “[...] as late as the nineteenth century, the pound sterling was represented by a range of media – gold sovereigns, myriad bank notes, inland bills of exchange, local copper coinage” (2004, p.71).

This argument focuses on the money of account, on the one hand and various representations of it on the other, the material of which is not important³⁷. All the insightful classifications are gone and they are substituted by the hierarchy of the forms that is structured by the degree of acceptability which refers to the issuer (Bell, 2001; Lau and Smithin, 2002; Ingham, 2004). Eventually, although “today many media coexist: cash, plastic cards, cheques, magnetic traces in computer disks and so on” (Ingham, 2004, p.71), not all of them are “fully acceptable throughout the space that is defined by a *dominant* money of account” (ibid, p.76, emphasis added).

Similarly, Smithin (2003), although he speaks of various exchange media, he considers that there is a base money or cash, which is the form of money that combines the twin monetary functions of a standard of value and (final) means of payment. He uses various terms for this form, like the “ultimate asset”, a “basic monetary asset”, the “standard asset”, “reserve asset” etc. Finally he makes a not well defined distinction between “hard” and “soft” money, the former referring to a “physical asset”, while the latter

³⁶ “[...] every plane ticket, pre-paid phone card, movie ticket, subway ticket, etc. is a form of Chartal money” (Bell, 2001, p.159).

³⁷ Money “need not have any physical existence other than as some form of record – mostly, an electrical entry on a computer” (Wray, 2010, p.9). “The essential nature of money has become clearer with the stripping-out of its material form to leave its structural framework as a social system [...]” (Ingham, 2000, p.23).

to a “financial asset”. Similar arguments can be found in Dow and Smithin (1999), Smithin (2000) and Lau and Smithin (2002).

Thus far, all forms are in reference to the functions of the medium of exchange and the means of payment, if the latter are differentiated from the former; and, of course, the unit of account (or measure of value), which provides us mostly with names and “imaginary” or “ghost money” (Wray, 1993). The forms of hoards or reserves have not attracted much attention, since the very function of the store of value is underestimated or even neglected altogether. Keynes’ central bank money is in some reference to the store of value function, but it is not considered as a separate form. If one’s takeoff is that “[...] whatever form money takes, that form does not embody a real value in itself” (Mellor, 2010, p.14), then it is difficult to argue that there can be one form that can store value. The trouble is even greater when it comes to hoarding in the international level, mostly, but not exclusively from central banks.

In the case of money in the world market, things are somehow different. Here, the form is recognised, for there are international currencies since the early Renaissance period, or even earlier (Rochon and Vernengo, 2003). Moreover, even when gold and silver were circulating domestically in the form of coins, they had to assume the bullion form in order to circulate internationally and this change in form could not pass unnoticed. The issue of whether all currencies can have an international appeal and, further, the relation of money and currency, are dealt in various ways, though always in obscurity.

All these theoretical difficulties are reflected in the various statistics. Two examples can illustrate this argument, namely the money supply and the international reserves. The current measures of money supply are the well known Ms (M0, MB, M1, M2, MZM, M3, M4⁻, M4) and L (McCallum, 1989). There are two striking things about these measures. First, they are too many and changing since new ones appear, while some others are rejected. Second, if one takes the major central banks they all provide different measures, and differences exist even in the way the same measure

is defined³⁸. The most reliable way to know what each central bank measures, if there is not direct access to the corresponding department, is to consider the components of the various Ms. These are not as detailed as they could be, but still they can be telling of the differences.

It should be stressed that the logic behind the Ms is that each lower M is incorporated in the next, meaning that as much as one draws away from M0, the doubt that, what is included in the monetary aggregate is not money at all, rises. On the other hand, the different measures are necessary for different reasons. The various Ms indicate the multiplicity of the monetary forms.

When it comes to official reserves things are even more peculiar. The IMF feels obviously uneasy about the relevant data. There are two alternative scenarios, namely total reserves including or not gold. In the case that gold is included, there are two scenarios; one in which gold is translated into dollars at current market prices and another, where the rate of USD 35 per ounce is employed³⁹. If gold is not included in total reserves, data on gold reserves is provided in ounces. It should be reminded that gold is mostly in the form of bullion and all other international reserves are in various forms, including coins and banknotes, although marginally. From one point of view, gold is fundamentally different from all other forms and this is reflected in the difficulty to incorporate it in a common measure.

2.4. Instead of conclusion: Critique

The research question of this dissertation lies in the forms of money and in particular in the form that functions in the world market. Nevertheless, forms of money should be established on a as solid a ground as possible and this is why this chapter reexamines the over-debated issues of emergence and definition of money.

³⁸ The Fed publishes data on only two money supply measures M1 and M2, since, from March 2006, the Board of Governors ceased publishing the M3 monetary aggregate. The UK provides the M4 and a version of M0, while the ECB still publishes all three Ms (M1, M2, M3) and the counterparts of M3.

³⁹ The rate of USD 35 per ounce was the last officially settled rate of gold before Nixon's declaration in 1971. Yet, it was not the last officially settled rate. That was settled in Paris at USD 42.22 per ounce on 12 February 1973 (Tew, 1988). This rate is used by the US for the estimation of her gold reserves.

A summarization follows, then a comment is made in relation to the unit of account and, finally, the forms of world money and those of international reserves are discussed.

2.4.1. The mainstream lines of reasoning

In this chapter it was shown that the treatment of monetary forms, from various theorists, is dependent on their implicit or explicit position on the issue of the emergence of money. Moreover, it was argued that the connection is not straightforward; rather it passes from the definition of money and from there to the functions of money. Each link is binding for the next and therefore, at the end of the mental process there might not be space for existing and easily observable forms of money.

Implicitly, a specific scheme for reviewing theories of money is proposed here, rejecting the parallel citation of different schools of thought. A common agenda that flows from the emergence, to the definition, to the functions and from there to the forms of money is proposed and the views of various authors have been adjusted to it. Instead of schools of thoughts, lines of reasoning are considered more enlightening for the matter at hand.

The lines of reasoning that accrued from this presentation are the following. One argues that money emerges spontaneously, but from the barter process; as such money is the medium of exchange (definition); the basic function of this money is unsurprisingly that of the medium of exchange; no other function accrues naturally from the previous and thus all other proposed functions are underestimated and finally not taken into consideration; the natural form of money is that of the commodity. In order to make space for other, non-commodity forms, a conjuring trick is made, namely the medium of exchange function is identified with that of the means of payment and the definition of the sale is obscured. If this doesn't work, then resort is sought to the classic motto: "money is all that is accepted in circulation".

The second line argues that money emerges spontaneously from social debt and credit relations; these should be regulated and one of the necessary terms referred to their quantification; for that, a unit emerged

which necessitated some form of imposition; although money is thus the unit of account, some authors in this line would like to define it as credit (or debt, depending on where one stands); the basic function of this money is, again unsurprisingly, the unit of account; since this money emerges in order to measure debt, it is also destined to pay it and therefore the means of payment also accrues; the other functions do not come out from this function naturally and therefore they are usually neglected; in order to solve the problem of the medium of exchange, this approach defines all exchanges as debt transactions; the corresponding forms are all others but the commodity and it has been attempted to argue that the commodity form is an illusion. As a rule, the form of money is identified with the name of the guarantor of the unit of account.

The third line follows the previous, but attempts to solve the fundamental issue of how could the unit of account emerge spontaneously; effectively it argues that it is not and it requires some form of state intervention. The various processes that the state uses have been exposed, like the imposition of taxes, penalties, the ability to spend and, lately, the ability to produce as well, through state owned productive units. According to this view, the basic function is that of the unit of account and forms are falling under the broader term “state money”. In an ingenious manner, Keynes managed to allow space for all forms of money, but his legacy didn’t find many followers.

2.4.2. Weaknesses of the mainstream lines of reasoning

2.4.2.1. Measure of value and unit of account

The last two approaches frequently use the terms “measure of value” and “unit of account” interchangeably. A comment on this handling of terms follows. Presumably, there can be no measure of value without value in existence; and for the approach to value there must be a theory. On the other hand, there can be a unit of account without an acknowledged theory of value. To clear this argument with an example, for the system of weights to come about and be in everyday use there was no need for any theory of

gravitation, although the underlying existence of gravitation kept on giving meaning to the use of the scales. The need for a measure of gravity appeared only after Galileo (1564-1642) and Newton (1652-1727) (PSSC, 1992)⁴⁰. I only want to stress the obvious, namely that the measure of value and the unit of account cannot be used interchangeably; they are different terms because they express different concepts and this difference is well established in most sciences, but political economy is not amongst them.

To bring the argument to more familiar ground with an example, if the price of commodity A is double than that of commodity B, it is an issue of institutional and conventional regulation whether the price of A will be 10 units and that of B 20 or, correspondingly 50 and 100, 750 and 1500 and so on. Actually, this seems perfectly correct and very difficult to contest, either historically or logically. After having established an exchange value relation between commodities, setting a scale of prices rests with the state or, more generally, the issuer, guarantor and enforcer of the unit system. But an exchange value relation between the two commodities presupposes their equalization qualitatively through a common property. This property is going to be measured and in order for that to occur, a unit will be institutionally established.

The significance of the property for a unit to accrue is well established in mathematics. A simple example would employ the typical tape measure with both metric and US units, on the one hand and the objective distance between two points⁴¹. The two points will not come closer or turn away if we switch from one unit to the other and the reason is that their position is independent of the unit system that it is used.

Having said that, it is not difficult to sustain that the identification of the two distinct functions, the measure of value and the unit of account, is the basis for nominalism. The necessity of the establishment of the unit of account by law leads to the perception that the property itself, namely value, is manageable as well. What nominalism fails to answer in the terms

⁴⁰ In these lines, Foley (1983) argues that “[v]alue in this sense bears the same relation to commodities as mass bears to physical objects” (p.1).

⁴¹ Obviously, reference is made here to distance in the Euclidian space. That doesn't change the argument, to the contrary, the necessity of a space for the appearance of a phenomenon holds as much in mathematics as it does in political economy.

of the previous simple example is exactly how this exchange value relation is established, that is why the price of A is double of that of B in the first place and why money should willy-nilly reflect this relation. It follows that this reasoning fails to explain the mechanism through which this price analogy is established independently of any will and why changes on it cannot be enforced, while changes on the unit can result from a state decree.

The problem is reflected in Ingham's sincere assessment: "A coherent and comprehensive answer to this question of the determination of the purchasing power of money scarcely exists" (2004, p.84).

2.4.2.2. World money and international reserves

The money that performs in the world market cannot fit in any of the previous approaches as a function of money, for it doesn't emerge from any barter like process, nor is it the product of any world state, since there is no such thing. All the above lines of reasoning are trapped in their premises and cannot find room for such a function.

Although world money *as a function* cannot ensue from any of the three lines of reasoning presented above, world money *as a form* cannot be bypassed. Gold bullion is very relevant here, especially in the period between WW I and the collapse of Bretton Woods. The reason is that, especially in this period, gold (bullion) was a form of money which was functioning almost exclusively in the world market, to the degree that gold (coins) were withdrawing from domestic circulation⁴², and therefore the form of world money was strikingly distinct.

Even in the current post-Bretton Woods period, though, the form of world money is apparent. Most theorists would agree that this is the US dollar. The introduction of the Euro gave birth to a huge literature on the role of the Euro as a rival to the dollar in this field (Jonung and Drea, 2010), but the field is not clear. Names have been given to it that attempt to describe the function, rather than the form (for example "international reserve currency"). Therefore, in the case of world money, although as a

⁴² Gold coins and gold bullion are not identical forms of money, as it will be argued in the following chapters, but in the literature they are both presented as "gold".

function it is not acknowledged at all, as a form it is inevitably imposed in textbooks and the theory.

Similarly, the role of hoarding is not easy to fit from above in any theory of money, especially in the international level. Again, the form is striking, acknowledged and named – international reserves. These are thought to be formed at will and not necessarily in the course of production and circulation, in the domestic and the international level. They have attracted interest vastly, mainly because of their accumulation, lately, from developing countries with a special focus on China. Again, the form doesn't attract much interest; “international reserves” are denominated in dollars and little attention is paid, if any, at their actual form.

To conclude, the world money form is existent as a distinct form of money in capitalism. This is enough evidence for a special function of money lying behind this form. This function refers to the ability of money to form prices, buy, pay and store value in the international level, in the world market. This ability must ensue from money's nature in general.

As we will see in the following two chapters, the form of world money is evolving, and it should be evolving, like all forms of money do. Yet, any new form is never the product of parthenogenesis. Its seeds should be sought in previous forms and its efficiency should be examined against the functions that it is supposed to serve. Contradictions between the two, namely the form and the corresponding function are the driving forces behind the evolution of the form.

Various theorists, individually and as part of a school of thought, have grasped aspects of these phenomena, but it was Marx who explicitly acknowledged the logical and historical integration of the emergence of money with its definition; the functions ensuing from this definition; and various forms being related to specific functions and evolving as a result of changes in these functions. Therefore, the next chapter is devoted to a different line of reasoning that will provide the framework for the analysis of world money in this dissertation. The agenda is the same, namely, it will be questioned how money emerges; what is money; which are its functions and its forms and what is the relation between the two. The focus will be on the function of world money and the corresponding forms that satisfy it.

Chapter 3. Marxist theory of money

In the present chapter, the Marxist answers will be given on the questions introduced in chapter one and elaborated further in the previous chapter. The structure is inevitably the same, namely from the emergence of money to its definition, functions and forms. Since the Marxist approach relates directly the functions with the forms, the two will be discussed together. The chapter concludes with an examination of the weakness that the theory appears to demonstrate, especially towards the form of world money.

3.1 The genesis of money

The Marxist theory of money in its most complete exposition, in the first volume of the Capital of Marx (1954)⁴³, which will be the basis for this part⁴⁴, begins with the process of the genesis of money⁴⁵. The starting point of this process is the commodity and, in particular, its twofold nature referring to it being use value and value. Exchange value is the form of appearance of value, and value is the social property of commodities being the result of abstract human labour⁴⁶. The simplest value relation is the one of one commodity with another; in other words, the value relation between two commodities is the simplest expression of the value of the commodity⁴⁷.

⁴³ The work of Marx is considered crucial for this dissertation and, since I had to study it translated, I took into consideration various editions. For the first volume of Capital, I checked two English translations (1954; 1976) as well as the Greek (1978a). Quotes of passages are usually referring to the 1954 edition which is a reprint of the English edition of 1887, edited by Engels. I owe gratitude to G. Magganas for checking the Russian edition in cases where the Greek and the English editions were not in accordance.

⁴⁴ 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 will be based on the Capital I (1954; 1976; 1978a), but will take into consideration the above mentioned works, and especially the Contribution (1981b).

⁴⁵ "Every one knows, if he knows nothing else, that commodities have a value-form common to them all, and presenting a marked contrast with the varied bodily forms of their use-values. I mean their money-form. Here, however, a task is set us, the performance of which has never yet even been attempted by *bourgeois* economy, the task of tracing the genesis of this money-form, of developing the expression of value implied in the value-relation of commodities, from its simplest, almost imperceptible outline, to the dazzling money-form. By doing this we shall, at the same time, solve the riddle presented by money." (Marx, 1954, p.54)

⁴⁶ "[...] the value of commodities has a purely social reality, and that they acquire this reality only in so far as they are expressions or embodiments of one identical social substance, viz., human labour, it follows as a matter of course, that value can only manifest itself in the social relation of commodity to commodity." (ibid)

⁴⁷ By simplest is meant the most abstract (see Marx 1981b, The method of political economy)

The simple, isolated or accidental form of value, which is portrayed by the simple equality: x of commodity A = y of commodity B, has two poles, namely the relative form of value, embodied in commodity A, and the equivalent form of value in the body of commodity B. Marx analyses the two poles in turn, starting with the qualitative aspect of the relative form and stresses the fact that, for commodity A, value takes the form of commodity B. Without B, the value that is embodied in A cannot be expressed because labour is not value. This argument was strongly addressed to Utopian Socialists who argued for the abolishment of money and the establishment of labour coupons or labour money (see also Foley, 2005). It is, nevertheless, very important for the emergence of money with the form of commodity money. Therefore, the equivalent is not only useful for the expression of value but lends its own body and material features so that value takes the form of B (at least for A). The relative form rests on the fact that commodity A expresses its value with the use value of commodity B.

Quantitatively, the equality of the two commodities denotes a particular proportion that the two commodities are exchanged. This proportion is an expression that there is as much abstract labour embodied in x of A as there is in y of B. The productive force of each particular labour effects the determination of the coefficients x and y . Changes in the value of one of the two or of both may or may not alter the proportion that the two commodities are exchanged and therefore the relative form does not reflect neither indisputably, nor exhaustively changes in the magnitude of value of one commodity.

The equivalent form of a commodity is the form of its direct exchangeability with another commodity. In the equivalent form there is not any quantitative determination of value. Commodity B enters the equality with a certain magnitude of its use value and it can never express its own value.

The simple form of value is inefficient and therefore it is expanding into the total or expanded form of value, which is captured by the equality: z Com. A = u Com. B, or = v Com. C, or = w Com. D, or = etc. In the expanded relative form, commodity A is in social relation, not only with another commodity, but with all other commodities. For the value of the commodity, the use value with which it will appear is now indifferent. In the expanded form of value, it is evident that the exchange relation of all the commodities is not accidental. Therefore, the magnitude of value defines exchange and not the other way round. On the other side of the equality, every commodity plays the role of the equivalent for A. The use value of each commodity is now a particular

equivalent form, among many others. The expanded form is deficient because the relative form is not complete, due to the unfinished chain with which it is expressed and because it is not uniform. By inverting the expanded form, the general form of value results.

The analysis so far is highly abstract, exposing logically the evolution of the category “form of value”⁴⁸. Before moving on to the general form of value that will lead with little pain to the money form, it is time to pose the question of the historical confirmation of this genesis, in Marx’s own words:

“Money may exist and actually existed in history before capital or banks or wage-labour came into existence. With that in mind, it may be said that the more simple category can serve as an expression of the predominant relations of an undeveloped whole or of the subordinate relations of a more developed whole, relations which had historically existed before the whole developed in the direction expressed in the more concrete category. To this extent, the course of abstract reasoning, which ascends from the most simple to the complex, corresponds to the actual process of history” (Marx, 1980, p.36).

Marx has hinted that his analysis is to some extent historically specific when he used as an example linen and coat for commodities A and B correspondingly in the first form of value. It is argued that these were not accidental examples; linen existed long before capitalism⁴⁹, but in the latter mode of production was almost symbolic of English capitalism. The coat is a product of labour of all modes of production with very different, evolving content. The same holds for coffee, tea, corn and iron. When Marx enters the general form there are no longer commodities A, B etc but only the specific commodities of the expanded form.

In introducing the general form, Marx argues that the first form can be met in practice “when the products of labour are converted into commodities by accidental and occasional exchanges”, while the second “comes into actual existence for the first time so soon as a particular product of labour, such as cattle, is no longer exceptionally, but habitually, exchanged for various other commodities” (1954, p.71). Lapavistas (2003, 2005a, 2005b) attempts to ground historically this analysis, arguing effectively that “the economics of the passage to the general stage [...] is far from clear” (2005a,

⁴⁸ This exposition is a source of difficulty by itself (Rubin 2005a), as we have seen in the previous chapter.

⁴⁹ “The earliest records of an established linen industry are 4,000 years old, from Egypt”, Wikipedia, Available at: <<http://en.wikipedia.org/wiki/Linen#History>> [Accessed 5 December 2012].

p.561). Lapavitsas, following Marx⁵⁰, argues that “money emerges historically where separate communities and societies come into contact with each other. At those points of economic interaction it is possible for traders to be mutually foreign and independent but still develop customary links with each other” (ibid, p.554); these are important conditions for the passage to the general form.

The argument requires a strong rereading of the first two forms, building on the active-passive polarity that is inherent in them, the active pole being the commodity in the relative form, while the passive refers to the commodity in the equivalent form⁵¹. In the equality of the simple form, Lapavitsas substitutes the equals with a right pointing arrow in order to stress that the relative A takes the initiative by making the opening gambit for the exchange, while B responds and thus “the direct exchangeability of B [...] derives purely from the request for exchange, made by A’s owner and exists only in relation to A” (ibid, p.559)⁵². This initiative of A is the link between the first form of value and the next – the owner of A requests exchange with all other commodity owners. Nevertheless, the passage to the general form requires for social custom to come into play so that an asymmetry is created between commodity A and all others commodities. In the case of symmetrical commodities the passage to the general form would not result to one general equivalent but to all; that is, to none. Marx has himself spotted the matter eloquently⁵³ and proposed that this problem was a historical one, and

⁵⁰ “The money-form attaches itself either to the most important articles of exchange from outside, and these in fact are primitive and natural forms in which the exchange-value of home products finds expression; or else it attaches itself to the object of utility that forms, like cattle, the chief portion of indigenous alienable wealth. Nomad races are the first to develop the money-form, because all their worldly goods consist of moveable objects and are therefore directly alienable; and because their mode of life, by continually bringing them into contact with foreign communities, solicits the exchange of products” (Marx, 1954, p.92).

⁵¹ In the opening of the discussion for the elementary form of value Marx uses these terms, referring to commodities A and B: “The former plays an active, the latter a passive, part.” (1954, p.55) Additionally, and more clearly, in the discussion of the development of the relative and the equivalent form Marx says: “The degree of development of the relative form of value corresponds to that of the equivalent form. But we must bear in mind that the development of the latter is only the expression and result of the development of the former” (ibid, p.72).

⁵² It is reminded that these “actions” are taken by the commodity owners and not by the commodities “themselves”; arguing the opposite would be the utmost expression of commodity fetishism. Having said that, the presentation will continue using this absurd scheme of personified commodities.

⁵³ “To the owner of a commodity, every other commodity is, in regard to his own, a particular equivalent, and consequently his own commodity is the universal equivalent for all the others. But since this applies to every owner, there is, in fact, no commodity acting as universal equivalent, and the relative value of commodities possesses no general form under which they can be equated as values and have the magnitude of their values compared. So far, therefore, they do not confront each other as commodities, but only as products or use-values.” (Marx, 1954, p.90)

was resolved as such by social action⁵⁴. Lapavitsas specifies this social action by proposing two conditions that are necessary for bypassing the theoretical difficulty, both of which could have been met historically. First, social custom contained in traditional transaction chains could result in some commodities attracting several requests for exchange at once. Second, the ability to buy of these isolated commodities would be self-reinforced. This approach is insightful for the passage to the monetary form (2005a) where the general equivalent is fixed to one commodity by virtue of several properties that underpin the social process of its selection.

In the general form commodities express their values simply – with one commodity, and uniformly – with the same commodity. The general form relates commodities with one another as values, or makes them appear as exchange values. “The emergence of a general equivalent is a spontaneous, decentralised phenomenon that accompanies the development of the commodity form” (Foley, 2005, p.42). The commodity that takes permanently the position of the general equivalent, thus excluded by the rest, identifies its bodily form with the latter and becomes the form of the socially recognised universal equivalent; it becomes the money commodity or functions as money; the passage from the general form to the money form is completed (Marx, 1954).

Hilferding (1981) defines money as the authorised “by all the common action of commodities to express the value of all other commodities” (p.32). Money is the unified form of appearance of abstract labour (Moseley, 2005). According to Lapavitsas (2005a) money emerges as the monopolist of the ability to buy, in a process through which one commodity acquires direct exchangeability with all others.

Therefore, *money is the independent form of value*; that is the definition employed here. Equivalently, one may say that money is the universal equivalent or the self-contained exchange value. As such, money has multiple functions that derive from its nature and it assumes various forms that serve those functions (de Brunhoff, 2005). The argument here is in sharp contrast with the main theoretical proposition of the previous chapter, namely that money is what money does. A presentation of the

⁵⁴ “In their difficulties our commodity owners think like Faust: ‘Im Anfang war die That.’ [‘In the beginning was the deed’ (Marx, 1976, p.180)] They therefore acted and transacted before they thought. Instinctively they conform to the laws imposed by the nature of commodities. [...] But a particular commodity cannot become the universal equivalent except by a social act. The social action therefore of all other commodities, sets apart the particular commodity in which they all represent their values.” (Marx, 1954, p.90)

functions and the corresponding forms of money follows, leading to the function that attracts the particular interest of this study, namely the function of world money. The presentation is not exhaustive, for that would be demanding of unavailable space; rather it stays on the most debatable aspects that are, at the same time, relevant to the issue at hand, namely the evolution of the form of money that functions as money in the world market, as a consequence of the underlying evolution of the functions of money.

3.2 The functions of money and the corresponding forms

3.2.1 The measure of value, the price-form and the standard of prices

The simple relative expression of the value of a commodity with the commodity that functions already as the money-commodity is the primordial price-form. Consequently, the first function of money is that of the measure of value and its content is derived directly from the emergence of money. The most important consequence of this function is that commodities enter into circulation with a price and money with a value (de Brunhoff, 1976, p.26).

This money-commodity form was attached historically to the precious metals with gold and silver being their most prominent representatives⁵⁵. Marx argues that “only by virtue of this function does gold, the equivalent commodity *par excellence*, become money” (1954, p.97). It should be stressed that, by definition, money doesn’t have a price⁵⁶ and as for its exchange value, one may read a price list from right to left.

For this function, only ideal or imaginary money is necessary, meaning that for the formation of the price, money doesn’t have to appear; for a commodity owner to set the price it is not at all necessary that she or someone else carries the equivalent of the price in money of any form. This simple observation gave rise to the illusion that money is nothing but a name, an arbitrary expression for the numerical value relation. Nevertheless, “price depends entirely upon the actual substance that is money” (ibid, p.99).

⁵⁵ For the special properties of these metals that make them suitable for the substance of the money-commodity, see Marx (1981b). Lapavitsas (2003) argues that “gold monopolises buying ability and becomes the independent representative of value partly because of its physical properties, and partly because of the social customs attached to its use” (p.64). Fleetwood (2000) argues that “gold historically became the money commodity via social custom” (p.186).

⁵⁶ The price of money is analogous to the weight of the kilogram or the length of the meter – namely, a phrase without content or a tautology. See also de Brunhoff (1976) and Arthur (2005).

The distinction between the measure of value and the standard of price has been discussed in the previous chapter, with the occasion of the slippery term “unit of account”, which is equivalent to the “standard of price”, but is used interchangeably with the “measure of value”. The distinction was spotted and elaborated by Marx who is quoted at length, especially due to the importance that this confusion has acquired (see also, Nelson, 2005). As a measure

“it is the socially recognised incarnation of human labour; it is the standard of price inasmuch as it is a fixed weight of metal. As the measure of value it serves to convert the values of all the manifold commodities into prices, into imaginary quantities of gold; as the standard of price it measures those quantities of gold. The measure of values measures commodities considered as values; the standard of price measures, on the contrary, quantities of gold by a unit quantity of gold, not the value of one quantity of gold by the weight of another. In order to make gold a standard of price, a certain weight must be fixed upon as the unit. In this case, as in all cases of measuring quantities of the same denomination, the establishment of an unvarying unit of measure is all-important. Hence, the less the unit is subject to variation, so much the better does the standard of price fulfil its office. But only in so far as it is itself a product of labour, and, therefore, potentially variable in value, can gold serve as a measure of value” (Marx, 1954, pp.100-101).

The contradiction of the standard being a plain convention and, at the same time, receiving generally acceptability is solved by its regulation by law (*ibid*, p.102). Once more, it is stressed that what is regulated is the standard (or unit of account), not the measure of value. Monetary names show up directly from this regulation and they are irrelevant to the measure of value function. Their emergence is purely historical, usually related to weight names and can give very little information about the nature of that they are names of. In the course of time, degradation through use, but also through fraud and counterfeiting upset the content that lied behind the name, without touching the name itself. Nevertheless, this is a case where the same name expresses quantitatively different standards. Things are severely perplexed when the same names are used to express a different form.

The form that is proper or ideal to the measure of value is commodity money in abstract, namely gold, silver, copper etc (Arnon, 1984). The form that pertains to the unit of account is a standard, usually of weight, but depending on the commodity in choice; a name provided by convention; and a numeral system, with the decimal prevailing almost everywhere in the twentieth century⁵⁷.

⁵⁷ The British Pound was decimalised as late as 1971.

To return to the price form, apart from being ideally expressed, it must also be realised and money must be exchanged for the commodity that carries the price label. Hard cash⁵⁸ must appear for commodities to circulate and the means of circulation comes to fore.

3.2.2 The means of circulation

The function of money as means of circulation is the most impressive and one that no one can miss. As we have seen in the previous chapter, it has been mistaken as the first function and the one that gives money its content. The presentation here will be brief, since most issues related to the means of circulation share agreement, at least in the Marxist tradition. The circulation of commodity is its double transformation that is portrayed by the formula $C - M - C$ or by two subsequent actions: sale – purchase.

The potential of money to be symbolised and its realisation have been thoroughly examined since they appear as a source for the fiat form and related illusions (de Brunhoff, 1976; Rubin, 1979). There are various approaches in Marx as for the necessity of the symbol. Logically, the process of transformation of commodities through circulation makes money transient and the substance of the medium is irrelevant, as long as it can represent money with some dignity. The velocity of money in circulation proves the ability of the medium, even if it is full carrier of the value it claims to represent, to circulate so much higher value as the turns that it takes part in the unit of time. Historically, this logical potentiality has been validated the moment degraded coins continued to function as means of circulation, despite the loss in their substance (de Brunhoff, 1976; Itoh and Lapavitsas, 1999).

For the second determination of money, that of the medium of circulation, the material is irrelevant, but money has to appear (Campbell, 2005). These two features are in complete contradistinction with the features of the first determination, the measure of value, where the material in abstract was all that mattered, but appearance was unnecessary. The form of money in circulation is one of the most troubling ones; it is a field where all forms of money can potentially perform, but they are not actually. Various terms occupy centre stage in the discussion of the form and these are “currency”, “fiat money”, “token”, “legal tender” and “paper money”. We shall start in reverse order.

⁵⁸ Hard cash is vaguely used here as a collection of various forms none of which has been presented yet.

Since money ceases to be a commodity in the circulation (Marx, 1980), any material is good for the job as long as there is a guaranteed relationship with commodity money; in other words, the material from which the currency is made of is irrelevant, subject to historical and social contingencies. Paper or low value metals, like copper, have been chosen historically⁵⁹. The term “paper money” is used by authors from almost all schools of thought and it is not well-defined even in the Marxist tradition (Hilferding, 1981; Hahn, 1982; Arnon, 1984; Arthur, 2005; Foley, 2005; Germer, 2005; Moseley, 2005). Actually, “paper money” is misleading as a term. To begin with, the material cannot define a form of money and, therefore, the term “paper money” is meaningless. “Paper money” is a term that aspires to capture the forms of money that contain no value. But modern coins are valueless as well, or contain a small fraction of the value they represent in circulation. In that sense, metal coins should fall under the category of “paper money”. After all, paper is the favorite material for credit money when the latter takes a tangible form. The identification of the form of money with the material with which it is appearing is another expression of the confusion between the symbol and the symbolized. In conclusion, “paper money” is not a distinct form of money.

On the contrary, fiat money which is issued by the state is a distinct form that originates from circulation, is destined to serve it and cannot leave it. Fiat money is issued to replace commodity money in circulation. Either if it is wrapped with paper, or covered with degraded metal, it is a token of value, distinguished by credit money⁶⁰ (Marx, 1981b; see also de Bruhnoff, 1976; Nelson, 2005). Fiat money has the feature of legal tender because it necessitates the stamp of the authority that validates its relation with commodity money. The latter doesn’t have the feature of legal tender because it doesn’t need it – it proves its ability to represent value with its bodily characteristics, weight and purity, and that is crystal clear in the case of bullion. Therefore, legal tender is not a distinct form of money; rather it is a feature that refers

⁵⁹ “[...] the state can designate any token – for example a piece of paper appropriately labeled – as a representative of money, a money token” (Hilferding, 1981, p.38).

⁶⁰ “Paper money issued by the state and given a legal rate is an advanced form of the *token of value*, and the only kind of paper money which directly arises from metallic currency or from simple commodity circulation itself. *Credit money* belongs to a more advanced stage of the social process of production and conforms to very different laws. Symbolic paper money indeed does not differ at all from subsidiary metal coin except in having a wider sphere of circulation” (Marx, 1981b, p.116, emphasis in the original).

actually to all forms of money that circulate with the enforcement of the state, although it is mistakenly identified with fiat money.

A final comment on the form of fiat money considers the French assignats or the British treasury notes of the WWI which are an extreme case of fiat money inasmuch as they are not related to, or anchored by, commodity money – at least not explicitly. These moneys are pure legal tender and may appear in extreme cases of war or other upheaval. They serve exclusively circulation and they are totally useless out of it (Hilferding, 1981).

These cases reveal the importance of the state, the role of which is now enhanced. Apart from defining the standard of price, it provides the stamp of legal tender for the media of circulation that necessitate it. The mechanisms through which the state is legitimised are related to fiscal policy, namely taxing, spending and, lately, advancing capital in various occasions. It is beyond the scope of this dissertation to examine how the particular mechanisms have allowed the state historically to impose the legal tender. Unquestionably, the approaches that we have seen in the previous chapters are relevant (Wray, 2000; Rochon and Vernengo, 2003). Clarke (2003) also highlights the role of the state that has been updated and reformed.

To summarise thus far, fiat money will be used here as a term that expresses all forms of tokens of value in circulation with legal tender, independently of their material or their nominal relation to commodity money. This relation is conversely proportional to the significance of legal tender and is proven through the convertibility of one form to another; the easiest, well established and certain the convertibility is, overall and in reference to its terms, the least necessary legal tender is. It is argued that fiat money is a form of money the significance of which goes hand in hand with that of the function of money as means of circulation and fades out with the latter.

Itoh and Lapavitsas (1999) argue that “[t]he characteristic form of money in circulation is currency, often in the form of coin” (p.43) but more should be said, especially about the relation of currency with fiat money. Currency and fiat money are the two sides of, literally, the same coin. The former term captures the feature of the token of value to fly away constantly as it intermediates the transformation of commodities; in this sense it is a current. If it stops, it is not current any longer, it ceases to be currency. The latter term expresses the inescapable enforcement of the law for the token of value to be accepted in the circulation, to be currency. The Greek language

uses the latter term (νόμισμα), while English the former (currency)⁶¹. It could be argued that the linguistic differences reflect the dialectic relation of the symbol and the quest for the dominant pole in this relation. Thereafter the two terms will be used interchangeably.

On the contrary, money and currency are not equivalent terms. The latter is a form of appearance of the former (Peebles, 2002). “Currency”, Peebles argues, “stands as a given group’s attempt to represent and thereby control money within a certain sphere; by representing money it allows money to descend from its abstract heights and play a role in the real world [...]” (p.21). The distinction between money and currency implies that not all forms of money circulate, while some do only under certain circumstances.

The quantity of issuance of fiat money highly matters (Arnon, 1984). This is why the quantity of money in circulation, and the control over the latter, seemed as the ultimate question of monetary theory. It is out of the scope of this analysis to discuss the quantity theory of money and, moreover, little could be said since its corollaries have been systematically criticised by Marx himself and many authors in the Marxist tradition (de Brunhoff, 1976; Campbell, 2005). Ricardo’s approach to the issue though, could introduce another issue that is very relevant to the matter at hand.

Ricardo’s quantity theory was based on two fundamental assumptions: first, on free convertibility between coin and bullion and, second, on money functioning solely as means of circulation (Lapavitsas, 1996). By definition, fiat money, like coin, cannot stand without constant confirmation of its relation to commodity money that anchors it; that confirmation can only take place through constant transformation between the two forms. Nevertheless, this transformation is made for other reasons that will be discussed below and not for the sake of confirmation. If the latter was the case, a run in the bank would occur and the relation of the medium of circulation with money would be lost.

As for the second assumption of Ricardo, money functioning solely as means of circulation, it is a contradiction in terms. Means of circulation are national and, if their material is irrelevant, their stamp is all that matters. Apart from the functional boundaries that constrain these forms of money only in the circulation, they are bound

⁶¹ It seems that the Turkish word “para” has evolved from something that meant a “piece” to something that “passes from hand to hand”.

to circulate only locally⁶². When money needs to break both its functional and territorial limits, pure legal tender is useless and money must assume other forms. These limits contest the ability of money to perform as the independent representative of value. 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 of money, money as money, emerges out of this contradiction of its first two functions.

3.2.3 Money as money

Money as money is the unity of three functions, namely that of hoarding, of means of payment and of world money; this unity is based on the transformation of money from a means to an end, to an end in itself. Although money is definitely not a category that is born into the capitalist mode of production, the latter cannot be introduced without the full development of these functions that will allow for the transformation of money into capital. Nevertheless, the dominance of capitalist relations alters the content of these functions so that they comply with the needs of this specific mode of production and this evolution will be taken into consideration as they are examined in turn. For the purposes of the analysis, it is considered necessary to reexamine the hoarding function at the end.

Hoardings come about as the result of the metamorphosis of the commodity, from the commodity form to the money form. They emerge directly from the circulation of commodities and the halt of the transient move of money. This is a necessity and a “passionate desire” that petrifies money into a hoard and transforms the seller into a hoarder. Money becomes thus, from means of circulation, the “end and aim” (Marx, 1954, pp.130-131).

The initial economic function of the hoards is the adjustment of monetary circulation.

“[...] 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

⁶² “Coined money assumes a *local and political character*, it uses different national languages and wears different national uniforms, just as does money of account. Coined money circulates therefore in the *internal* sphere of circulation of commodities, which is circumscribed by the boundaries of a given community and separated from the *universal* circulation of the world of commodities” (Marx, 1981b, p.107, emphasis in the original).

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.” (ibid, p.134)

Two issues are of importance here in the function of hoarding: the conditions that determine the quantity of hoards and their form. As for the latter, it should break the time and space limits of circulation and hence take the form of gold. More specifically bullion is preferred, where weight and purity are all that matter and these properties are easy to maintain and confirm. Besides bullion, other particular forms, like gold coins, jewelry or even gold teeth have been used. Evidently, currency should be transformed into gold bullion and convertibility between the two is a precondition for that. Marx (1954) argues that, since gold is indestructible, the tendency towards hoarding is incessant and there is no limit to it.

Moving on to the function of the means of payment, the latter emerges from the differentiation in time between the sale and the realisation of the price. This discussion has been introduced in chapter two. The second metamorphosis (M – C) takes place before the first. The seller becomes creditor and the buyer, debtor. Money is again an end in itself (telos) of a sale. The seller transformed commodity into money to satisfy a need; the hoarder, in order to keep the commodity in its money form; the debtor, in order to pay (Marx, 1954).

With the concentration of payments in the same place, financial centres emerge that tend to reduce the quantity of the circulating means of payment. These financial centres are very important for the evolution of the credit system and the emergence of credit money. The latter derives directly from the function of money as means of payment because the debt receipts that were issued against sold commodities circulate in their turn, transferring the debt obligations. Accordingly and in turn, the expansion of the credit system results in the expansion of money functioning as means of payment.

Credit money should not be confused with the money that functions as the means of payment; actually, the two forms are mutually precluded by definition; the latter comes to cancel the former. Credit money is a promise to pay; if it could pay then its exchange for a commodity would immediately realise the price and it wouldn't be a promise to pay. Credit money assembles to Keynes bank money which is “not money proper but an acknowledgement of debt” (1971a, p.8). The confusion is well rooted since, before it is due, credit money seems able to pay and hence it is correctly included

in the instruments of exchange (ibid). Nevertheless, if credit money is not cancelled when it is due, all the payments that it has performed in its short life will be reactivated. The claim that, today, credit money seems not necessitating any cancellation is definitely not correct for some forms of credit money, like checks, and thus our interest should turn to the various specific forms of credit money.

The arguments of hierarchy are insightful if fit in this framework. Bell (2001) presents a “simplified hierarchy” of four tiers, these being the debts of households, firms, banks and the state. The tiers are differentiated according to the acceptability of debts and “the more generally acceptable debts will be situated higher within the hierarchy” (p.159). To the degree that household debts are not properly formed into credit money, they are not examined here; the second tier which gives rise to the primitive form of credit money is commercial credit; the third refers to banking mediated credit; and the fourth is related to the central bank, separately from the state.

The elementary form of credit money is the bill of exchange and emerges from commercial credit. When it is discounted in the banks or, in other words, when money is advanced in exchange for the bill, ground is set for banknotes to be issued systematically. Banks also create a third form of credit money, in the same tier, namely bank deposits, which perform their function through checks or direct transfers (Itoh and Lapavitsas, 1999). The form of credit money is intrinsically fluid but, apart from the historical specificity, it “remains a claim on financial institutions backed by their assets” (ibid, p.48). Finally, “credit money makes gold unnecessary as a medium of circulation [...] and limits its function to that of settling the final balances” (Hilferding, 1981, p.64).

Credit money is inherently bound with the obligation to return to the hands of its issuer (Hilferding, 1981; De Brunhoff, 1976; Itoh and Lapavitsas, 1999). In contrast with currency (fiat money), which tends to fly away from hand to hand, and commodity money, the movement of which is towards hideouts mostly underground, credit money follows a circular path and comes back to the hands of its issuer, ceasing thus to be money. This cyclical path is decisive for the determination of the quantity of credit money in circulation; the latter though is determined by factors related to capitalist accumulation (Itoh and Lapavitsas, 1999).

Hilferding (1981) observes that “credit money is a private affair, *not guaranteed by society*; consequently, it must always be convertible into money” because “credit money [...] is created by individuals in their business transactions, and functions as

money so long as it is convertible into money at all times” (p.62, emphasis added)⁶³. This observation reflects the contradiction that is inherent in the function of the means of payment. On the one hand, money as means of payment functions “only ideally, as money of account, as measure of value”, as long as payments cancel out. On the other hand, to the degree that a residual is due and has to be paid, money must appear “as the individual incarnation of social labour, as the independent form of existence of exchange-value, as the universal commodity. This contradiction comes to a head in those phases of industrial and commercial crises which are known as monetary crises” (Marx, 1954, p.137). Note that credit money cannot be depreciated due to large volume of issuance or other reason. It will either be accepted in its face value or rejected altogether and “the crucial test, therefore, is its convertibility” (Hilferding, 1981, p.63).

The means of payment function of money in the Marxist tradition is discussed in a closed economy; the credit system accordingly is national and the resulting credit money faces the limits of the national borders. The implicit argument is that credit is based on social relations that cannot reach the necessary level of completion between nations: legal, ethical, linguistic, cultural and even aesthetic barriers deprive the form of credit money from a passport to the world market. This weakness appertains to all forms of money, giving thus rise to the next and last function of money, world money. The need for such a function of money, in the first place, stems from it being recognizable when leaving the home sphere of circulation.

“*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, 1954, p.141, emphasis added)

World money is a distinct function only in the Marxist framework. The basic argument lies in the few lines quoted above, although Marx spent much thought and space for that issue in his *Grundrisse* (1980; 1989; 1990) and in his *Contribution to the Critique of Political Economy* (1981b). The main point is the universal reflection of the value of commodities that speak different languages⁶⁴; the content of that function rests

⁶³ Again, convertibility plays an important role. Yet, the relevant note should be postponed until all forms of money are discussed, at the end of next chapter.

⁶⁴ 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).

not in revealing the differences in the levels of productivity, exploitation and intensification of labour in the production of commodities; on the contrary, it rests in suppressing those differences so that the norm of value can be expressed in a recognisable form (Marx, 1980).

World money was considered to be best served by the form of bullion, as the most recognisable in the world level. Gold or silver should be in the form of bullion and not in any other form, subject to debasement or any other kind of manipulation; in a form where only its weight and pureness matters, thus stressing the fact that world money must be itself a carrier of value that is directly analogous to weight and pureness (Marx, 1980; 1954; 1981b).

“It is only in the markets of the world that money acquires to the full extent the *character of the commodity* whose bodily form is also the immediate social incarnation of human labour in the abstract. Its *real mode* of existence in this sphere adequately corresponds to its *ideal concept*.” (Marx 1954, p.141, emphasis added)

In the Marxist literature, including Marx, world money is the least developed function. The reasons are related to the form of money that functions as world money, but do not originate in the form and they are certainly not exhausted with the latter. The difficulty is implied if Marx’s life plan is considered, according to which the study of the world market, and the money that functions there, come last, after the study of the state, both internally and externally (Marx, 1989, p.72).

3.2.4 Hoarding and hoards once more

Turning again to hoards, as it was shown, they emerge from circulation and the means of circulation function. Yet, to the extent that the means of payment function of money gains ground over the medium of circulation, hoards cease being related exclusively to the process of circulation and relate increasingly to credit as well⁶⁵. Credit is expanding immensely with capitalism and the significance of hoarding for paying is acquiring a regular character.

Moreover, hoards are related to the world money function. It seems that “the formation of reserves of the means of payment” that is internationally accepted, is essential for that means of payment to keep on performing this very function. Hoards

⁶⁵ “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 riches, vanishes with the progress of civil society, the formation of reserves of the means of payment grows with that progress” (Marx, 1954, p.141).

therefore comprise the national reserve of international means of payment (Lapavitsas, 2000b). “Even among the ancients, the hoarding by the State is significant as a reserve fund mainly for international means of payment, as a battle-ready equivalent in the event of crop-failures, and as a source of subsidies in time of war (Xenophon)” (Marx, 1992, p.783⁶⁶).

In capitalism though, there emerge other, historically specific, processes that lead to hoarding and are of utmost importance to this discussion, since they are inherent to the capitalist accumulation and closely related to capitalist circulation. Starting from the latter, hoards come about first, as a reserve fund, part of the functioning money-capital that should lie idle for precautionary reasons; then, gradual advancing of money-capital in means of production and labour power leaves part of the money-capital idle and therefore hoarded; finally, sudden price changes and disruptions of the exchange process have as a result the involuntary generation of stocks of money-capital (Lapavitsas, 2000b).

Further, hoards are related to capitalist production because there is a minimum size that is necessary for reinvestment in reference either to the replacement of fixed capital or the expansion of the production (Marx, 1978b; Lapavitsas 2000b). The necessary money comes, first, from the gradual return of the value of fixed capital; gradual to the degree that the latter depreciates, wears out in terms of value or, in other words, passes its value to the new commodity⁶⁷. Another source, especially for the expansion of production, is the hoarding of a part of surplus value, until the hoard reaches the necessary size (de Brunhoff, 1976).

It is therefore time to question the form of hoards: that should be depending on the scope and the driving force behind hoarding, which are both multifold. The forms of hoards are expected to be different and corresponding either to the processes that led to their formation or to their scope. The distinction between the two sets the theoretical ground for what is called “reserve allocation” and explains the difficulty in the literature in defining the necessary size and form of hoards.

⁶⁶ “Ἡδὴ στην αρχαιότητα ο κρατικός αποθησαυρισμός λειτουργεί σαν αποθεματικό κυρίως για διεθνείς πληρωμές, σαν έτοιμο ισοδύναμο σε περιπτώσεις κακής σοδιάς και σαν πηγή επιδοτήσεων σε καιρό πολέμου (Ξενοφών)”, translation taken from <http://marxists.org/archive/marx/works/1858/economic/draft.htm> [Accessed 4 December 2012].

⁶⁷ Relevant to this process is the “moral depreciation” of the machines (Marx, 1954) which can be observed to technological intensive production processes. Moral depreciation means that the machine “loses exchange-value, either by machines of the same sort being produced cheaper than it, or by better machines entering into competition with it” (ibid, p.381) and should be conceived as reducing the hoarding sources.

It should be expected, though, that the form will be determined initially by the source, and then, whenever this form is not suitable for the scope, a necessary transformation will take place. The analysis does not take the financial system into consideration for the moment. For example, if money is abundant in circulation and overflows the various channels, it will be hoarded in the first instance, in means of circulation, namely currency. To the degree that the overflow is not short-lived, currency will be transformed into another form, probably gold bullion. The latter is still an exceptional form of hoard, unrivalled as a store of value, as it will be demonstrated in the second part of this dissertation.

With the development of the banking system, the latter has taken over the responsibility of collecting and transforming the reserves⁶⁸. Moreover, high level clearing processes economize on money as means of payment, while the rise of velocity that is achieved through banking operations economizes also on means of circulation. The media that keep on being in excess form the banking reserves. The process is completed with the emergence of the central bank as the bank of the banks and the undertaking of collecting and managing the reserves of the represented banks, in the national, federal or hyper-national level. “Thus the gold hoard of the central bank can slowly assume a national character, it can become the national hoard of a capitalist economy” (Itoh and Lapavitsas, 1999, p.155).

The banking system and its apex, the central bank, erase the traces of hoards and transform them in the most suitable forms for the scopes presented above. To the degree that these hoards are partly related to world money, their form will be thoroughly examined in the second part of the dissertation. It should be expected though that hoards will be in various forms, including currency (de Brunhoff, 1976).

These theoretical propositions should be examined further. As it was argued in the previous chapter, hoarding is underestimated by most streams of reasoning; it can hardly find a place in mainstream monetary theory. In the Marxist framework though, hoarding has a significant role, closely related to the other two aspects of money as money and that makes this framework very useful for the analysis of world money. It will thus prove intuitive to look into the relating data in reference to all features that relate hoarding to world money as functions. In a sense, data on hoarding can be seen

⁶⁸ “[...] banks in “advanced bourgeois countries” concentrate the hoards in their “reservoirs” [...]” (Arnon, 1984, p.565).

as a picture of “frozen” world money. In the second part of this dissertation the question of whether the analysis of that picture in its evolution is informative will be tested and, if the answer is positive, it will be further examined what kind of information can accrue. The theoretical grounds of the research hypothesis lie exactly in this relation between world money and hoards of the latter.

Nevertheless, the Marxist framework is not considered to be flawless. The next section thus will examine its alleged flaws. This discussion will prove illustrative for the importance of the forms of money in mystifying analysis on money.

3.3 The alleged irrelevance of the Marxist theory of money

The Marxist theory of money has been characterised as irrelevant in the literature, even by authors that adopt Marxism. The most prominent reason revolves around gold or the money-commodity that occupies a central role in the Marxist analysis, as it has been demonstrated above. Although there is extensive literature that attempts to resolve the problem, the problem itself is not so clear and definitely there is no agreement whether it refers to the particular form, that is the commodity form; to a particular function, in which case that would be either the measure of value or the world money function; to the theory of value and the emergence of money; to the exchange rates, for which there is no developed Marxist theory anyway; or other.

In general, the collapse of Bretton Woods, the 1971 proclamation of Nixon and the alleged suspension of convertibility of the US dollar with gold seem to dazzle many authors. Gold is considered as demonetized, negated, retreated or as dead as a dodo. Yet, for this to be a problem in the theory, there is an assumption, often explicit, namely that money assumes only one form, or one real form, and that should be the commodity money form.

According to some authors, thus, Marx’s theory of money is considered as irrelevant, wrong or irrevocably outdated because it requires money to be a commodity, gold, and this is not the case in contemporary capitalism. Therefore, critics maintain that the theory “does not apply to the current monetary regime of non-commodity money (e.g., Lavoie 1986)” (Moseley, 2005, p.5).

Foley (2005) posits the problem as follows: “With the disappearance of this institutional link [of the national currencies, through the standard of price and their convertibility into gold, GL], however, we seem to be left with no Marxist theory of the commodity value of national currencies [...] (p.43). The solution that Foley (2005)

provides is that “[d]ebts of the state are the measure of value and means of purchase and payment” (p.45); “In contemporary economies, then, a fictitious capital, the liability of the state, rather than a produced commodity, functions as the measure of value” (p.46). Thus, Foley calls for a “unification of the Marxian theories of money and the state” (ibid). Kennedy (2000) argues that “money no longer has a commodity basis and is in fact merely symbolic in character” (p.195). He also posits the distinction between real and fictitious money.

Nelson (2005) estimates that “[...] in retrospect it seems he [Marx, GL] overstated his case [about commodity money, GL]. [...] substituting credit theories of money for Marx’s money commodity seems legitimate” (p.76). She had already argued that “Marx’s analysis unconsciously pointed to a credit theory of money too [...]” (p.75).

Another approach is that of Bryan (2003) who argues that “derivatives secure commensuration of value across time and space” (p.67). He states that “it was more out of frustration than conviction that he [Marx, GL] embraced the Gold Standard, and the notion that the value of money is determined by gold” (p.66); Bryan concludes by arguing that the discontinuities that capitalism experiences “are an irresolvable problem for a purely abstract labor conception of value, yet they are resolved explicitly in practice by derivatives contracts” (p.67).

Benetti and Cartelier (1998), after recognizing the problem through the same prism, argue that the analysis cannot start with value, but with money. Starting with the passage from the second to the third form of value, they go on arguing that “money cannot derive from an exchange between commodities” (p.170). This is the more farfetched solution, in the sense that it rejects the emergence of money from the commodity.

From the same starting point, namely that money is not a commodity in contemporary capitalism, testing thus Marx’s theory, Fleetwood (2000) argues radically that gold has been negated and that this led to the negation of the general equivalent altogether. In his own words, “the system no longer has a universal equivalent”; [...] “whilst the system still uses something called money, something that appears to be money, this something might not really be money at all. Appearances might be deceptive” (p.189). Finally, he treats the euro as artificial money, although he doesn’t examine the nature of this artificiality.

Further, it has been suggested that money is not as interesting in advanced capitalism as money-capital. Clarke (2003) points out that, today, money is capital in money form and that it reflects the social power of the capitalists. Bellofiore (2005) seeks the answer of money's problem in the monetary circuits, which are capital circuits, employing on top a post-Keynesian terminology. He concludes that "[...] money is a *sign* without any intrinsic value" (p.126, emphasis in the original).

Nevertheless, "[...] most of the authors agree, with varying degrees of certainty and for different reasons, that *money does not have to be a commodity in Marx's theory*, even in the fundamental function of measure of value (even though Marx himself may have thought that money as measure of value does have to be a commodity)" (Moseley, 2005, p.14, emphasis in the original). Moseley proposes that "[...] paper money *must* function as the measure of value and even though it contains no labour, because there is no other possible measure of value, and no other possible way to represent social labour in an objective form" (ibid, p.15, emphasis in the original). Fine (2003) puts forth the argument that Marx's monetary theory implies the displacement of commodity money and Williams (2000), in a paper entitled "Why Marx neither has nor needs a commodity theory of money", argues that advanced capitalist money is determined by its social functions which constitute a complex whole and require no concrete commodity backing. Reuten (2005), through a scholastic reading of the first part of *Capital*, Volume One, attempts obscurely to support that Marx doesn't need the money commodity. Milios, Dimoulis and Economakis (2002) maintain that "[*m*]oney, according to the Marxian analysis of credit and expanded reproduction of the total social capital cannot be reduced to a "commodity" with "intrinsic value". Money (and credit money) is a form of appearance of the capital-ralation" (p.55, emphasis in the original).

The perception of the form of commodity money being separate from and incompatible with the other forms of money is characteristic in Fleetwood (2000).

"Arguing that money is not only a commodity, but that for social and historic reasons money is gold, invites two interpretations. The first interpretation accepts the observation that the contemporary capitalist system is dominated by credit, *fiat*, electronic, and various other forms of non-commodity money, and, therefore rejects the argument that money is a commodity, on the grounds that this argument flies in the face of reality" (p.189, emphasis in the original).⁶⁹

⁶⁹ The second interpretation, that money has been negated altogether, has been discussed above.

What does this passage tell us? On the one hand, money may assume many forms, but for some reason, if it assumes non-commodity forms it cannot assume the commodity form at the same time. Credit, fiat, electronic etc. moneys can co-exist as long as gold is rejected. And if these forms are dominant, then money cannot be a commodity. The irrationality of the argument outclasses all the weaknesses of the previous approaches.

There are two misconceptions that are common in all the above arguments and make them irrelevant for the analysis here. First, they consider that money must assume predominantly the commodity form and that the other forms of money, if they are acknowledged as other forms and not as mere symbols, should all be institutionally anchored to gold (Germer, 2005). Second, they start from the conviction that money does not assume the commodity form “anymore”, that is after the mid-1970s. This so self-evident that they do not feel the need to support it with any fact other than the non-fixed exchange relation between gold and the dollar (see, for example, Foley 1998).

Yet, both premises are invalid. Many authors acknowledge the multiplicity of the forms of money (Vilar, 1976; Bryan, 2003; de Brunhoff, 2005⁷⁰; Campbell, 2005; Lapavitsas, 2005b; Itoh, 2006). Money assumes even more forms today and they should be studied systematically; while some of the old persist and some others have perished. In the previous section I have presented the various forms of money in relation to the functions that they are called for to perform. In the next chapter, this discussion will be summarized and expanded.

Commodity has never been the content, definition or nature of money as Germer (2005) maintains⁷¹, but commodity money has been one, essential though, form and it has never ceased being one (Lapavitsas, 2005b). This argument needs further elaboration and it will be examined in following chapters but it would suffice to mention a few acronyms, like LBMA (London Bullion Market Association), WGC (World Gold Council) and CBGA (Central Bank Gold Agreement). The extraction of gold for monetary reasons has skyrocketed since the 1970s and, every business day, its price is fixed twice in a ritual that takes place in London.

⁷⁰ “Money was seen as being able to assume a variety of forms, depending on the different functions it would be fulfilling in a given space of circulation” (de Brunhoff, 2005, p.211).

⁷¹ Commodity, its dual nature as use value and value, and the contradiction between the two, are the logical origins of money which emerges as a form of value; the most developed one. The issue has been examined thoroughly in the first section of this chapter.

Some things though have changed about gold's relation with the other forms. The most striking change is the exchange relation with the US dollar which used to be fixed and is now floating. This is the first time that such a thing occurs, since the gold points of the mature gold standard were not allowing for a free floating but, rather, for an amortization of value changes in the world market. Yet, if this is the case, gold has been outmoded not in the national sphere, but in the world market.

Hence the interest of this dissertation is centered to the world money form. The world money function and the form of world money are generally neglected. There are exceptions to that like de Brunhoff (2003; 2005), Smith (2005) and Itoh (2006).

De Brunhoff (2003) focuses on the world market and marks the absence of a single global currency with the associated problems of the exchange rate regime, taking as given that the current form of world money is that of fiat. In her own words:

“With respect to international financial circulation, the absence of a single global currency raises doubts over the role of monetary policy in terms of currency exchange rates. This issue has become particularly poignant since the advent of the floating exchange rate regime that has turned currencies into financial market assets lacking any benchmark in an objective international standard” (De Brunhoff, 2003, p.49).

She points that there is specific need for money to be relatively stable. The same has been true of the gold standard regime. The modern “fiat money regime” has reinforced this need whilst complicating the conditions in which it can be satisfied. She underlines the role fulfilled by the multinational companies and the importance of the freedom in capital flows. Then she moves on to argue that the dollar's monetary dominance is based on the US hegemony as a global power. “To a certain extent, these flows [from Europe and Japan, GL] are what underpin the dollar's relative strength” (p.50). Nevertheless, her analysis rests in a quite abstract level, without specifying the corresponding processes.

From all the above, it is evident that the problem must be carefully phrased. There is no problem with commodity money not being in circulation; that has been answered theoretically and in practice. We also know that this form will always lie in wait for a period of turmoil to reappear, even in the field of circulation and the current crisis has already provided with similar signs. Moreover, money assumes many forms all of which are real; if they stop being real, they stop being forms of money. The multiplicity of forms of money fit perfectly well in the Marxist theory of money, to the degree that the forms are, first, related to the functions of money and second,

interrelated⁷². Therefore, the transformation of one form to another is essential and convertibility as a term that captures the transformation of all non-commodity forms to commodity money should be examined. Finally, the form of world money has definitely changed and it should be questioned what exactly has changed.

All the above have been formed exceptionally in a question by Itoh (2006)

“[...] we have to ask how it has been possible for the US dollar to expand its role as world (universal) money in the world market despite being delinked from commodity money (gold) and without having been formally accorded the status in international markets of forced currency, which it has in the US domestic economy” (p.110).

In the next chapter, we turn to the form of money that functions in the world market and its relation to the other forms.

⁷² The interrelation of forms stems directly from the interrelation of functions that has been presented in the second section of this chapter.

Chapter 4. Forms of money, old and new

In the previous chapter, the Marxist theory of money was presented briefly, from the emergence of money and the corresponding definition, to the various functions that accrue from this analysis and the related forms. It was stressed that money assumes various forms, apart from the commodity one with which it emerges, and that these forms are related organically to its functions. In the means of circulation, it was argued that “paper money” does not comprise a distinct form of money, while fiat money does. Reference was made there to the distinctions of credit money. The chapter concluded with an examination of the reasons for which the theory has been characterised as irrelevant and it was shown that the premises and the analysis that are related to the forms are crucial for the contestation of the theory. In particular, it was shown that the root of all evil is commodity money, not in general, but in its role as world money.

In this chapter, the forms of money as such are put under the microscope, namely not in relation to the corresponding functions, but in their evolution and in relation of one to another. The chapter begins by defining the basic forms with which late 19th century capitalism is confronted. These will be the basis for new forms in the course of the twentieth century. One of these, namely the form that functions in the world market, will be examined closer in the second section of the chapter.

The third section deals with the so-called convertibility, which is perceived here more as an expression of the links between various forms of money, although the relation between all non-commodity forms with commodity money received publicity. Convertibility will be treated thoroughly because it can be revealing of features of the new form of money.

4.1 The basic forms of money

Money does not assume only one form in each epoch, since this is not possible anyway. This argument should derive from the analysis in the previous chapter: no one form can perform successfully all functions and one form may perform multiple functions (Arnon, 1984). Marx (1980; 1989) went into detail to show that the determinations of money contradict with each other; therefore the forms that they dictate will contradict as well. As measure it is carrier of value, spontaneous and ideal, while as standard of price (unit of account) it is a numerical scale of a real standard which assumes names established by law; as means of circulation, it is symbolised and

valueless; as hoard it is whatever the scope of hoarding dictates it to be, but it needs to be both a carrier of value and something that is ready to enter circulation, both valuable and valueless; as means of payment it is whatever is considered as hard cash, while the circulating obligations are anything but hard cash; as world money it is in a form that a heterogeneous and fragmented world market recognises. It is evident that no form can satisfy all these properties at the same time.

Beforehand, two distinctions should be made. First, there should be distinction according to the level of abstraction, between forms of money and their embodiments, or representations, or concrete forms. In that sense, commodity money is the form, and it might be embodied in gold bullion or silver coin. Concrete forms are abstract forms themselves, since there is not any gold coin, but Sovereigns, Krugerrands etc. The same holds for credit money that may take the concrete form of a (convertible) banknote or that of a check. Especially in relation to credit money, a second distinction should be made according to the level of credit that generates the corresponding form, these being commercial credit, banking mediated credit and state guaranteed central bank credit⁷³. Each layer will have various embodiments, some of which similar and some others varying a great deal.

On the eve of imperialism, in the late 19th century and definitely before WW I, the basic forms of money were three, namely commodity money, fiat money and credit money⁷⁴. Commodity money was either gold or silver (Bordo, 2003)⁷⁵, but everywhere in the concrete forms of coin and of bullion or specie. Coin was appropriate for circulation, while bullion was more appropriate for all the functions of money as money.

The labour power and the means of production that are consumed in the production of gold as an instrument of circulation, in the concrete form of coin internally and of bullion internationally, are a burden for the capitalist mode of production, part of the latter's *faux frais*. This is an "expensive machinery of circulation", the decline in the expenses for which raises the productive force of social labour (Marx, 1978b, p.420).

⁷³ See Bell (2001) for an approach of the hierarchical tiers of money.

⁷⁴ The presentation draws on Vilar (1976), Arnon (1984), Lapavistas (1991) and Bruce and Shafer (2000).

⁷⁵ The debate on bimetallism is not relevant for the matter at hand of this chapter; suffice it to say that gold and silver are moneys of the same nature, namely commodity moneys.

Unhindered transformation between the two concrete forms, through coinage or minting and melting, was reflecting the fact that they were concrete forms of the same nature and it was establishing their exchange relation. Transformation either way was taking place when coins were considered either overvalued (minting) or undervalued (melting) when their metallic content was compared to their purchasing power (Weber, 2003)⁷⁶. Note that bullion is more immune to contestation of its content compared to coin. The reason lies at the symbolising feature that the coin acquires in circulation.

Coin contains the contradiction for its evolution into a mere symbol of itself. First, full carrier of value coins can realise a sum of prices that is dependent not only on their metallic content but also on their velocity. If this velocity is higher than one, that is, in the unit of time, the same coin can realise more than once the price of which it is equivalent, then the coin becomes immediately in circulation symbol of higher value than it is carrying. This will be the case because precious metals are almost indestructible, so whatever the unit of time, in its (long) life a coin will realise a sum of prices that is much higher than the value it stands for.

The second contradiction comes from its natural properties, and especially its being *almost* indestructible. As a matter of fact, precious metals are not totally indestructible and therefore coin clipping occurs naturally after its continuous passing from hand to hand, without and before any conscious debasement. This process of clipping is additive to the previous; namely, the same full carrier of value coin is realising the value it stands for many times before it is apprehended that its content has already been reduced. When this happens, the expected reaction would be to get rid of the clipped coin as soon as possible without any premium, that is to pass the loss to the next holder. Yet, this passing has already happened and it is of secondary importance whether the previous holder used the clipped coin knowing that it was clipped.

If this can happen without any fraud interfering, then fraud is exactly what will emerge. The first form of fraud is the more or less systematic debasement of the coin which leads to its overvaluation; yet, it has been proven historically that debased coins can function in circulation for quite some time before they are treated as overvalued. The opposite reaction was the issuance of pure symbols of as low value as possible

⁷⁶ “With free coinage, the public handed in gold bullion for coinage at the mint, which charged a fee for minting costs (brassage) and often a seignorage tax” (Weber, 2003, pp.64-65).

which were supposed to represent coins and were convertible to gold (coin or bullion) at will, until again the fraud of over issuance was proven.

Turning to bullion, this concrete form is useless to circulation, but it is ideal to preserve value, as well as to make large payments, domestically and abroad. As a hoard, it may come from various sources but it always ends to where it came from: underground. As a means of payment, it clears balances, nationally or internationally. The issue of transferring it is the most problematic with these payments. The risks were always very high and there are many stories, movies and other evidence about the adventures that are related to the transfer of gold bullion and which include all sorts of sneaky enemies like more or less sophisticated train bandits, Indians and revolutionaries, pirates, as well as the weather. With the evolution of other forms of money, especially credit money, payments have been reduced in number and risen in value; the risk could not be eliminated.

The best solution to the immense problem of transferring bullion was to switch labels on stockpiles signalling thus the change in the property of the stockpile. In this case, gold bullion is not actually transferred, but the payment is made. There are two corollaries drawn from this practice. First, gold bullion as a concrete form is so strongly attached to vaults that it doesn't take part with them, even in the case that it does change hands. Second, gold may fulfil much more payments when physically immobile than being tossed about by the sea. In all cases, it is impossible to distinguish between bullion being hoarded and coming out of hoard for payment. It all seems hoarded all the time.

Nevertheless, this arrangement is not solving completely the problem because the vaults are in particular territory subject to confiscation in times of upheaval, which in capitalism are not so rare and they are definitely not predictable. The world economy did not manage to solve this problem permanently and gold is even today subjected to the test of travelling, when necessary⁷⁷.

To conclude thus far, commodity money has two concrete forms that differ a good deal, yet, they are both negated in the course of their functioning. Bullion is ending immobilised in national vaults because it is suitable for world money. Full value carrier coin is generating its symbol, the no value carrier coin, and it is exiting circulation.

⁷⁷ The story of the gold transfer of Venezuela from various European and US banks, mainly from London and New York vaults, in 2011 is revealing. See the press of the time, e.g. Farhy and Mander (2011), Salmon (2011), Central Banking Newsdesk (2012) and Steen (2013). Less known is the case of the Iranian gold repatriating from Switzerland in 2005 (Steen, 2013).

Valueless medium of circulation necessitates an issuer and guarantor of the exchange relation between the symbolised and the symbol. Hence, fiat money is the product of commodity money in circulation which takes the concrete form of coin. The coin itself becomes a slippery form between commodity money and fiat money, at least until the end of the 19th century, and the transformation (minting and melting) was the mechanism of controlling that a gold coin was, and to which degree, a concrete form of commodity money and not one of fiat money.

State issued “paper” money is the most developed form of fiat money and it is legal tender by definition. It is striking because it seemed to be able to represent value only with the seal of the state. Fiat money is a logically derivative form that becomes independent⁷⁸ much earlier than the 19th century, although it is out of the scope of this dissertation to trace back its historical origins which seem to be lost in time (Innes, 1913).

Fiat money is often confused with credit money. The reason is their superficial resemblance as “paper money”, especially between state paper fiat money and banknotes, although paper is not the only material with which both forms of money have appeared historically⁷⁹. Moreover, the easiness in issuing more symbols has been mistaken with credit expansion. The result was the conclusion that all money is either credit money or symbolic. Nevertheless, “fiat money presupposes no credit relations” (Lapavitsas, 1991, p.304).

The form of credit money does emerge from commodity money in a more complex and intermediated way. Credit money emerges from the separation in space and time of the purchase and the realisation of price; the latter presupposes a sale. This separation leads to the formation of a contract that establishes the obligation, and to the circulation of that contract as money. In discussing the necessity and the potentiality of the crisis, Marx (1982, pp.591-598) examines again the metamorphosis of the commodity and the reasons for the separation of the sale from the purchase. He argues that the difficulty lies in selling.

“The difficulty of the seller [...] only stems from the ease with which the buyer can defer the retransformation of money into commodity. The difficulty of converting the commodity into money, of selling it, only arises from the fact

⁷⁸ Lapavitsas (1991) makes this point explicitly, in response to de Brunhoff (1976) who argues effectively that fiat money is not real money.

⁷⁹ Bruce and Shafer (2000) provide an extensive and very informative catalogue of what they call “world paper money”. Various forms of money are listed there as long as they are made out of paper. For example, gold certificates are side by side with legal tender banknotes (p.1128).

that the commodity must be turned into money but the money need not be immediately turned into commodity, and therefore *sale* and *purchase* can be separated⁸⁰” (p.593, emphasis in the original).

Therefore, the emergence of credit money presupposes the existence of money in some other form, since the latter permits the appearance of the conditions for the separation between the sale and the purchase⁸¹. Credit money emerges as a promise to pay an amount of money at a later point in time; by definition, money must assume a form other than credit money, in which credit money will be exchanged when the time is due; in the opposite case it would be a promise of never-pay. From this fundamental feature of it being a promise to pay, credit money is doomed to return to the hands of its issuer and this cyclical path has been defined as the “Law of the Reflux” (Hilferding, 1981).

This process originates in the relations between merchants. That credit money takes the concrete form of merchant’s bill of exchange (Lapavitsas, 2000a). It doesn’t function as means of exchange, because it is in large denominations and of low acceptability. Normally it circulates in the sector and in general in the range of the (commercial) relations of the holder.

The imperfections of this form lead it to the bank, which exchanges it for a note of herself. This raises the range of acceptability to that of the bank. The concrete forms are multiple in this level, and it would demand insufficient space to analyse their emergence and evolution. The major form for our purposes is the banknote, which emerges directly from the commercial bill, since it is issued in exchange for the latter. The next, almost equally important concrete form is the bank deposit that operates upon another medium, like the cheque⁸² or, in modern times, the electronic card. This

⁸⁰ “Η δυσκολία του πωλητή [...] προέρχεται απλούστατα από την ευκολία του αγοραστή να αναβάλλει την επαναμετατροπή του χρήματος σε εμπόρευμα. Η δυσκολία να μετατραπεί το εμπόρευμα σε χρήμα, η δυσκολία να πουληθεί, προέρχεται μόνο από το γεγονός ότι το εμπόρευμα πρέπει να μετατραπεί αμέσως σε χρήμα, ενώ το χρήμα δεν χρειάζεται να μετατραπεί αμέσως σε εμπόρευμα, από το γεγονός δηλαδή ότι η *πούληση* και η *αγορά* μπορούν να χωριστούν η μία από την άλλη.” (Marx, 1982, p.593, emphasis in the original) Translation taken from

<<http://www.marxists.org/archive/marx/works/1863/theories-surplus-value/ch17.htm>> [Accessed 11 December 12].

⁸¹ Marx moves on arguing that this separation is in the basis of the characteristic form of money crises (ibid, p.599).

⁸² The bank deposit operating upon by cheque was the main shape of credit money in England, since and because of the restrictions of the Bank Act of 1844, “The essence of that system is that purchasing power is largely in the form of bank deposits operated upon by cheque, legal tender money being required only for the purpose of the reserves held by the banks against those deposits and for actual public circulation in connection with the payment of wages and retail transactions. The provisions of the Act of 1844 as applied to that system have operated both to correct unfavourable exchanges and to check undue expansions of credit” (Cunliffe Committee, 1997, p.167).

concrete form is much more complicated and its analysis goes beyond the scopes of this chapter. The multiplicity of the concrete forms of bank credit money is country specific (see Bruce and Shafer, 2000).

The banknote has various issues that are renewed upon expiration. The duration of each issuance is always larger than that of the commercial bill and fluctuates depending on various circumstances, wars, revolutions etc., but tends to expand. They are introduced initially in large denominations as an exchange for large commercial bills that emerge from import or export transactions between correspondent firms. Since banknotes were issued with the imprint of the obligation to be exchanged with gold, either at any time or upon expiration, and since they were actually exchanged for gold in various instances of their lives, the expansion of credit was meeting thus an abstract and general barrier to its expansion in the available quantity of the metal.

Bank credit money functions as money although imperfectly, limited by the geographical range of transactions of the particular bank, the usually large denominations of credit advanced and the persisting uncertainty of the viability of the bank. The necessity for overcoming these limitations led to competition that designated the queen of all banks, the central bank. It is not claimed that this is the only reason for the emergence of the central bank or even the most important. After all, banks are capitalist firms and need their bank as well. Finally, the state, to the degree that is formed under the modern standards, needs its bank⁸³. What is relevant is that central banks are not there from the beginning.

It is revealing that the Federal Reserve System was established just one year before the outbreak of WW I, in 1913; the Swiss National Bank was established in 1907; the Reichsbank was established as the central bank of Germany in 1876, while the Bank of Japan in 1882. The Banque de France was established in 1800, but it took it a while before becoming the central bank of France. Similarly, the Bank of England was established in 1694, but should be considered to have assumed full responsibilities of a central bank much later. In all cases, either a newly established or an existent bank resumed the role of a banker's bank and a government's bank (Itoh and Lapavitsas, 1999).

⁸³ For the elaboration of this argument see Itoh and Lapavitsas (1999). McKinnon (1979) had already implied this approach when he stated that a "central bank may also be considered "the government's banker" and the regulator of domestic credit markets" (p.27).

With the establishment of the central bank, commercial banknotes are exchanged with central bank notes, in a proportionate manner that commercial bills had been previously exchanged with banknotes. Hence, banknotes raise their acceptability to the range of the central bank, that is the whole nation.

It seems that the issue of the limitation imposed on the expansion of capitalist production by the form of money was already present in Marx's era. Marx (1978b) was considering the production of precious metals as imposing barriers to the reproduction of capital that are overcome by the credit system.

“Thus in as much as the auxiliary means that develop with credit have this effect, they directly increase capitalist wealth, whether this is because a greater part of the social production and labour process is thereby accomplished without the intervention of real money, or because the capacity of the actually functioning quantity of money to fulfil its function is thereby increased.

This also disposes of the pointless question of whether capitalist production on its present scale would be possible without credit (even considered from this standpoint alone), i.e. with a merely metallic circulation. It would clearly not be possible. *It would come up against the limited scale of precious-metal production*” (p.420, emphasis added).

As we shall see, this contradiction between the finite limits of the volume of production of gold and the infinite, or at least very elastic, limits of credit expansion will prove to be essential.

All these concrete forms, in each country were using the same standard of prices (unit of account) which comprises a name, a standard and a numerical system. This standard is purely conventional, that is socially determined. As it has been argued the unit of account provides the umbrella to various forms and concrete forms but it is neither; like the name that denotes little of the person. The same name is given to different forms of money, while, at the same time, many different names are used to express the same form. In good part, the money confusion arises from its names. Marx was very insightful when he stressed that

“[t]he name of a thing is something distinct from the qualities of that thing. I know nothing of a man, by knowing that his name is Jacob⁸⁴. In the same way with regard to money, every trace of a value-relation disappears in the names pound, dollar, franc, ducat, etc. The confusion caused by attributing a hidden meaning to these cabalistic signs is all the greater, because these money-names express both the values of commodities, and, at the same time, aliquot parts of the weight of the metal that is the standard of money. On the other hand, it is absolutely necessary that value, in order that it may be distinguished from the

⁸⁴ In our days, Marx would have used Muhammad.

varied bodily forms of commodities, should assume this material and unmeaning, but, at the same time, purely social form” (Marx, 1976, p.195).

In the context presented above, the commercial bill in dollars and in yen are both first level credit money, namely moneys of the same form and same concrete form. The issue is contrasted with statements like the following

“At present the dollar, the euro and the yen are the main *forms* of money serving as units of account, means of circulation, means of payment, and reserve funds in the world market, with the dollar still dominant” (Smith, 2005, p.222, emphasis added).

The main research question is to examine exactly which forms satisfy today the function of world money, irrespective of the “cabalistic signs”. Special focus will be on the hoarding function in the international level.

In conclusion, commodity money becomes unsuitable for circulation and raises barriers to the expansion of credit. As a coin it ends up in fiat symbols and as bullion it ends up in holes. Fiat money cannot leave the sphere of circulation and therefore cannot be hoarded. Credit money is the best for the expansion of credit and it circulates to the degree that the financial system permits it, but it is unsuitable for all other purposes. The most significant barrier for credit money is the range of acceptability that is defined by the range of the issuer. When in circulation in the given range, all forms are named after the same⁸⁵, and names are more misleading than revealing.

4.2 The new form of money: quasi-world money

We have discussed the various forms and the concrete forms that dominated the domestic and international market roughly until the outburst of WW I. Yet, modern money doesn't fit to any of the above. It is not commodity money, neither symbol of the latter with legal tender, namely it is not fiat money, nor pure credit money of any level. A closer examination of that form of money reveals immediately that it is *central bank credit money declared as legal tender*. This is an alloy form of money that enhances the properties of credit money with those of legal tender (Lapavitsas, 2000a; Smithin, 2003; Weber, 2003)⁸⁶ and consists a new *form* of money. Evidently, this new

⁸⁵ When off circulation, or off range names may vary, but this is not affecting the forms at the least.

⁸⁶ “Contemporary bank-issued credit money bears the strong imprint of the state through links of the latter with the central bank” (Lapavitsas, 2000a, p.647). “The ultimate asset will continue to be the nominal liabilities of central banks backed by the coercive and legislative power of the state” (Smithin, 2003, p.33). “An important consequence of central banking is that the gold standard can be suspended by giving paper money legal tender status (Weber, 2003, p.66).

form cannot exist before the establishment of the central bank. New money is produced by the bank of the banks, with the trustworthiness of the state, rather than the mere enforcement of the latter (Papadatos, 2009).

The process of issuing the new form is of importance here. Money is issued by the central bank and enters circulation for the first time as a deposit of the state in a commercial bank. In all cases, the new form is not backed up by a commodity, and therefore does not have the quantity limitations that this anchoring would impose; it is a claim on a specific financial institution, the central bank, backed by the national reserves. “[...] [T]hese banknotes [of the central bank, GL] thanks to legal regulation, enjoy an intermediate position between state paper money [fiat money, GL] and credit money” (Hilferding, 1981, p.66)⁸⁷.

The emergence of the new alloy form in the national market rests thus with the central bank note, which becomes gradually and inevitably the best concrete form of all credit money, even without legal tender. For the central bank note to become the king of all concrete forms of credit money several preconditions should be met. The central bank should gradually collect the national reserves, so that this concrete form was the most solid in terms of its convertibility with gold at face value, whenever necessary. Issuances should be prolonged and denominations should become lower so that the banknote could embrace a greater range of transactions and practically apply for circulation. Finally, the state was giving the central bank the luster of the bank that doesn't fail, although that is only a gloss. Legal tender confirmed something that was already known; that the central bank note was as good as gold in good times and something to live with in bad ones.

The new form appears for the first time in 1797 with the Bank Restriction Act, that made the banknotes of the Bank of England inconvertible; it was issued on the 3rd of May of that year and was supposed to expire by the 24th of June, but lasted until 1821 (Vilar, 1976). Vilar (1976) explains eloquently and in accordance to the framework applied here why there was no panic accompanying the monetary evolutions of 1797, as it was the case for Law's experiments and the *Assignats*, which were pure fiat money. This happened because “[...] English paper money was not issued by the state, but

⁸⁷ De Brunhoff (2005) states that “[c]redit money issued by banking systems is the form of money in modern capitalism” (p.213). It is worth questioning how a shrewd eye like hers did miss the contribution of the state.

remained ‘bank notes’” (p.315). “[...] bank paper in England was far from being a simple token of money, and was much closer to being a form of credit-money” (p.311).

The restoration of the old form came with vengeance with the establishment anew of an official peg of the pound in May 1821, the dominance of the Currency Principle and, finally, the Banking Act of 1844. As soon as the banknote of the Bank of England managed to stand independent of gold with the enforcement of the state, it was degraded forcibly not only to a concrete form of bank credit money that it was before 1797, but to a mere token of gold. The new form is not established as such until the outburst of WW I although all the preconditions were already in place. A very interesting narration of the way the new form was born in the UK during the First World War can be found in the Cunliffe Committee Report (1997) and is worth quoting at length.

“[...] Contractors are obliged to draw cheques against their accounts in order to discharge their wages bill—[...]. It is to provide this currency that the continually growing issues of currency notes have been made. The Banks instead of obtaining notes by way of advance under the arrangements described in paragraph 9⁸⁸ were able to pay for them outright by the transfer of the amount from their balances at the Bank of England to the credit of the currency note account and the circulation of the notes continued to increase. The government subsequently, by substituting their own securities for the cash balance so transferred to their credit, borrow that balance. In effect, the banks are in a position at will to convert their balances at the Bank of England enhanced in the manner indicated above into legal tender currency without causing notes to be drawn, as they would have been under the prewar system, from the banking reserve of the Bank of England, and compelling the Bank to apply the normal safeguards against excessive expansion of credit. *Fresh legal tender currency is thus continually being issued, not, as formerly, against gold, but against government securities*” (p.169, emphasis added).

This alloy form of money is the form of all contemporary moneys where capitalist relations are expanded in such a depth so that the central bank and the state can provide for such an amalgamate form of money. But the most interesting part of the story comes next. This alloy form of money managed to go out of *some* national borders and to appear in the world market which seemed impossible in the beginning of the century (Hilferding, 1981)⁸⁹. As we have already seen, the need for the function

⁸⁸ “[...] the Treasury undertook to issue such notes [currency notes for one pound and for ten shillings as legal tender throughout the UK, GL] through the Bank of England to bankers, as and when required, up to a maximum limit not exceeding for any bank 20 per cent of its liabilities on current and deposit accounts. The amount of notes issued to each bank was to be treated as an advance bearing interest at the current Bank Rate” (Cunliffe Committee, 1997, p.168).

⁸⁹ “In reality, however, such a system of paper currency is impossible. In the first place, this paper money would be valid only within the boundaries of a single state” (Hilferding, 1981, p.57).

of world money arises exactly from the fact that money cannot break the domestic limits in any way other than to assume the form of world money. Therefore, there appear not one, but two peculiarities. First, domestic (credit with legal tender) money manages to achieve acceptability in the world market and second, this is a property of the moneys of specific nationalities. In other words, some national moneys manage to learn easier than others the universal price language of commodities.

A more thorough look will immediately reveal that these moneys are no others than the ones suggested by Smith (2005) and these are the imperialist ones, with the US dollar showing off first in the list; the Euro comes second, taking over the sceptre from the DM and carrying some colonial French essence; the British pound is the indisputable predecessor of all and apart from the glory of the past, reminds the world where the City is located; the Yen has its share, the small size of which is not the only peculiar issue about the Asian imperialist.

Therefore, only the imperialist's central bank credit money declared as legal tender can exit the borders. This is the form of money that has appeared in the literature under different names. The most commonly used name for this form of money is "international reserve currency" (Plaschke, 2010) 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 itself⁹⁰. 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 literature⁹¹. 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 nature⁹². The most appropriate, among the available ones, I accept the term "quasi-world money" which was originally coined by Makoto Itoh (Lapavitsas, 2013).

⁹⁰ McNamara (2008) admits that explicitly in the following quote: "I define key currency broadly, as the currency that dominates across a variety of functions [...]" (p.441).

⁹¹ 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".

⁹² "[...] 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".

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.

Fiat money or some other concrete form of credit money, even of major capitalist country had never showed before any particular capacity in breaking their national limits. On the other hand, although the necessity of the form in the national level comes from the evolution of the forms there, its exit in the world market doesn't seem to be enforced by any internal logic of the evolution of the form. The main theoretical hypothesis put forth here is that the process of internationalisation of domestic money is historical and goes hand in hand with the evolution of capitalism to imperialism, but is dependent upon the form of money. In short, it is argued that this alloy form is logically produced internally and seems the only one that could do the job in the world market, but its exiting the borders doesn't accrue from the nature of the form . In the opposite case, all national moneys of the same form would have done the same. If for the emergence of the new form in the national market, the central bank was the pivot, for its exit in the world the state, with the economy that stands behind it, seems to be all that matters. There is a strong imprint of nationality in quasi-world money that was obtained historically.

The process of emergence itself is the subject of the third part. It could be stressed here that export of capital, as a characteristic feature of imperialism (Lenin, 1964) is very relevant to the matter at hand. According to Lenin (1964), the potentiality for capital to export is created by the fact that a series of peripheral countries have been pulled to the trajectory of global capitalism. The need for exporting capital, Lenin continues, derives from the evolution of capitalism that leads to the concentration of masses of capital that can find no (profitable) place under the sun in their homeland and seek a better future abroad. Finally, the export of capital enhances the export of commodities (ibid).

The export of capital is a complex issue and there is no intention to enter into its multiple determinants. For the purposes of this dissertation, it would suffice to note that the importance of the export of capital has risen in the capitalist world in the course of the 20th century and that this export is made in all forms, but inevitably, if in no other, in the money form.

With its exit in the world market, from the outset, quasi-world money competes with gold. From WWI until the collapse of Bretton Woods it is a transitory period where the two forms coexist, alternate, bent one on the other or exclude one another. The difficulties are more evident in the first years, in the interwar period, but persist in the golden age of capitalism, in the two decades following WWII. Both world wars “helped” the strengthening of quasi-world money by deifying gold; the latter was concentrated in the central banks during the first war and in the central bank of the US, in particular, in the second. In general, quasi-world money is gaining ground to the degree that imperialism is evolving and establishing its economic laws and institutions. The collapse of Bretton Woods marks the smash of the golden fetters of quasi-world money and the beginning of a new era in the international monetary system.

On the other hand, money never stopped assuming the form of gold, in all concrete forms. The initial inarticulate shouts against the monetary nature of gold, so much necessary for the first steps of quasi-world money, were defused after a few symbolic auctions of the US gold and a clause in the 1976 amendment of the IMF prohibiting the Fund’s members to peg their currencies to gold.

“Historical reality is again and again caricatured by saying that gold is the currency of a former age; that it has nothing to do with modern money. Historically speaking, nothing is further from the truth, as neither gold or silver was ever the only form of “money”. [...] The main novelties of the past thirty or forty years have been the spread of payment on account, of “book money, at the most everyday and popular levels; the rise of systematic “monetary policies”, through which the state intervenes into circulation and credit; and, since the end of the Second World War, the acceptance of certain national currencies, mainly the dollar, as the basis for international payments, and the stability imposed in the ratio between this currency and gold, whatever the variations in the conditions of production of the latter” (Vilar, 1976, p.344).

The collapse of Bretton Woods was marked by Nixon’s declaration with which the US ceased the obligation of the Fed to exchange foreign held US dollars for US gold. These issues will be treated in detail in chapter 8, but time is appropriate for a full discussion of convertibility.

4.3 Convertibility

It seems necessary to make some notes on convertibility because, although a historical term, it is still not well defined. For example, Fazio (2000) reproduces in a typical phrasing a threadbare perception of what happened in the 15th of August 1971, in terms of “convertibility”.

“The suspension of the dollar’s convertibility on 15 August 1971 officially cut the link between legal tender and gold — an epochal change after more than two thousand five hundred years during which money had always been based explicitly or implicitly on a precious metal, prevalently gold” (Fazio, 2000, p.17).

Taken literally, the approach of the ex-governor of Banca d’ Italia is unhistorical. The link between legal tender and gold was officially cut for most countries in the First World War. During the Bretton Woods, gold coins were not carrying any legal tender, while gold bullion had never, to my knowledge, acquired the feature of legal tender. Moreover, in Fazio’s mind, money was always based on a precious metal, implying thus that he doesn’t recognise credit money at all.

A very insightful analysis and definition of convertibility is provided by McKinnon (1979). McKinnon recognises and reveals the above controversial aphorisms that were present in his time. He argues that “convertibility can be defined independently of the exchange rates with foreign currencies that a government may be obliged to maintain (p.6) and he provides the following working definition:

“A currency is *convertible* if: Domestic nationals wishing to buy foreign goods and services, not specifically restricted, can freely sell domestic for foreign currency *in a unified market at a single but possibly variable exchange rate covering all current transactions* inclusive of normal trade credit; whereas foreigners (nonresidents) with balances in domestic currency arising from current transactions can sell them at the same foreign exchange rate or purchase domestic goods freely at prevailing domestic-currency prices” (ibid, first emphasis in the original, second one added).

McKinnon provides this definition in order to deal with earlier conceptions that “attached an official obligation to maintain a par value in the rate of exchange between domestic currency and foreign money” (ibid); moreover, he provides it at the outset, considering it fundamental to his analysis. I will have to elaborate further McKinnon’s seminal approach, in order to make it compatible with the terminology used here, keeping though the gist of his argument. For this purpose, it is necessary to examine closer Fazio’s assertion and reveal the conventional wisdom behind the notion of

convertibility, before providing a working definition that will draw heavily from McKinnon's.

In terms of this dissertation, by convertibility it is meant the ability of a non-commodity form to transform into the money commodity. Yet, it is not always clear if this non-commodity form refers to fiat, to some concrete form of credit money or to quasi-world money. If reference is made to fiat money, as it was the case in the 19th century, then it should be examined what concrete forms fiat money assumes today. Legal tender has been attached to central bank credit money, so fiat should be expected to be truncated to the degree of mutilation. Although it is out of the scope of the analysis to expand in modern concrete forms of symbolic money, it seems that the best is that of electronic gold like Digital Gold Currency, e-gold, GoldMoney or other (Jackson, 2000; Capie and Wood, 2001). These concrete forms are quite interesting and demand further examination, but convertibility applies directly and smoothly in this case, with the everlasting dual problem of the symbol, namely the issuer and her issuing policy. These symbols are highly divisible to the milligram and 100 percent backed by gold (Capie and Wood, 2001).

“These are payments system in which payments are made on the internet completely backed by gold or, in the case of e-gold, other precious metals. A quantity of e-gold or, in the case of GoldMoney, GoldGrams, constitutes title to a precise weight of the physical metal which can be used to purchase goods and services. The actual gold is held in a bullion vault and does not move but ownership changes as purchases are made” (ibid, p.31).

Convertibility should refer to the necessity of the new form of money to convert into gold; otherwise it is of low importance. Indeed, any *form* of money should be able to transform to another, but this statement is not insightful. What should be said is that all *concrete forms* should prove their ability to be concrete forms of one or another form, by transforming to another concrete form. When one concrete form fails this test, the form is not necessarily damaged, but the concrete form disappears. The most prominent example is the banknote of commercial banks, the disappearance of which did not contest the existence of credit money of commercial banks; to the contrary, a boom of innovative concrete forms followed.

Therefore, we have established an essential issue related to convertibility; it should refer to convertibility between concrete forms of money. But, still, the features of this transformation are not given by denoting the two edges. More should be said on the process which lies in the following four interrelated features: the place where

convertibility happens; the establishment of an institutional obligation; the actual potentiality that relies on the adequacy of reserves; and, of course the exchange relation⁹³. It becomes evident that the discussion on convertibility should be specific in many aspects that are the responses to the following questions: between which concrete forms? Where? Is it obligatory? Does it happen? In which ratio?

Presumably, it is interesting to examine convertibility between quasi-world money and gold, in the concrete forms of the dollar banknote and the bullion correspondingly. In advance we may say that the two concrete forms are generally and easily convertible, but things have changed. The place, for one, has been changing. It used to be in the central bank after 1914; in the market after the early 1970s. McKinnon (1979) examines in detail the market mechanisms through which convertibility between national monies takes place and in particular, he sheds light on the interbank market and the functional role of the bid-ask spread. Very insightfully he argues that “if the bid-ask spread becomes substantial and the price of foreign exchange more uncertain, the international “moneyness” of domestic currency is reduced” (p.11). He doesn’t though examine at all convertibility between gold bullion and a concrete form of a national money (central bank credit money with legal tender), either quasi-world money or other. Convertibility between the latter two forms was actually restored fully in the market with the collapse of Bretton Woods, raising the severe constraints that applied in privately holding gold from 1914. From this point of view, that convertibility was severed for all but the central banks in the period 1914 to 1971, and especially after 1944 and that was an arrangement unprecedented in capitalism.

The place, though, is dependent upon the second feature – obligation. There is no one today – state, central bank or other institution – that is obliged to convert US dollar banknotes to gold. McKinnon (1979) expresses that eloquently by noting that “an official parity obligation is *no longer* necessary for a currency to be considered convertible” (p.7, emphasis added). This is because the dollar is not issued against gold; from the outset, there is no obligation. This is reflected in a change of the printing of banknotes: they have no longer printed the motto “will pay here to the bearer on demand” that they used to in the late 19th century (Bruce and Shafer, 2000). There is no formal obligation, because there can be no formal obligation. Again, the period of

⁹³ All these features, either explicitly or implicitly, can be found in McKinnon (1979) in more vague terms.

Bretton Woods is peculiar since there was the obligation of the Fed to exchange dollars held by foreign central banks for US gold. It will be argued in the third part of this dissertation that the luster of the symbol was necessary for the new form to be established. From this point also, if there is something to be explained is the Bretton Woods arrangement and not its demise.

As for the actual potentiality, the adequate reserves have risen today to very high levels. For this, one should not be confined to the central bank reserves, but consider also the reserves in the bullion banks and private hoards. The gold market is one of the most liquid markets in the world, if not the most liquid one and there is hardly a case that gold faced difficulties in transforming into any other form of money in any country, let alone the US dollar banknote that can be transformed to gold as easy as no other concrete form.

The exchange relation finally has been subjected to a major, although not unprecedented, change⁹⁴. As Weber (2003) puts it, “the public no longer has the right to exchange bank notes for gold *at a fixed price*” (p.67, emphasis added), while the right in general to exchange bank notes for gold has been freed after the collapse of Bretton Woods; this right is now more established than ever in the 20th century. The Articles of Agreement of the IMF were modified accordingly so that the IMF is guided, among others, “by the objective of avoiding the management of the price, or the establishment of a fixed price, in the gold market” (IMF, 2011, p.16).

It is stressed once more that the highly regulated exchange relation between concrete forms of gold and of fiat or even of credit money is a different issue than the exchange relation between concrete forms of gold and of quasi-world money. From the outset, the exchange relation was not very successfully regulated, with the exception again of Bretton Woods. The quote from Vilar (1976) above reflects the peculiarity of the stable exchange rate.

Therefore, it is highly contested here that “national currencies severed their convertibility into gold [after the collapse of Bretton Woods, GL]” (Foley, 2005, p.42). The contestation can be visualised in the current crisis with the “we buy gold” shops that spring up all around the globe, including places like Paris and Berlin. Moreover,

⁹⁴ There is a historical precedent of altering the exchange relation of gold with another form and that is the era of the Bank Restriction Act (1797-1821) that has been presented above.

even before the crisis all central bank notes could be exchanged for gold in their national markets.

4.4 The research questions restated and the field for their investigation empirically

Thus far we have formed our hypothesis which is summarised below. There has been a major change in the form of money that used to function in the world market. It used to be exclusively commodity money, with gold bullion being its most prominent concrete form. The latter was performing the complex function of world money by forming the national reserve and paying in the international market, after all clearings had taken place. It was the basis of the exchange rates and it was forming the prices of internationally traded commodities.

In the course of time and as capitalism evolved in the turn of the 19th century, a new form is born in the national market primarily. This is an alloy form of credit money that is issued by a newly found institution of the time, the central bank, and is declared as legal tender by the state. It is imposed by the need of economising on gold, i.e. by the recognition of gold as the absolute form of money, and not by the rejection of the monetary appropriateness of gold. The new form replaces gold in circulation since the concrete form of gold coin is easily replaceable in this function. Moreover, the new form is feasible only when gold is concentrated in the national vault, and the latter is no other but the vault of the central bank. Domestically, the following interrelated processes are evolving in parallel: the establishment of the central bank; the enthronement of its banknote as the more powerful and complex concrete form of credit money; the replacement of gold in circulation; the concentration of gold in the vaults of the central bank; finally, the declaration of the central bank note as legal tender and the prohibition of gold in domestic circulation.

All these processes were focused on freeing gold for its function as money, particularly in the world market, while serving the expanding needs of circulation. This replies also to the question of why fiat money could not accomplish this need. Fiat money and commodity money are bound together and hence an expansion in fiat money domestically would not free gold for its use internationally. On the other hand, this use of gold implies always hoarding, sometimes even when gold is paying, as it is the case when payments are made in gold with a simple change of labels on gold stockpiles that rest deep in earth.

It is repeated that the use of gold bears considerable costs in all functions. To begin, the first cost relates to the extraction of gold. In circulation the cost is in clipping, either intentionally or simply by wear. In hoarding, there is considerable and always rising cost in safekeeping. The concentration of gold in the central bank's vault deals with the issue in two ways. First, the state provides its security mechanisms that are considered as superior to any individual attack⁹⁵ and, second, it is easier and less costly to guard fewer and larger vaults than numerous and smaller ones. Still the cost is considerable⁹⁶. In paying, gold carries all the costs of its safekeeping during its trip, plus the cost and the risk that are incurred by the transport itself⁹⁷.

These costs were borne by all countries and individuals that were involved in the corresponding transactions. Yet, the concentration of gold in particular financial centres in particular countries signified that the corresponding countries were bearing the bulk of the cost that relates to hoarding. This is very relevant in the past for the UK, France, Switzerland and the US. Therefore, one should bear in mind that reserves of money were canalised to the apex of the banking system, the central bank, domestically and they were particularly kept by the central banks of the leading capitalist states in the form of gold; these states were acquiring thus a huge financial power, bearing the cost for keeping these reserves. In general, and to the degree that gold is oriented almost exclusively to the expanding necessities of the world money function, financing the extraction of gold becomes all the more a stressful matter⁹⁸.

Let us turn again to the new form of money. We have seen that the national imprint is essential for this form both because of the central bank that issues it and the

⁹⁵ This was propagated by the famous film *Goldfinger* (1964), where James Bond uncovers a plot to contaminate the Fort Knox gold reserve. Various things are interesting about this film, like the date that this propaganda was released; the storyline according to which the American, and consequently the world's, gold reserve was saved at the last moment; that this reversal was due to very obscure contingencies and not by the force of arms; and finally, the attack's incentives which were as much political as economic.

⁹⁶ In its annual report, the US Mint estimated the protection costs of safeguarding the gold reserves, for the fiscal years 2011 and 2012, at \$41.5 and \$42.2 billion respectively (United States Mint, 2012). The gold reserves that are kept in the cost of the Mint in Fort Knox amount 147.3 million ounces and are registered with a book value of \$42.22, while their market value was \$1531 in 2011. Their book and market value is thus \$6.2 and \$225.5 billion respectively, which means that the protection expenses amount to 18.4 percent of the protected gold.

⁹⁷ As for the cost, Salmon (2011) estimates the total expenses of the transfer of the Venezuelan gold (see footnote 77, p.87 above) to reach at least 3.3% of the total value of the gold. Note that the cost is estimated here in gold. "Given that the gold is worth some \$12.3 billion, the cost of Chávez's gesture politics might reasonably be put at \$400 million or so" (ibid).

⁹⁸ "[...] the world liquidity requirements can certainly be put to better use than the financing of more and more earth-digging in South Africa, the USSR, Canada, the United States and Australia" (Triffin 1960, pp. 81-82).

state that declares it as legal tender. It has been observed that this form manages to exit the borders of some states, implying that there is no regularity in the transformation of the new form into quasi-world money and that this transformation is heavily dependent upon conditions that relate to the specific country and its position in the world market. This position is liable to change as the result of historical contingencies of the magnitude of a world war, a profound capitalist crisis, a revolution etc. The issues that relate to the historical determinacy of quasi-world money will be further revealed in the next part and will be treated in detail in the last part of this dissertation.

The mechanism that elevates a national money to the status of quasi-world money is evidently related to hoards of that money, but this relation is not so clear. For example, foreign exchange reserves are considered as a measure for the use of a currency (McNamara, 2008), although the reasons for that are not given. The immediate object is thus to examine the changes that have taken place in hoarding because of the emergence of quasi-world money and, in turn, led to its establishment. Data on reserves will be proven to be revelatory. Theoretically, this should be expected, after the analysis in the previous chapter. In terms of this chapter, hoarding leads to a process of freezing of all concrete forms and of transforming them into certain concrete forms. International hoards will prove revealing thus as for the forms that appear in the world market and the changes that have occurred since the establishment of the new form.

It is already well known that there is huge reserve accumulation by dependent countries in non-commodity forms; these reserves are denominated in quasi-world money. Yet, it is exactly the leading capitalist countries and their reserves that should attract our interest. In particular, with the emergence of quasi-world money have these countries lost the preferential position accruing from keeping the bulk of the international reserves? Do they still keep the bulk of international reserves? In which form do they keep these reserves and is this by choice, more or less conscious? And, finally, do the quasi-world money issuers bear the cost that is corresponding to their preferential position in the IMS?

In order to examine these questions, one should turn to the available empirical material, examining the relative magnitude of reserves and their composition, focusing particularly on the quasi-world money issuers. The originality of this quest is hence dual. Contrary to the relating literature that is focused exclusively on dependent countries and especially on China and the BRICS, it shifts the focus back to the leading

capitalist countries and, second, it casts light on the particular forms that comprise these international reserves.

We are expecting to confront great variations and hierarchical structures that will accrue from the national imprint that has already been stressed. This national imprint dictates that the quasi-world money issuers should be examined separately. Unavoidably, the US and its dollar are examined since the USD is the quasi-world money *par excellence*. Apart from that, this dissertation sheds light also on the euro, for the latter is revelatory of the weaknesses of quasi-world money.

Part 2. Hoards revealing the features of quasi-world money

“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)

Chapter 5. International hoards of money

5.1. Introduction

5.1.1. Brief historical overview and preliminary notes

The historical emergence of quasi-world money will have to wait until the third part. In this section, the following throwback will introduce the reader to the different role of hoards during and after the emergence of quasi-world money.

Hoards 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 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 played the role of the crutch for the first steps in the world of the later-to-be 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 that will be further analysed in chapter 8. 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 emerging 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. These stocks that comprise of both securities and various concrete forms of quasi-world money are called foreign exchange and sometimes also international reserves.

“The precise composition of international reserves is not known, but there is little doubt that the bulk – perhaps two thirds – comprises US dollars” (Lapavitsas,

2009b, p.15)⁹⁹. 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 bonds¹⁰⁰.

In what follows, the changes in the form, quantity and distribution of hoards in the international level are explored. Before proceeding it is necessary to clear the content of the terms that will be used thereafter. 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. The use of the term is obligatory, but that will be discussed below, in the section that treats data availability and adequacy.

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 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.

The difficulty in distinguishing between the forms that reserves are comprised of is primarily theoretical, and has been implied already in chapter 3, referring to the multiple sources and ends of hoards, as well as the role of the central bank. More specifically, since the central bank has evolved as the trustee of the hoards of the nation,

⁹⁹ Data from COFER (IMF, 2012b) verify this conclusion.

¹⁰⁰ “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).

its vault functions as a melting-pot where the origin of the hoard goes off, along with the economic process that the latter is related to. It is therefore difficult to distinguish whether hoards are related to domestic reproduction or to international flows of capital, be these in the form of money or of commodity. This distinction would reveal the effects of the new form of money on hoards. Such a quest, if possible, would require research for each particular country, examining separately the domestic reproduction and the international flows of capital.

To this jumble, the specific form of hoards could have been somehow illustrative without entering the in-house of each country, but the related information is not transparent; to the contrary, it can be quite blurring, depending on the country. The Eurozone though provides a very good distinction and that would be a reason of its own to examine the Eurozone closer.

A final theoretical remark that should be made here concerns non official reserves. Although the tendency is for reserves to be canalized to the apex of the pyramid, that doesn't mean that they are not formed in all its layers. From pillows and chests, to safes and from there to bullion banks and private depositories, money is hoarded in many non-official places, some of which are beyond the control of the central bank¹⁰¹. Non official reserves should be taken into consideration, but they will not. The reason for the former is that they are formed for, and used in, the same way like the official reserves; a complete analysis should examine the part of total that is kept officially and variations in the composition between officially and private reserves. Yet, there is no reliable data for such a work in the national level, not to mention the international. I will assume thus that the official reserves reflect adequately the tendencies in the evolution of total reserves in all aspects, namely form, composition, quantity and distribution between countries. In other words, it will be assumed that the fact that official gold hoards are concentrated in the major capitalist countries is not reversed if privately held gold is taken into consideration. That is not a fundamental assumption and some indicative elements will be provided.

¹⁰¹ In an article with the speaking title "how about a Fort Knox of your own?", Sullivan (2012) advertises the business of mister Tapiero and of a friend (of whose, really?) who goes by the name of Feldman, but in doing so Sullivan tells a very old story with modern heroes and setup.

5.1.2. Various approaches to international reserves

The process of forming reserves of foreign exchange from dependent in the imperialist system countries has been captured on 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 of thought 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 countries 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.

“Under its current institutional set-up the gold exchange standard does not and cannot provide for an increase in *global* international liquidity beyond the margins set by the additions to the stock of monetary gold. [...] the gold exchange standard can only raise the reserves of the rest of the world at the expense of a corresponding decline in the net reserve position of the key-currency countries. Consequently, the level and the rate of increase of global international liquidity depend in the last analysis on the inadequate stock and flow of monetary gold” (Zolotas, 1965, p.10, emphasis in the original).

In this chapter the data will be examined. Additional data will prove necessary and will be provided in the next chapters. The conclusions and the relevant discussion will remain open until the third part of the dissertation.

5.1.3. Notes on the data

For approaching the relevant data, the difficulties that have 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. Moreover, there are various problems that are related to these levels and are examined in turn.

In relation to the forms, it has already been noted that these 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 would provide themselves 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 not something that will help her. The composition of reserves is of utmost importance and that is why the relative data is not transparent.

The problems with the countries are two; first, which ones to choose, but this was treated in chapter one; and second, there is a specific problem with the Eurozone countries since they are keeping reserves in two layers, namely their central banks and the ECB, and they definitely cannot be excluded. This problem should be treated separately and therefore the Eurozone countries and the ECB will be examined further in the next two chapters. The case of the ECB is generally peculiar, interesting and revelatory.

The time framework is dependent upon the availability of data. These issues are examined in the appendix. Suffice it to note here that the time range is from 1948 to 2010 and that the period that attracts interest is closely after the collapse of Bretton Woods, namely from the mid-1970s to the early 1980s. We expect to see in spurs the tendencies, not overlooking the possibility of particularities that are irrelevant or they are only distantly relevant to the matter at hand.

Let us turn to the appropriate measure that should be used¹⁰². 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

¹⁰² Reference is made here as for the measure of total reserves. The issues that relate to the commensurability of various forms of reserves, and especially the treatment of the golden form, are examined in the appendix.

(2006) measures reserves of emerging market economies as a share of M2, relating thus hoards with domestic circulation.

It should be stressed though that the scope of the analysis here is not to adjudicate upon the adequacy of hoards in relation to their scope. 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. All the figures, the relevant calculations and any other useful detail that concerns the construction of the figures can be found in the appendix.

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

5.2.1. Overall allocation of reserves for selected countries

The distribution of official reserves can be vividly and eloquently portrayed in figure 5.1. In that, one may observe the historical evolution between 1948 and 2010 of the share in total world reserves of thirteen selected countries. The details for the construction of this figure can be found in the appendix (I), but it should be stressed here that all forms of officially held reserves are taken into consideration and that 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.

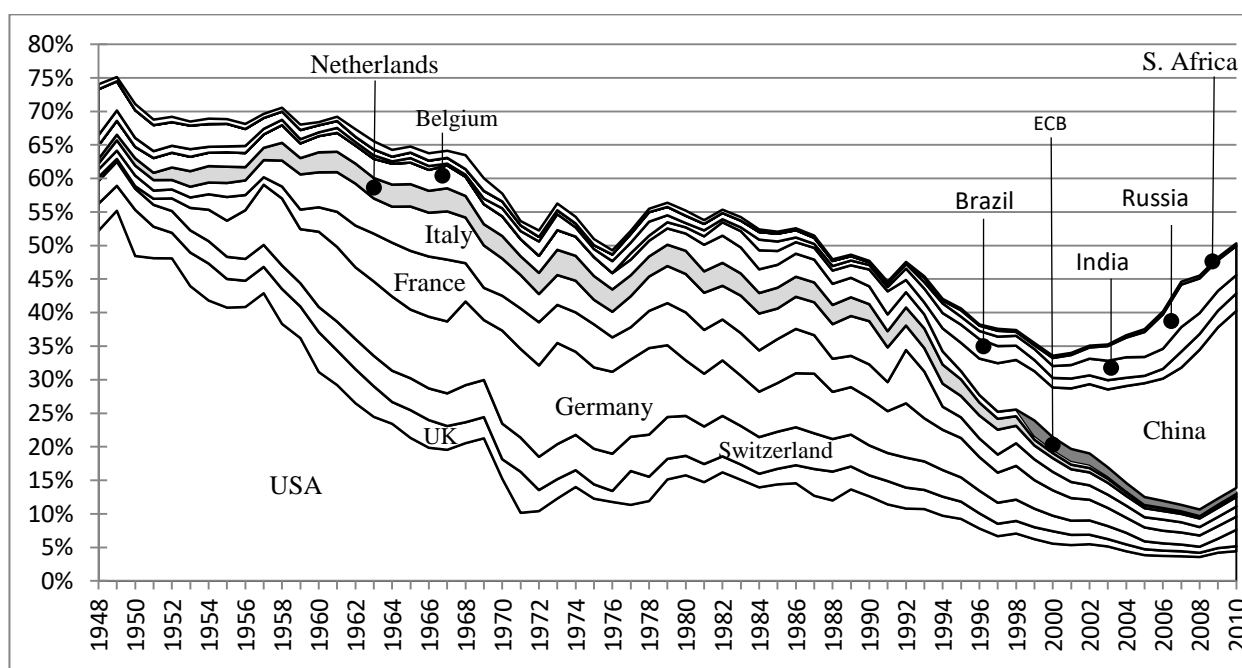


Figure 5.1 Share in world reserves, all forms, 1948-2010, selected countries. Source: IMF, 2012a; 2012c; own calculations.

Nevertheless, 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, as we will see in more detail in chapter 9. 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 5.1 reveals a key finding of this chapter and of the whole dissertation that will be further documented, 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).

5.2.2. The accumulating emerging economies

There is vast literature that has been attracted by the huge reserves of China and these of other countries. Here, it is intended to provide though data focusing on the form of these reserves. Three measures have been estimated, although for most developing countries only one is reliable and useful at the same time, namely reserves in months of import. The measure against GDP is dubious, not referencing to any particular scope of hoarding, while the measure against FDI is confronting the severe limitations due to data availability. These issues are discussed extensively in the appendix.

It could be said that the characteristic figure is the following (5.2) 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 exchange¹⁰³; 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. It is beyond our purposes to discuss the differences in the level of imports between these countries.

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

¹⁰³ It is once more reminded that the foreign exchange component is not in accordance with the distinctions made in this dissertation. It comprises various different concrete forms of money and non monetary forms, like mother bonds.

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.

Special reference should be made about the reaction to the current crisis, which is consistent with the happened in similar occasions, namely, relative or even absolute reduction of reserves. This seems theoretically justified and trivial to note but the significance of this remark will be evident when the quasi-world money issuers will be examined.

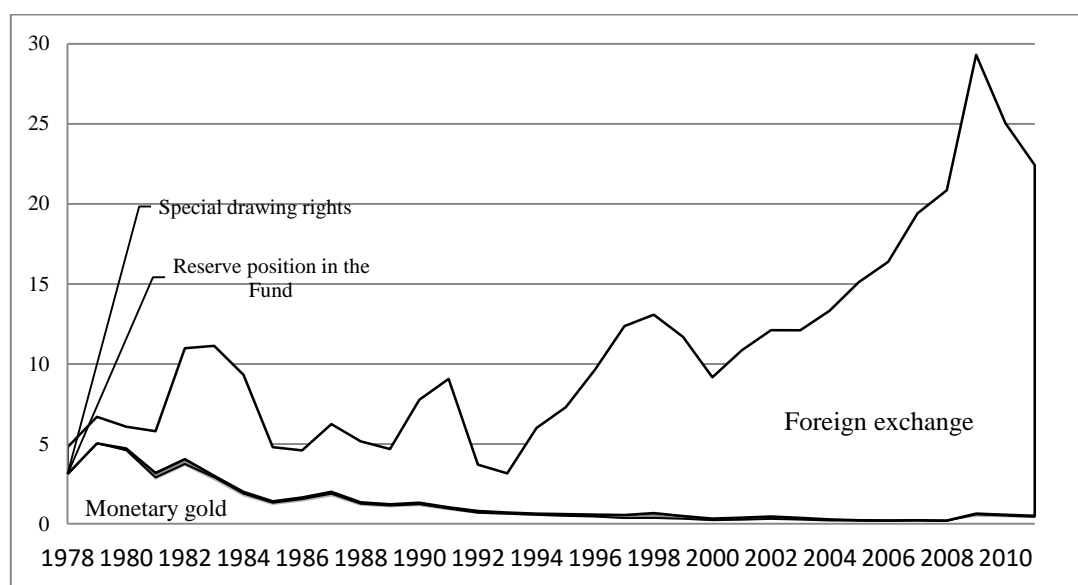


Figure 5.2 Official reserves of China in months of import, by form, 1978-2010. Source: IMF, 2012a; 2012c; own calculations.

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 the trends are the same for all countries. The next figure (5.3) 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, as it has been argued, this is only one of the purposes of international reserves.

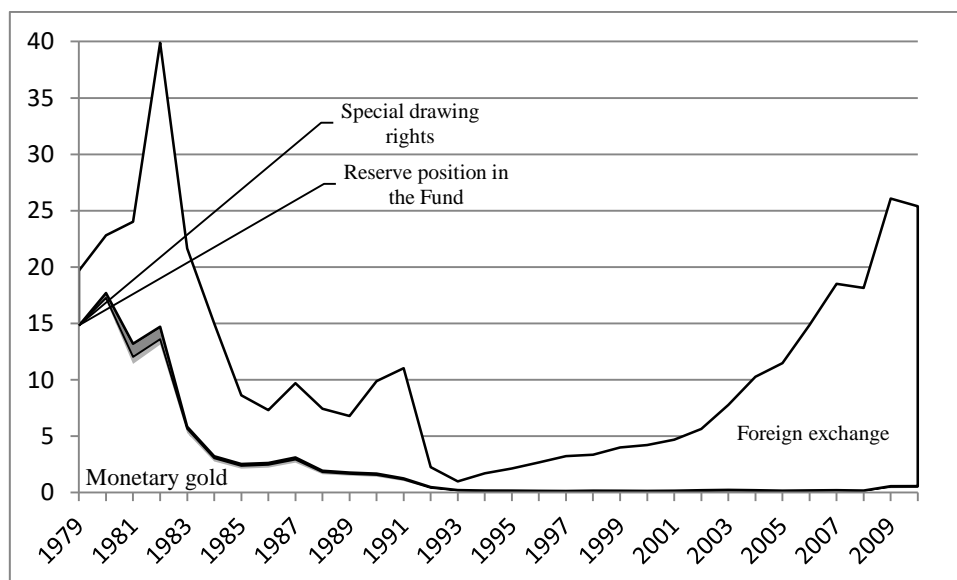


Figure 5.3 Official reserves of China as a share of FDI, realised value, by form, 1979-2010. Source: IMF, 2012a; 2012c; MOFCOM, 2013; own calculations.

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 it¹⁰⁴ 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 with local 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.

¹⁰⁴ 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).

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.

Before hastening to draw any conclusion as for the trends of the international reserves, let us 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.

5.2.3. The quasi-world money issuers

As is to be expected, data is much better for the countries that issue quasi-world money. All the figures, accompanied by the presentation of the data, the sources and all the necessary decisions for their construction can be found in the appendix.

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. The figure 5.4 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 respectively¹⁰⁵. Finally, the reaction to the current crisis was exactly the opposite of that of the six developing countries: there is a clear rise in reserves.

¹⁰⁵ 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.

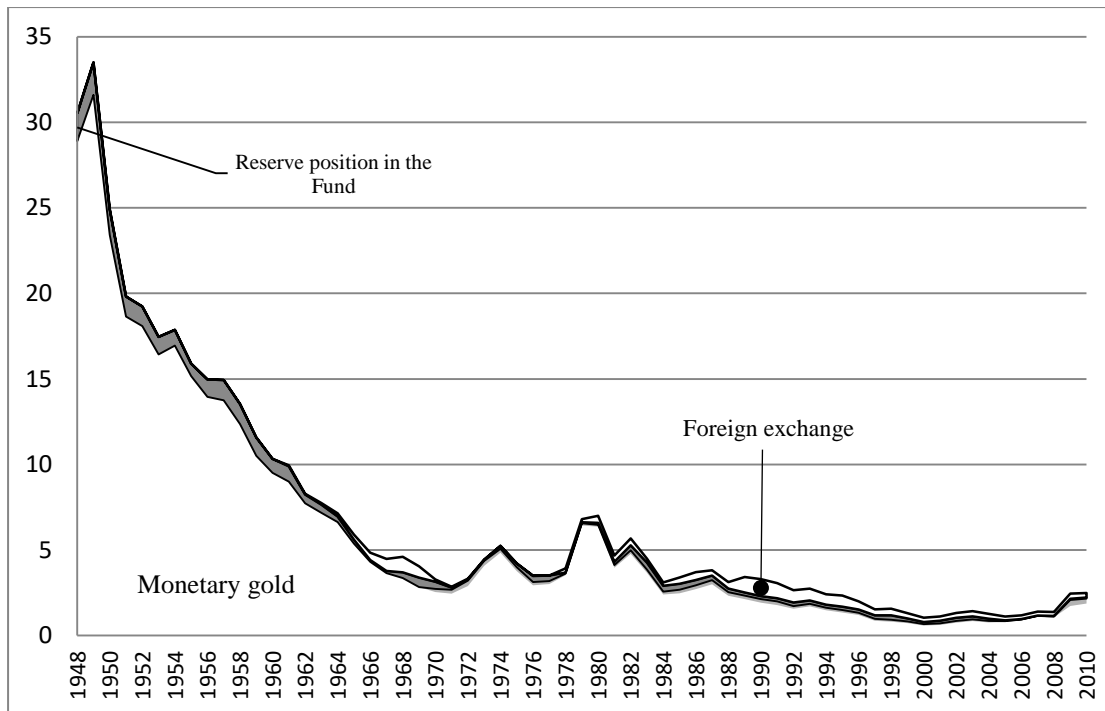


Figure 5.4 Official reserves of USA in months of import, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

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, in a framework that will be further discussed in the following chapters, and her role in the Snake, contributed also to this difference.

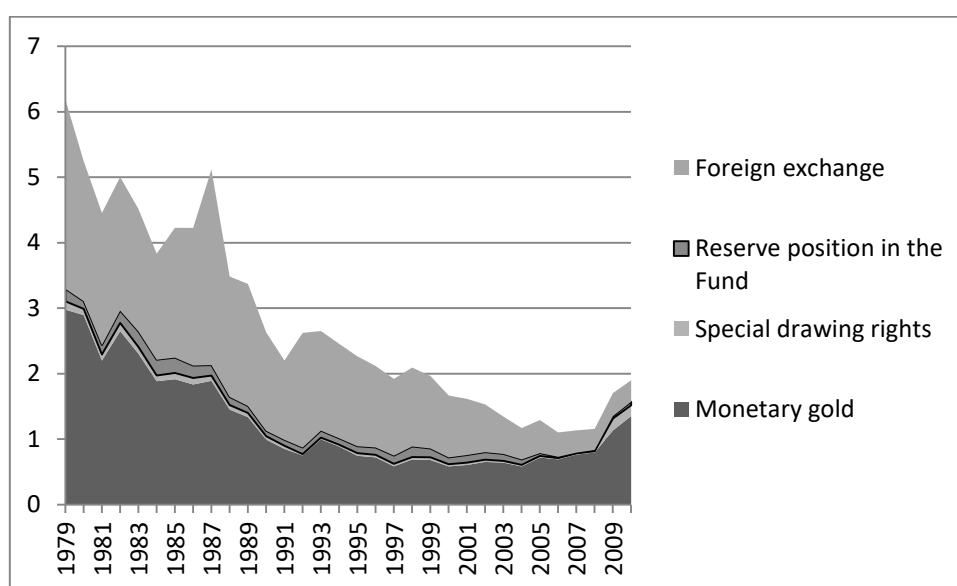


Figure 5.5 Official reserves of Germany in months of import, by form, 1979-2010. Source: IMF, 2012a; 2012c; own calculations.

Germany was holding quite high reserves and she went on depleting them, like all Eurozone countries. Both figures 5.5 and 5.6 are very typical for all the Eurozone countries in the sample, as it can be seen from the appendix. 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.

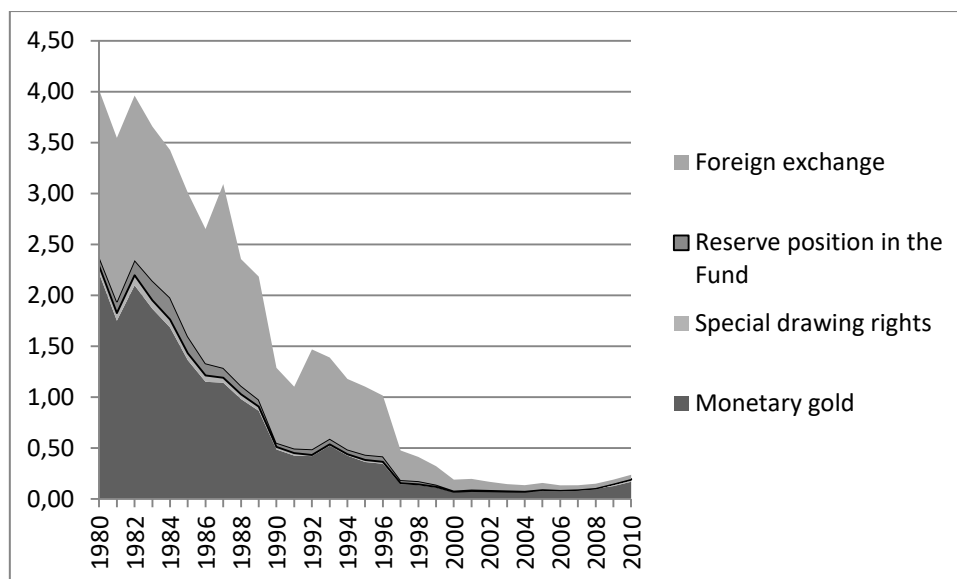


Figure 5.6 Official reserves of Germany as a share of FDI, by form, 1980-2010. Source: IMF, 2012a; 2012c; own calculations.

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.

5.2.3.1. The case of Japan

As it was argued in the first chapter, Japan should be examined separately. In this section, this proposition will be further documented.

Japan seems to be following the same trends and levels in the 1980s. Thereafter, its reserves start rising and, especially after 1992, they skyrocket to unprecedented levels. Thus, Japan is an outlier. Figure 5.7 depicts reserves minus gold, DI (left hand scale) and their ratio. Until the mid-1980s, Japan's reserves were falling as a ratio of DI, but in the second half they resumed from a factor of 5.5 to 9. Reserves started falling again until 1992 and thereafter they range between 6 and 8 times the DI. This figure confirms that the case of Japan should be examined separately, taking into consideration its long-term structural crisis, its huge debt and the role of the Yen in the world market and in the periphery of Japan. The case of Japan implies that the elevation of national money to quasi-world money is not an automaton, a process with predetermined outcome.

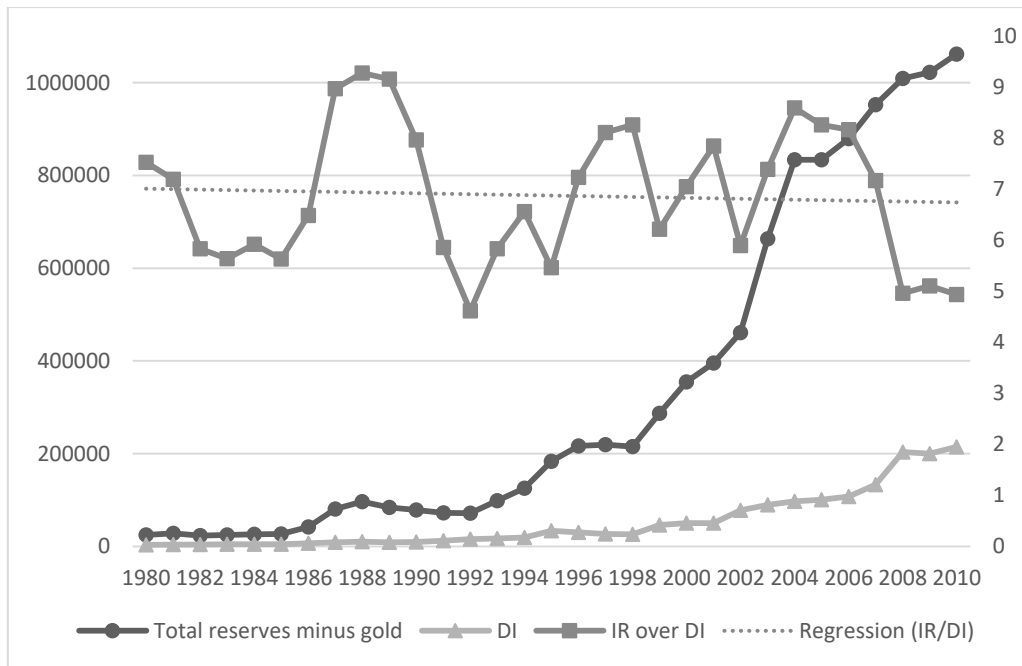


Figure 5.7 Japan LHS: total reserves minus gold (IR), direct investment in the country (DI). RHS: IR over DI. Source: IMF 2012a, 2012c, own calculations

This particularity is indisputably relevant to the structural crisis of the Japanese economy, but it should be related also to the weakness of the Yen as quasi-world money. Starting with the latter and 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%).

Tavlas and Ozeki (1992) provide an interesting framework for analyzing the case of Japan and of Yen as quasi-world money. They conclude that, although some determinants were in favor of the international use of the Yen, there were others that restrained it. They mention the narrow financial markets, with a not very active treasury-bill market, the only recently (1980s) developed commercial-paper market, restrictions on some Euro-yen investments and complex government-repurchases market. Moreover, the authors refer to the special trade relation of Japan towards the US where the US dollar dominates. Finally, they observe that “Japanese banks and nonbank financial institutions have lent overseas in securities denominated in currencies other than the yen because of relatively high yields available overseas and the relaxation of restrictions on capital flows;” (p.41).

Lapavitsas (1997) provides an explication of this attitude in analyzing the crisis of the Japanese financial system. He argues that Japan attempted to transform its financial system from bank-based to market based, for reasons that relate partially to

keeping up with the necessities and the potentialities provided by quasi-world money. This attempted transformation could account for the compliance of Japan in the late 1980s to the trend of the other countries, seeing her reserves falling. Yet, the result was “a protracted crisis in the 1990s” (Lapavitsas, 1997, p.32). This crisis worsened further the establishment of the Yen as quasi-world money. Lapavitsas (1997) stresses the importance of the Plaza Agreement in 1985 as marking a turning point in the transformation of Yen into quasi-world money and the crisis of the 1990s.

In order to conclude as for the current status and, more interestingly, about the prospects of the Yen, one should examine in depth the political economy of Japan. That is a very demanding project that goes beyond the scopes of this dissertation. Nevertheless, one straightforward conclusion remains: the money of a leading capitalist country will not necessarily evolve into quasi-world money. Since that evolution is historical, as it was hypothesized in the previous chapter, the outcome is dependent upon various historical conditions and it is not guaranteed beforehand. This conclusion will prove useful for explaining one aspect of the euro.

5.2.3.2. A tendency in all levels

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-10⁺¹⁰⁶ 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 5.7. 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

¹⁰⁶ See chapter 1, section 1.5.

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.

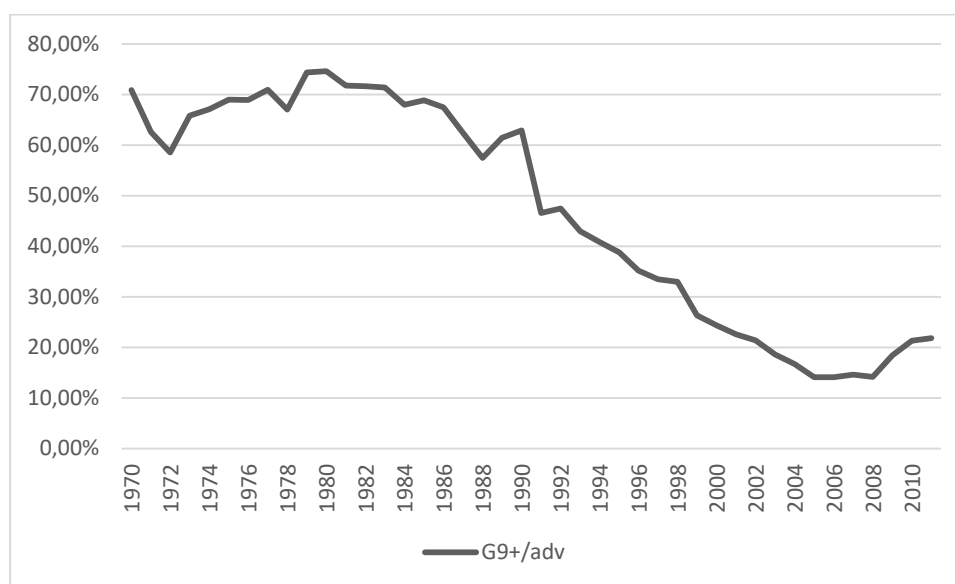


Figure 5.8 Share of G-10⁺ minus Japan total reserves minus gold, in the total reserves minus gold of all advanced economies. Source: IMF, 2012c; own calculations.

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 5.1 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 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. There are country specific issues that should be treated, like the formation of the European Union and of the European Central Bank¹⁰⁷, but these issues cannot explain the trend that runs well before the Maastricht Treatise and for non-Eurozone countries. For the economies of the size of the UK, \$40bns not only seems, but is a very small figure. The US, Germany,

¹⁰⁷ The reserves of the ECB and the ESCB will be treated in the next chapter thoroughly. Just to give an idea, the total international reserves minus gold of ECB were, at the end of March 2012 as high as 38.6bn Euros or \$50bn. The whole Eurosystem, of which the ECB is part, is assumed to be keeping 155.7bn Euros or slightly more than \$200bn.

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

5.3. Critical analysis of the findings

What we have established thus far is that there have been some 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.

Second, the countries that issue quasi-world money hold most of their reserves in gold and the golden part of their reserves rises. 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 dollars¹⁰⁸ 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.

On the other hand, gold is a very important component of the reserves of all quasi-world money issuers. 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. The revaluation of gold during the current crisis accounts in good part for the rise of reserves of quasi-world money issuers. The issue will be examined further in the following chapters.

¹⁰⁸ See McKinnon (1979) and Tavlas and Ozeki (1992) for an insightful elaboration of the denomination practices of traders (exporters and importers).

Third, 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 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 is beyond any doubt an historical process. It 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. It might not be the case that FDI has caused this restructuring and, after all, it is beyond the scope of this dissertation to prove so, but it can be argued that FDI has played an important role in the whole process¹⁰⁹. 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

¹⁰⁹ “Rapid industrialization requires a large inflow of direct investment; [...]” (Dooley et al., 2004a, p.6).

not exclusively oil. Russia, for example, is and will be an oil exporter (Dolley et al., 2003).

From the perspective of this chapter, 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 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 crises¹¹⁰. “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,

¹¹⁰ “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).

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 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, 2009b, p.15). Aizenman and Jinjarak (2009) call this an enigma of the “poor” financing the “rich”¹¹¹. Yet, there is no enigma to this per se; the return of quasi-world money home seems natural, in the current architecture of the IMS¹¹². The same happens, to a far lesser extent, with the Euros, but for that, we will speak in the next chapter.

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

¹¹¹ “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 Jinjarak, 2009, p.431).

¹¹² “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).

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 the transformation of money, which follows.

Chapter 6. The reserves of the Eurozone

6.1. Introduction

There are various reasons for taking a closer look at the euro reserves. First, there is an extra layer in the pyramid of the euro, the ECB, which was established as the coordinator of the euro-members' central banks; not the bank of the state, since there was not, and still there isn't, such a political institution; neither the bank of the (commercial) banks, since this role was played by the national central banks. The reserves that stand behind the euro should be examined separately in all levels and various conclusions can be drawn.

Moreover, the ECB exhibits some peculiarities in its very set up and this is how the chapter starts. The peculiarities seem to be the following. Although there is extensive discussion on various issues that relate to the ECB, there is no literature at all concerning its starting reserves. The issue appears as the least interesting and important, something that there is no reason to publish a single paper about. On the other hand, the records bring to light moves that are not self-evident. These moves relate to the treatment of gold and will be exposed in detail.

The issue of gold doesn't end there, since an agreement follows the establishment of the ECB that perplexes the decisions previously taken, relating to gold. A closer look though reveals that signing an agreement is not the same as keeping an agreement, especially not by all parts. In this chapter, only the facts will be provided for the Central Bank Gold Agreement (CBGA), while a further discussion will follow in the next chapter.

The next interesting part about the data referring to the Eurozone is that it is quite transparent and analytical, helping thus the matching with the concepts developed here. In other words, the ECB provides data by form breaking down foreign exchange in mother bonds on the one hand, and banknotes and bank deposits on the other. Thus, we may examine the evolution of reserves in quasi-world money in its two concrete forms, namely banknotes and bank deposits. This examination allows us to draw a powerful conclusion in relation to the form of quasi-world money.

Apart from the theoretical interest, the evolution of the reserves of the Eurozone is interesting for another reason. If one examines the reserves of the ESCB then the trend that has been presented in the previous chapter is verified. But there are significant

variations. To begin, the ECB itself is an outlier and although it seems to be converging to the general trend that would be proper for a quasi-world money issuer, it is not identified as such, in terms at least of reserve composition.

Finally, the chapter concludes with the examination of the reserves of five countries, three in the core of the Eurozone, namely Germany, France and Italy and two in the periphery that are today in the eye of the cyclone, namely Greece and Portugal. Apart from examining the behavior of these five countries in relation to their reserve keeping, it is interesting to pose questions relating to the use of reserves during a crisis of such a magnitude. These questions cannot be answered by the data or the literature and that deficiency will lead us smoothly to chapter 7.

Data description, as well as the entire data material on which this chapter was based can be found in Appendix II.

6.2. Euro and gold

6.2.1. The launch of the ECB and the corresponding reserves

The literature on any aspect of the reserves of the ECB, referring to their form, adequacy and role, is almost nonexistent before the launch of the euro, while there is extensive discussion on almost all other matters. It is indicative that in a review of 170 references from American economists conducted by Jonung and Drea (2010) there is not a single debate on the necessary reserves of the ECB and not a single reference on gold.

Moreover, the issue was reflected in the official decisions that were related to the planning of the ECB and the launch of the euro in a seemingly clear manner. What we know is that the ESCB comprises of the national central banks of the member states and the ECB. The ESCB has, as one of its basic tasks to hold and manage the official foreign reserves of the member states. The relevant articles of the constitution of the ESCB inform us that the major decisions are assigned to the Governing Council¹¹³.

¹¹³ “The Governing Council shall adopt the guidelines and take the decisions necessary to ensure the performance of the tasks entrusted to the ESCB under this Treaty and this Statute. The Governing Council shall formulate the monetary policy of the Community including, as appropriate, decisions relating to intermediate monetary objectives, key interest rates and *the supply of reserves in the ESCB*, and shall establish the necessary guidelines for their implementation.” (EU, 2006, p.262, emphasis added)

Nevertheless, the article 30 is explicit as for the forms in which the contribution from member states will be made and the initial amount.

“[...] the ECB shall be provided by the national central banks with foreign reserve assets, other than Member States’ currencies, ECUs, IMF reserve positions and SDRs, up to an amount equivalent to ECU 50000 million” (EU, 2006, p.270)

Apparently, gold is not part of the exhaustive list. In July 1998 though there have been recommendations of the ECB for regulations of the Council, concerning, among other things the application of minimum reserves by the ECB. No more information is given about these recommendations, but in October, 22nd of the same year, we have the adoption of a Parliament resolution on foreign currency reserves in the third stage of economic and monetary union. In the latter, we are informed that the Parliament

“[...] approved the decision of 8 July 1998 by the Board of Governors of the ECB to make an initial transfer in gold of 15 % of foreign reserve assets from the national central banks to the European Central Bank and called, in view of the high levels of the national central banks’ foreign currency reserves held in gold, for a gold euro coin to be minted, a decision which might also have a stabilising effect on the price of gold” (Cwik, 2005, p.80)¹¹⁴.

There is no published documentation that explains the mood swings, or even examine whether there was a swing ever. Note also that both the recommendations and the Parliament resolution came a few months before the launch of the ECB, which was programmed and actually occurred on the 1st of January, 1999.

The gold dowry of the ECB is interesting in other aspects as well. The total amount of official gold of the ten out of the eleven countries that participated in the Eurozone from the outset¹¹⁵, two months before the launch, namely at the time of the Parliament resolution, was 319.83 million ounces. In December 1998, these 10 countries bought another 79.95 million ounces, rising their stock by 25 percent. They did so, only to provide the ECB with 24 million ounces (IMF, 2012c). The next day, these countries of the Eurozone found their national stocks risen by 56 million ounces, or by 17.5 percent compared to the stock that they used to carry for two decades.

¹¹⁴ The mint of a gold coin will be presented in more detail below.

¹¹⁵ These are: 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 6.1, gold reserves of Germany, France and Italy (top to bottom) are seemingly motionless¹¹⁶ from March 1979 until November 1998; that is for 20 years. After the huge purchase these countries did in the end of 1998, their reserves returned to the pre-1979 levels. In particular, Germany's gold stock prior to March 1979 was 118.3 million ounces; that of France was 102 and that of Italy 83 million ounces. After that month, their gold fell by 20 percent at 95, 81.6 and 66.5 million ounces respectively. In December 1998, the central banks of these three countries bought exactly 25 percent of their November stocks, rising them to 119, 102.3 and 83.3 million ounces; namely almost exactly back to the 1979 level. In January 1999, they transferred a fraction of the newly bought gold to the newly established ECB, issuer of the newly born Euro. The fraction transferred was not equal: for Germany it was 6.3 percent of its December gold stock, or 7.8 percent of its November stock, or 7.45 million ounces; for France the figures are 5 and 6.3 percent, or 5.13 million ounces; and for Italy, 5.4 and 6.8 percent, or 4.5 million ounces.

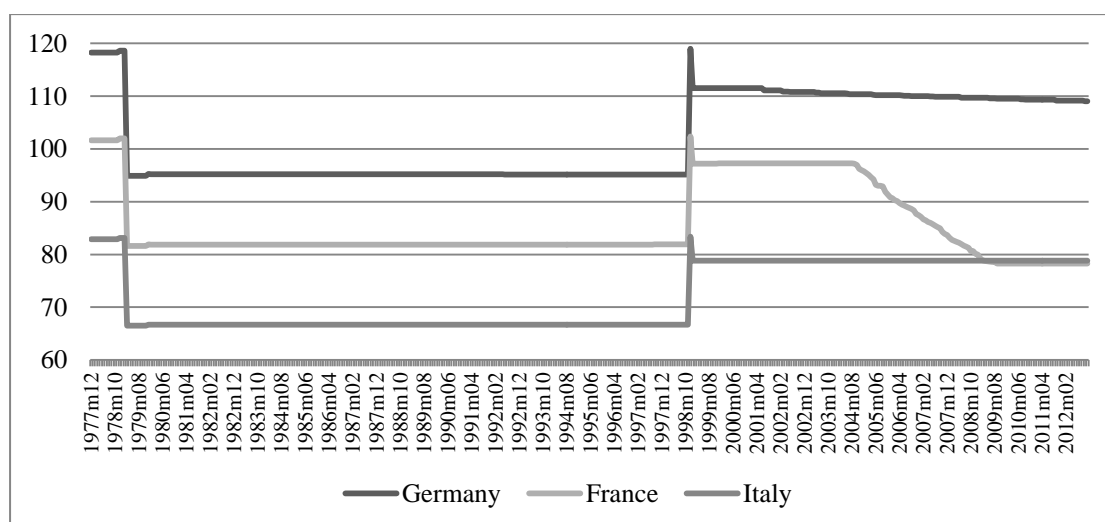


Figure 6.1 Gold reserves of Germany, France and Italy, in million of ounces, monthly, December 1977 – November 2012. Source: IMF, 2012c.

The same holds for all 10 out of 11 initial Eurozone countries, namely, they all bought gold that was recorded in December 1998 and transferred a portion of their reserves in the ECB the next month. With the exception of Ireland who found her gold reserves after January 1999 less than November, meaning that she transferred part of her old gold stock, and Finland, who transferred all the newly bought gold, the other 5 countries (Austria, Belgium, Netherlands, Portugal and Spain), found their national

¹¹⁶ This statistic might be misleading since various movements of gold are not recorded, like leasing, while there are payments and clearings that take place without any recorded change in the gold stock.

gold stock higher after the transfer to the ECB; in other words, they bought more gold than the agreed to be transferred to the ECB.

A final observation concerns a non-Eurozone country that followed suit the previous countries in buying gold in December 1998, without of course transferring any to the ECB. That is no other than the UK. In December 1998, the BoE equipped herself with 25 percent more gold, rising her stock from 18.4 to 23 million ounces. Naturally, she didn't provide the ECB with a single grain of gold.

There is no literature explaining the above moves even *ex post*, although there is a vague reference to the facts here and there. Scheller (2006), for example, makes only a quick reference to the reserves that have been transferred to the ECB by the National Central Banks and that these were gold by 15 percent, while the rest 85 percent was in foreign exchange (90 percent USD and 10 percent JPY).

6.2.2. The gold (and silver) euro coins

In November 18, 1998, the European Parliament proposes, among others, the production of a gold 100 Euro coin as an amendment of the regulation on denominations and technical specifications of euro coins intended for circulation (Cwik, 2005, p.81). Only five days later, the minting of those coins was accredited by the Council, which included in the decision an absolutely contradictory clause. The coins would be legal tender, but not intended to enter circulation¹¹⁷. In a further remark, the coins would be legal tender in the country of issue, as if there could be a distinction between the country of issue and the rest countries of the Eurozone.

In reality, coins of precious metals have been minted by all Eurozone countries in various editions and face values. Various observations are of interest in relation to this practice. First, there are exclusively gold and silver euro coins. Then, minting of each coin is in large volumes that may reach hundreds of thousands or even millions, like in Germany. The minting of silver coins comes usually in larger volumes than that of gold coins. The issuances of these coins have proliferated after the outburst of the crisis and even Greece has been involved in minting a big collection of such Euros.

¹¹⁷ “The Council welcomed the issue of Euro collector coins, defined as commemorative and bullion coins which are legal tender but which are not produced with a view to their entry into circulation. It stressed that such coins will be legal tender in the country of issue and called on national authorities to set up arrangements whereby they give par value for collector coins issued by other Euro-zone Member States and presented to them, claiming the value back from the issuer” (Cwik, 2005, p.82).

The exchange ratio of these coins with the euro varies extensively and is irrelevant to the face value; rather it is related to the gold and silver content of the coin. Finally, there are “small” and “large” coins in terms of metal content. Although there are too many issuances, the metal content is relatively stable. For example, Germany mints silver coins of 18gr and gold ones of 15.55gr. Spain’s typical silver coin is 27gr, but there are two others, one of 18gr, like Germany and a big one of 168.75gr. The Spanish gold coin comes in multiples of 6.75gr (6.75gr, 13.5gr, 27gr), while there is also a very small coin of 1.24gr. Accordingly the other countries provide gold and silver coins.

Data for these issuances is quite transparent and may be found in the web, in the sites of the corresponding mints. Yet, this is not the case as for the rational. Selectively, Waigel (2000) thought that “[w]ith its guaranteed face value, this coin could boost the confidence of the public at large in the currency [...] and encourage acceptance of the euro” (p.37). The sources of this confidence are not further explained. Mundell (2000) from the standpoint of considering gold as the absolute money argues that a gold coin could “bolster the sagging spirits of the euro” and that it “could be used in place of paper notes” (p.30).

6.2.3. The CBGA

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 Gold¹¹⁸. 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 1¹¹⁹ accounted for around 45 percent of global gold reserves of the time.

¹¹⁸ Ironically, the CBGA is also called Washington Agreement because the final negotiations and the signature took place in Washington. The irony lies in the fact that the US is not among the signatory countries.

¹¹⁹ 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 Ċentrali ta' Malta / Central Bank of Malta, the Banka Slovenije and the Národná Banka Slovenska were added to the signatory banks.

The Joint Statements on Gold that followed all three agreements start with the following: “Gold remains an important element of global monetary reserves” (ECB, 1999). 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 ounces for CBGA 3.

There are two issues that should be clarified and stressed in relation to the CBGA. First, the agreement was signed only a few months after the launch of the ECB, less than a year after the Eurozone countries went on buying extra gold, only to transfer part of it to the ECB. This point should be seen against the practice of no discussing about gold in official level for many years; in less than a year the central banks of leading capitalist states interfered publicly in the gold market too many times for them to be unrelated.

Second, the ceiling in sales is restrictive for the group of the signatory central banks and not for the individual parts. In other words, all fifteen central banks would sell under CBGA 1 no more (and no less) than 400 tons, but that didn’t imply any allocation of these 400 tons among the signatory parts. Indeed, as we shall see next, the sales were undertaken by particular countries.

Table 6.1 provides data about the gold holdings of the major signatory central banks from 1999 until October 2012. The first column provides gold holdings in 1997, before the gold purchases of 1998. Indirectly, by observing the changes from year to year, one may extract the necessary information that refers to actual gold sales by the signatory central banks.

In order to help the reader visualize these sales, some cells have been shaded from light to dark representing respectively central banks’ selling of more than 5 percent, 10 percent, or 15 percent of their gold reserves in a single calendar year. In the Appendix, the reader may find the table that calculates the percentage changes for all central banks and all years. The total percentage decline in each central bank’s gold reserves between the end of 1999 and October 2012 is shown in the penultimate right column. From this column it can be seen that Italy has not participated at all in the CBGA, although she signed it. Apart from Italy, all other countries have reduced their gold reserves in the frames of the three CBGAs from as little as 2 percent in the case of Germany, to as high as 60 percent in the case of Switzerland. From the shaded cells one may follow at a glance the years that major sales took place from various countries.

On the other hand, the ultimate right column provides the percentage change between October 2012 and the end of 1997, namely the year before the big purchase of gold from the Eurozone countries. It can be seen that the percentage decline provided by the previous column is misleading. Germany, Italy and Austria found their reserves higher in 2012 than 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. The Euro area held 346.693 million ounces in October 2012, more than the US (261.499 million ounces), and its share of world reserves reached 34.15 percent.

	1997	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 Oct	'99-'12	'97-'12
Austria	7.9	13.1	12.1	11.2	10.2	10.2	9.9	9.7	9.3	9.0	9.0	9.0	9.0	9.0	9.0	-31.3%	14.3%
Belgium	15.3	8.3	8.3	8.3	8.3	8.3	8.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	-11.9%	-52.3%
ECB		24.0	24.0	24.7	24.7	24.7	24.7	23.1	20.6	18.1	17.2	16.1	16.1	16.1	16.1	-32.8%	
France	81.9	97.2	97.2	97.2	97.2	97.2	96.0	90.9	87.4	83.7	80.1	78.3	78.3	78.3	78.3	-19.5%	-4.4%
Germany	95.2	111.5	111.5	111.1	110.8	110.6	110.4	110.2	110.0	109.9	109.7	109.5	109.3	109.2	109.0	-2.2%	14.6%
Italy	66.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	0.0%	18.2%
Neth.	27.1	31.6	29.3	28.4	27.4	25.0	25.0	22.3	20.6	20.0	19.7	19.7	19.7	19.7	19.7	-37.6%	-27.3%
Portugal	16.1	19.5	19.5	19.5	19.0	16.6	14.9	13.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	-37.0%	-23.5%
Spain	15.6	16.8	16.8	16.8	16.8	16.8	16.8	14.7	13.4	9.1	9.1	9.1	9.1	9.1	9.1	-46.2%	-42.1%
Sweden	4.7	6.0	6.0	6.0	6.0	6.0	6.0	5.4	5.1	4.8	4.4	4.0	4.0	4.0	4.0	-32.2%	-14.4%
Switz.	83.3	83.3	77.8	70.7	61.6	52.5	43.5	41.5	41.5	36.8	33.4	33.4	33.4	33.4	33.4	-59.8%	-59.8%
UK	18.4	20.5	15.7	11.4	10.1	10.1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	-51.5%	-45.8%
Greece	3.6	4.2	4.3	3.9	3.9	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6	-15.1%	-1.3%
Sum	435.8	490.9	477.4	463.5	450.2	435.6	423.1	407.8	399.4	385.2	377.5	375.1	374.9	374.7	374.6	-23.7%	-14.0%

Table 6.1 Gold holdings of major signatory CBs, 1997, 1999-2012 October, in million ounces and percentage change 1999-2012 and 1997-2012. Source: IMF, 2012c; ECB SDW, 2013; own calculations.

The case is different for the non EMU countries, especially the UK and Switzerland the reserves of which were essentially depleted. The examination of their stance should be examined closer, in order to discriminate between country specific motivations and those that relate to the establishment of the euro as a quasi-world money in Europe. This examination goes beyond the scopes of this dissertation since the latter is focusing in the Eurozone countries. In the case of Switzerland there is more transparency and an account of the background of the Swiss gold sales can be found in Duckenfield (1998).

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. 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).

Weber (2003) attempts a reading of the Washington Agreement through the observation that “the freezing of gold loans by central banks led to a tightening of the credit market for gold, raising the interest rate on gold loans, which are payable in gold, to 10 percent in the first few days of the agreement” (p.73). He argues effectively that the triggering of panic was because of short-sellers who should now buy the gold that they were previously borrowing to cover their positions (ibid)¹²⁰. Finally, Weber estimates that “the central banks’ dealings with gold miners are questionable” and that the agreement “freezes gold loans because the expansion of gold mining is depressing the gold price at a time when central banks want to sell gold” (p.74). In this point his approach becomes controversial, most probably reflecting the controversies of the agreement itself.

Another counter-intuitive approach comes from Fazio (2000). He argues that “in period of crisis gold can constitute a sort of reserve or guarantee ‘of last resort’ for a country, as Italy demonstrated during the seventies” only to justify the statement of the CBGA “that gold continued to have an important role to play in the management of global reserves” (p.22). He leaves though unanswered why central banks sell their guarantee “of last resort”, at that particular moment and what sort of guarantee is that.

The current CBGA expires typically in September 2014, but it has already expired essentially. CBGA 3 stops evidently because of the crisis, but against Fazio’s prediction, gold has not been used somehow, unless one argues that its time has not come yet. Not only had the ceilings returned to the levels of the first agreement, but until recently only a tiny fraction of sales had materialized with no foreseeable intention from the countries involved to accomplish the agreement. This is evident from the gold holdings of the signatory banks in the above table.

¹²⁰ The issue of gold lending is not properly examined. Some aspects for lending at the time can be found in Neuberger (2000), Ferhani (2000) and especially McCannah (2000).

The CBGAs seem quite controversial both in their initial set up and in their evolution, and should be examined further since they seem to be related with the initial gold reserves of the ECB and the establishment of euro in general. Let us synopsize the basic elements of controversy that accrue from the CBGA. First, the Eurozone countries that proceeded in buying gold in December 1998 signed an agreement for selling gold in September 1999. Moreover, although they all signed the agreement, only some Eurozone countries participated in it, with Italy abstaining completely. Third, the agreement for selling was allegedly signed in order to stop gold prices from falling by raising its supply. In the mainstream demand-supply theoretical schema such a significant rise of the supply should lead to the fall of prices. Yet, the result was indeed the rise in prices. To this, Weber's explanation is only a partial response. Third, the statement of the CBGAs acknowledges the monetary role of gold, without explaining this role any further. Finally, the ECB sold one third of her initial reserves that it had just received, although this form was not included in the officially anticipated forms of these initial reserves. It should be noted here that there is scarce literature on these matters, nor any official statements apart from the press releases that accompany each renewal of the CBGA.

6.3. The reserves of the ESCB

The official reserves in the Eurosystem (ECB SDW, 2013) fall under the following five broad categories: foreign currency reserves, IMF reserve position, SDR, gold and other claims. The most interesting category is foreign exchange because the ECB breaks it down to securities (mother bonds) on the one hand, and total currency and deposits on the other. Several notes on the full description of the data can be found in Appendix II.

SDRs should attract more interest and be treated specially because of their particular hybrid form, but their contribution in total reserves is very limited and therefore they can be left out of the picture without loss of generality. It would be improper to treat them as either quasi world money, or a symbol of the latter. SDRs seem to be playing a particular role in the crisis for some countries like the Netherlands and Belgium, but further expansion on this topic would require the examination of these countries and their choices with detail.

Therefore, our interest will be centered on the vague categories of foreign currency and gold. The latter is mostly in the form of bullion and to a much lesser extent

comprises coins. Although there is transparency as far as the size of the gold hoards of each Eurozone country is concerned, reported in troy ounces, there is a veil over any information concerning the actual position of gold. The issue becomes much more complicated due to leasing operations. The idea that gold is not actually moving, but only labels change denouncing a change in property of a particular stock, should be checked. Most people assert that it is of minor importance where gold actually is located on the basis of the, usually implicit, argument that some agreements in capitalism are beyond any dispute. Nevertheless, an agreement is by definition the solution to an underlying dispute and, as such, it is always contested as long as the dispute lasts. After all, if that was such an indifferent information, it wouldn't be covered with utmost secrecy. On the contrary, it seems that one of the most important issues about gold is in whose hands (territory) it is literally lying.

6.3.1. The reserves of the ECB and ESCB (changing composition)

The reserves of the ECB total today¹²¹ 65.3 billion Euros, having risen by 32.5 percent or 16 billion from 1999, the launch year of the bank. They comprise mostly of gold and mother bonds; they also include foreign currency in banknotes or deposits to a lesser and declining extent. Since the ECB is not a member of IMF, it doesn't have an IMF quota and, subsequently, an IMF position. It does keep though a very limited balance of SDRs that never exceeded 1.2 percent. The sharp rise of the gold reserves is due to the blasting of the rate of the ounce of gold to the dollar banknote.

¹²¹ Here and thereafter: August 2012.

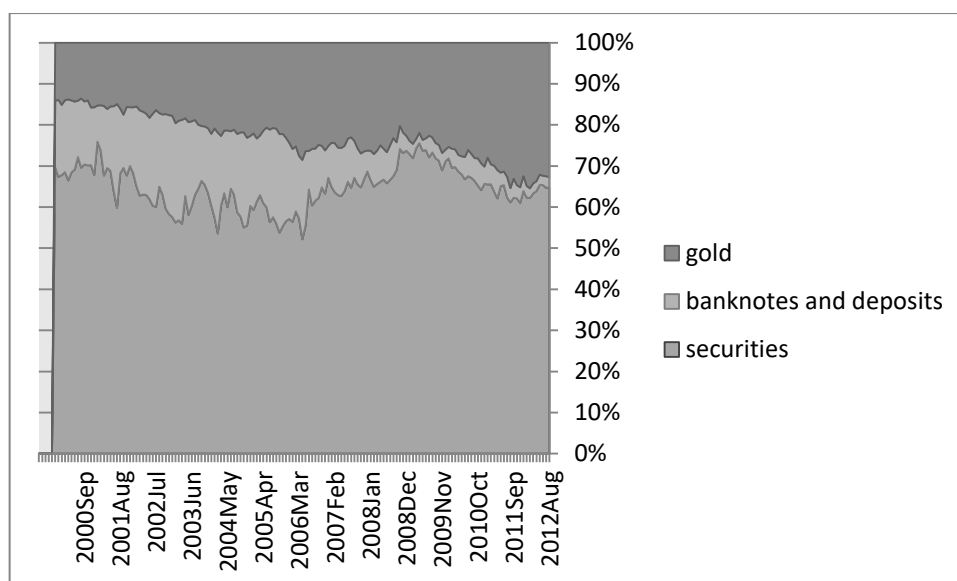


Figure 6.2 ECB, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

In ounces, the gold reserves of the ECB have depleted by 30 percent, from 24 to 16 million ounces as a consequence of the participation of the ECB in the CBGA 2 with seven sales from April 2005 until April 2009. The last change in the gold stock of the ECB came through a 20 thousand ounces purchase in January 2011. All sales and purchases of the ECB are given in the following table.

	outstanding, end of period	sales	purchases
total		8,729	841
2011Jan	16,142		20
2009Apr	16,122	1,141	
2009Jan	17,263		106
2008Jul	17,157	964	
2008Jan	18,121		29
2007Dec	18,092	1,350	
2007Jun	19,442	1,190	
2007Jan	20,632		60
2006Dec	20,572	740	
2006May	21,312	1,833	
2005Apr	23,145	1,511	
2001Jan	24,656		626
1999Dec	24,030		

Table 6.2 Sales and purchases of gold, by the ECB, in thousands of ounces. Source: ECB SDW, 2013; own calculations.

Turning to securities, they have reached 41.9 billion Euros and the last months securities are in all time high levels. Although their level is changing very frequently,

their percentage in total reserves, from the launch of the ECB, has undulated between 55 and 75 percent. There is no evident upward or downward trend in their volume; on the contrary, there seems to be a wavy trend. The issuer of these securities¹²² and their maturity are beyond the scope of this chapter, although these are issues of great importance, providing with information concerning the possibility of these securities to transform into some form of world money at a certain rate.

Things are much clearer as far as banknotes and deposits are concerned: they have persistently shrunk after September 2005 and kept on falling during the crisis. Banknotes and deposits are moving in an opposite trend to securities, but after April 2009, that securities started falling, banknotes and deposits didn't resume. In August 2012 the latter were amounting to only 2.5 percent of total reserves.

To summarize thus far, the reserves of the ECB comprise by two thirds of securities denominated in some quasi-world money, with the US dollar having the lion's share. The reserves in banknotes and deposits were always small and have shrunk to unprecedented levels. Gold reserves have fallen in mass (ounces) but risen in value, if denominated in Euros. It is stressed once more that, since the outburst of the crisis, the ECB not only didn't continue unload its gold through the CBGA, but proceeded in buying, albeit limited.

Let us look into the reserves of the Eurosystem, namely the reserves kept by the National Central Banks (NCBs). First, the level is almost tenfold, having reached today 716 billion. Taking the ratio of total ECB reserves to total reserves of the Eurosystem, it is evident that throughout the years the ECB has not pooled the reserves of the Eurozone. In the years prior to the crisis this ratio was slightly above 12 percent, roughly flat, while after the crisis it falls to the level of 9 percent. This is an indication of strengthening of the NCBs against the ECB, at a time that the latter is orchestrating the celebrated exit from the tunnel.

¹²² According to Scalia and Sahel (2012, p.5) the shares of dollar and yen assets of both securities and banknotes and deposits were around 76 and 24 percent respectively. Yet, this information is not so illustrative as for the issuers of securities (even if one assumes that the shares are roughly the same for securities only).

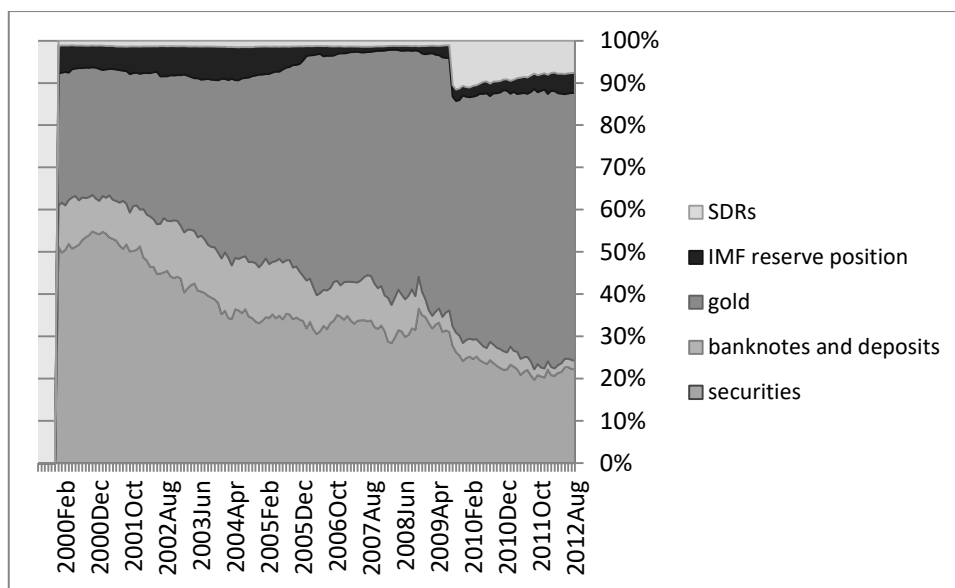


Figure 6.3 ESCB, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

The most interesting observations come from the composition of the reserves of the Eurosystem. They comprise of the same constituents parts as in the case of the ECB plus the IMF position, since all Eurozone members are also members of the IMF. The share, as well as the level of the SDRs used to be very limited until July 2009. In September 2009 though, SDRs have risen almost twelvefold from 4.2 to 49.8 billion comprising suddenly 11.6 percent of total reserves, as a result of two allocations of SDRs, a general and a special¹²³. This rise was not matched by a fall in some other component and therefore it resulted in a proportionate rise of total reserves.

Gold attracts interest again. It is now the biggest component having reached 63.3 percent and it is estimated at 453 billion Euros; in mass, it is 347 million ounces, more than one third of world official gold reserves. With such a high stock, the Eurosystem is rightfully in the first position, the biggest gold holder, even bigger than the US, which holds one fourth. In the setup of the Eurozone, gold consisted one third of total reserves of the Eurosystem and the stockpile was 57 million ounces bigger; this is due to the participation of some Eurozone countries in CBGA.

The shares of securities on the one hand, and banknotes and deposits on the other, are persistently falling throughout the period. They were as high as 51.25 and 9.8 percent respectively in December 1999 and they have now reached the levels of 22.3

¹²³ These allocations took place on August, 28th (the general) and September, 9th (the special) and amounted 250 billion USD and 25 billion SDRs respectively. The form of SDRs, as stated above, requires special treatment, which goes beyond the frames of this chapter.

and 1.9 percent. As for their absolute level, this was 191 and 36.5 billion respectively and now it is 159.5 and 14 billion Euros; there has been an absolute fall in the size of reserves in the forms of mother bonds and quasi-world money. Although the measures of reserve adequacy are not solid and, after all, the chapter doesn't claim to discuss the adequacy of reserves compared to some scope, it is not easy to skip a comment on the obviously low absolute level of both securities and banknotes and deposits. Suggestively, the banknotes that have been issued amount to almost 900 billion euros; the overnight deposits with a maturity of up to two years have surmounted 10 trillion in July this year; the debt security issued against the world with a maturity of up to two years were, again in July, 724.5 billion; finally, the reserve base is more than 19 trillion Euros.

To recap, the most striking difference between the reserves of the NCBs and those of the ECB refers to their composition and, in particular, to the relation between gold and securities denominated in quasi-world money. The NCBs seem to be keeping mostly gold, leaving their reserves in securities depleting and keeping marginal reserves in quasi-world money. It would help though to examine how particular NCBs have reacted, those that appear daily in the news either as “locomotives” and “saviors”, or as “trouble makers” and “leaders of the rear guard”. These are no others than the Bundesbank and the Banque de France for the former; the Bank of Greece and the Banco de Portugal for the latter; and the Banca d' Italia as a little bit of both. From the point of view of this chapter, Banca d' Italia will fit easier to the first group.

6.3.2. The reserves of major NCB

It is expected that the results from the NCBs under examination will be reflecting the general trend of the Eurosystem. In this section, thus, there is check for outliers among the five NCBs; second, for quantitative differences in the trend that might be revealing; and, third, it is exposed whether and to which extent these NCBs participated in the CBGA. The five NCBs are treated in two groups: those of Germany, France and Italy are considered together as being part of the core of Eurozone, although Italy's position is ambiguous; and those of Greece, and Portugal as being part of the periphery¹²⁴. These five countries account for the 71 percent of all Eurozone reserves, mainly because of the three countries of the core.

¹²⁴ The distinction between core and periphery is introduced surreptitiously here, but the reader may refer to Lapavitsas et al (2012) for an extensive discussion on the issue.

6.3.2.1. In the core: Bundesbank, Banque de France and Banca d' Italia

The reserves of the three countries account today for the 67.7 percent of all Eurozone reserves. Germany is in the top of the list with 197.8 billion Euros and 27.6 percent of all Eurozone reserves. France and Italy have similar reserves, a bit higher than 143 billion and 20 percent of all Eurozone.

The figures that refer to the composition of the reserves of the three banks are almost identical to figure 6.3. The trends are qualitatively exactly the same and will not be repeated here. It is worth noticing that all three keep much lower shares of securities than the average 22.3 percent of the Eurozone, with the figure being for the Bundesbank 12.5, for the Banque de France 14 and for the Banca d'Italia 18 percent. On the other hand, they keep much higher shares of gold than the average 63.3 percent with the figure being roughly 72 percent for all three. It could be thus said that the trends are much stronger for the countries of the core which deplete their reserves in securities and strengthen the golden part.

Banknotes and deposits exhibit some differentiation between the three countries and with the average, but the levels are very low to make them worth analyzing. Therefore, although Germany appears to be keeping much higher shares of banknotes, actually three times more than France, these reserves amount to only 5.9 billion for Germany and 1.3 for France and they could both be easily considered as negligible by any standard. For the record, in Italy the corresponding figure is 1.7 billion.

Let us turn to the shiny part of the reserves that is the heaviest as well. Indeed, the gold reserves of the core have reached 350 billion not only because of the rise of the rate of gold to the quasi-world money. Germany and Italy have now much more gold than they used to before the launch of the euro, while the gold of France is only 4.3 percent fewer. This happened because all three countries went on buying gold in December 1998, as we have seen above; they passed only a part of this newly bought gold to the ECB and, although they have signed the CBGA, they didn't actually support it. Italy didn't engage in any transaction at all; Germany engaged in various small sales under the CBGA that totaled 2.35 million ounces. France didn't sell much more since her sales amount to 3.59 million ounces. Needless to note that all sales have stopped after the outburst of the crisis.

	1998 November	2012 July	Percentage change
Germany	95.18	109.17	14.70%
France	81.89	78.30	-4.39%
Italy	66.67	78.83	18.24%

Table 6.3 Gold reserves of the core, in million of ounces, November 1998 and July 2012. Source: IMF (2012c); own calculations.

6.3.2.2. In the periphery: Bank of Greece and Banco do Portugal

Greece and Portugal are today in the eye of the cyclone of the capitalist crisis. The problem appears by mainstream theorists to be the inability to service the debt and the need for liquidity. In the mainstream literature, the role of reserves in such tremendous times is acknowledged. It is thus more than peculiar that the reserves are not discussed at all, while they could be discussed in two ways: either as a potential source of liquidity, or for their (in)adequacy. The reasons for this *omerta* are apparently political.

The reserves of Greece and Portugal are quite limited; the former holds 5.5 and the latter 17.9 billion Euros. Yet, this is not because of the crisis; on the contrary, the reserves of both countries have risen during the crisis, they have actually more than doubled, because of the rise of the rate of gold to the dollar. Suggestively, in January 2007 the total reserves of Greece were 2 billion and those of Portugal 7.8 billion. Analytically, Greece and Portugal follow the general trend of the ESCB to its extreme. They have diminished all securities and their reserves comprise mostly gold. For the former, gold comprises 82 percent of its reserves, while for the latter 90.3 percent. Nevertheless, Greece holds only 3.6 million ounces of gold. Portugal's 12.3 million ounces should be considered as a high stockpile which has historical reasons for being there.

For Greece, the diminishing of securities has started in 2003. They used to be at the level of 5 billion and then, suddenly they halved in March of that year. By March 2004, the month that the national elections took place, securities have fallen to 1.2 billion, and by December 2005 they have fallen to 72 million. Now they are only 11 million, while banknotes and deposits are 24 million.

One would be very tempted to relate the depletion of the Greek securities with the Olympic Games, the various elections and the change of parties in the cabinet or some other local evolution. Yet, the Banco do Portugal has started depleting its

securities in the beginning of 2003 as well. The fall here is spread in a few consequent months and in particular, from the level of 8.5 billion up to December 2002, they fall to 7.2, 5.2, and 4.8 billion in the next three months. By March 2004, securities amount 3.1 billion, and by December 2005 they have fallen to 2.1 billion. Today there are 382 million in securities and 67 million in banknotes and deposits. This parallel evolution between the two countries cannot be accidental, at least not entirely, and it is not related to the crisis, at least not chronologically.

6.4. Conclusions and open issues

This chapter has provided evidence in relation to the form of reserves of the ESCB that stand behind the euro. The first conclusion is that the various concrete forms of quasi-world money, namely banknotes and bank deposits are a very small part of the total reserves signifying that this form of money is improper for hoarding. Most foreign exchange comprises mother bonds of quasi-world money, mostly US dollar securities, but also Yen securities.

The chapter has revealed a multifaceted relation between gold and the euro. First, the initial reserves of the ECB were partly golden although there was no previous provision and no justification preceded or followed the decision for the transfer of gold from the national central banks. Second, these central banks went on buying extra gold before the launch of the ECB and transferred only part of it to the latter, rising thus their gold stock. Third, only a few months after this transaction the Eurozone countries were among the ones that signed the CBGA that predicted large sales of gold. Nevertheless, the Eurozone countries did not sell gold, and especially the countries of the core. The result was that these countries, and especially Germany and France, have seen the gold component of their national reserves rising persistently.

The evolution of the reserves in the ESCB and the examination of the reserve composition of various national central banks and those of the ECB confirmed the pattern that has been found in the previous chapter for issuers of quasi-world money, but also revealed some interesting variations. Germany, France and Italy exhibit an almost identical pattern, in terms of composition. Greece and Portugal follow the same trends but the levels are different to the previous three countries and very much similar to each other.

These observations are not compatible at all with the mainstream view on money and they cannot find an explanation in lines of reasoning that do not incorporate

the function of world money and its hoarding aspect, like the ones presented in the second chapter. Further, they can hardly fit even in lines of reasoning that accept the above functions, if the hypothesis of the one money form prevails; this holds for many authors that have been presented in chapter three. On the other hand, the hypotheses of multiple forms of money, closely related with the underlying functions and with each other, and of the new form that has been called quasi-world money, may provide a framework where the observations of the last two chapters may fit easily.

Nevertheless, even in the framework set here, there have appeared in the last two chapters issues that call for an explanation which cannot be found as such either in the data or in the literature. If these two methods cannot, at least not easily, apply, one proposal is to find knowledgeable people and ask. The next chapter is presenting exactly this experience of a series of interviews that helped me see the data and the literature from a different perspective.

Chapter 7 Qualitative research of hoarding and the forms of world money

7.1. Introduction

In the previous two chapters, a series of paradoxes have been revealed that call for explanation. Of course, the theory of quasi-world money and the approach to the forms of money exposed in chapter 4 imply that these paradoxes are not puzzles for all theories of money. Yet, the course of this research didn't start with a well-established theory of the forms of money; on the contrary, in the beginning, mental chaos and persistently changing views prevailed. The view that money acquires many forms with their dynamics was not perceived as essential to the riddle of world money and hoarding seemed unrelated to the latter.

Since there was apparent lack in literature, one way out was to find and contact experts asking for their help. That help could be straight answers to questions; prompt towards uncelebrated literature; reference to another person that is more relevant; or expression of opinion that could unlock the researcher's mind. Indeed, the interviews taken had all the above results and contributed essentially to this dissertation.

Combining quantitative with qualitative research is well established and, as a scholarly field, it is known as mixed methods since the late 1980s (Johnson, and Onwuegbuzie, 2004; Leech and Onwuegbuzie, 2009; Morse and Niehaus, 2009; Creswell and Plano Clark, 2011; Guest, 2012). This method is though very old¹²⁵ and conforms well to the method followed here and described in chapter one. If one wanted to classify this research in a particular design, that would be closer to convergent concurrent design (Creswell and Plano Clark, 2011), because three data sets are mixed in the interpretation stage after having been analysed relatively separately. These sets are the participants' observations, the survey and the in-depth interviews¹²⁶. The first

¹²⁵ “[...] long (possibly centuries) before the term mixed methods was introduced, researchers from a host of disciplines were integrating quantitative and qualitative approaches” (Guest, 2012).

¹²⁶ As Guest (2012) notes, one should be very careful with classifications, designs and typologies in the mixed method field. For example, the datasets here are not analysed separately, especially the first two, nor are presented separately in the results. From this point of view, Morse and Niehaus (2009) could even argue that the method here is not mixed methods at all. The position that the method here follows the designs of mixed methods stems from the definition given by Leech and Onwuegbuzie (2009) according to which “[...] mixed methods research represents research that involves collecting, analyzing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon” (p.267).

two have been presented in the previous two chapters, while the third is exactly the content of this chapter.

Most interviews were conducted in the period from January to April 2011. In that period I also visited the ECB (27th of February to 3rd of March). Two interviews were taken in October 2011, during my visit to Rio de Janeiro, Brazil, from officials of the Central Bank of Brazil. The questionnaire and the responses can be found in the Appendix (III). The questions revolve around gold, the euro and the dollar, reflecting the attempt to understand how gold *and* quasi-world money can be both world moneys, performing different particular functions.

At this point, I would like to thank many people that helped me in all the steps of the process. First, Marianna Papadopoulou and Michalis Poulimas provided me with literature on the method. Especially Marianna Papadopoulou gave me very useful guidelines for the conduct of the interviews. Andriana Vlachou, Elias Tzavalis, Labros Kalyvas, Kostis Vaitzos, Yannis Stournaras, Aris Oikonomou, Juan Pablo Paineira, Fanis Papadatos and Elva Bova intervened so that I could acquire access to potential respondents. Finally, UADPhilEcon provided me with all the necessary organisational help. Without their help I could not get a single interview.

The chapter has four sections, including this introduction. The next examines the method, namely the type of interviews chosen, the target group and the discussion guide. The third presents the results and the last provides concluding comments.

7.2. The method

7.2.1. Focused and semi-structured interviews

Recently, research conducted through interviews is quite widespread in a variety of scientific fields. The potential contribution of interviews in research is enhanced since they are designed to collect a vast range of information from heterogeneous sources: inclinations or attitudes of the public, sentiments, knowledge or beliefs of individuals, the way they think of acting, the perceptions that they hold for persons, things and situations, their attitude in specific sectors, the way of life etc. (Tatsis, 1997). Therefore, a personal interview as an organized discussion that aims at the scientific elaboration, may lead to the collection of important information relating to the object of research (Filiass, 2003).

Moreover, organising a personal interview with the principles of the qualitative method, apart from extracting information for the matter at hand, gives the researcher the capability to answer the why's and how's of the phenomena. The contribution of the qualitative method rests with its ability to spot the qualitative difference that exists behind every individual act or thought and this is particularly useful in the case of nonexistent or hidden data, due to their sensitivity. Additionally, the qualitative approach is essentially an exploratory method and as such it aims at the understanding of a theme and the attainment of knowledge of the relating laws, rather than confirming a hypothesis. The basic advantage of the research methods that have this aiming is the freedom that characterizes the research process. In particular, the design of the research is based on flexible strategies that allow for the feedback of the stages of the research, whenever necessary. Such a flexible strategy is an unstructured questionnaire. Further, the fact that the questions are open, averts the enforcement of a precast conceptual framework against the interviewed, allowing for the possibility of the emergence of issues that had not been anticipated during the planning of the research.

For all these reasons, the particular research method was considered as appropriate for this thesis, since the aim here is not the measurement of the opinion of a sample for a hypothesis test, but the collaboration with the interviewed persons in order to deepen our knowledge on money, its forms and the IMS.

The interviews were conducted with the use of discussion or topic guides which were formed by a framework of mostly open questions. These are actually focused interviews (Merton and Kendall, 1946) and their process is generally more rigid than the process of an interview with free questions, since the choice of the interviewed persons and the object of the research is determinate (Merton, 1946).

7.2.2. The target group and the relative constraints

The target group here consists of professionals mostly of the banking system, politicians and academics. It should be noted that the selection of the sample was not made according to any statistical representation since the issue was not the measurement and quantification of opinions, but the tracing of opinions and the collection of qualitative information that could lead to the understanding of the matter at hand and of its constituent parts. Therefore, the persons that would be questioned were chosen according to their experience, knowhow and specialization that they had in the corresponding research section. Finally, and due to the sensitivity of the object

of the research, the sample was confined to those who were both allowed and willing to correspond to the questionnaire.

In interviews with officials of institutions like the ECB or various central banks, many restrictions applied since no paper or pen should appear on the table; recording of any kind was not permitted and therefore I had to keep notes of the interview immediately after its end. These restrictions accrue from Article 38 of the constitution of the ESCB and the ECB, which is titled “professional secrecy”. According to it

“38.1. Members of the governing bodies and the staff of the ECB and the national central banks shall be required, even after their duties have ceased, not to disclose information of the kind covered by the obligation of professional secrecy.

38.2. Persons having access to data covered by Community legislation imposing an obligation of secrecy shall be subject to such legislation” (EU, 2006, p.274).

The interview was taking the form of an open, completely free discussion, although it was roughly following the discussion guide which I had memorised beforehand. In general, the results of the interviews were used for a better understanding of the current form of world money, rather than proving an initial hypothesis.

Reference should be made to two more restrictions. First, access to most central banks is generally restricted to researchers and a special invitation is required even for entering the building. To this, the Bank of Greece is thankfully an exception. One may enter the building freely, since in the ground floor there are counters for servicing the public. From there, the researcher can literally sneak in the upper floors and attempt to meet the potential respondent, with the hope of getting some answers. That is impossible in other central banks.

A final restriction is financial and applied in my case as well. Meeting officials abroad may require a series of travels even to the same place, because not all available respondents are there at the same time. Travelling for these officials is very frequent. During my stay in Frankfurt, I missed at least one potential respondent. Acquiring access to central bank officials of a foreign country could involve staying in the city where the central bank is located for some time. This type of research is very costly and funding was not available.

7.2.3. The discussion guide

The main research questions revolve around the changes that have occurred after the emergence of quasi-world money in hoards of leading capitalist countries. The

case of the euro and its starting reserves are risen to prominence. The main hypothesis is that quasi-world money on the one hand liberates its issuer from holding reserves at a magnitude that is corresponding to the strength of that money; while, on the other hand, it binds its issuer with the obligation of keeping high gold reserves. The degree of voluntarism and consciousness is further questioned.

In order to construct the discussion guide, I had to take into consideration the objective limitations already mentioned and, moreover, the mentality of the interviewees. Both constraints were not and could not be clear beforehand, and therefore the discussion guide passed through various phases until it was crystallised in the one provided in the Appendix III. The main conclusion as for the discussion guide is that it should be very flexible, very well structured, both broad and specific. Some interviewees disposed ample time while others not; some knew more on one issue and less on another and so on. Bailey (1994) proposes the use of separate questionnaires for different groups like economists, bureaucrats and politicians but that could not apply in my case because the respondents were frequently all of the above and it was very difficult to get prepared beforehand.

The configuration of the discussion guide, from the framework up to wording, was informed by Payne (1951), Labaw (1980), Bailey (1994), Gentall (1998) and Kyriazi (1999). For example, Bailey (1994) argues that one of the essential issues is that the entire motivation of the study must seem relevant to the respondent. Relevance is conceived in terms of the study's goals, of the questions to the goals of the study and of the questions to the individual respondent. That was probably the most difficult part in the study because most of the respondents were not particularly interested in the theoretical examination of the forms of money. The goals of the study should be masked in order to appear relevant and somehow attract the interest of the interviewees.

In terms of technicalities, it seemed important beforehand to legitimise the survey with all possible means, but, although I was always carrying the necessary documents, I never had to use them, even in the case of central banks where entrance is prohibited. The most powerful legitimisation in all cases was the unofficial recommendation on the basis of personal acquaintance. That could take the form of a contact between the person I knew originally with the key person that I wanted to interview or not even that. In many cases, the interviewee consented for the interview after being contacted by a person with which I personally had no acquaintance. Finally,

in all cases, I managed to bypass objective constraints with the help of lower officials, although I had access to higher officials.

Moreover, sensitive questions were left at the end and the general ones were followed by more specific. Double-barrelled questions were avoided and there was check for ambiguous questions. There was use of simple language in the interview, but not slang. The questions were asked in its more neutral form. Abstract and factual questions were mixed and alternate, but most focus was on the latter. In all questions, the possible answers were not given to the respondent, but I used them both for the codification of the answers and for the canalisation of the discussion. Finally, although the discussion guide was memorised, each interview had its own dynamics and that led to rephrasing of some questions, not posing others etc.

The discussion guide has two types and four sets of questions unequally weighted. The first type refers to those that are numbered and are asked anyway, one after the other. The other type has no number and is there for the case of ample time and special relevance of the respondent. The former type counts 15 questions, while the latter 5.

Moving to the sets, the first is “Gold reserves of the ECB and euro” and it comprises of 5 questions type I plus one type II. This set is focused on the euro and its relation to gold. The second set is about “the role of gold generally” and is very short. It comprises of 2 opinion questions plus two on the gold euro. This set was not used in all interviews, especially question 7, because most respondents were afraid to answer despite the reassurance of anonymity. The third set “Foreign exchange, securities and gold” is vaguer, on purpose. It starts with a very specific opinion question to lead to the various forms of reserves and their relation. The idea was that the respondent, having established so far some contact with the underlying scopes of the study would feel free to provide with information and opinions on a series of issues relating to the form of reserves. This is the most interesting set because the questions were only a pretext. The set has 3 questions plus one.

The last set is about the CBGA. The set has four questions and is directed to people that are aware of this agreement. In other words, if the interviewee is not aware of the agreement, his / her opinion was not asked. This set is very specific and neutral and could be set in the beginning. The reason that it was left at the end was that most respondents were not aware of CBGA and even if they had heard about it, they actually

knew very little about it. By putting this set first and by getting a negative response in question 11, the interviewee was feeling irrelevant and wanted to quit the interview.

The last question (15) is actually a bridge for another person. Response to that question engaged actually the respondent in introducing me. Many interviews yielded too little on all previous questions because the interviewee was not so relevant to answer, but led to a very good answer in that question.

7.3. Results

7.3.1. Statistics

Finally, sixteen persons were approached. Nine of them were central bank officials, apart from any other academic position of theirs; five were academics with special involvement with the object of the research; two of them are politician with close experience of the Greek ministry of economics. The institutions involved are the central banks of Greece, Brazil and the European Central Bank, the Athens University of Economics and Business, the University of Athens and the Levy Economics Institute of Bard College. Out of these sixteen persons, nine interviews were considered as relevant and the material is provided in the Appendix.

7.3.2. Responses

There are two types of information that could be extracted from the interviews. First, it is information that is public and as such can be found elsewhere, but for many reasons skips the interest of the researcher. These reasons refer to information that is not highlighted in relevant papers and books, or is available in a literature that is generally irrelevant to the matter at hand. Naturally, it might simply be the case that the researcher skipped the information because of his lack of ability to spot it. In all cases though, the interviews minimize the possibility that crucial public information is not examined properly.

The second type of information is personal opinion on an open question. These opinions are not documented and they are of low value for proving a case; the only initial interest comes from the fact that the interviewees are persons with very high knowledge and experience in their field and their opinion could reveal to the researcher a hidden approach. This note is made only to clarify that the interviews didn't result in

the access to secret documents that could prove a case or reject another. That doesn't mean that the results were not interesting; far from that.

The first result is that almost all people reacted with surprise to the questions, with the exception of one whose wariness covered all other reactions and another whose academic approach was close to the one adopted here. Moreover, there was expressed ignorance to very crucial and public information that should be known to them, because of their position. For example, almost none was aware that the US still values her gold at 42.22 dollars per ounce. Most people didn't know about the Eurozone countries gold purchases before the establishment of the euro, even if they were at very relevant positions at the time.

It should be examined whether this ignorance was genuine, which is difficult, but there are many reasons to reject the opposite. First, this information is public and there is no reason to conceal it. Second, thus, if there is something to hide this is the "why" of the event and there is no reason to argue that it is better to deny knowing about the fact at the very beginning. Third, the reaction was spontaneous and common, while the interviewees come from very differing backgrounds and had no access to the questions before the interview. Finally, most of the interviewees, with one exception, were very helpful in other issues and went on providing information and services that were beyond the expected. Therefore, I am convinced that both the surprise and the ignorance were genuine – when the reply of a central bank official is "bank practice", with no further explication, that means he doesn't have any further explication and s/he is also surprised that someone asks about issues that have never been contested. That long prologue refers to the whole questionnaire but *par excellence* to the questions 1, 2, 6, 8 and 9.

Moving further, the responses to question 1 leave no room for dispute: there was no public debate on the necessary reserves of the ECB prior to its establishment, both in terms of quantity and in terms of forms. This result confirms the relevant research in the literature and reassures that nothing can be found towards that direction. To the question referring to the existence of relevant discussions, even unpublished, most respondents said that they didn't know, fewer said that there wasn't and only one said that there were unofficial discussions and debates.

As for the reasons for the ECB being endowed with gold reserves, various approaches have been provided. First, people like to know that its central bank holds gold; that way people feel secure (question 6). This is attributed to psychology; the

economic science cannot do any good here. One respondent added to that the view that the fetishist power of gold lies behind people's psychology. Interestingly, the WGC (2012) estimated that the gold transfer to the ECB was "a clear demonstration of the fact that European central bankers continued to believe that gold strengthened the balance sheet of a central bank and enhanced public confidence". This view can be found in the literature in many versions. Weber (2003) argues that "a popular view holds that official gold reserves make a currency more secure" (p.64). Duckenfield (1998) notes that the large amount of Swiss gold sales first proposed "triggered public anxieties about the nation's financial security" (p.22).

Another answer given was that holding gold was a bank practice followed as much by the Eurozone NCBs as by the rest central banks of the world. This practice was bequeathed to the ECB. In line with the previous one that invokes the public behaviour, this one appeals to the bankers' behaviour.

A second line of reasoning underlines the fact that the transfer could be of convenience for central banks for various reasons. On the one hand, this was a good reason to get rid of dollars under the guise that they buy gold for the ECB; and getting rid of dollars is something that central banks always seek, since they know that they are going to lose from the dollar. This would explain the extra gold that was bought and would give a more precise content to the term "bank practice". Under this perception, gold is an asset of the portfolio and the ECB would like to have a "third asset" in its balance sheet, apart from dollars and yens.

Further, the extra buying involves the overcome of some accounting constraints, at least for the part that it was transferred. Gold is registered in historical cost and it is revalued when it is engaged in buying or selling (see also Scheller, 2006, p.68). If the current price of gold would be taken as a measure of the ounces that each central bank had to transfer, according to her quota, some (actually most) might encounter losses and, in any case, it would affect unequally each central bank.

In relation to the extra buying, one more thing should be taken into account. Central banks do not wish to present profits because they would then proceed in distributing them to the shareholders, that is to the state. With the exception of the Czech central bank, all the others have marginally positive balance sheet and budget. The Czech central bank is in deficit and that is problematic, since no state refinances its central bank. Having that in mind, along with the accounting principle in the valuation of gold, buying the gold that would be transferred to the ECB is perfectly

rational. The member states appeared buying and sell at the same price so that there were no profits to distribute and no losses to apologize for.

In the line of the psychological approach, there was one answer to question 3, about the extra buying, saying that central bankers didn't want to take part with their gold reserves and, since they had to equip the ECB with gold they went on buying. This approach claims that the project demanded increased stocks of gold, for some reason.

A different view is presented by one respondent who argued essentially that the ECB was endowed with gold for the reliability of the euro. If this was the case, then the extra buying could be interpreted as hedge against the unfortunate event of the project falling apart. Like the euro, the return to national currencies would require increased gold stocks.

The amount of the extra buying as well as the quotas was not discussed in the level of bureaucrats¹²⁷. This result comes straightforwardly from questions 1 and 15, and indirectly from the entire questionnaire. It would be interesting to verify this result from officials of the central bank of core countries, like the Bundesbank or the Banque de France, but it was not feasible to find willing respondents in these banks. Therefore this result is of limited value. In other words, what we know is that officials and bureaucrats from the Bank of Greece in relevant departments (reserve management and risk assessment) didn't participate in the discussions and they think that this holds for their colleagues in other central banks.

Questions 4 and 5 appeared very difficult to answer. Most respondents didn't know, or didn't have any opinion. There is one exception for the former and two for the latter. One respondent replied to question 4 that there was not enough confidence to migrate all gold stocks to Frankfurt. Two respondents insisted in question 5 that there is not a model calculating the necessary gold stocks.

Apart from the psychological reasons for holding gold in general, and the fetishist power of gold, there were other responses to question 6 that attract interest. According to one, holding gold expresses the interests of lobbies, these being gold producers, big gold holders and others. That is an argument attempting to explain inertia in gold holding. Another respondent argued that gold is a "portfolio asset" as something close to a form of hoard, albeit non-monetary.

¹²⁷ There is only one answer that bureaucrats at the ECB level took the relative decisions but the facts that the respondent didn't know of anyone and that the respondent was not an official of the ECB or of any other NCB give restrictive value to this answer.

In the exactly opposite position, two other respondents said that gold gives stability to a currency and gold itself functions potentially as money, as a carrier of value. A third, almost in the same line, argued that gold is held generally for its potential use as a means of payment.

In question 7 there were general surprise, unease and no spontaneous answer. Most decided not to answer the question, claiming that they don't know. Two of them insisted that there is no use for gold and one specified further that this would mean a huge destruction of capital. Only one claimed that gold could be used indirectly, by engaging in schemes of international liquidity, through the IMS, reformed or not.

Moving to the third set, it was argued that in the risk assessment department, gold is managed differently from foreign exchange because the former is non-interest bearing and the latter is interest bearing. When it was counter argued that gold is also interest bearing in the cases of leasing, there was shock, general surprise and, finally, no answer. The fact, namely that gold is also interest bearing, at least potentially, was acknowledged. In another interview, another central bank official claimed that it is not right to add gold stocks with securities and bonds, because they are different in nature. The respondent particularized this difference in the distinction between gold being an asset and therefore nobody's debt, while foreign exchange is debt.

There was no dispute that the valuation of the US gold at 42.22 USD per ounce is symbolic. The historical cost principle cannot apply here because the US has sold gold in various auctions after February 1973, when the 42.22 ratio was deliberated (Tew, 1988). Therefore, the US should revalue her gold reserves. In relation to the US gold, one respondent said that many think tanks have encouraged the US to sell part of her gold reserves and thus reduce her debt, but the FED is against this for a series of reasons. First, the Fed doesn't want to provide with data relating to the available gold. Second, the Fed is afraid of the destabilisation in the market, the dollar and the IMS that would follow such a move.

These views are consistent with the answers of another respondent who claimed that the particular valuation of the US gold symbolises the indifference of the US to liquidate her gold reserve and that trade in gold should be made with caution and only in great need.

The last set was answered essentially by one respondent. Yet, these answers were quite enlightening. In particular, Switzerland sold her gold for political reasons. There was a referendum for the sale so that a social program was financed. Selling gold

from the ECB through the CBGA was made for reasons of managing the balance sheet. The ECB would have losses and, since this is not desirable, she sold gold. The reestimation of gold reserves is made upon selling, because of the principle of historical cost. So the whole gold stock is revalued when one part of it is sold.

The fact that the ECB joined CBGA 1 is non-important since the ECB didn't sell during the first phase. Therefore it is wrong to ask why the ECB did sell 9 months after her establishment or why was the ECB equipped with gold since she would sell. Finally, the ECB decided on her own how much to sell, without any exchange of views. Apparently there was a quota, estimated at 5 percent.

7.4. Concluding remarks

With the citations of the answers to the questionnaire, the available data for this dissertation, that relates to the forms of money and in particular quasi-world money is exhausted. Several conclusions can be drawn and that will be used in restructuring the historical emergence of quasi-world money, in the following part. It should though be reminded that the responses of the questionnaire are not used as material evidence that will prove or reject one argument. Rather, the whole process was presented because these interviews were essential for the researcher to form his own views. Some of the responses can be documented by the literature, but it is acknowledged here that this evidence was suggested by the respondents.

After all, the constraint of anonymity is not a serious one. The responses could not be used as evidence, even if I could refer to the respondents by name. The reader shouldn't expect that the answers are concealed by a global or peripheral conspiracy and that there is a key person that could and would shed light to the mystery. After these interviews, I was convinced that there is no grand theory behind the corresponding moves and that the answers should emerge through abstraction, with all the risk that is involved. That would be the case even if full transparency could apply; only the observations would be much more. In short, I argue that the policy makers that are responsible for these moves could not explain theoretically why they did them, even if they wanted. Thus, the problem is not anonymity per se, but inability to record the interview. In the latter case, qualitative analysis could apply with the examination of the wording of the replies. Further, the interview would be more comparable since the discussion guide would be on the table, rather than being memorised with all the consequent deficiencies. Yet, for the matter at hand, this was not feasible.

It was shown that hoarding is closely related to world money and it is especially relevant to the management of quasi-world money. Data on hoards were very informative in many aspects. The data from the previous chapters and the results of the interviews suggest strongly that the establishment of quasi-world money was a historical product, without a conscious plan orchestrated by some lobby. On the contrary there seemed to be many, more or less conscious plans that were driven by short or long-term interests and were often in conflict one with the other. It is thus time to complete one last exercise. With all the preceding information in mind, it is time to proceed with the difficult task of restructuring history in the quest of revealing the (historical) emergence of quasi-world money. This restructuring will be made in the terms that have been presented in chapter one.

Part 3. The historical evolution of the form of world money

In the first two parts, a theoretical framework was set for the examination of the multiple forms of money and all the available data about world money has been presented with a special focus on the hoarding function. Apart from the initial research question that referred to the form of money performing in the world market, several particular questions have arisen in respect of the emergence of quasi-world money, its convertibility with gold during and after Bretton Woods, and the nature of the euro. It has been implied in various instances that these processes are in good part historical.

This part turns thus to the historical emergence of quasi-world money and consists of three chapters. In the first, the history of the IMS is reviewed with a special focus on the quasi-world money *par excellence*, namely the US dollar. The second examines the historical emergence and evolution of the euro project. The last chapter, discusses all the available results, from all the employed methods and reconciles the function of the two main forms, namely quasi-world money and gold.

Chapter 8. The emergence of quasi-world money and the quasi-world money standard

8.1. Introduction

The present chapter examines how the new form manages to exit some national borders and become indisputably the basis of the current IMS, acquiring thus the title of quasi-world money. The reconstruction of the relevant historical processes, in terms of chapter one, is precarious because quasi-world money is not a logical evolution of the forms of money in the world market. As it has been argued, if this was the case, then all national moneys that were backed by the credit of the central bank and the legal authority of the state would perform in the world market. On the contrary, only a very small number of such moneys perform to various, hierarchical structured degrees. This is a strong element of unevenness the source of which should be sought in the historical evolution of capitalism; it is expected thus to be the product of historical processes that must be explained.

Although the focus is on money that performs in the world market, the IMS is put under the microscope. The reason is twofold; first, each IMS is built upon a certain

form of world money and, second, broad changes in the former reflect changes that have already taken place in the latter. These changes of the IMSs are easier to observe and study, because the underlying changes in the form of money are crystallized in a change in the IMS, which usually comprises collapse, chaos and reorganization. Therefore, if we are to track the historical emergence of quasi-world money and its dominance in the world market, we should define the turning points in the history of the IMSs and explain through them the passage from one form of money to another, which in turn implies that the necessities and contradictions of an era should be exposed, along with their potential solutions. Then, the particular historical contingencies are the ones that will justify the dominance of one solution over the others. Therefore, although we are following the evolution of the IMS, we are only interested in the underlying form of money and this is stressed because the IMSs, especially those that are wholly or partly based on quasi-world money, are more or less institutionalized.

Having said that, the IMS has passed from the gold standard to the gold exchange standard; from there it evolved to the dollar exchange standard; and finally it took the concrete form of our modern system that I will call quasi-world money standard. The corresponding turning points are put in the outburst of WW I, in 1914 for the first passage; in the signature of the Bretton Woods Agreement, in 1944 for the second; and in the symbolic declaration of Nixon in 1971¹²⁸ for the last one. The periods and the turning points adopted here are in broad agreement with the four regimes of Bordo (1993), namely the classical gold standard (1881-1913), the interwar period (1919-1939), the Bretton Woods (1946-1970) and the “present” regime of floating (1974-1989). Bordo (ibid) is more accurate in noting that the gold exchange standard was only one of the three regimes of the interwar period the other two being one of general floating before (1919-1925) and a managed float from the collapse of the gold exchange standard until 1939. Nevertheless, as it was argued in the first chapter, in the reconstruction of history the zigzags of history should be omitted. It should then be explained what were the driving forces that led to changes in the form of money, which became evident in the periods around the previous broader turning points.

¹²⁸ The year of the collapse of Bretton Woods is debatable, and no position is taken here as to whether that should be 1968, 1971, 1973 or some other (see, for example, Bordo, 1993). After all, things are not considered to be changing in a date or a year and all turning points are provided as points of reference.

The first period thus to be explained is the interwar and the narration starts from the era of the establishment of the central bank which coincides with the passage of capitalism to the stage of monopoly capitalism. This is the era that the gold standard flourished, came to a height, and collapsed. In this era, the dominant concrete form of world money was gold bullion. The driving force for the collapse of the gold standard is the contradiction between the expansion of credit and its metal barriers, expressed in the world market.

After WW I, a new IMS prevailed *de facto*, and it was called gold exchange standard because the national moneys of the greatest capitalist powers of the time appeared to be representing gold bullion in world transactions, with limited though success. For this solution to prevail, the WW itself played a significant role, while the crisis of 1929 was essential for the collapse of the system. Gold, which was always lurking, was enthroned once again, but the wheels of time had rolled for good. In the course of the crisis a new contradiction was unleashed: efficiency and functional stability in the IMS could come about by the collective and collaborative action of actors – countries and, behind them giant corporations and national bourgeoisies – that were preparing for a new bloody conflict. Enemies should collaborate and compromise, while preparing for exterminating one another.

This contradiction was solved in Bretton Woods; as a matter of fact, a solution was imposed by the USA. This is how the second period begins with the establishment of the Dollar Exchange Standard. Many crucial admissions were implicitly made in the Bretton Woods agreement, but the latter was also containing the sperms of its reversal. The preferential and peculiar relation of the US dollar with gold that has been exposed in chapter four could last only to the degree that the co-issuers, the US state and the Fed, could in some way manipulate the fundamental contradiction between the necessities of the expansion of credit and the metal barriers. The reestablishment of the European leading capitalist countries and their voracious appetites for international credit would bring this contradiction to a head in the early 1970s and the IMS to a *déjà vu* of the 1920s, though with much better terms and conditions. This is how our modern system, the quasi-world money standard, was established.

8.2. From the gold standard to the gold exchange standard

The gold standard and the gold exchange standard have been analytically exposed by many authors and it is not considered necessary to add something to their

description (see, inter alia, Mlynarski, 1929; Drummond, 1987; Eichengreen, 1992; de Macedo, Eichengreen and Reis, 1996; Eichengreen and Flandrau, 1997). It is though necessary to examine closer the reasons for the passage from one to the other. The main reason that appears in the literature is the suddenly very urgent need for economizing on gold, since there appeared to be shortage of gold (Nurkse, 1997; Bordo and Eichengreen, 1997).

This need should be further analyzed. The striking deficiency of the literature lies in the fact that it doesn't put forth the simple and spontaneously arising question: against what was gold falling short? Was it circulation needs? Thirst for hoarding? Or means of payment? I argue that the quantity of gold was restricting particularly credit expansion; namely, the anticipation that, after all the possible clearings, the remaining balances would be paid in gold. The problem burst for the first time in the world market amidst WWI. The particular aspects of the problem will be treated in this section.

8.2.1. Monopoly capitalism

Production altered significantly in the late 19th century and the change continued well in the 20th. Two major and succeeding processes revolutionized production, namely Taylorism and Fordism. Originating in the need of an autonomous management and forcing production automation, Taylorism offered to the management the possibility of achieving only with automatic means what it was just striving before to accomplish with organizational and disciplinary means. The motive was no other than the rise in productivity, in other words, the effort of finding ways to incorporate even smaller quantities of labour time in even larger quantities of product (Braveman, 1974).

Fordism went on transforming the production process, subsuming further the technical division of labour to the social division of labour. As it was expected, both processes led to major changes in the productive forces. Machines became better, more efficient, longer living and cheaper; the production process was more efficient and cheaper; the capital circuit became faster. The result was the elevation of accumulation to previously unknown heights. "The factories that were equipped with the most updated technique, needed so great capital for investments which could not be provided not only by the individual money of the richest capitalists, but also by the capitals, taken

separately, of whole joint companies¹²⁹” (Jerusalimski, 1962, p.417). And, finally, “the concentration of production and capital has developed to such a high stage that it has created monopolies which play a decisive role in economic life” (Lenin, 1964, p.266).

This evolution had multiple effects on the transformation of money, initially domestically and, consequently, internationally. To begin with, the expansion described above necessitated a corresponding expansion of credit. The gold standard restrained the credit expansion and had to break¹³⁰. In other words, an existing contradiction between the need for the expansion of credit and the metal barriers of the latter comes to a head with the quantitative growth of accumulation and the qualitative passage of capitalism to imperialism. This contradiction was further aggravated by other events, as it will be evident below.

The role of the state is enhanced in order for national corporations to expand worldly. One good example is the Panama Canal, which was undertaken initially by the French *Compagnie Universelle du Canal Interocéanique de Panama*, in 1881. The project was a complete failure and it was abandoned by 1889. When the US won the war of 1898 against Spain and secured Cuba and Hawaii as bases protecting the area, it claimed to restart the project for the benefit of US corporations. At the time, Panama was a province of Colombia and the latter wanted to be profited from the deal, but the US had other plans. Panama became an independent from Colombia state, only to become a protectorate of the US and to sign the contract for the construction of the canal.

The structure of the international transactions changes accordingly with the growing importance of international investment through export of money-capital in the various forms, the most prominent of which is FDI¹³¹. When “[...] investment opportunities appear to have been better elsewhere [than the US, GL]” (Hansen, 1965,

¹²⁹ “Τα εργοστάσια που ήταν εξοπλισμένα με την τελευταία λέξη της τεχνικής, χρειαζόνταν τόσο μεγάλα κεφάλαια για επενδύσεις που δεν επαρκούσαν όχι μόνο τα ατομικά χρήματα και των πλουσιότερων κεφαλαιούχων, αλλά και τα κεφάλαια, χωριστά παρμένα, ολόκληρων μετοχικών εταιρειών” (Jerusalimski, 1962, p.417, own translation).

¹³⁰ “This credit expansion (which is necessarily accompanied by an evergrowing foreign indebtedness) cannot continue after the war without seriously threatening our gold reserves and, indeed, our national solvency” (Cunliffe Committee, 1997, pp.170-171). The Committee Report though concluded that credit should be severed and the gold standard should be fully restored, but that doesn’t reduce their sharpness in the reading and phrasing of the fundamental monetary contradiction.

¹³¹ These transactions will be even more significant after WWI. Indicatively, Lisowsky (1963) reports that in the mid-1920s, the biggest American corporations like Standard Oil, General Motors, General Electric, International Telegraph and Telephone Company, Ford and Anacoda were penetrating in the German industry with the method of direct investment.

p.27), capitalists need for their national moneys to be accepted outside their national borders. In contrast with commercial (trade) transactions where money has to go abroad, namely imports, international investment incurs three additional stresses. First, the time needed for the cycle of production is added to the necessary time in circulation, prolonging thus the return of the invested capital. Second, along with time, and profits, the risks of the former cycle are added to the second. Third, the magnitude of one investment is usually much bigger and not easily manageable, while the importer may choose to import smaller quantities. For all these reasons, international investment presses more than imports for its being financed with credit money.

Thus, one of the main sources for quasi-world money to emerge, namely for the new form to be accepted and acquired abroad, is the evolution in the balance of payments and especially the capital account (Nurke, 1997). Of course, trade transactions played their role as well since they were augmented accordingly with the expansion of capitalism.

8.2.2. The effect of imperialist wars

The wars that are characterized as pertaining to imperialism start with the one between the US and Spain, in 1898. The second one broke out one year later and is well known as the Boers War (1899-1902); the third's outbreak was in 1903, and it was between Russia and Japan. Especially, about the last one, it should be mentioned that reparations were claimed to be paid by the defeated Russia to the victorious Japan¹³². Naturally, all these wars are put in the shade with the outbreak of WW I. Conducting this war led to expansion of credit and to subsequent accumulation of debt. This need for enormous, abrupt and with no escape clause credit expansion shook in Britain the iron Bank Act of 1844 and annulled it exactly 70 years later, along with the gold standard itself¹³³.

Another process that took place is the almost complete retraction of gold coins from domestic circulation. In time of peace, this retraction would be very lengthy, if

¹³² Russia finally undertook paying only for the expenses of the Russian prisoners of war that were held in Japan. On the first imperialist wars, see Ierusalimski (1962, pp.424-439).

¹³³ "In view of the crisis which arose upon the outbreak of war it was considered necessary, not merely to authorize the suspension of the Act of 1844, but also to empower the Treasury to issue currency notes for one pound and for ten shillings as legal tender throughout the United Kingdom. Under the powers given by the Currency and Bank Notes Act 1914, the Treasury undertook to issue such notes through the Bank of England to bankers, as and when required, [...]" (Cunliffe Committee, 1997, p.168).

ever successful, but in WW I almost all gold was withdrawn from circulation and concentrated to the central banks. During the war, the process of retraction was propelled by the difficulties imposed by the hostilities¹³⁴. The process though was fuelled in the post war years since the accumulated war debts should come to conclusion¹³⁵.

The echo of the war lasted enough for gold coin to exit circulation and gold bullion to exit in some part from private hoards. In the Cunliffe Committee Report (1997), it is estimated that in the UK the amount of gold coin held by banks was reduced from £123,000,000 in June 1914 to £40,000,000 in July 1918. Mlynarski (1929) writes that in the period from 1913 to 1926 “the circulation of gold coins in Europe shrank from 9.9 billion marks to 236 millions [...]” (p.72), that is a reduction of 97.6 percent. According to Keynes (1971b), more than 90 percent of the monetary gold was held by central banks and governments in the early 1930s. 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, 1971b, p.260)

This retraction could not have taken place without the central bank. Triffin (1960) makes this point reversely, when he argues that “[...] the universal disappearance of gold coin from active monetary circulation has deeply modified the significance of Central Bank liquidity” (p.32). It is not the disappearance of gold that modifies the role of central bank, but the issuing from the latter of its credit money has allowed for gold to disappear from circulation. The war thus solved adequately gold shortage for domestic circulation.

Even more interestingly, imperialist wars propel the establishment of international institutions that come out of meetings and conferences related to these

¹³⁴ “During the present war the depredations of enemy submarines, high freights, and the refusal of the government to extend state insurance to gold cargoes have greatly increased the cost of sending gold abroad” (Cunliffe Committee, 1997, p.168).

¹³⁵ “National debts had swelled by many multiples of their 1914 values. Difficult as those burdens were to manage, each country owed most of that money to its own citizens. But the Allies also ended up in debt to the United States to the tune of nearly \$2 billion, while France, Italy and Russia each owed Britain some \$500 million. Total holdings of gold by Britain, France and Germany at the end of the war amounted to no more than about \$2 billion” (Bernstein, 2000, p.243).

wars. The most important for our purposes was the Genoa Conference, in 1922, in which the gold exchange standard was “officially recommended” (Nurkse, 1997, p.188). Again, “this recommendation was based on the view that there existed a shortage of gold, due *both to a decline in current supply and to an actual or prospective increase in demand for monetary purposes*”, (ibid, emphasis added).

Additionally, the Bank for International Settlements (BIS) was established, in 1930. BIS was established in the context of the Young Plan (1930), and in order to administer it, especially with reference to reparations, mainly from Germany (Cooper, 2006a). Nevertheless, this project of promoting central bank cooperation, mutual support etc. was in contrast with the experience of bilateral central bank relations of the 1920s (ibid) or even before the WW (Eichengreen, 1992).

Reparations, grants and aids, and secured loans are new classes of international transactions following the imperialist wars¹³⁶. After WW I these payments comprised of the heavy reparations imputed to Germany and of the “stabilization or reconstruction loans, mainly from the United States and the United Kingdom, the proceeds of which passed at least in part into the hands of the central banks” (Nurkse, 1997, p.191). These loans were made in dollars and pounds that were no longer issued against gold domestically. Nurkse (1997) refers to these flows as sources for actual acquisition of “foreign assets” (ibid).

Apart from these interstate payments, WW I also propelled the capital flight from countries that were preparing for the eventuality of an occupation to safer areas; and the subsequent repatriation of these funds after the war. The issue appears and should be in good part geographical: France and Germany are in the worst position, the US in the best and the UK in the middle. For these international transactions, money should be in the most liquid form and at the same time easily transportable. That is contradictory, since the former dictated gold bullion as the most adequate concrete form, while the latter some concrete form of bank deposit. As shipments became all the more precarious, gold’s physical immobility became insurmountable to the benefit of credit money.

¹³⁶ Leonard Wibberley’s 1955 “The mouse that roared” was inspired by this new class of transactions. The Grand Fenwick, a negligible country on the map, declares war to the US with the intention of losing it in order to enjoy the post-war support of the opponent and thus recover from the financial difficulties in which it found itself, after staying behind in competition with the US.

Finally, class struggle was altered significantly after the 1917 October Revolution and the subsequent establishment of the USSR that gave the grounds, for the first time in the history, to the antithesis between the capitalist state and the socialist one. This antithesis was aggravated due to the fact that the USSR commanded huge stocks of gold and therefore, on the one hand diminished the available world stock of gold and its annual output; on the other hand, it was always considered as problematic for the socialist bloc to acquire such a potential financial independence (Triffin, 1960; Regan, et al., 1982). The immediate effect of the October Revolution was to worsen all the terms of the gold shortage. Yet, there were indirect effects on the form of world money¹³⁷. Moreover, Eichengreen (1992) notes that “the rise of political parties dominated by the working classes [a process that was fuelled by the USSR, GL], and the growing attention paid to the problem of unemployment all suggested that a time might come when the defence of the gold standard would conflict with other objectives” (p.31). This time came along with the capitalist crisis in the late 1920s to early 1930s.

8.2.3. The capitalist crisis of 1929-1933

The events that led to the collapse of the gold exchange standard are insightfully described by Nurkse (1997) and Eichengreen (1992). It is apparent that the collapse of the IMS was due to the contraction of credit that led to the abundance and consequent destruction of credit money. The dollar, the pound and the franc were all candidate concrete forms of quasi-world money that didn't manage to establish themselves. One reason for that was that the crisis of 1929 hit all three major capitalist centers, namely the US, the UK and France and there was no clear winner-issuer. Additionally, there were no adequate financial institutions and experienced central banks to manage the stability of the form. Therefore, all three of them were treated as credit money that has exited its borders exceptionally and improperly, rather than being established as quasi-world money.

The collapse of the gold exchange standard brought back the gold bullion as the only adequate form of world money. It did not restore the gold standard, since imports and exports of gold bullion and coin were severely controlled or banned and the

¹³⁷ “Having lost a large part of her long-term foreign assets through the Russian Revolution, France was not prepared to resume foreign long-term investment on any considerable scale, and so the current surplus went in the main simply to increase the country's gold reserves and liquid foreign balances” (Nurkse, 1977, p.195).

exchange relation was not guaranteed to vary between some specific points. A very interesting feature though of the system that prevailed during and after the crisis is that gold did not return in domestic circulation. The alloy form of central bank credit money declared as legal tender has not been disputed domestically. This feature has not been stressed enough in the literature.

Another effect of the crisis was New Deal and the consequent need for financing state intervention. The moment that Eichengreen (1992, p.31) speaks about has come and the various programs demanded again an expansion of credit and the corresponding borrowing on behalf of the state.

If there is one conclusion to which almost all authors would agree on is the lack of sufficient international cooperation in the manipulation of the crisis. Against this need, the major result of the capitalist crisis of 1929 was the preparations for a new war. In other words, the IMS could become more efficient by the collective and collaborative action of actors – countries and, behind them giant corporations and national bourgeoisies – that were preparing for a new armed and conflict with each other. This is a contradiction that would be solved by the outcome of the forthcoming war.

8.3. The Bretton Woods era and the dollar standard

8.3.1. The WW II and the Bretton Woods Agreement: the establishment of the Dollar Standard

The WW II was a historical benchmark for all the processes presented in the previous section. Seen from the point of view of its impact on the process of expanded reproduction, the war was very stimulative. It resulted in the physical destruction of productive forces, accelerating the death of obsolete lines of production. In the course of the war, all countries pushed their national corporations to incorporate as soon as possible every innovation into production in order to gain advantage towards both allies and rivals. And after all, the world was rebuilt from the ground up, utilizing all the experience acquired up to, and during, the war (Bordo, 1995).

All the effects ascribed earlier to the imperialist wars can be found in WWII. The need for financing the war was unprecedented; the expansion of credit was corresponding; gold was further economized. Moreover, gold was shipped away from the Europe that would be the center of hostilities and in particular, it flew from France to the US, for security.

All these processes drove gold to the US to such an extent that the latter managed to be holding two thirds of the world's monetary gold stock by the end of the war. This huge gold stock was one constituent of the US absolute victory; essentially, the US was the absolute winner of the war in the capitalist world, since she "emerged from the war as the strongest and richest power in the world. It expected to be a creditor nation" (Bordo, 1993, p.31). The UK was in almost the opposite situation.

Keynes (1980) was forewarning for the dire position that was threatening the UK from 1940, due to her low gold reserves and the size of her short-term debt in pounds, justifying thus the capital controls in play, during the war time. But he was very skeptical about the adaptation to peace-time conditions. The freedom of capital flows, especially from the former creditor countries, would bring "conditions in which the American capitalists would be the refugees; and if that were to happen, it would be on a scale to swamp all previous experience" (p.31). And he continues warning the bourgeoisie about the dangers that could come about¹³⁸.

Therefore, he wanted to sketch out an ideal scheme about world money, which might be complicated, novel and perhaps Utopian in the sense that it assumed a higher degree of understanding and international trust that could be achieved at the time. This scheme should allow for "a general stimulus to demand by the maintenance of a high level of domestic employment as the result of adopting various New-Deal expedients" (pp.31-32), as well as for the regulation of the movement of the capital funds.

Given these outlooks from 1941 already, Keynes sketched his first proposal for an IMS with an international clearing union and grammor in its centre. Grammor, the predecessor of bancor, is the name of *the* quasi-world money, which would be issued by a newly established bank, the central bank of central banks¹³⁹. Keynes didn't manage to argue how this could apply without one state authority co-issuing grammor (or bancor), although he treated various schemes for a super-national authority that will be examined in more detail in the next chapter.

Nevertheless, he was acknowledging the fundamental contradiction that is related to the expansion of credit and its golden constraints. He goes on delineating aspects of it in various occasions, but he is very eloquent when he argues that "[w]e

¹³⁸ "Social changes affecting the position of the wealth-owning class are likely to occur or (what is worse in the present condition) to be threatened in many countries" (Keynes, 1980, p.31).

¹³⁹ Keynes' ingenuity and deep understanding of the forms of money is reflected by the fact that he tries to pick a name that will reflect the form and not the underlying functions that this form will (or will not) perform.

could not get what we all wanted, namely good trade and full employment, except by dethroning gold and creating a system of international credits so that trade was not limited by the amount of gold available” (ibid, p.141).

The first copy of the clearing union scheme reaches White, the American counterpart of Keynes, in August, 28 1942. Since then, there was very active diplomacy in order for a final agreement to be concluded. From Keynes (1980) it is evident that all the participants were pushing towards a scheme that would be both functional and to their benefit. At the end of the day there were two similar proposals and according to Keynes, no serious difference can be spotted in the two schemes as for the treatment of gold. Keynes proposed that the US should carry all of her gold as a deposit in the international central bank (ICB) which would be seated in London and the ICB would start issuing *bancor* on it. White agreed completely with the idea and counter proposed a minor change. Instead of getting in the trouble of transferring the gold to London, they would leave it in Fort Knox and they would issue dollars against it. Although the majority of the states was for the Keynes plan, the White’s proposal was imposed as a result of the interrelation of powers.

The principal object though was “to provide that money earned by selling goods to one country can be spent on purchasing the products of any other country. In jargon, a system of multilateral clearing. In English, a universal currency valid for trade transactions in all the world” (p.270). That universal currency would be the dollar for the years to come. The agreement that was signed in 1944 provided that the *numéraire* would be either gold or the US dollar; the establishment of the IMF and the International Bank for Reconstruction and Development that was later renamed in World Bank; the imposition of severe capital controls; and finally, the confinement of gold flows to those between central banks. Bordo (1993) argues that the US could control the IMF from the very beginning and that “in actual fact, because the US was the only country that pegged its currency in terms of gold [...], all other countries would fix their parities in terms of dollars and would intervene to monitor their exchange rates within 1 percent of parity with the dollar” (p.37).

It is very interesting to ask why the Americans pushed towards and finally imposed a scheme where gold would have the essential role of the ultimate reserve, at a time that first, they had the power to impose the US dollar with no, or an only superficial gold backing and, second, the other countries, and especially the UK were urging them to do so, since they had no gold reserves. The US had practically all the

monetary gold in its hands, but that was not a good reason to set an IMS that would eventually drive it away.

The best answer can be found in Keynes (1980) again. He writes

“gold also has the merit of providing, in point of form whatever the underlying realities may be, an *uncontroversial* standard of value for international purposes, for which it would not *yet* be easy to find a serviceable substitute” (p.85, emphasis added)¹⁴⁰.

This sentence describes eloquently the dead end of the major capitalist states that are about to exit the war, in relation always to world money. They know the problem: it is the relatively small quantity of gold and its unmanageable nature for the modern necessities; they also know the solution, the new form that has replaced gold domestically must be allowed to function in the world market; for that, it must be encouraged to exit the borders; finally, the best conditions to impose that solution apply, a typical postwar conference where the possibility of disagreement is limited and the unanimous outcome is guaranteed. And yet, they impose a solution that determines with accuracy the upper limits of the postwar credit expansion at the level of the US gold reserves which, high as it might be, would be eliminated one day; and they impose capital controls that constraint quasi-world money from establishing itself. From the outset, the Bretton Woods agreement had a date of expiration, so to speak.

8.3.2. The workings of the dollar standard and the return of the fundamental contradiction

In the first postwar decade two other problems troubled the capitalist world, namely bilateralism and the dollar shortage. The former was raised gradually to the degree that the latter was solved. Yet, for dollar shortage active management should apply. The most relative initiatives included the Marshall Plan and the European Payments Union (EPU). The EPU laid the ground for the euro project and is shortly treated in the next chapter. For now, it would suffice to stress McKinnon’s (1996,

¹⁴⁰ All the plans that have been produced later in the early 1960s, on the grounds of the dollar glut, the Triffin dilemma and the dead end that the IMS was seemingly approaching, stressed the significance of gold as measure of value. Some of those plans were keeping gold as measure of value (Zolotas’ Plan, Triffin’s Plan and Hart-Kaldor-Tinbergen Plan), while some others tried to find a way to replace it (Keynes’ Clearing Union, Maxwell Stamp Plan, Hansen’s Plan and Bernstein’s Plan). But “every reform proposal [...] contains some element of an exchange guarantee. To this there is not I believe, a single exception” (Hansen 1965, p.120).

p.490) note that “the dollar was enthroned both as the unit of account and means of settlement within the EPU”.

The Marshall Plan could be characterized as an advanced war-related interstate payment. There were two particularities though about that plan. First, its size was huge and unprecedented for the time reaching \$13 billion; second, it originated in one country towards the rest of the world, including Western Europe and Japan¹⁴¹. The plan required the participants to cooperate in the liberalization of trade and payments and it took the form of grants and loans. Each recipient country provided matching funds in local money for investments; or paid for essential imports, mostly from the US; or built international reserves. The US dollar went out of the borders massively with the Marshall Plan.

It might be foreign aid that comprised mostly capital outflows from the US to the rest of world in the early postwar years, but “by the end of the 1950s, private long-term investment abroad (mainly direct investment) exceeded military expenditures abroad and other official transfers” (Bordo, 1993, p.55). In all these cases, the US dollar was proving its credit nature by coming back; and it did return through several channels, the most prominent of which involved the rise of the US exports, either imposed by the terms of the loan or by necessity, the repayment of the loans, the repatriation of profits etc. In other words, the US was financing herself (Triffin, 1966; Tew, 1977).

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 dollar¹⁴².

The gold shortage, always in comparison to the needs for international credit expansion, was cognizable in the early 1960s and was multifaceted¹⁴³. We could accentuate the following aspects. First, gold shortage in general was one thing and the depletion of the US gold reserves was another. For the sustainability of the Bretton Woods only the latter was important, and for that the US balance of payments was all

¹⁴¹ Other similar “plans” have been implemented at the time. One of those is the Dodge Plan, in 1949 in Japan (see, McKinnon, 1996).

¹⁴² “The very countries that should lend to the others [referring here to the US primarily, but also to 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).

¹⁴³ “Gold has long ceased to provide adequate amounts of international liquidity for an expanding world economy” (Triffin 1960, p.87).

that mattered. “[...] As official dollar liabilities held abroad mounted with successive deficits, the likelihood increased that these dollars would be converted into gold and the US monetary gold stock would eventually reach a point low enough to trigger a run” (Bordo, 1993, pp.55-56).

Triffin diagnosed the dead end of this process: the US should keep on providing the world with liquidity through her overall deficit, but this weakened her ability to stand behind her short term liabilities – the US dollars. If, on the other hand, she was to tidy its deficit or even turn it into a surplus, this would imply a drain of international liquidity which would affect negatively the US as well. Given that US gold reserves were not rising accordingly to back the US dollar and act as the final means of payment in the world market the problem had no solution (Triffin, 1960). The system, as it had unintentionally evolved, made continuing US payments deficits both necessary and alarming (Yeager, 1996).

One way out would be for the US gold stock to increase otherwise, including the following three sources: mining from own subsoil, coming from colonies with preferential agreements, and attracting it from private hoards. None of the three was applicable for the US, since it had no preferential access to gold mining colonies, neither possessed essential gold stocks in her subsoil. Finally, at the same time, and despite the legal obstacles, gold was hoarded privately 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. The issue was severe enough for the IMF to state in its report for the year 1960 that “it is in the interest of the Fund members that gold should be available in official reserves rather than go into private hoards” (Hansen, 1965, p.62).

Moreover, French foreign policy was about to worsen the US gold reserve shrinkage by repatriating the gold that was sent to the US for security and, later, by demanding to convert all her dollar surpluses into gold. The French run on US gold reserves in the mid-1960s (see, for example, Bordo, 1993) could be seen as an attempt to challenge the US issuing rights of quasi-world money in the benefit of other possible issuers, with France being one of them. Thus, competition between major capitalist states has speeded up the evolution and establishment of quasi-world money.

Although for the sustainability of the Bretton Woods what mattered was the *US* gold stock, the general problem of the world market was the *world* gold stock. That would define whether the new IMS that would come after, would be based on gold. But

the production of gold could not keep up, even if it wasn't for the USSR depriving the capitalist world from the Russian gold stock and, more important, from its gold mines¹⁴⁴.

On the other hand, it is interesting to spot the collapse of the British Commonplace and in general of colonialism that took place gradually, in the course of years from 1914 until the 1960s. Apparently, the direct form of depression could no longer be sustained¹⁴⁵. Still, the collapse of colonialism meant that the quasi-world money issuers could no longer control the gold producing countries in their peripheries as they used to do before. The most exceptional case is South Africa. This fact doesn't reduce the world gold stock, but affects the preferential access that some countries could have on it. Equally important, an additional constraint was added to the prospect of manipulating the rate of gold to the dollar. Apart from the undesirable revaluation of the gold stock of the USSR (Bordo and Eichengreen, 1998), a shift of the gold rate would raise the independence of South Africa¹⁴⁶. History plays funny games. What would the evolution of the IMS be, had the USA and the UK had the subsoil of the USSR and of South Africa, as interesting a thought experiment as it might be, is still a question with no answer.

8.4. The collapse of Bretton Woods or the quasi-world money standard

8.4.1. The events before the collapse 1968-1973

The first sign that the fundamental contradiction would come to a head was given in October 1960, when a run in the bank actually occurred. In order to prevent such incidents in the future and actually, in order to remind the world that the basic problem was the capitalist world gold stock and not the US gold stock, the leading capitalist countries tried to bypass the corresponding anomaly of Bretton Woods by establishing the London inter-central bank gold pool. It proved capable enough to contribute in postponing collapse, at least for 8 years.

¹⁴⁴ USSR gold sales were far limited to counteract this fact.

¹⁴⁵ What Keynes wrote about the Germans held for colonialism in general: "It would be a surprising triumph for propaganda to make an up-to-date version of imperialist exploitation verging on slavery seem attractive to the victims" (Keynes, 1980, p.14).

¹⁴⁶ The Chairman [of the Joint Economic Committee of the US Congress, GL]: Though you did not mention this [speaking to Triffin, GL], to raise the price of gold would enrich, I suppose, the Union of Soviet Socialist Republics and South Africa?" (Triffin 1960, p. 177)

In the late 1960s, US direct investment abroad rose sharply and amid the Vietnam War contributed largely to the explosion of the US deficit. “As citadel of the capitalist system, center of technological innovation, generator of current saving from the world’s largest national income, and home of a highly developed capital market, the US was a natural source of large-scale direct and portfolio investment for the rest of the world” (Yeager 1976, p.586).

At the end of 1967 there’s a surge of gold buying to arbitrage with an anticipated devaluation of the dollar. This was the final crisis in the history of the London gold pool. In March 1968, the gold pool collapsed. That was a landmark since the *de facto* convertibility of the US dollar came to an end for individual holders for sure; in a less clear-cut way for foreign official agencies. This event led to the separation of official and free-market values of gold. The dollar’s conversion into gold for official holders, in 1968, ceased to be a matter of routine. It became a matter of negotiation.

By August 1971 liquid dollar liabilities to foreign official institutions were more than three times as large as US reserves, and even larger losses were threatening. Anticipating dollar devaluation, “hot” money flowed out of the US in 1970-1971. The dollar glut had already become a dollar overhang.

How to maintain convertibility at the time that the stock of dollars held by foreign official institutions was growing and the US own stock of reserve assets, mainly gold, was shrinking? Finally, President Nixon denounced the convertibility of dollar into gold and dissociated the value of the former with the latter. It was a matter of time before the devaluation of the dollar in terms of gold.

Interestingly enough, the process of devaluation of the US dollar led the US dollar reserves of foreign central banks skyrocket. “The peculiarity with officially held dollar balances is that they have been acquired more or less *involuntarily* in connection with exchange-rate pegging or intervention. Dumping of official balances, though unlikely, could bring disruptive sudden changes in exchange rates and balances of payments” (Yeager, 1976, p.581, footnote 59, emphasis added).

Of course, there were other reasons for this dollar accumulation. The US compelled the rest of the world to keep financing the US deficit. This capacity hinges on its political dominance over the rest of the world (Halevi and Varoufakis, 2003). The German and Japanese governments explained the accumulation of dollar reserves as a price their countries needed to pay for the security provided by the US. Indeed, the Bundesbank president, Karl Blessing, in March 1967 signed the so-called Blessing

letter, in which he committed the Bundesbank not to exchange its surplus dollars for gold in an explicit recognition that this was the price that Germany needed to pay for the maintenance of the US military presence in Germany (Bordo and James, 2006).

All the same, the seeming weakness of the dollar led to the establishment of quasi-world money. “As an international medium of exchange, the dollar has remained the dominant vehicle currency for interbank clearing for more than 90 percent of spot and forward transactions in the private foreign exchange markets” (McKinnon, 1993, p.27). For, in their effort to support the value of dollar and alleviate their damages from a subsequent devaluation, surplus countries like Germany and Japan tried to support the dollar through open market interventions – purchases mostly. Even without any officially announced dollar peg, direct official intervention in the foreign exchanges has been about as extensive since 1973 as it was under the old system of fixed parities (Williamson, 1976).

The whole effort of preventing Bretton Woods from collapsing had entailed massive purchases of dollars around the world as central banks and governments strove to maintain fixed parities and keep their currencies from rising against the dollar (Yeager, 1996). At the time, the practice seemed exceptional and improper, but as we have seen in chapter five, it became a standard practice of the quasi-world money standard, always followed by non-issuers.

As a consequence of the dead end faced in the early 1970s, the major industrial countries accepted the economic reality and institutionalized floating (Gilpin, 2002). Apparently, the substance of the Triffin dilemma burst with a kind of a run in the bank, the latter being in this case the Federal Reserve¹⁴⁷. Note that the US dollar emerged officially as quasi-world money at the time that its credibility to perform the measure of value function in the world market was in its nadir which proves that the US dollar was not contested narrowly as measure of value anymore, but broadly as world money.

8.4.2. The establishment of the quasi-world money standard: a déjà vu of the 1920s

In 1971, the IMS could have collapsed following the collapse of the Bretton Woods Agreement, but it didn't. It proved experienced enough to deal with the new

¹⁴⁷ “It was a mistake to see a deficit in America's serving the world as a giant bank” (Yeager, 1976, p.586).

form of money in its center, namely, quasi-world money and the US dollar in particular¹⁴⁸. It is evident that the history of the first three quarters of the 20th century is not the result of any conscious plan. Instead, the process of the internationalization of the new form would follow an abrupt path that would become wider and smoother to the degree that the new form would gain ground over gold domestically. It could also be refrained by various historical contingencies, like in the case of Japan.

“The substitution of debt or paper money for commodity money within each country’s national borders was a slow, gradual, and still recent phenomenon in world affairs. Its extension to the international sphere is even more recent and has also developed haphazardly under the pressure of circumstances rather than as a rational act of creation on the part of any national or international authority. This explains the present and totally irrational use of *national* currencies as *international* reserves.” (Triffin, 1960, p.90, emphasis in the original).

Despite Triffin’s remark of the fact that the establishment of the new form was not “a rational act of creation on the part of any national or international authority”, this does not mean that national and international authorities didn’t play a decisive role in the birth of quasi-world money, even irrationally. In the whole period under examination, from the first suspension of the gold standard, in 1914, until the collapse of Bretton Woods, the central banks of the major capitalist countries led the international financial system in acquiring the experience needed for the management of an IMS which lacked the automatic mechanisms of the gold standard. As a matter of fact, the international financial system reached manhood, so to speak, through the central bank interplay and the latter emerged as the backbone of the former.

This happened gradually, as Triffin notes; it was a process incurred every time by the historical contingency and passed through failures and successes. This process involved a good deal of financial innovation and experimentation in managing short term liabilities (Fed swap network, foreign exchange transactions, rescue facilities etc) and transforming them into longer ones (Roosa Bonds, government securities with managed maturities etc), so that liquidity shocks could be easier avoided. A net of “overlapping arrangements of a short-term nature [...] have succeeded so far in their modest attempt to meet the recurrent crisis triggered by the system itself” (Triffin, 1966, p.42).

¹⁴⁸ “Even the traumatic breakdown of fixed exchange rates in 1971-73 did surprisingly little subsequently to disturb the conventions for using the dollar as international money for official and private purposes” (McKinnon, 1993, p.26).

The international financial system developed also spontaneously, following the development of national financial systems of major countries, as a result of the need for capital export and in order to bypass the limitations imposed by the Bretton Woods. This process involved banks opening branches abroad and using afterwards those branches to bypass domestic legislation or international agreements. A special case was the Eurodollar market which was set up spontaneously; it anticipated the suspension of convertibility of the dollar into gold, in March 1968 and acted as a valve to counteract its effects.

From the point of view of this chapter, the world market and the leading capitalist states were in the late 1960s in front of the same situation that they had found themselves in the late 1920s. The *déjà vu* is enhanced by some crucial semiotics like the demand of France to transform her stockpile of US dollars in gold in both occasions. Bordo and Eichengreen (1997) argue that if it wasn't for the crisis, the IMS would have skipped the Bretton Woods phase and it would have passed from the gold exchange standard to the Quasi-world money standard. They provide a series of scenarios to support their argument, which should be taken as a thought experiment that poses the very interesting question of whether the Bretton Woods and the dollar exchange standard were requisites for our quasi-world money standard.

It was not only the American multinationals and the American capitalists that thirsted for sending their money wherever there was a slightly better opportunity for profit or even opportunity for slightly better profit, but all capitalists and all multinationals. Therefore, the dollar as quasi-world money was not undermined from the rival countries by promoting gold, but by preparing for their own quasi-world money. This attempt strengthened the form of money, namely quasi-world money, although it might have undermined the US dollar some times. The euro project is examined in the next chapter as such an effort.

Chapter 9. The euro as quasi-world money: from the DM to the ECU and the euro

9.1. The emergence of the euro in retrospective

The era of the establishment of the quasi world money standard had come by the late 1960s. The Bretton Woods agreement was experiencing cracks due to the need of European capital to expand in the world market and the constraints it was facing both directly, due to capital controls imposed by Bretton Woods, and indirectly, due to the disadvantageous position of European moneys in the IMS. Capitalist accumulation in the major European capitalist countries had reached a point that brought credit expansion to its limits in the continent. There are many expressions of the latter fact in official meetings and more or less public debates around topics like the dollar overhang, the Triffin dilemma, the adequacy of gold reserves and the limits of managing the gold-dollar rate.

The end of the guarantee, that the state of the US would exchange unconditionally US gold for dollars at a fixed rate, proved that the dollar was no mere symbol of gold; that the exchange relation of the two could not be fixed by decree; and that the two constituted different forms of money. The collapse of Bretton Woods sealed the establishment of quasi-world money, diluted the idea of the US dollar as a mistreated representative of gold and placed the central bank money with legal tender of the US in the core of the new IMS. Eventually, quasi-world money was transformed from merely necessary to desirable. In the midst of the unknown IMS to come, multinationals or national corporations, ready to expand abroad, could justifiably hail: “The king is dead – long live the king!”

Yet, for the European bourgeoisies this was a rough path since they had to compete with the Americans and with each other¹⁴⁹. Of course, this was true for all, but an additional geographical, so to speak, limitation applied in their case. Capital is exported initially in one’s yard and Europe’s big players, like Germany, France and the UK had a very messy yard, partly because it was a common and hence restrictive

¹⁴⁹ “A national bourgeoisie seeks to secure a place in the international division of labour and to defend the interests of its component parts, including the ability to import, export, borrow and lend” (Lapavistas, 1999, p.210).

yard¹⁵⁰, and partly because, in many countries, socialist relations prevailed excluding them as potential markets. Quasi-world money might be a weapon to penetrate foreign markets, but only to the extent that the foreign market is not a quasi-world money issuer as well. It should be stressed that the three countries mentioned above were not the only ones in the area that claimed to issue quasi-world money, with the Netherlands, and others, following suit. It seems that the representatives of the national bourgeoisies¹⁵¹ realized or sensed that competition in the field of who will issue quasi-world money in Europe would be futile and to the benefit of the USA and a compromise should apply.

Under this light, it is of no surprise that the ground was laid in 1950s with the European Payments Union (EPU)¹⁵², while the discussion for a European money started as early as mid-1960s leading to the submission of the Barre Plan to the Council of Ministers, in February 1969¹⁵³. By January 1970 the Barre Plan was put forth, while the possible creation of a European Reserve Fund had already been discussed at the summit at The Hague in December of the previous year. Clearly, the euro plan precedes the collapse of Bretton Woods and it was not a reaction to the latter; rather the euro plan was an anticipation of the pressures that would apply to the IMS by the glitch of Bretton Woods¹⁵⁴.

The euro process was completed in 2002, with the introduction of euro banknotes, coins and euro bank deposits. That is, 32 years after the Werner Reports that called for full economic and monetary union by 1980, and 22 years after that initial target. The question could be either “what took them so long?” or “how did they make it anyway?”. It is argued here that both aspects are valid and the events of the last three decades reflect both the necessity for euro and its peculiarity as quasi-world money. In

¹⁵⁰ This constraint was explicitly recognised through the *Lebensraum* (living space) argument of the political representatives of the German bourgeoisie, from as early as 1914, although it became widely known through Hitler’s implementation.

¹⁵¹ It would be of interest if Crawford (1996) was more enlightening as for who conducted the “informal discussions in the mid-1960s” that “paved the way for studies and lobbying of governments by the Commission on a start to monetary unification [...]” (p.13).

¹⁵² The EPU was a way to respond to the dollar shortage of the first post-war years, restore multilateralism and establish convertibility between leading European countries in the frames of Bretton Woods. The union was supported financially by the US and institutionally by the BIS. It was very successful in reducing the volume of payments and therefore promoted the liberalization of payments. The result was that, by 1953, multilateralism was almost fully restored for the participating countries (Yeager, 1976; Tew, 1988; Bordo, 1993).

¹⁵³ For the major events see Tew (1988) and Giordano and Persaud (1998).

¹⁵⁴ “In 1969, the European Commission submitted a plan (the “Barre Plan”) to follow up on the idea of a single currency *because the Bretton Woods system was showing signs of increasing strain*” (ECB, 2006, p.5, emphasis added).

other words, the necessity for a European quasi-world money was meeting its, non-existent, preconditions in a historical process.

Crawford (1996) presents a series of driving forces for the monetary union, starting with the Common Agricultural Policy (CAP). Indeed, farm price supports and CAP seem central to the EEC from the outset (Kenen, 1969, Baltas, 2001). Yet, CAP represents, on the one hand, the need for cheaper means of subsistence for workers in all countries and, on the other, the significance of the agricultural sector in all six initial countries of the Community (Baltas, 2001). Consequently, the deliberation of national protectionism and the free movement of capital were crucial so that multinationals could take advantage of concentrated lands, applying there fully mechanized processes of production. The outcome, cheap food, should be able to circulate freely as a commodity in the European market, without tariffs, commissions or other costs. The unification of the European market was a goal for national European corporations that wanted to export capital mainly for production and then re-export the output of this production; the food industry was the beginning and only one, albeit the most famous, case of coordinated export of capital.

Therefore, Crawford's argument is missing an internal logical step: CAP was leading to monetary union not directly, but because monetary union would allow for capital to acquire the key that unlocks the fortified European markets. The argument is straightforward when the second reason for moving towards the monetary union is treated and that is related to transaction costs and hedging costs of trading companies. In this case, it is recognized that the absence of a European quasi-world money was a barrier to the export of capital, in the commodity form.

It is therefore fairly comprehensible by some advocates of the common currency that Europe needed "a common European currency [that] would become a reserve currency of international standing which would rival the dollar [...]" (Crawford, 1996, p.15). Vaubel (1989) referring to the ECU argues actually that this would be its "main contribution [...] to the international monetary system" (p.205)¹⁵⁵. The issue of independence from the US dollar, as a "reserve currency" and the need for an ECU functioning as the alternative quasi-world money for Europe was also stressed by Triffin (1989).

¹⁵⁵ Vaubel (1989) essentially proposes that the DM should become gradually and through the ECU the quasi-world money of Europe. That could be a second thought of Germany, important for her decision to embark the project (see below), but further insistency on that point would be mere speculation.

On the preconditions side, as it has been argued, the corresponding list comprises one leading capitalist state and its central bank, functioning and intervening in all the – united, by definition – internal markets¹⁵⁶. In the case of the euro, there wasn't one, but many leading, and competing with each other, capitalist states, with their central banks functioning in their internal markets, but without one institution that could intervene in the European market, which was anyway fragmented. It should be added that Europe is not homogeneous in terms of language, culture, legal and corporate framework etc.¹⁵⁷ (Vlachou and Christou, 1999). Thus, surpassing the fragmentation of the European market could not be the result of a mere political decree.

The history of the three decades that intermediate between the Werner report and the actual introduction of the euro is the history of the contradiction between the necessary and the inapplicable, embellished by several episodes, not always directly related to this contradiction or to the clash of the intra-European interests¹⁵⁸. The exposition here follows the evolution of the euro from its primitive form of the European Unit of Account (EUA) and through the European Currency Unit (ECU).

The reaction of the European countries to the establishment of the quasi-world money standard with the US dollar in its center was a monetary arrangement of fixed exchange rates within a band rate, known as the Snake. The Snake was set in motion in April 1972 and it was a multilateral system, additional and stricter to the Smithsonian Settlement of December 1971; hence it was called the Snake in the tunnel. Not being able to issue the euro from the outset, the European countries tried to establish a fixed exchange rate zone that would allow for a common money to appear; by 1975, the EUA was a reality. Like the US dollar, the EUA would be established at the end of a process that begins with a very strict golden linkage. Therefore, the EUA had a content of 0.88807 grains of gold (Bordo and Schwartz, 1989). Nevertheless, there's no fund acting as issuing central bank behind EUA, no reserves, nothing but a nonfunctional reference unit.

¹⁵⁶ “A single currency implies a single central bank (with note-issuing powers) [...]” (Mundell, 1961, p.658).

¹⁵⁷ A direct consequence of language and cultural differences was expected to be the limitation of labour movement (Vlachou and Christou, 1999, p.20).

¹⁵⁸ In 1997, Salvatore was prophetically underlying that “moving to a full monetary union in Europe without first creating the conditions for its success is like putting the cart before the horse. A major asymmetric shock would result in unbearable pressure within the Union because of limited labor mobility, grossly inadequate fiscal redistribution, and a European central bank that will probably want to keep monetary conditions tight in order to make the Euro as strong as the dollar. This is surely the prescription for major future problems” (p.225).

The EUA was the immediate predecessor of the ECU; as a matter of fact the ECU “is simply a renaming of the European Unit of Account” (Padoa-Schioppa, 1989, p.198). The ECU was the result of a political decision, the Bremen accord, in July 1978, following proposals that have seen the light earlier in April of the same year. The ECU would be the means of settlement and, as such, the accounting unit, between European Community monetary authorities. It would be issued against gold and dollar reserves of the participating countries¹⁵⁹; these reserves would be pooled by a newly found institution, the European Monetary Co-operation Fund. The latter would also administer the central banks’ ECU balances. The necessary exchange rate system that would replace the Snake was the Exchange Rate Mechanism (ERM)¹⁶⁰. All these arrangements comprised the European Monetary System (EMS) which was launched in March 1979.

The EMS was unstable by nature and “quite inadequate, particularly before 1983, to cope with outside pressures, mainly those generated by the US dollar” (Zolotas, 1987, p.12). There was no political entity standing behind the newly issued ECU, apart from the shambling Community. This lack is evident if one considers the various other entities that were formed in the 1980s with the participation of at least Germany, France and the UK, like the Group of Five, the Group of Ten, the Group of Twenty Four, the Group of Seven, the Interim Committee of the IMF, several international monetary conferences, meetings, agreements and accords¹⁶¹ (ibid). The necessity of a political entity behind the ECU is also stamped in the literature of the era¹⁶² (for a collection of the views of US economists see Jonung and Drea, 2010). Even ex post, Bordo and James (2006) note that “the logic of monetary union required (and

¹⁵⁹ Each central bank should transfer 20 percent of its gold and dollar reserves to the EMCF. Bordo and Schwartz (1989) argue that the role of gold in the creation of ECU is crucial and that 75 percent of ECUs represent gold and only 25 percent represent dollars. Moreover, in the level of symbolism, ECU was, by no accident, the name of a gold coin minted in France in the 16th and 17th centuries. At the same time, the ECU was defined as a “currency basket” whose exchange value was changing according to changes in its component moneys. ECU emerges as a mere symbol with the hope of evolving into quasi-world money. The independence that seeks in relation to the USD throws it in the armful of gold.

¹⁶⁰ It should be noted that the UK didn’t join the ERM, while being a full member of the EMS in the sense that the Sterling was a component of the ECU.

¹⁶¹ Among the most famous one may find the Plaza Agreement (September 1985), the Louvre (Paris) Accord (February 1987) and the Basle-Nyborg Agreement (September 1987).

¹⁶² “The ECU will only come about as a generally accepted money as part of a political unification process” (de Grauwe, 1989, pp.23-24). (The reader should escape here the supererogation by definition of “a generally accepted money”.) “ECU will be the result of political will” (Britton and Mayes, 1990, p.952).

continues to require) a further degree of political coordination, in particular in regard to fiscal policy” (p.11).

Furthermore, the system was lacking a central bank, since the European Monetary Co-operation Fund (EMCF) was an institution without substance. The necessary clearing was assigned again, like in the case of the EPU, to BIS from 1972 for administering the Snake, until 1994, when the European Monetary Institute (EMI) was set to Frankfurt, bringing “the BIS direct involvement in European monetary unification to an end” (BIS, 2007, p.9). The EMI was the first attempt for the European project to acquire its own central bank, reflecting thus that the issuing institute was perhaps *the* battlefield of conflicting bourgeoisies. An expression of this conflict unfolded during the negotiations concerning the location of the ECB.

9.2. Germany and France in the EMS

The extent to which the ECU was used was not the same relating to different ends or across countries. “The ECU has become widely used in international bond issues and, to a lesser extent, in banking and hedging transactions [...]. Its private use [...] has been tiny; and in Germany it has been little used in any form” (Crawford, 1996, p.22). In the terminology of this dissertation, by form Crawford means concrete form. The form of ECU is quasi-world money in the making, therefore not a pure form, and that affected its various concrete forms. It should be stressed though that ECU didn't actually take the concrete form of either notes or coins, apart from some commemorative editions that were functioning for paving the way to the coming euro notes and coins. The main concrete form of the ECU was the bank account and the distinction made here is between bank accounts of private (commercial) banks and those of central banks.

In the making of the European quasi-world money there were two main leading and competing states, Germany and France^{163,164}. After France and the UK withdrew

¹⁶³ “The political framework underpinning EMU depended on two states of more or less equivalent economic weight, France and Germany, reaching a balanced deal” (Bordo and James, 2006, p.14). “Balanced deal” is a descent term for “compromise”. The “more” or “less” of the economic weight of the two countries is exactly the object of this section.

¹⁶⁴ True, the analysis should take into consideration the stance of other countries and at least that of the UK. Nevertheless, that would demand indispensable space. The case of the UK, like that of Japan, calls for separate analysis. Suffice it to say that the UK decided or was forced to keep issuing her own quasi-world money.

from the Snake¹⁶⁵, the latter became a system linking various small countries' currencies to the mark and in this way the mark was put in the heart of the continental European monetary system since 1976. "The Snake had been established as a symmetric system in reaction to French objections to the dollar's asymmetric role under Bretton Woods. But once the Snake was freed from the Smithsonian tunnel, the DM emerged as the Europe's reference currency [...]" (Eichengreen, 1996, p.160).

In the EMS, Germany assumed the strong-currency-country role that had been occupied by the US at Bretton Woods (Eichengreen, 1996). There is plenty of evidence that the DM was the anchor of the ERM functioning as quasi-world money in the area and alongside with the US dollar (McCauley, 1997; Waigel, 2000). Crawford (1996) considers that the other ERM countries recognized the advantages from binding to the monetary policy of Germany, and thus the mark became the anchor of the ERM and the EMS. Moreover, the EMS led to the strengthening of peripheral moneys¹⁶⁶.

There seems to be a contradiction between the Deutschemark assuming a core role in the ERM and the German bourgeoisie showing willing to share the benefits of the strong mark with the others. Moreover, it seems peculiar that the French Franc, for example, didn't manage to become the soul of the European quasi-world money. After all, the former French colonies had been used as a field for the FF to exit the French borders and acquire features of quasi-world money¹⁶⁷, an advantage against the DM that didn't mean much at the end of the day.

Following the reasoning of the previous chapter, and the lessons from the dominance of the US dollar, we are tempted to examine the channels through which money exits the borders of the country. Indeed, a quick examination of the balance of payments of the two countries can be enlightening. Data (IMF, 2012a) is taken for the period 1975 to 1989, because 1975 is the first available year for France and 1989 is the last year before the German reunification, a process that had a significant effect in national accounts. After all, by that time the Single European Act (SEA) was signed (1986) and the interrelation of powers was more or less established.

¹⁶⁵ The UK dropped out first, in the crisis of June 1972, only one month after its entrance, leaving the pound free to float. In retrospect, this decision seems to mark the end of the sterling area (Tew, 1988). France went out in 1974, re-entered in 1976 only to abandon the scheme later the same year.

¹⁶⁶ In the early 1980s, "[t]he Lira was not a world-class currency. With the subsequent hardening of the EMS however, foreigners took large long positions in the lira and the other EMS currencies in order to earn higher interest rates than those available on deutschemark or dollar assets" (Kenen, 1995, p.188).

¹⁶⁷ See for example the CFA franc (*Communauté Financière Africaine*) which was a symbol of the French franc for 13 African countries (Eichengreen, 1996).

The next figure portrays the export of capital in the form of direct investment (DI). The figures are in billions of current US dollars and they stand for balances, that is direct investment in the country minus direct investment abroad. Thus, a negative flow implies net export of capital which is expected to be, at least in good part, in the money form. As it has been argued in the previous chapter, one of the ways through which the national central bank credit money declared as legal tender exits the borders is as a form of capital that exits the borders.

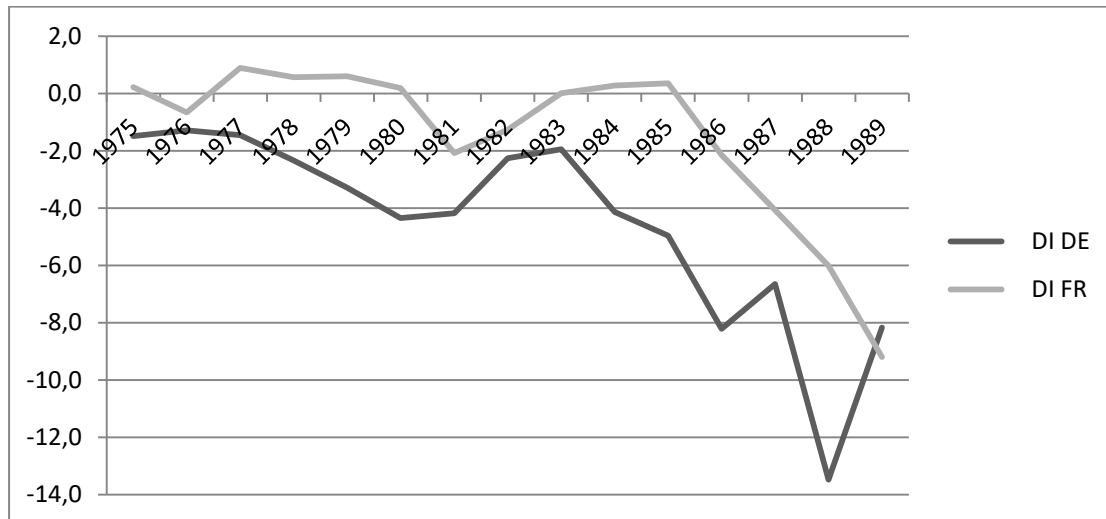


Figure 9.1 Net direct investment, Germany (DE) and France (FR), in billions of current US dollars. Source: IMF, 2012a.

One may observe two things at first glance: first, Germany is performing better in exporting capital than France throughout the period and second, Germany is consistently below the zero line, while France is wriggling around it, at least until the year of the SEA. The latter means that the balance of capital coming in France as direct investment was more than that going out for most of the 1970s. Examining further the outflows of capital, in figure 9.2, it is evident that direct investment abroad was anemic for France for one decade, from 1975 to 1985 with the exception of the years 1980 – 1981, while Germany is performing better.

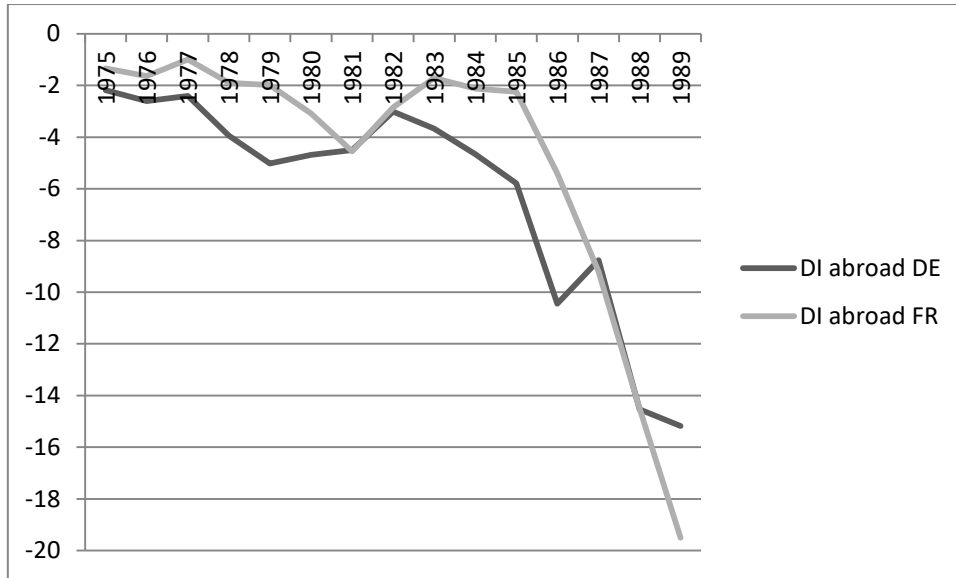


Figure 9.2 Direct investment abroad, Germany (DE) and France (FR), in billions of current US dollars.
Source: IMF, 2012a.

The opposite picture of direct investment can be portrayed by the trade balance of commodities. The figure 9.3 shows clearly that Germany has consistently a big trade surplus, while France is usually in a small deficit. From the point of view of this dissertation, this difference implies a much higher demand for DMs abroad and will result inevitably in much higher reserves in foreign currency, *ceteris paribus*.

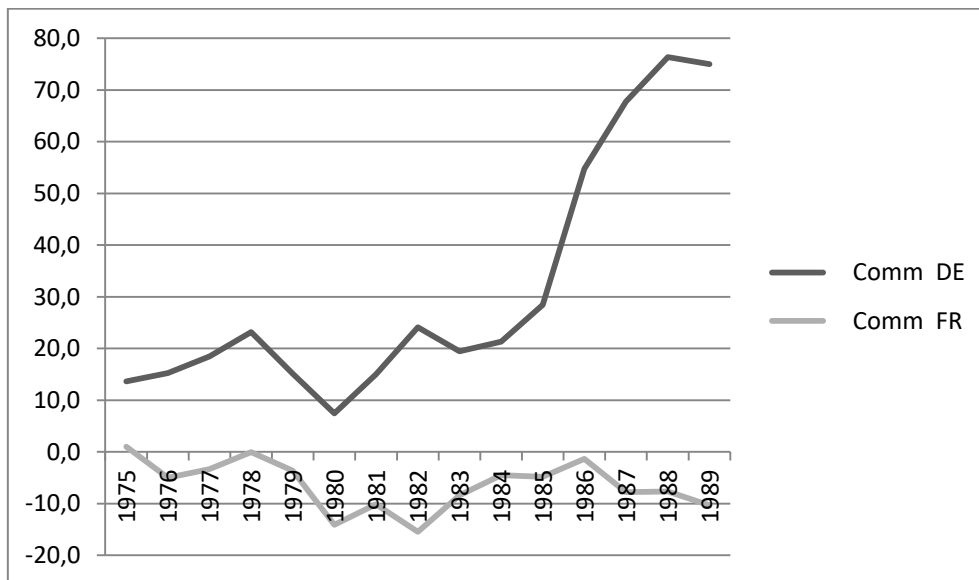


Figure 9.3 Trade balance of commodities, Germany (DE) and France (FR), in billions of current US dollars.
Source: IMF, 2012a.

In short, the three figures indicate that German based multinationals were more aggressive in the world market in comparison to their French counterparts, exporting more capital both in the money (FDI) and in the commodity form (trade); hence the advantage of the DM. Yet, that could provide for an answer as for the supremacy of

Germany and her taking a better position in the EMS in reference to her main competitor in the continent, namely France, but it may not explain why Germany shouldn't opt for exploiting her dynamism and impose the DM. It seems that the decision to support the euro project was taken in various steps starting with the establishment of the ECU, in 1979. Let us turn to the period, prior to that decision.

According to Crawford (1996), in spring 1978, Germany was facing difficulties over the dollar–mark exchange rate, the initial problem being speculative flows between the USD and the DM. It was then perceived that the volatility of DM might be reduced if it was in a zone of stable European exchange rates (*ibid*). After the ERM was set, Germany was actually free to pursue independent policy in the dollar-mark exchange rate, since the other ERM countries were practically assigned to keep the exchange rate of the mark with their moneys within the bands (Tew, 1988). That was a very good reason for Germany to support the EMS.

Moreover, high reserves were required for keeping the exchange rate of the mark against the world at levels that are convenient both for the German export industries, which would desire a rate as low as possible, and for world investors who would desire a rate as stable and even rising as possible for their outstanding assets. It should be noted that from the launch of EMS in 1979 until January 1987, eleven realignments of the exchange rates of the participating countries took place, seven out of which resulting in the revaluation of the DM (Eichengreen, Wyplosz, Branson and Dornbusch, 1993). “The Bundesbank did hardly any intramarginal intervention until 1987. That January, the Bank of France deliberately let the Franc drop to its floor in exasperation, to force the Bundesbank to intervene” (Crawford, 1996, p.62).

The crisis of 1992 proved, if anything, that the Bundesbank could not function as a European central bank and that the latter was missing. It also exposed the weaknesses of central banks, even of Bundesbank, against freely moving capital that had been deliberated from the fetters of capital controls. To the degree that the restoration of restrictions to the move of capital was not an option, the unification process was one-way for the major European countries. Of course, faith as for the outcome of the three stages unification process was shaken, especially after the rejection of the Maastricht Treaty by Danish people through a referendum in June 1992, and the marginal approval of the French in September of the same year. But the wheels have already been set in motion and the 1992 crisis only enhanced the conviction that the plan was condemned to succeed, since no other outcome was acceptable.

McCauley (1997) observes that “the rise of the dollar's share”, on a series of measures that extend from the mid-1970s to 1996, “points to the limited, regional success of the mark as a vehicle currency in transactions and trade denomination, as an official reserve currency and as a standard of deferred payment” (p.44). Therefore, it seems that the decision of the German bourgeoisie to compromise to support the euro project, against the idea of attempting to impose the DM as the European quasi-world money, was consolidated in two instances of monetary instability, namely in 1979 and 1992, when it was proven that the Bundesbank and the DM were strong and important, but not enough.

In this respect, the case of Japan is relevant in two aspects. First, the Yen was an upcoming quasi-world money and competition in the 1980s was even more demanding. Yet, second, the most interesting argument comes from the relative failure of the Yen that proved, if anything, that the elevation of a national money to the privileged position of quasi-world money is not predetermined and guaranteed even for a country such as Japan. It is difficult to know the extent to which Germany took into consideration this fact in order to design her policy towards the Euro, and it should be of little importance for the matter at hand.

9.3. Related theories to the euro experiment

It is indisputable that the euro project is unique in many aspects (Eichengreen, 2008) some of which have been discussed above. Mainstream economic theory is finding great difficulty in incorporating the case of the euro. The first attempt is contemporaneous to the first discussions and, actually, seems to precede them. Reference is made here for the Optimum Currency Area (OCA) theory which was introduced by Mundell in 1961. Mundell's argument is based on the existence of “internal factor mobility” in the region, while between the regions there is “factor immobility”. Mundell's seminal paper found two referable followers in McKinnon (1963) and Kenen (1969). The former raised the issue of openness and interdependence of the economies that would form a currency union, while the latter focused on the diversification in the production of one country, arguing that the best candidate countries for a currency union are these with highly diversified production.

Despite the advances that have been made in the field, a good account of which can be found in Dellas and Tavlas (2009), there is no unified theory. Moreover, it has been documented by “empirical evidence on the degree of labor mobility within

Europe, the incidence of asymmetric shocks, and the possibility of fiscal federalism” that “the European Union was not an OCA” (Bordo and James, 2006, p.12)¹⁶⁸. The same results are supported in various points in time by Eichengreen (1991), Crawford (1996), and Yuceol (2006).

Other approaches have been attempted including a cost-benefit analysis, the social welfare approach of Melitz and the ex post determination of a given currency area as optimal (Yannacopoulos and Demopoulos, 2001). Nevertheless, none of these theories has been able to analyse and lay the foundations for the euro experiment and, thus, the OCA seems to remain the only suggestion that mainstream theory could make¹⁶⁹.

The actual evolution of the euro project resembles though with Keynes’ (1980) proposals during the negotiations for the Bretton Woods that have been presented in the previous chapter. The basic lines of the scheme are reproduced here so that the straightforward parallels can be evident. Thus, the proposal provided for a Union and the establishment *ex nihilo* of an International Clearing Bank (ICB) which would be the central bank of the central banks of the participating countries. This clearing bank would issue quasi-world money, under the name of bancor, which would be backed by the leading states of the era; bancor would be an international means of payment which would be legal tender for participating countries, on the same principles that a national central bank functions¹⁷⁰. In this plan, the ICB would transact only with national central banks, the latter related towards ICB analogically as the commercial banks do to the national central bank. Bancor would be based on the reserves of the ICB which, in turn, would be transfers of the member central banks in the form of gold, although no central bank would be entitled to demand gold from the clearing bank against its balance of bancor.

Since there would be no one state behind the ICB, Keynes attempted to solve the political issue of the issuance of quasi-world money. The ICB would have 8 governors and a chairman and they would reflect the interests of a small group of

¹⁶⁸ Bordo and James (2006) move on further questioning the validity of OCA itself. They argue that “[m]ost analysts now recognize that the theory of optimum currency areas does not fit very well with the story of actual monetary unions” (pp.11-12).

¹⁶⁹ “Like it or not, the theory of optimum currency areas (OCAs) remains the workhorse for analyses of European monetary unification. Indeed many economists do not like it very much” (Eichengreen, 1997, p.111).

¹⁷⁰ The idea was “to generalize the essential principle of banking, as it is exhibited within any closed system [...]. This principle is the necessary equality of credits and debits, of assets and liabilities” (Keynes, 1980, p.43).

countries, since the management and the effective voting power would remain with the Anglo-Americans permanently. Finally, this system “should be one which is capable of wide, indeed of universal, extension as further countries become ready for it” (Keynes, 1980, p.134).

It seems that, for bringing the scheme from the International down to the European standards, one could easily substitute E for I, to get the ECB as the central bank of the central banks, which gathered gold reserves from the member states and issued euro. The ECB, as we shall see in the next section was designed to transact only with the national central banks. The idea was exactly to generalize the banking principle and establish a clearing union between member states, which has reached a very high level with TARGET2. The six-member executive board of the ECB reflects the interests of Germany and France permanently. Finally, as long as “further countries become ready for it”, the Eurozone is actually expanding.

Indisputably, Keynes was very farsighted. Nevertheless, he missed two points, and these are the role of the state in the emergence and establishment of quasi-world money and the relations between the participating states. Probably he underplayed the former out of purpose because of the dire position of the UK and he overlooked the latter because of the extreme conditions of WW II that were leaving little room for competition among the capitalist states at the time. As for the former, it may be said that the fiscal dimension is one that cannot be surpassed easily. The fiscal dimension comprises the interregional transfers that occur through taxes and public spending and is important for keeping balance in the management of the credit system and ultimately credit money. The EU has attempted to solve this problem through the EU budget. The argument has been stressed by many authors (Eichengreen, 1991; Salvatore, 1997).

On the second point, the member states could not act altogether as one world state through a collaborative process because there was no long run tendency to collaborate; rather, the tendency was towards antagonism, and any cooperation was expressing necessary compromises that should be made temporarily, reflecting some relative weakness – economic, political or ideological – of one side, or both.

This can be made clearer through a thought experiment, based on a foresight from Keynes that is of exquisite historical relevance. Keynes anticipated the case that a member state would withdraw from the Union not being able to stand for its liabilities. The other states would then be obliged to cover the liabilities of this member – as in the case of the default of a commercial bank in a national economy – although he realized

that this analogy could not hold unconditionally¹⁷¹ (Keynes, 1980). Suppose now that the member states would agree on that clause under the pressure of acquiring bancors to recover from WW II or euros to recover from the current crisis. Their signature would not constraint them in the future to refuse backing the default of a member state, if the provision of this backing would weaken their position at the time and if they were strong enough to oppose their interests to the international pressure. This is so much true for the current situation in the Eurozone.

The euro contains all the major weaknesses of Keynes' plan that accrue from the unsatisfied prerequisites of quasi-world money, namely the lack of *one* leading state and its Treasury stamping with legal tender the credit money of its central bank. The current crisis has brought this defect in the surface. The most explicit and easily observable expression is the discussion of where a euro note comes from (Watkins, 2010).

The ECB is not a proper central bank in the sense that it was designed as neither the bank of the banks, nor the bank of the state; rather it was thought of as solely the bank of the Eurosystem. The current crisis brought these weaknesses to the fore and the ECB adapted to some extent to its central bank role by becoming the bank of, at least some, banks and the bank of, again some, states. Yet, the limitations that apply by construction demand for a dramatic change in the political entities that stand behind the ECB and the ongoing debate in the Eurozone is towards that direction. It is argued, in the next part, that these limitations find their expressions in the initial set up of the ECB and in its reaction during the crisis.

9.4. Euro: the peculiar quasi-world money

The euro was designed to become quasi-world money but the main pylons that underlay quasi-world money, namely a leading capitalist state with its treasury and its central bank, are missing in this case; to be more accurate euro was built on earthen pylons. This weakness was widely stressed before, during and after the actual introduction of the euro, masked under the broader discussion about the “generally necessary” political unification process. Yet, this process was necessary mostly for EU's money, the euro. Bordo and James (2006) quote Jacques Rueff from the 1950s who “had prophesied that ‘Europe will be made by money or it will not be made’”

¹⁷¹ “The criticism least easily answered is that the means of disciplining a recalcitrant and misbehaving debtor country are inadequate [...]” (Keynes, 1980, pp.49-50)

(p.11). Apparently “Europe” was made not only *by* money alright, but also *for* money, and in particular for quasi-world money.

The analysis thereafter examines the assumption that the above weakness should manifest itself in limitations that the euro faces in the world market, comparing to its rivals, other quasi-world moneys the most prominent of which is the US dollar. Distinction should be made to limitations that come from the relative position of Germany and France, compared to the US in the world market. Therefore, the discussion should start from the institutional framework of the euro.

It seems that the current capitalist crisis provides an excellent framework for examining the limits of the euro – after all it is the euro that is threatened to collapse as such and decompose to its constituent parts (see, for example Lapavitsas et al., 2012). Thus, the actual response of the ECB to the crisis is taken into consideration to the extent that it is informative for the features of the euro. In other words, the strength of quasi-world money and the limits of the euro as a peculiar such are isolated and lightened, in the frames of the crisis. It should be noted in advance that the new form of money had also an effect in the outburst and the evolution of the crisis.

9.4.1. The reflection of the limits of euro in its set up

Below follows a brief commentary on the basic tools of the ECB’s monetary policy. A full presentation can be found in Scheller (2006) and in ECB (2011a). When it comes to monetary policy in the euro area, the first thing to note is that there are strict guidelines stemming from the Statute of the ESCB, in compliance with Article 105 of the EC Treaty (EU, 2006). There are complex processes described in the Treaty and the Statute, reflecting the tension of interests lying behind them¹⁷². Nevertheless, the start of the relative chapter 2 leaves no doubt as for who has the upper hand: “The primary objective of the ESCB shall be to maintain price stability” (EU, 2006, p.87). The German imprint is evident in the Treaty in general.

There are three types of instruments of monetary policy: open market operations (OMO), standing facilities and minimum reserve requirements¹⁷³ (ECB, 2000). OMOs aim at steering interest rates, providing liquidity and signal the stance of the

¹⁷² “The Council may, acting unanimously on a proposal from the Commission and after consulting the ECB and after receiving the assent of the European Parliament, confer upon the ECB specific tasks concerning policies relating to the prudential supervision of credit institutions and other financial institutions with the exception of insurance undertakings” (EU, 2006, p.87).

¹⁷³ Minimum reserve requirements will be examined exhaustively in following chapters.

Eurosystem's monetary policy. From the point of view of this dissertation, only the provision and management of liquidity is relevant, since the other two goals refer to the conditions in the market of loanable capital and, therefore, relate to quasi-world money indirectly. The provision and management of liquidity instruments may be distinguished in liquidity providing and liquidity absorbing. The former comprise the Main Refinancing Operations (MROs) and the Longer-Term Refinancing Operations (LTROs) that are OMOs, and the marginal lending facility which is a standing facility. Marginal lending facility is literally marginal and it may be left out from the analysis¹⁷⁴.

The MROs and the LTROs are both reverse transactions, namely repurchase agreements against eligible assets as collateral and, as such, they are also liquidity absorbing instruments. Eligible assets for both operations were tier one and tier two assets (ECB 2000) until the introduction of the "Single List" which entered into effect on January 2007 and comprises "two distinct asset classes, marketable assets and non-marketable assets¹⁷⁵" (ECB, 2011c, p.29). MROs and LTROs were differing in their frequency (weekly and monthly respectively) and in their maturity (two weeks and three months respectively) (ECB, 2000). The MROs were considered as the most important operations conducted by the Eurosystem, providing the bulk of liquidity to the banking system in a decentralized process, since they were conducted by the national central banks (ECB, 2011a).

A very interesting feature of the monetary policy instruments concerns the eligibility criteria for the counterparties of the Eurosystem. According to these, governments or public entities are excluded, since "[o]nly institutions subject to the Eurosystem's minimum reserve system according to Article 19.1 of the Statute of the ESCB are eligible to be counterparties" (ECB, 2000, p.11). On the one hand, this is expected, since there is no state behind the ECB and thus, the central bank cannot buy the bonds of its government, because there is no government; Treasuries of the member states must address the market and cannot count for their central banks for financing them. On the other hand, this inability reflects the peculiarity of the project.

When the crisis hit, the Eurosystem could do little to counteract it. The figure 9.4 depicts the relative size of the liquidity-providing factors. It is apparent that, after

¹⁷⁴ Standing facilities are provided to counterparties on their own initiative, and in this sense they are not of the immediate interest of this chapter.

¹⁷⁵ "No distinction is made between the two asset classes with regard to the quality of the assets and their eligibility for the various types of Eurosystem monetary policy operations, except that non-marketable assets are not used by the Eurosystem for outright transactions" (ECB, 2011c, p.29).

the outburst of the crisis, the LTROs become the decisive vehicle for liquidity provision. At the same time, with a guideline of the ECB (ECB, 2011c), the maturity of the MROs was limited to one week. The figure shows that from December 2011, the use of MROs is shrunk further, while the LTROs well surpassed the trillion threshold. This is easily explained because the system requires money that will not be repaid in one week, not even in three months, which is the maturity of the LTROs. This is, after all, the reason that the ECB announced two LTROs with a maturity of 36 months and the option of early repayment after one year (ECB, 2011b), although the constitutional maturity of the LTROs remained at the three months level.

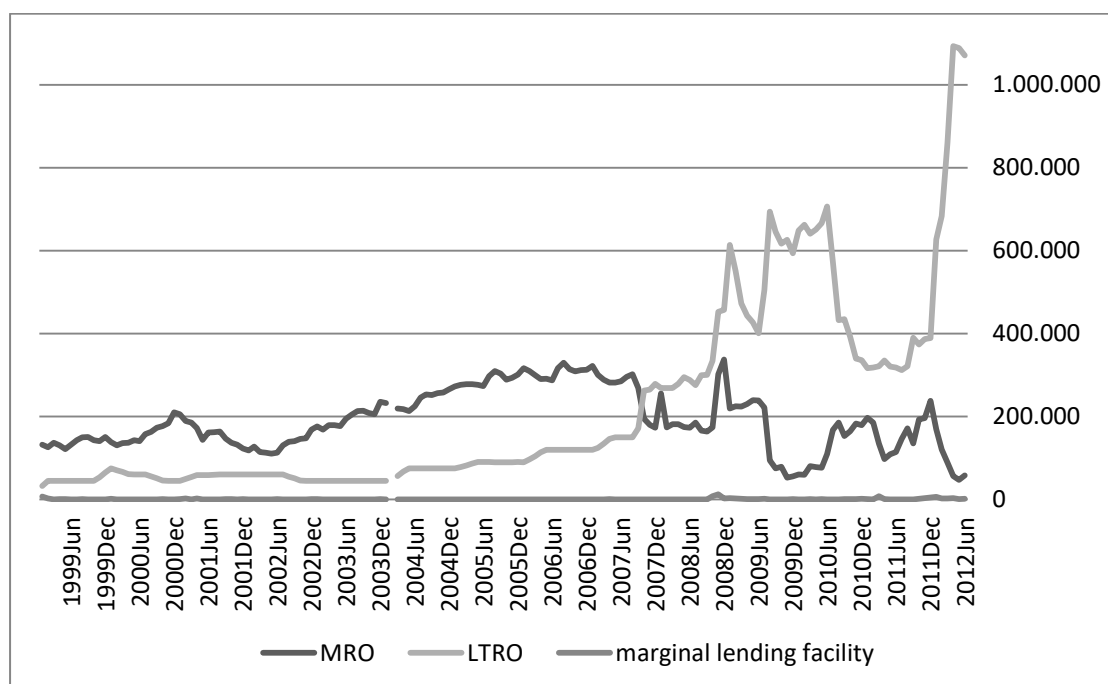


Figure 9.4 Monetary policy, liquidity providing instruments of the ESCB, in million of euros. Source: ECB.

Figure 9.5 depicts the huge rise of other liquidity providing operations. Their emergence is closely and explicitly related to the crisis. They include liquidity provided under the Eurosystem’s covered bond purchase program and the Eurosystem’s securities markets program. Both programs refer to outright purchases and intend to hold bonds to maturity.

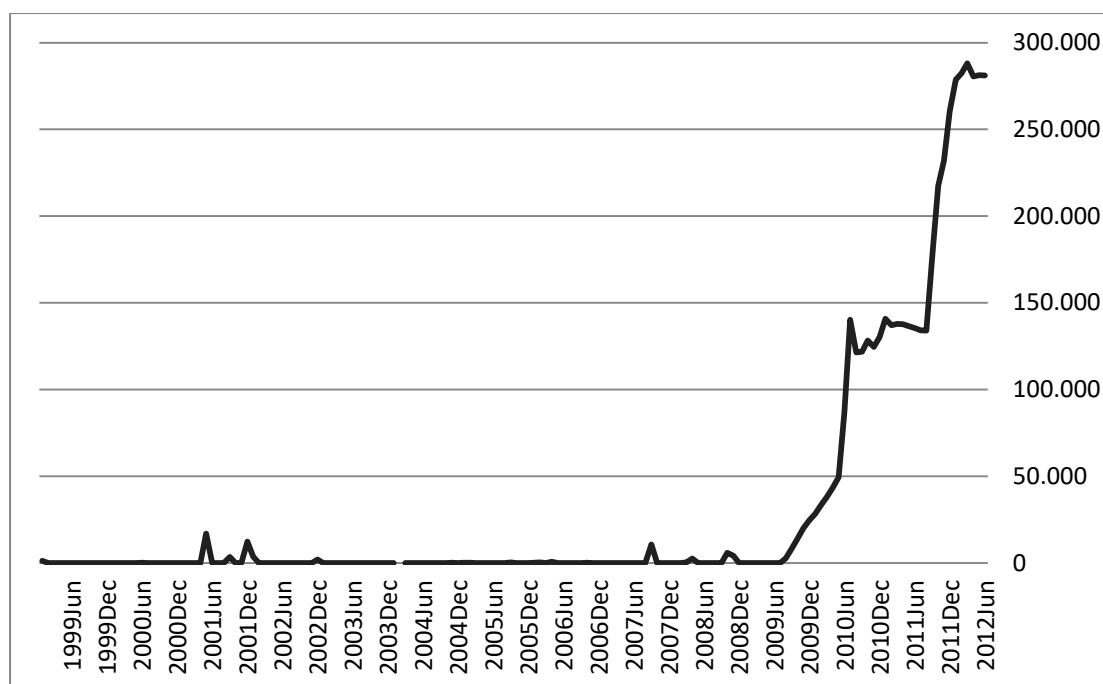


Figure 9.5 Other liquidity providing operations, in million of euros. Source: ECB

The covered bond purchase program was entered into force with the Decision of the ECB of July 2nd, 2009 and lasted until the end of June, 2010 (ECB, 2009). The size of the program was €60bn and it allowed a Eurosystem central bank to purchase eligible covered bonds from eligible counterparties in the primary and secondary markets. This decision was explicitly the product of the crisis since it was not complying with the guideline ECB/2000/7 mentioned above (ECB, 2000); the Eurosystem could not intervene before in the secondary markets. According to the final monthly report on the program, “in total, 422 different bonds were purchased, 27% in the primary market and the remaining 73% in the secondary market. The Eurosystem mainly purchased covered bonds with maturities of three to seven years [...].The Eurosystem intends to hold the purchased covered bonds until maturity” (ECB, 2010c, p.1).

The Eurosystem’s securities markets program was implemented with the Decision of the ECB of 14 May 2010 (ECB, 2010b) and, although it is reported as temporary, it doesn’t have an end date. Moreover, this program doesn’t have a targeted size. Yet, its most interesting feature is the purchase on the secondary market of eligible marketable debt instruments issued by the central governments or public entities of the member states, along with those issued by private entities. This program reflects clearly the structural weaknesses of the Eurosystem that came to surface with the crisis.

On the other side of the Atlantic, these constraints are not at place. Santoro (2012) examines the reaction to the current crisis of the Fed, in collaboration with the US Treasury. Through the Supplementary Financing Program and by manipulating the two accounts of the Treasury, namely the Treasury General Account in Fed and the Treasury Tax and Loan Note accounts in private depository institutions, the Fed provided unprecedented quantities of central bank credit to banks, primary dealers, foreign central banks, and others. Adrian, Kimbrough and Marchioni (2011) analyze the case of the Fed's Commercial Paper Funding Facility (CPFF), one of the extraordinary interventions that were undertaken by the Fed and other US government agencies in late 2008¹⁷⁶. The CPFF operated as a lender of last resort facility for the commercial paper market. The interesting part about the CPFF is that the Fed expanded its lending to "US corporations, as well as financial institutions that would usually not have direct access to its market operations" (Adrian, Kimbrough and Marchioni, 2011, p.7).

The size of the two ECB outright programs taken together has managed to reach the level of only €300bn in two stages (August 2009 to July 2010 and July 2011 to May 2012). As of June 2012, the outstanding provision of outright liquidity was amounting to only one fourth of the reverse operations MRO and LTRO, taken together. Schilo and Rudolf (2011) argue that the two programs are small even compared to Eurozone's GDP, representing just 1 percent, while Quantitative Easing 1 and 2 in the US amounted to 16 percent of GDP, while the UK securities program reached 14 percent.

The problems for the ECB and the Eurosystem, that relate to the monetary tools, seem to begin with the price stability doctrine and finish off with the quantity theory of money. Therefore, outright operations are not particularly preferred and they are considered as temporary reactions to an extraordinary situation. Their effect is always attempted to be sterilized, while the bulk of the operations are reverse, implying that this way, liquidity provision will not raise prices; and low prices are assumed to provide the preconditions for the revival of the European economies. Nevertheless, this option is not based on wrong neoliberal or monetarist perceptions, but on well perceived class interests and an instinct on the function of the new form of money.

¹⁷⁶ The authors record eight other interventions that were set to motion from September the 14th until November the 25th (Adrian, Kimbrough and Marchioni, 2011).

In particular, the absence of one or, equivalently, the presence of many, leading capitalist states in the euro project differentiates the ECB's initial framework, the available tools of monetary policy and the options in the event of the current capitalist crisis. The advantage of quasi-world money is that it provides the bourgeoisie of the nation that issues it with a weapon so that both the export of her capital and her imports can be always financed and in profitable terms. Yet, in the case of the euro, this advantage was only partial, provided in quotas that resulted from a mutual compromise. In the event of the crisis, the new form of money proved to acquire further useful features. Again, in the case of the euro, these features were constrained, but now compromises were harder to make, since, if it is difficult to share willingly the profits, it is much harder to share the losses. The most acute contradiction of the euro comes to fore with the crisis: political unification is more than ever necessary for the sustainability of the euro and more than ever inapplicable.

Germany is well aware that outright purchases of bonds and holding them to maturity presuppose that both the holder and the issuer of the bond will have to last. Since this is in contestation, at least for some issuers that are also partly holders, and while Germany is not among them, she will have the final word, as she always had after all.

9.5. Conclusions

In retrospect, the euro evolved as Europe's quasi-world money; no other credit money declared as legal tender by a leading capitalist European country managed to assume this role. From this point of view, the euro reflects the inability of the DM to dominate in Europe. This inability is in good part due to the existence of other potential issuers of quasi-world money in the continent, with France, the UK and the Netherlands being the most prominent ones.

The geographical area is of importance. The exit of capital starts from the neighbouring markets, before expanding to distant ones. Along with it, money claims the status of quasi-world money in transactions with neighbouring economies. This argument is emphasized in the annual reports of the ECB that follow the international role of the euro. In the last one, for example, it is acknowledged that "the euro remained an important anchor of stability, particularly for countries neighbouring the euro area" (ECB, 2012, p.9). And a few page after, it is added that

“[a]s in previous years, the use of the euro in the exchange rate regimes of countries outside the euro area was, to a large extent, underpinned by geographical and institutional factors, being observed mainly in countries neighbouring the euro area and countries that have established special institutional arrangements with the EU or its Member States [...]” (ibid, p.14).

In the 2010 report, in relation to the “degree of currency internationalisation of the main global currencies” one reads that “the use of the euro is most common in countries located in the broad geographical neighbourhood of the euro area, while the US dollar’s international use is more widespread across the global economy” (ECB, 2010d, p.13). In other words, along with the euro, the US dollar was established in the capitalist world as the most prominent duplicate of the new form of money and competition with it was already harsh.

The process of the emergence of the euro cannot be explained by mainstream theory at all. The OCA is the best coherent framework to analyse monetary unions, but it is easily demonstrated that Europe, even only the countries that participate in the Eurozone, is not an OCA. The Keynesian bancor scheme of the early 1940s is much closer, only because it captures aspects of the emergence of the new form of money. Nevertheless, the euro bears also the illusions of the Keynesian plan, which considered that it was feasible to issue quasi-world money without *one* leading state stamping it, and without well-established institutions, among which the central bank and the Treasury.

It is beyond doubt that the euro is the outcome of a series of compromises of European national bourgeoisies. Yet, when the crisis hit, compromises became much more complicated. The problems of the euro reflect the inexistence of a (single, united) European bourgeoisie that would promote political unification and the emergence of a corresponding state that would express its interests. On the contrary, the many different national bourgeoisies are fortified behind their states and this is more evident than ever during the present crisis. This contradiction between the necessity for political unification and merge of the national bourgeoisies on the one hand, and the entrenchment of national bourgeoisies behind their states is climaxing and coming to a solution that will be a new European set up. The end that will prevail is of interest for the working people, although their position will not be better in either case, *ceteris paribus*, and exploitation will not be revoked.

Chapter 10. Gold and quasi-world money: two forms that function as world money

10.1. Introduction

The research question of this dissertation revolves around the forms of money, focusing on those that function in the world market. The function of world money has been proven to be complex and incorporating all the functions of money. Special focus has been made to international reserves, and much less to international payments and the medium of circulation, while the measure of value function has been omitted. It is implied that these aspects of world money that have not been thoroughly examined, and especially the last one, should be treated separately. Yet, such an expansion presupposes the analysis and the categories put forth in this dissertation. The forms that have been found serving the world money function are two, namely gold and quasi-world money.

The scopes of this concluding chapter are manifold. We turn to hoards for the third and last time, to summarise all the findings that refer to their sources, destinations, holders and forms. Then, the findings of the second part are discussed thoroughly, with respect to the current contradictions of the two forms and their main concrete forms; these contradictions will be the sources for their evolution.

The form that these contradictions take differs by form, or even by concrete form of money. For example, in the case of gold as the commodity money *par excellence* the contradiction takes the following forms: supportive views that want to restore some version of the gold standard; polemic views that want the gold disappear from any debate that relates to money; treatment of the issue in the academic literature as a *taboo*; mysticism and conspiracy theories towards all directions; in short, “safe haven” and “barbarous relic” at the same time.

As for quasi-world money in general the contradictions are reflected in a way that resembles the Triffin dilemma: credit expansion is simultaneously necessary and subverting. In the case of the US dollar there are two main debates where this contradiction is expressed. First, the debate on whether the US can expand her borrowing by using her position as the issuer of the best concrete form of quasi-world money; that debate is misleadingly named as fiscal cliff, while it is a monetary issue and not necessarily a cliff. The second debate accrues from the so-called “currency war”

and refers to the US hegemony, that is exactly whether the US dollar will be keeping the position of the best concrete form of quasi-world money.

The particular problems of the euro are two interrelated issues. First, the euro faces the contradictions that arise from its peculiar set up that threaten its very existence in the context of the current crisis. Second, for its further establishment it requires credit expansion that, in the current context, might become its gravestone. These issues are examined in contrast to two policies that are precluded by the ECB, although they seem to be standard policies of an issuer of quasi-world money, since they are followed by the US, the UK and Japan. It is apparent that due to the structural weaknesses of the euro that have been exposed in this dissertation, the ECB can neither pursue the Quantitative Easing (QE) policy, nor issue Eurobonds, in order to manipulate the evolution of the crisis as much as possible to the benefit of its bourgeoisie¹⁷⁷, against the competitor capitalists and the working class.

The role of the crisis is therefore crucial. For, the evolution of such a profound capitalist crisis might prove to be a theoretical pitfall that should be stressed strongly. Especially after so many years of managing the persisting capitalist crisis, abnormal may take the concrete form of normal. On the other hand, it was an unprecedented coincidence to conduct this research under these circumstances. For example, one may conclude as for the stability of the new form, namely quasi-world money, which has not been contested even in such extreme circumstances. The fact that the US dollar is contested, and that quasi-world moneys compete along with their issuers, doesn't challenge the form as such. Its potential rivals claim to promote their quasi-world money, not another form of world money. Nevertheless, that could be an appearance that will dissolve with the evolution of the crisis. Therefore, conclusions could be differentiated into strong and weak with the accompanying explanation.

The chapter has four sections, apart from this introduction. The first summarises the line of reasoning that is adopted here. The second stresses what we know so far about hoarding and is relevant for all forms of money under examination. The third section exposes in more detail the appearances that the various contradictions take about gold and quasi-world money. The last draws the corresponding conclusions.

¹⁷⁷ The problem is exactly that the ECB doesn't have one solid bourgeoisie to serve, as solid as a national bourgeoisie can be.

10.2. From the emergence of money to the forms of world money

According to the line of reasoning adopted here, money emerges spontaneously through the evolution of the forms of value in four stages. There is no barter hypothesis, on the contrary and in accordance with historical evidence the evolution of the forms of value was propelled by exchange relations at the margins of societies or of nomadic clans. 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 coins made out of precious metals. The standard of prices is a function that is incorporated in the measure of value and cannot be without it. The fact that money 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.

The closer examination of the primordial form of money, the commodity form in the concrete forms of coin and later bullion, has made 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 against the commodity, gave birth to credit money. Not only credit money is bound to commodity money by definition, since it is a promise to pay the latter, but the expansion of credit money is constrained by the quantity of gold. This issue is of utmost significance for

the emergence of a new form of money, the alloy form of central bank money with 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 bank and guaranteed by leading capitalist state. This observation indicates that the reasons and the paths through which this money managed to become finally quasi-world money should be historically imposed and closely linked to the processes of imperialism. Indeed, it was shown that money in the new form exited actually the borders of the country by lending its form or accompanying the exported capital, or through imperialist war related processes and intrastate flows of money.

10.3. Hoards of money

10.3.1. Sources and destinations

Thus far we have seen that hoarding is a crucial function of money that interferes in all monetary circuits; the international monetary sphere is no exception. Hoarding is the complex dual process of immobilising money and transforming it. The immobilisation is the result of numerous processes, some of which are purely monetary, although others pertain to the circuits of capital. These processes have been assessed initially in chapter 3, but in chapters 5, 6 and 7 we have examined closer further processes that refer to international hoards.

In short, there are at least ten main sources of hoards. The oldest and least interesting until the outburst of the current crisis comes from circulation and in particular the overflow of its channels. In the crisis, this old fashioned source becomes prominent again. Then, there are five sources that relate to the capital circuit that unfolds in the national level. These comprise of the precautionary reserve fund that is part of the functioning money capital; hoards that are formed spontaneously from the gradual advancing of money capital; hoards that come from sudden price changes and disruptions of the exchange process; money is also hoarded from the gradual return of the value of fixed capital; and finally, directly from surplus value, part of which is hoarded.

Moreover, there are four sources that relate to the function of world money. One is related to trade, i.e. to the international flow of money as a reverse flow of capital in the commodity form. Hoards are formed because of trade surpluses. A special case refers to particular raw materials, like oil, that generates trade surpluses and consequently reserves in a systematic manner. In all cases, sudden upward price changes in traded commodities result in the equally sudden accumulation of reserves. In the special case that these traded commodities are particular raw materials the demand for which is relatively inelastic, the result is even clearer.

The other source is flow of capital in the money form for non-trade purposes. These may relate to productive investment and is usually recorded under FDI, although part of the portfolio investment, and especially the equities component of the latter, could be considered as such an investment¹⁷⁸. FDI by itself contributes directly to the creation of hoards. Capital flies in, in the form of quasi-world money. The central bank of the host country will absorb this money in exchange for credit money with local legal tender which is demanded for the investment. Nevertheless, the importance of FDI in the formation of hoards is also indirect, since it raises the exports of the host countries and their trade surplus.

Third, there are sources of hoarding that relate to international flows of money, not capital. These comprise of many processes that are more or less frequent in imperialism and relate with the imperialist wars, intrastate loans and aids, money transfers from and to supranational institutions and others.

¹⁷⁸ Speculative flows are not easily distinguished from investment flows and are put under the same category without great loss of accuracy for the scopes of this dissertation.

The fourth source that relates to world money is the production of gold itself. In some cases of gold producing countries, like that of the Philippines, the mechanism is straightforward. The central bank of Philippines (BSP) buys practically all gold produced by small-scale producers, the production of which accounts for the majority of gold produced in the country (WGC, 2010). The new production of gold has skyrocketed after its allegedly “demonetization” and especially in the 1980s. In 1990 it was more than double of that in 1980, standing at the level of 2,135 tons. In the 1990s there was still rise in production but with rates as low as 1 percent per year (Wiggins, 2003).

Yet, the mechanism can be also highly intermediated, like in the case of scrap, which is gold that comes from processing electronic scrap and recovered jewels. The so called recycled gold accounted for one third of total gold supply in the years 2005 to 2009 and half the total gold stocks in 2009. In the middle, one may find private investors and the bullion banks (WGC, 2010).

Accordingly, the *terminus ad quem* of hoards is multiple and amount to at least ten broad categories. The first two are referring to the national level and they are purely monetary, namely the adjustment of circulation with the return of the hoards when there is lack of liquidity and the payment of particular purchases that have been made on credit. The latter destination is subject to clearing through the banking system.

The next two reasons for hoarding refer to the capital circuit nationally. First, money is hoarded so that it reaches a minimum size that is demanded for a particular reinvestment, either for the replacement of expensive fixed capital or for expansion. Second, hoards that anticipate sudden disruptions actually meet them.

The next six destinations relate to world money. Clearing trade balances is an old and persisting destination of hoards. It has a regular component that relates to anticipated imports. That component is common in all standards from which the IMS has passed. Yet, the quasi-world money standard alters significantly this hoard in many aspects. On the one hand, it adds an unanticipated component that relates to the problematic function of quasi-world money as measure of value and to the ability of many players in the international arena to manage the exchange rates. On the other hand, the issuers of quasi-world money do not need even the anticipated amounts for their imports. Moreover, hoards were used as collateral for the issuance of trade related bills of exchange for all countries. Today, this use of hoards relates only to non-issuers of quasi-world money.

For past IMSs, international reserves were used as an anchor. Especially in the dollar exchange system, the US gold reserves initially and the London gold pool later, were used as a guarantee for the dollar to prove its being quasi-world money and thus establish the quasi-world money system. In the quasi-world money system, the establishment of the euro incorporated the formation of a reserve base made out of gold and quasi-world money (mostly dollars and, to a lesser extent, yen). This role thus has not been eliminated.

Finally, there are three destinations of reserves that pertain particularly to the current IMS. The first is security against outflows of capital. In a sense, this process has a regularity through the repatriation of foreign capital in the normal course of business. Nevertheless, the most interesting part of this hoard is to counteract sudden massive outflows, the so-called capital flights. Then, there are currency crises that have become a permanent feature of the era. The third comprises the central bank intervention for management of the exchange rate for various reasons¹⁷⁹. These relate mostly to keeping the exchange rate competitive for export reasons and for maintaining or even raising the value of the existing reserves. In the special 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).

Needless to note that these hoard destinations are not equally important for all countries. Issuers of quasi-world money need less and less reserves for these reasons, depending on how high they are in the imperialist pyramid, with the US being on top. On the other hand, countries in the basis of the pyramid, non-issuers of quasi-world money are obliged to use reserves for the above reasons on a regular basis. Hoards are not a symbol of economic and political power anymore; rather the contrary, a symbol of potential defense to the wills of multinational capital. From spear, they ended up to be a heavy and expensive shield¹⁸⁰.

In the past, issuers of quasi-world money were also obliged to use their reserves for the above scopes, under historically determined conditions, fully compatible with the analysis here. During the set-up of the euro, as we have seen, and again under a structured hierarchy, various interventions had to take place for the ERM to be

¹⁷⁹ Galati and Wooldridge (2008) consider that “[m]onetary authorities might hold an international currency to support their use of the exchange rate in their monetary policy framework, to intervene in foreign exchange markets, or to safekeep wealth” (p.2).

¹⁸⁰ Rodrik (2006) estimated the cost of reserve keeping from developing countries to 1% of GDP.

established by the participating countries. Shortly after its launch, in September of 2000, the ECB had to intervene, along with the monetary authorities of USA, Japan, the UK and Canada to support the euro against the USD. The ECB had to intervene again in November of the same year (Scheller, 2006). Lately, the Swiss National Bank had to intervene massively to withhold the revaluation of the franc against the euro, pegging it at the rate of 1:1.2.

10.3.2. Holders and forms

From the analysis above, we may conclude as for the holders and the forms of reserves. It has been shown that these two issues are interrelated in the sense that holders with particular characteristics are holding specific forms. Starting from the holders, these are distinguished vaguely in official and private ones. Actually, the central bank, starting from the status of a private holder among others, became gradually the trustee of the nation's reserves. In the current system, reserves are held in all levels, which include the individuals, the firms, the banks, the central bank and the supranational institutions, like the IMF and to a certain extent the ECB. In the anarchy of capitalism, the hoard that is the most organised and at the same time easy to command by the corresponding bourgeoisie and its political personnel lies in the hands of the central bank and that is the reason that these reserves were especially examined in this dissertation.

So, the distinction between officially and privately held reserves is actually a distinction between the central bank and all other holders, with the exception of the Eurozone, where the official reserves comprise of the reserves of the ESCB. In the years that followed the launch of the euro, there was no tendency for the ECB to become the trustee of the union's reserves. That is indicative of the progress towards monetary unification; behind the euro lurk the national quasi-world moneys, and especially the DM. We shall return to non-official hoarding below.

The holders are further distinguished between issuers of quasi-world money and non-issuers. The former are reducing their total reserves, while the latter are increasing them; the former are keeping mostly gold, while the latter are keeping mostly mother bonds¹⁸¹ of quasi-world money with the exception of Japan. This distinction is not a

¹⁸¹ It is reminded that the term "mother bonds" is introduced to capture the relation of these particular securities with quasi-world money. Mother bonds are state or state guaranteed securities of leading capitalist states that issue quasi-world money.

black-white one; it appears also in the corresponding group of countries with the issuer of the strongest quasi-world money, the US, leading the way, Germany and the UK following. Two weak countries of the Eurozone that have been examined, Greece and Portugal, were found to imitate the strong Eurozone country, outpacing in the above tendencies Germany, France and Italy. A strong argument of this dissertation is that the issuance of quasi-world money leads to, and is reinforced by, the diminution of the reserves of the issuer of this money and the rise of the reserves of others in this money. To this argument, the case of Japan fits well.

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. These observations should be combined with the analysis of the sources and destinations of hoards.

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 the 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 declared as 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 declared as 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 for 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). To the degree that 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 strength¹⁸² of their quasi-world money. As we have seen in chapter 5, indeed the US holds the least of all other issuers, while Japan appertain to a non-issuer. 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.

10.3.3. Unofficially held gold

Let us conclude this part with the role of gold as private hoard. In respect to non-central bank hoarding there is no reliable data in the international level, but gold is easiest to spot because of its indestructibility and the rigid legal framework in relation to its production and uses. It seems thus that 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). According to another source (WGC, 2010), unofficial gold reserves accounted for about half of above ground stocks in the 1960s, at the level of 38,000 tons. Kolloch (1983) argues that in 1981 private hoards consisted of 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, i.e. 1993-2000, and it averaged 240 to 380 tons for a selection of countries that are estimated to account for close to 90 percent 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 (2001) argue that 40 percent of private hoarding takes place in Europe, 16 percent in North America and 44 percent in the rest of the world.

¹⁸² 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.

WGC (2010) estimates total above ground stock, including all jewelry, at 165,600 tons or 5.3 billion ounces at the end of 2009. Out of these, the official sector and the bullion banks were estimated to be holding 18 percent and 17 percent correspondingly which amount to a combined stock of 58,500 tons.

The case of euro gold coins can only be meaningful in the framework of private hoarding, since all the features of their issuance makes clear that they were not made for, and they are not, commemorative items for collectors nor of course media of circulation. The fact that the euro gold (and silver) coins were issued with all the solemnity of legal tender can be explained as an attempt of the Eurozone countries to issue a concrete form of gold that would be competitive to most prominent ones like the Sovereign, the Krugerrand and the gold dollar. Recognizability of the coin from the corresponding authorities and markets would make easier its transformation into another form of money, most notably the banknote of quasi-world money.

In contrast to bullion, the gold coin is a concrete form that moves easier and therefore faster and more frequently. The reason is that the seal and the standards are easier to examine reducing thus the cost for transformation. It addresses the need for middle-term hoarding from individuals. In this framework, it is of no surprise that Britain's Royal Mint decided to restart production of gold sovereigns in India amidst the crisis (Crabtree, 2013).

The mobility of gold has generally risen in the crisis, as it would be expected. One aspect is the one captured in its extreme by Alcidi, de Grauwe, Gros, and Oh (2010): "in times of economic downturn or recession, people swap their gold jewellery for cash in order to sustain income" (p.4). Apart from jewellery, all other private gold hoards are mobilised. The other aspect is that of "cash"¹⁸³ moving away of circulation in order to become a hoard. This happens for many reasons that fit in the analysis above. Demand is falling and money in circulation becomes abundant in general and in the hands of the bourgeoisie in particular. More capital is held in cash for precautionary reasons by capitalists, payments are held back by everyone, re-investment is sluggish and there are huge international speculative flows, like the inflow in the world's vault, Switzerland. On top of these, there is extended issuance of quasi-world money under

¹⁸³ Modern cash is central bank credit money declared as legal tender in the concrete forms of banknotes and bank deposits; not necessarily quasi-world money.

the program of quantitative easing in the US, the UK and Japan that is hoarded to a great part by the banks in the form of deposits.

In short, poor and middle income people, workers, self-employed persons and others, are selling their gold possessions for cash, while capitalists and rentiers are transforming a part of their abundant cash in gold and another part is hoarded in quasi-world money. Therefore there is constant and lively hoarding from the upper classes and dehoarding from the lower ones¹⁸⁴.

In conclusion, in the crisis, the gold stock in the purely monetary concrete forms of bullion and coin is rising, but it is not easy to argue about the analogy between officially and privately held gold, since the official sector is also rising its gold stocks. Even more interesting than that becomes the actual location of gold as we will see below.

10.4. The appearance of the contradictions

The analysis of money, its functions and the relating forms has led 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. We have seen that the new form expands immensely the metal limits of credit money in the world market because of its particular seal of imperialist state, but bears the weaknesses of both its predecessors. From this proposition emerge all the debates and disputes that relate to the modern role of gold and the limits of quasi-world money.

Moreover, this proposition can explain the often perverse presentation of the issue in the last three decades. In other words, instead of examining the peculiarity of quasi-world money which comes from its historical imposition, in contrast to the internal evolution of the forms of money, all the focus is on the current role of gold. Even during this unprecedented crisis that is unfolding before our eyes, the theoretical examination of quasi-world money has not been seriously enriched. One may counter argue that the US dollar and the euro have become the epicentre of numerous debates and that is perfectly true, but these debates do not usually touch upon the form of money, but the issuer. In almost all of these debates, both the euro and the dollar are perceived as (inconvertible) paper money, fiat money, (international) reserve currencies and so forth, namely as something that either they are not or they cannot be.

¹⁸⁴ In good part, the dehoarding process is materialised by the “buy gold” shops and the hoarding process by the bullion banks.

On the other hand, there are debates that are only indirectly related to quasi-world money and they can be very informative. In this section, we shall follow some of these indicative debates that more or less explicitly revolve around the function of world money and the two main forms that satisfy it, namely quasi-world money and gold.

It should be noted beforehand that the debates are usually normative expressing various interests, sometimes well hidden, sometimes well understood. For example, the arguments that support an enhanced role of gold are usually coming from authors that are expressing the interests of the capitalists that engage in gold production¹⁸⁵. Data is often manipulated and results should be examined with great care. On the other hand, it would be a great mistake to reject this literature which is proven to be a great source of information.

The arguments are grouped in two broad categories, one that revolves around the golden form of money and one that is around the features and, especially, the limits of quasi-world money.

10.4.1. Modern debates around gold

In general, the debates that revolve around gold are related to the reform of the IMS and vice versa. This reflects the fact that gold is a form of money that pertains to the world market and the function of world money. The corresponding literature was in its heights in the 1960s. The collapse of Bretton Woods proliferated the various working groups that prepared for proposals and therefore published literature was eliminated; the issue was at stake and leakages could not be acceptable. After all, there was widespread unease and no one was easily risking a prediction. Finally, the second amendment of the IMF terminated the discussions, by precluding the use of gold in any national scheme of its member states. Article IV, Section 2 (b) reads

“Under an international monetary system of the kind prevailing on January 1, 1976, exchange arrangements may include (i) the maintenance by a member of a value for its currency in terms of the special drawing right or another denominator, *other than gold*, selected by the member, [...]” (IMF, 2011, p.6, emphasis added).

After the Second Amendment “gold was anathematised and no official role was henceforth to be allowed. Clearly this anathema has failed” (Ware, 2000, p.49). The scope of this section is to highlight the illusions, some of which persist until today,

¹⁸⁵ Weber (2003) also makes this point.

about the current role of gold. Moreover, it is intended to show the difficulty or inability to compromise that gold is another form of money, the best form of commodity money; that commodity money is the archetypal form of money that cannot be eliminated with any decree; that various forms of money are better or worse depending on the function they are called upon to satisfy; and that gold is unrivalled as hoard in general and as hoard of world money in particular. In the basis of this analysis lies the Marxist theory of value and the fact that gold is the best carrier of crystallised abstract value. Finally, note that all forms of money can potentially perform all functions of money and they do, from time to time and with more or less difficulties.

Examining the literature after the establishment of quasi-world money standard, the bulk of it recognises that there is some role for gold and attempt to grasp it. In the opposition, there is mostly meretricious indifference, while it seems that very few authors risk composing an argument against gold among which one may find Bordo and Eichengreen (1998), and Weber (2003). Bordo and Eichengreen (1998) went on predicting that “the future is not rosy for gold (as far as its monetary role is concerned)” (p.44-45) and they provided three reasons for central banks still holding gold. In particular, “[h]abit, network externalities and lingering statutory requirements have all encouraged the authorities to hold onto their gold reserves for longer than might otherwise be expected. [...] such sources of persistence tend to die out over time” (ibid).

At the level of press article, Gooding (1997) was risking the following which, at the time, seemed hardly contested: “Gold has always been more than a precious metal – men have even lost their lives for it. But no longer. Gold has fallen from favour and is now a mere metal and a bad investment”. Feldstein (2009) argues more modestly that “gold is a purely speculative investment”. Finally, Wolf (2010) is highly ironic towards Zoellick (2010), expressing the general resentment that emerges when a high ranked official of the international bourgeoisie¹⁸⁶ makes a non-conventional statement. Wolf’s reaction encloses also a threat – in his own words: “Whom the gods wish to destroy they first make mad”.

What did Zoellick say to deserve such a sharp rejoinder? The controversial quote is the following: “The system should also consider employing gold as an international reference point of market expectations about inflation, deflation and future

¹⁸⁶ It is reminded that Zoellick was, at the time president of the World Bank Group, while he had served at the US Treasury from 1985-88.

currency values. Although textbooks may view gold as the old money, markets are using gold as an alternative monetary asset today” (Zoellick, 2010). Zoellick, along with Mundell (2000; 2001; 2005), bring to our days the legacy of Zolotas (1981) which compromises with the inevitable¹⁸⁷ and attempts to reconcile it and, finally, manipulate it.

Zoellick should not be attacked so inelegantly. After all, the IMF has compromised with the presence of gold and in its site one reads that “[t]he IMF holds a relatively large amount of gold among its assets, not only for reasons of financial soundness, but also to meet unforeseen contingencies” (IMF, 2013; see also Kuhn, 2001). Since there is no further explication, both functions are used with opaqueness. One could presume that the first refers to some role of gold as a measure of value; while the second probably refers to the ability of gold to pay internationally, especially in combination with Article V, Section 12 (d) of the Agreement which reads

“The Fund may accept payments from a member in gold instead of special drawing rights or currency in any operations or transactions under this Agreement. Payments to the Fund under this provision shall be at a price agreed for each operation or transaction on the basis of prices in the market” (IMF, 2011, p.17).

The bulk of the modern literature about gold focuses on the exploration of financial soundness, in order to legitimize the holding of gold. In this line, Roache and Rossi (2009) make reference to earlier studies based on sample periods in the 1980s and 1990s that “confirm the conventional wisdom that gold is a hedge against higher inflation and economic uncertainty” (p.4). The argument that gold is acting as a hedge against inflation has been maintained by many authors and reports like Bernholz (2000), Jastram (2009), Alcidi, de Grauwe, Gros, and Oh (2010), Artigas (2010) and WGC (2010).

Weinberg (2001) stresses the observation of gold having very small or even negative correlation with all other assets classes which find their correlation between one another converge during financially unstable periods. Ferhani (2000) also points the liquidity of gold particularly in times of global turmoil or high global inflation,

¹⁸⁷ Anikin (1983) has a nice phrasing for the implied contradiction: “The driving out of commodity money by token money took many centuries. It was not a smooth, steady process, and it has not been completed even now, and *cannot be completed as long as capitalism exists*” (p.32, emphasis added). By “token money” Anikin means all non commodity forms, including fiat money, credit money and quasi-world money.

where gold is unchallenged. “Contrary to most other assets, gold prices go up when things really go wrong” (ibid, p.62).

Levin and Wright (2006), starting from the question of whether gold can be a hedge against inflation, find a long-term relationship between the price of gold and the US price level, with the two moving together, supporting the view that a 1 percent increase in the general US price level leads to a 1 percent increase in the price of gold. Similar researches have been made by Cappie, Mills and Wood (2005) who show that gold has been a hedge particularly against the dollar. Marzo and Zagaglia (2010) extend the previous work to consider the evolution of the pattern of volatility spillovers between gold prices and the dollar in the current crisis. On the other hand, O’Connor and Lucey (2012) reply that “[t]he significance of the negative relationship between gold and the value of the dollar then seems to be another pointer towards gold’s role as an international traded currency, rather than a way of explaining movements in the value of gold expressed in dollars” (p.16).

From the standpoint of the analysis here, and as it has been shown in the previous chapters, Anikin (1983) was unquestionably correct when he argued that “the nearest thing to gold seen *as money* are the central reserves belonging to governments or central banks” (p. 65, emphasis in the original).

Of course that does not preclude the function of gold in other areas. For example, in the WGC (2010) it is shown that “gold was used in the crisis as money” (p.15). In particular, the case of the Swedish Riksbank is mentioned who “relied on its gold reserves for liquidity at the height of the crisis, using gold to finance temporary liquidity assistance” (ibid). Other cases could be mentioned, like these of Mexico and Brazil in 1999-2000 (Kuhn, 2001; IMF, 2012e), and very lately, in 2012, India and China seemed to be considering buying oil from Iran with gold because of the US and EU embargo on Iran (Lakshmanan and Narayanan, 2012).

Let us close this section with a quite important detail that is accentuated by Bernholz (2000) who mentions the political risk of holding foreign exchange reserves. He reminds that “the US blocked all Swiss claims during the WW II. They even blocked Swiss gold reserves” (p.40). We have seen in chapter 8 that gold has been exiled for security reasons and that repatriation was not always untroubled. Ferhani (2000) considers security as the overriding quality of gold “as long as it is properly stored in

central bank's vaults" (p.61)¹⁸⁸. In other words, the location of gold matters a great deal. The IMF admits that by having clear provisions as for the depositories, favouring mostly the US, but also Japan, Germany, the UK and France.

"The Fund may hold other assets, including gold, in the depositories designated by the five members having the largest quotas¹⁸⁹ [...]. Initially, at least one-half of the holdings of the Fund shall be held in the depository designated by the member in whose territories the Fund has its principal office¹⁹⁰ and at least forty percent shall be held in the depositories designated by the remaining four members referred to above. [...] In an emergency the Executive Board may transfer all or any part of the Fund's gold holdings to any place where they can be adequately protected" (IMF, 2011, p.38).

Very recently Germany has announced the repatriation of its gold from New York, London and Paris where it was kept for decades (DB, 2013). "The share of foreign holdings is now down to about 70 per cent following a large, yet secret, transfer of gold from its account at the Bank of England to Frankfurt a decade ago" (Steen, 2013). Germany is not the first country that will repatriate its gold from the main gold vaults in New York and London. We have already mentioned the cases of Venezuela and Iran.

The timing of the repatriation of the German gold is definitely not coincidental and it should be related to the ongoing capitalist crisis in the EU, but also in the US and the UK¹⁹¹. The announced transfer reflects both the estimation that gold will probably be called upon to act as means of payment soon for the interests of the German bourgeoisie and the lack of confidence that it will be released from the gold keepers if this time comes¹⁹². This transfer will confirm once more the estimations of chapter 4 for a leading country like Germany this time. With these remarks in mind, it is time to turn to quasi-world money and its limits.

¹⁸⁸ Ferhani (2000) is so obsessed with the idea that the central bank must have actual control over gold that he is strongly opposed to gold lending. He says that "[g]old lent in the market is different by nature from the gold which is held and stored. In particular, there is the question of how the market could accommodate a significant recall of gold lent. This is specifically the case for gold lent to the jewellery sector and to fabrication as a whole: it has undergone physical transformation and might not be as available as it seems" (p.65). It is reminded that Hervé Ferhani was the head of the foreign exchange division of the Banque de France.

¹⁸⁹ These are, in descending order, the US (17.7 percent), Japan (6.6 percent), Germany (6.1 percent), the UK and France (4.5 percent each).

¹⁹⁰ That long phrase describes Washington, DC.

¹⁹¹ The rationale provided by the Bundesbank itself (BD, 2013), as well as the analysis in the press, are weak in explaining the timing of the transfer.

¹⁹² "[...] the move will undoubtedly raise eyebrows in the staid world of central bankers, who are acutely sensitive to any suggestion of a lack of trust in them – especially from other central banks" (Lawton and Buell, 2013).

10.4.2. The limits of quasi-world money

In the frames of the current crisis there are many headlines in the newspapers and the literature that refer covertly to, or emerge from, the limits of quasi-world money although the form is not recognised as such and in most cases it is confused with fiat money. Selectively, we may refer to the “currency wars”, the “fiscal cliff”, “Quantitative Easing” (QE) and the “Eurobond” debate. The first refers to the competition between the issuers of quasi-world money; the second relates explicitly to the US dollar; the third concerns, apart from the US dollar, the British pound and the Japanese yen; finally the Eurobond is related, of course, to the euro.

It is not intended to present all the arguments around these debates since that would demand insufficient space. After all, these debates are not exclusively about quasi-world money and in order for them to become apprehensible in a context similar to that adopted here, the study of other fields would appear necessary, including international relations, trade and law. What is interesting though is to grasp some common features of these debates that reflect the fundamental limits of the new form of money. These limits are mostly related to all three of its components, namely credit money, legal tender and particular issuer, and in their interrelation.

From one point of view, the most revealing of the four is QE which is a policy pursued by three major quasi-world money issuers, but not the Eurozone. Two remarks can be made here. First, although this is a purely internal policy, issuing money and pouring it in the domestic banking system, it can be pursued only by a quasi-world money issuer, since all other countries that did so in the past were led to the abjection of their national legal tender. Money under QE is issued in the concrete form of bank account and it is mostly hoarded. Yet, the reason that all three quasi-world moneys were not contested as such because of their QE policy is not that new issuances were hoarded, but because they are exactly quasi-world moneys and credit expansion is a natural feature of this form. The fact that the money was hoarded and thus the expansion was blocked should be sought to the jam of capital in the crisis or, in other terms, the lack of investment opportunities.

Second, the fact that the Eurozone cannot follow suit reflects an inherent contradiction of the euro that has been discussed in the previous chapter. The euro is a peculiar quasi-world money that does not have a leading capitalist state behind it, but many; its issuing bank is not a proper central bank, for the ECB, by construction, is

neither the bank of the banks nor the bank of the states. That is not a mishit in the design of the euro; it is simply the reflection of the existence of seventeen competing bourgeoisies behind the euro with unequal powers that come into compromises as frequently as they break them. Moreover, the fact that the ECB pursues austerity policies instead of QE is not an issue of different perspectives between a hardcore liberal German leader and alternative semi-Keynesians Anglo-American-Japanese leaders, far from that. Should Germany and France be issuing their own quasi-world moneys, they would have followed more or less modest QE policies.

This issue is closely related to the Eurobond discussion, although here things are even clearer. The mother bonds of the euro, i.e. the securities through which the euro returns to its issuer(s), are as many as the member states. Well, after the outburst of the crisis they have started diminishing in number, since Greece's ability to issue these mother bonds was highly contested and severed. The fact is that, even before the crisis, there could be no such thing as a Eurobond because all the member countries should stand behind this bond as one; and they were never one. Germany is very much aware of this and rejects the project because she understands that in the occasion of a series of failures, she will be called upon to carry the burden.

The contradiction that has arisen from the crisis for the Eurozone bourgeoisies resembles that of the crisis of 1929 for the international system. The euro is deficient because it is not a proper quasi-world money and for that to occur the political unification should advance; the merge of national fiscal policies should be imposed along with the merge of the national bourgeoisies and the emergence of a multi- and supra-national elite. At the time that this process of merge and collaboration is needed for European based capitalists more than ever, they turn to their national states to lead the competition of one against the other. All plans about the European constitution have been set aside, all summits of the Eurozone have become battlefields and the alleged equality of all members has been substituted by the gradual formation of various structures that are led by Germany and France.

This contradiction cannot be solved permanently in the current context and only postponements will be available, like the measures described in chapter 9. It should be noted though that, up to 2012, these delays make the contradiction even more pressing. Apparently, there are two permanent solutions to this problem that arise from the analysis here; one is that the euro breaks and national quasi-world moneys re-emerge in the area. In that case, gold will be called upon to play a significant role in the set-up

of (new) national central bank credit moneys with legal tender. It is of secondary importance from the point of view of this dissertation whether subgroups of the Eurozone will join to issue a misprint of euro or whether each will march its own way. In all cases, competition will rise between the issuers since, most probably, the ERM will not hold. The other solution could be the complete political unification of the Eurozone members, or at least of their majority, through violence, economic or even territorial acquisitions and, eventually, war.

It is apparent that the leading interests supporting the euro, in their attempt to avoid the first solution, buy time so that they impose the second with the minimum political cost. If the Eurozone countries manage with some magical way to overcome the crisis without breaking their monetary compromise, the issue of political unification will be imposed with very good terms, for those who will have survived. Nevertheless, even if the euro breaks, the form of money will be totally unbroken. This will not be a crisis of quasi-world money, but a capitalist crisis in which a peculiar and evolving quasi-world money didn't make it, exactly because it was peculiar and evolving.

On the other side of the Atlantic, the US faced a peculiar constraint in the issuance of mother bonds. Its ability was contested quantitatively speaking, namely the US as a proper quasi-world money issuer may issue mother bonds of that money and be certain that they will be sold, allowing quasi-world money to come back home at a time that it is needed. To that credit expansion, the US itself had put a limit that was equal to the GDP of the country, as if the GDP of one year would be liquidated and exchanged for the US debt in a prospective bank run. Anyway, for various reasons that escape the scopes of this chapter, the US set a limit to herself that she has now reached and that she has to push further. To that, the Republicans object having also expressed openly their support to the gold standard (Harding and Fifield, 2012). That is the essence of the fiscal cliff debate in relation to money.

As we have seen, the fundamental contradiction that leads to the emergence of quasi-world money is the insatiable need for international credit expansion, on the one hand and the finite metal barriers in the world market, on the other. The fiscal cliff debate reflects this contradiction in a perverse manner. More generally, this debate resembles the Triffin dilemma in a modern version where the obligation to clear the foreign held dollars is not measured against the US gold reserves, although not surprisingly gold appears in the scenery in a parallel debate about the IMS.

Essentially, the problem now is that the US reached the legal limits in the contingency of the crisis. Otherwise, Japan has reached a ratio double of that of the US but no fiscal cliff burst there. It is apparent that the two sides are representing different and opposing interests, but this field of confrontation is fertile. Further debt issuance is possible and will take place anyway, either through T-bills or through the issuance of a trillion-coin. That doesn't mean that credit expansion will inevitably follow.

This argumentation brings us to the issue of the currency wars (CW). After all, the dollar, the pound and the yen are proper quasi-world moneys, allowing for policies like QE and the continuous issuance of mother bonds, but that does not shield them from competing one another. On the contrary, these policies are actually triggering the CW. Burgis (2013) describes CW as follows.

“In times of economic malaise, it can be tempting for a country to engineer a devaluation of its currency to encourage domestic and foreign demand for domestic production. The problem with such an approach is that it amounts to exporting unemployment by artificially making one country's manufacturers more competitive than others”.

As a matter of fact, this presentation is not accurate. “In times of economic malaise” this feature of the quasi-world money standard becomes intolerable, true, because it squeezes the already tidy profit margins, but it is not a policy pursued only in the time of crisis. After all, interventions for the manipulation of the exchange rate are perfectly legitimised. The appearance of the CW is reflecting the underlying debate that revolves around the reform of the IMS and the establishment of one quasi-world money, so that the above policies cannot be pursued unilaterally.

It should be noted in advance that in this discussion voluntarism prevails. Most authors make the assumption that the reform of the IMS is a matter of decision of countries, lobbies or both, on the basis of some interest and irrespective of necessities inherent to the system. The view that there are objective laws governing the form of money underlying the IMS is totally estranged to them. This approach leads quite often to the hypocritical equalisation of all countries, issuers and non-issuers of quasi-world money. Schmukler (2006) has a typical phrasing of this kind. He argues that “[t]he debate about a world currency is part of a larger debate on whether countries should fix or float their exchange rates” (p.36)¹⁹³. Cooper (2006b) argues that the “rich

¹⁹³ Later on he has to drop both assumptions, namely voluntarism and equalisation of countries, at the same time. He argues that “[d]eveloped countries do not need a fixed regime to gain credibility and are unlikely to enter into arrangements with developing countries” (p.39).

democracies”, namely the major capitalist states, should willingly move on a “common currency” ending thus monetary competition among them.

Zoellick (2010) will be quoted once more because just before his controversial proposal about gold he claimed that “the G20 should [...] plan to build a co-operative monetary system that reflects emerging economic conditions. This new system is likely to need to involve the dollar, the euro, the yen, the pound and a renminbi that moves towards internationalisation and then an open capital account”. This proposal is qualitatively different from the above and respects the “emerging economic conditions”. It also seems to understand the nature of quasi-world money standard which is based on all the existing and emerging quasi-world moneys¹⁹⁴. The essence of the proposal is a new global compromise that would anticipate the spread and deepening of the crisis. The compromise is mostly on behalf of the US and that justifies the sharp rejoinder by Wolf (2010).

Zoellick seems to be expressing the necessity of the long term well-being of capitalism. Yet, the G20 and the like summits do not have as their primary scope the well-being of the capitalist system; rather they appear as well defined arenas, where the game dogs may fight, sometimes up to, usually political, death. At the end of the day, all reforms appear as the result of a unilateral or multilateral decision, but who believes today that the Bretton Woods collapsed out of a Nixon’s caprice? Nixon’s proclamation, as well as the second amendment of the IMF agreement, were examples of validation of the burst of historical contradictions. If one would like to examine the prospects of the quasi-world money standard, one should turn to the contradictions that torment it today.

10.5. The prospects of the quasi-world money standard

To begin, one should distinguish between the prospects of a quasi-world money and those of the corresponding standard. The eventual collapse of the euro most probably will not lead to a contest of the standard itself; rather, it will enhance it through the strengthening of the US dollar. From the preceding analysis the prospects of a quasi-world money depend on its ability to exit the borders of the major capitalist country

¹⁹⁴ Some authors argue explicitly or implicitly that there is only one real quasi-world money, or that only one will prevail, in particular the US dollar, and they mistakenly adduce the case of bimetallism (Persaud, 2004; McKinnon, 2005). “The upshot is that the world is in a financial trap from the operation of the international dollar standard” (McKinnon, 2005, p.482).

that is issuing it. Equivalently, a quasi-world money will not be contested as long as its issuer is a major capitalist state¹⁹⁵.

If this is the case, the US dollar will not be contested if the US is following QE policies, or if the US extends the legal upper limits up to which she is able to issue mother bonds and borrow. These are normal functions or basic benefits of the dollar being quasi-world money. Therefore, the practice of these functions will not destroy the US dollar, but it will strengthen it, *ceteris paribus*.

On the other hand, there are other processes that may shake the position of the US dollar in the pyramid of the current IMS, dethrone it or even destroy it. One of them is the hoarding of quasi-world money from the US banking system. The problem is not hoarding as such but the implication that export of capital is blocked. To the degree that this is the consequence of a general reduction of the export of capital by all issuers, the status of the US dollar is not expected to be harmed.

Another process revolves around the pricing of the basic materials in the world market, predominantly oil, and the chosen means for its payment. India's choice to pay Iran's oil by gold, if it is implemented, will be the first step for Iran's oil to change denomination. Most probably, the new price will not be in ounces, but in a third quasi-world money. If China follows India's example and also exports capital to Iran as much as she does to other countries, it will be of no surprise to see Iranian oil denominated in yuan. The issue is not if this is going to happen, since the US may avert this evolution either through the abrogation of the embargo, or through war, as in the case of Iraq. The issue is that the tendency is existent. Hoarding of US dollars in the US will drain the world market from one of its basic moneys and will help others strengthen, get established or emerge.

The export of money from the US though is dependent upon the available channels that have been discussed in chapter 8. The crisis inevitably limits some of them. Among them, one may find the imperialist wars and the relating flows of money. The US has been exporting money through this channel in the last ten years to many countries among which one may find Iraq, Afganistan and Colombia. Direct transfer of money to the occupied country in the form of loans, aid funds or bribes, maintenance of tens of thousands of soldiers, US multinationals of all kind ensuring the best

¹⁹⁵ For the discussion on the characteristics and definition of imperialism and imperialist country employed here, see chapter one.

contracts, securing the denomination of oil and drugs correspondingly, are the main processes that (re)establish the prominence of the US dollar as quasi-world money through wars. The continuation of the imperialist wars is a necessity of capitalism and enhances the money of the conductor of these wars.

The latest such war though, as of February 2013, was the one in Mali where the French state was leading the way. The European imperialists are trying to keep up, like in Yugoslavia at the turn of the century and in the countries of North Africa lately. These interventions reveal the particular weakness of the euro. It might be the case that all Eurozone countries are supporting the military operations in question, but there is clearly a leading state in each occasion, and the corresponding capitalists are taking the lion's share. There is no European army and no common foreign policy, although attempts have been made for both. At the end of the day, the only compromise that could be made was about the formation of a striking force against the movement internally. What matters for the analysis here is that the Eurozone countries conduct wars as countries and not as Eurozone.

It has already been argued that the fundamental contradiction of the euro is that it is functioning as quasi-world money without having accomplished the necessary preconditions. Therefore, it would suffice to repeat here that the euro will either collapse in front of the inability of the Eurozone countries to complete the unification process that will provide them with a European constitution, a real European parliament that will represent the European bourgeoisie and a real central bank that will be the bank of the federal European state and of the banks that are based on the territories of that newly found state; or, these preconditions will materialize and the euro will emerge as a proper quasi-world money. That is a contradiction that may take years to burst into a solution, although the current crisis seems severe enough to impose one solution.

From this discussion, one may draw conclusions as for the IMS as well and the possibility of one, common (quasi-)world money. That money should be issued by a world central bank of a world state that doesn't exist. A short comment follows as to whether there is tendency towards that direction. In these lines, Triffin goes one step further, not only arguing that a world state is a precondition for a world central bank, but also that this state is needed for the given level of development of the capitalist economy, and in order to push the latter even more.

“We [the Western world, GL] have now resumed, at long last, the same evolution which erased the medieval borders of duchies, counties, and

principalities to merge them into the national states of modern times. National states – at least all but the largest ones – are as obsolete today as the duchies, counties, and principalities of yesteryear. They will be merged some day into a world community, [...]” (Triffin 1966, p. 95).

The world state would signify, as simple the issue can be put as possible, the abolition, or at least suppression of the national bourgeoisies and the establishment of a supranational one and at the same time the downwards unification of the proletariat accompanied by the proletarianisation of huge masses of the world population. It is therefore a multi adversative process, which, at the end of the day cannot occur through a charter act. It is not an issue that can be politically imposed if it isn’t incumbent upon the economic evolution¹⁹⁶.

In his influential book of 1916, *Imperialism, the highest level of capitalism*, Lenin argued that capitalism cannot grow symmetrically. He called that property the law of uneven development. The law is based upon the pursuit of profit in the age of the monopolies. The latter, controlling directly or indirectly their national states, move towards splitting the world, and not merging it. This is a process of antagonism, where one is contesting against the position of the other and the outcome is a redistribution of economic power and market shares (Lenin, 1964). It is a process that produces the imperialist wars that we have seen.

What will happen remains to be seen, especially in the following years that the current crisis will be somehow concluded. What we already know is that the evolution of the quasi-world money standard is condemned to be marked by the competitions and the consequent compromises of the issuers of quasi-world money, the establishment of such moneys in the making, the emergence of new ones and the demise of obsolete ones.

Turning to gold for a last time, the current crisis has proven that discussing its abolition as money leaves the metal stonily cool. Mundell (2005), one of the few authors who propose a role for gold in the future IMS, claims that gold cannot be in the heart of the IMS because it is not enough for the world GDP or trade. In reality, gold is not enough for the necessary total credit expansion, irrespective of the particular sources or the destination of that expansion; gold is the absolute metal barrier of that expansion. I have argued that the preciousness of gold as money rises to the degree that

¹⁹⁶ “Similar limitations on any ideal pattern of international economic institutions are likely to remain with us as long as *political and administrative difficulties* make it utopian to contemplate a merger of national sovereignties into an effective world government” (Triffin 1966, p. 87, emphasis added).

the distance between credit expansion and new metal production rises, notwithstanding the rise in the velocity of credit money and the efficiency of clearing. This rise in its preciousness leads gold deeper in the earth, even further from people's eyes and hands. Gold's tendency, as a form of money, was described best by Triffin (1960, p.89; see p.104 above), albeit as an absurdity. And indeed, in terms of human resources, it is an absurdity to dig gold for the sole purpose of reburying it as deep as possible. I cannot escape a short reply to Triffin's sincere indignation: *c' est la vie, Monsieur Triffin*, capitalism is absurd.

Mundell (2005) searches for an alternative anchoring role of gold since he grasps that a return of gold as a basis of the IMS should be precluded unless a huge, unprecedented destruction of capital takes place. That destruction would occur only in the occasion of a generalized imperialist war. Nevertheless, gold could temporarily return in the concrete form of gold coins in one country after a local severe destruction of capital. Moreover, gold will be the basis of any new and emerging quasi-world money in the form of hoarded gold bullion. Gold reserves will be used as such for various payments in the course of the current crisis that will reshuffle the list of greatest gold holders. But even if gold has to appear in the daylight for a moment, that will be only for it to return more intimately in the dark, in vaults deep inside the earth. In general, gold will be always tormenting capitalism with its bodily form.

The quasi-world money system cannot remain as it is due to the pressures from the crisis which unveil all the underlying contradictions. There are two strong arguments with which I would like to conclude my dissertation. First, the only way to adjudge as for one form of money or another, their emergence and future, along with the systems which are based upon them is to study their inherent contradictions as forms of money. Second, in our case, and in all eventualities, the form of money in capitalism responds always to the necessities of capitalism and not to those of the working people; and the two are in polarity.

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Appendices

Appendix I. Complement to chapter 5

For the purposes of chapter 5, the following variables were considered necessary:

1. The official reserves of the selected countries, disaggregated by form as detailed as possible and denominated uniformly
2. The world reserves
3. The GDP of the selected countries, measured and denominated uniformly
4. The imports of goods and services, seasonally adjusted, measured and denominated uniformly
5. The foreign direct investment, measured and denominated uniformly

Data was taken from the IMF (2012a; b; c), the ECB's Statistical Data Warehouse (ECB SDW, 2013) and national sources (MOFCOM, 2013). The IMF's database is considered to be the most complete and extended in variables and in time. Nevertheless, various decisions should be made in the selection of the provided variables and occasionally the series should be completed or substituted when the quality of data was not satisfactory. Finally, 45 tables were constructed, from which 44 figures were extracted. Some general notes find their place here and, when necessary, additional comments accompany the corresponding figures.

In relation to the official reserves of the selected countries, these were taken from the International Investment Position (IIP) of the Balance of Payments Statistics (IMF, 2012a) provided in the following five forms:

- Monetary gold,
 - in fine troy ounces
 - estimated in USD
- Special drawing rights
- Reserve position in the IMF
- Foreign exchange
- Other claims

The monetary gold form exhibits the most severe difficulty because of its denomination. The unease with which the IMF treats gold is highly indicative of the

objective underlying problem. Specifically, the IMF provides data for official gold reserves in various forms, leaving the choice to the user. The confusion gets even deeper because the IFS doesn't provide one variable per country, which is total reserves with gold at market prices, while it does provide the same variable for the whole world (IMF, 2012c).

The natural measure of gold is weight and therefore we have series for all countries in fine troy ounces. Nevertheless, this way gold is not comparable and additive to the other forms. It should be translated to quasi-world money and without breaking ground, the US dollar was chosen. The difficulty now is the following: central banks use different principles for their gold; most of them apply the historical cost of acquisition which is readjusted whenever there is a transaction in gold; the US uses the last officially assigned and guaranteed ratio of \$42.22 per ounce; the Eurozone countries, especially after the introduction of the euro, apply the mark-to-market principle. In the IIP, gold is registered according to the reporting nation's principle and that is problematic both for reasons of commensurability and because gold would be either undervalued or overvalued, but only by chance in accordance to its market value. Further, the series of IIP were in most cases, even for the major capitalist countries incomplete while there is very good data for the gold holdings from 1948 for most countries.

Therefore, it was considered better to substitute the series of monetary gold of IIP (Code: 8812..¹⁹⁷) with the product of the series of the gold reserves in millions of ounces (.1AD.ZF) by the London dollar rate with gold (.C..ZF). Alcidi, de Grauwe, Gros and Oh (2010) argue as well that the best gold price index is the London pm fix. Both series are taken by the International Financial Statistics (IFS) (IMF, 2012c).

A secondary problem developed with the foreign exchange series of the IIP. For some countries, the series of the IIP was much poorer for some reason compared to the available series of the IFS. In these cases, the IFS series was used.

The last issue concerning the reserves is related to other claims that might be against the fund that were set for the ECU, or some other supra-national institution. They are very small though in all cases and they can be easily omitted.

It is self-evident that after these changes, total reserves were re-estimated as the sum of the subseries.

¹⁹⁷ For IMF codes, see <elibrary-data.imf.org/Contents/FindConceptsforCodes.xlsx>

The world reserves series was taken from the “total reserves with gold at market prices” series of the IFS. There is little control of the quality of this series and what is included or excluded but since it is a common denominator the damage that can occur is limited. Moreover, since gold is included in market prices, the change in the series of the IIP makes the ratios more relevant.

For the variable of GDP, I chose the series (99B.CZF) of the IFS, which corresponds to nominal GDP (expenditures approach) in national currency, seasonally adjusted. All variables should be current and nominal anyway, so the only problem that is posed by this variable is to select a proper exchange rate for all countries but the US. For this reason the (.AH.ZF) series was chosen. It is the only period average exchange rate, which was preferred to end of period rates that could be misleading. This series was used for all other series that were in national currency.

For the imports of goods and services, I used the (98C.CZF) IFS series which is taken from the national accounts (expenditures approach) and is seasonally adjusted, nominal and in national currency. The series was divided by 12, so that it provides us with the imports per month.

Finally, most of the problems are related to the FDI index. For all countries, even for the US, the relevant series begins much later than the others and no earlier than the late 1970s. Yet, that could be tolerable if the series was not often broken while for some countries data is provided for very few years, like the case of Brazil, where FDI is provided for 10 years, from 2001 to 2010. The corresponding series of the IFS, which is the best compared to relevant series of the OECD or the World Bank, is (79LBDZF) and represents end of period stocks of accumulated direct investment in the reporting country, in US dollars. For this index, additional sources were sought and occasionally used, although only in the case of China this substitution was satisfactory. The issue is discussed below under the corresponding figures.

There follow the 44 figures and the one table that have been used for the writing of chapter 5. The corresponding tables are available upon request.

I.1. Allocation of world reserves

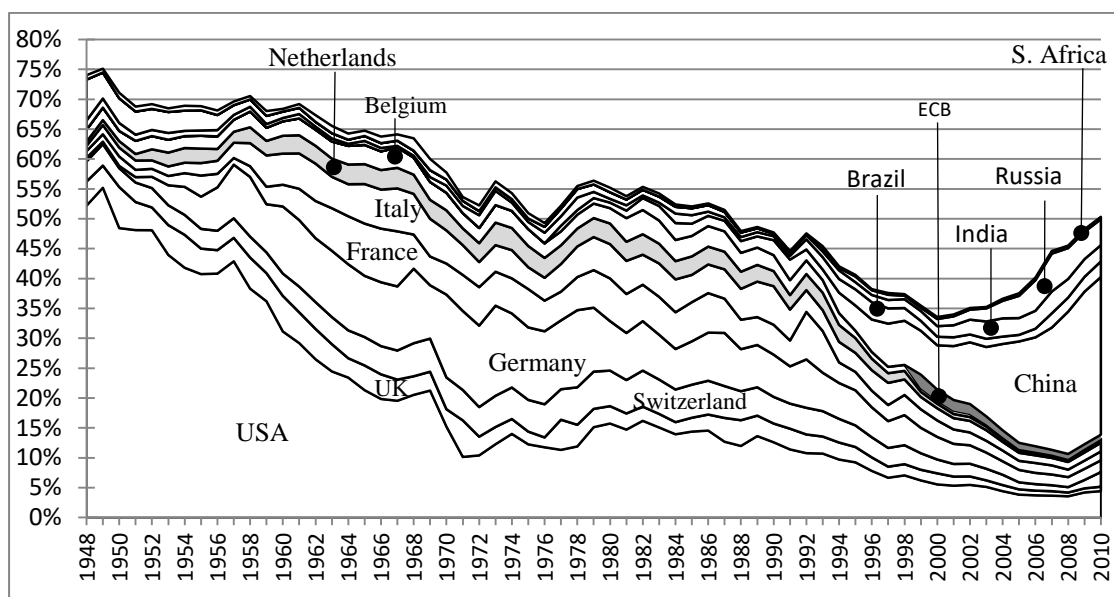


Figure I.1 Share in world reserves, all forms, 1948-2010, selected countries. Source: IMF, 2012a; 2012c; own calculations

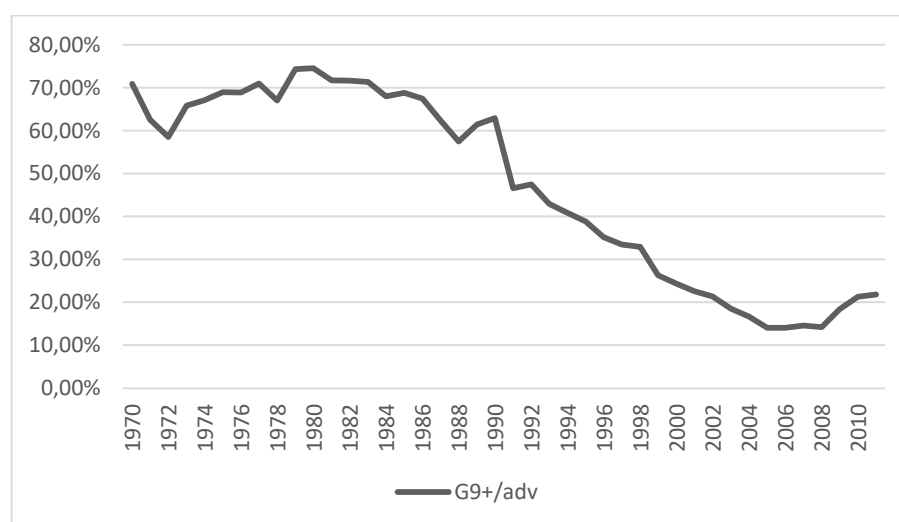


Figure I.2 Share of G-10+ minus Japan total reserves minus gold, in the total reserves minus gold of all advanced economies. Source: IMF, 2012c; own calculations.

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

For table 1, the data comes from IFS (IMF, 2012c) total reserves minus gold (.1L.SZF), which is measured in SDR. I used the exchange rate (..AA.ZF) to transform the series in USD.



Figure I.3 The rate of gold in USD, 1948-2011. Source: IMF, 2012c.

I.2. Major capitalist countries

USA

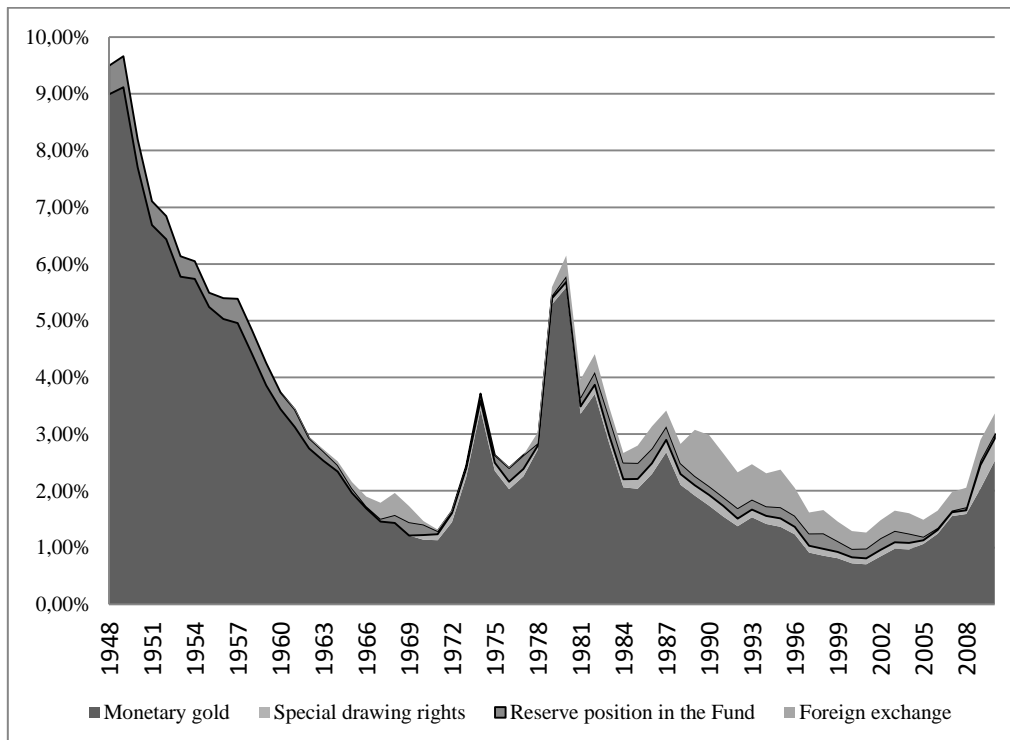


Figure I.4 Official reserves of USA as a share of GDP, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

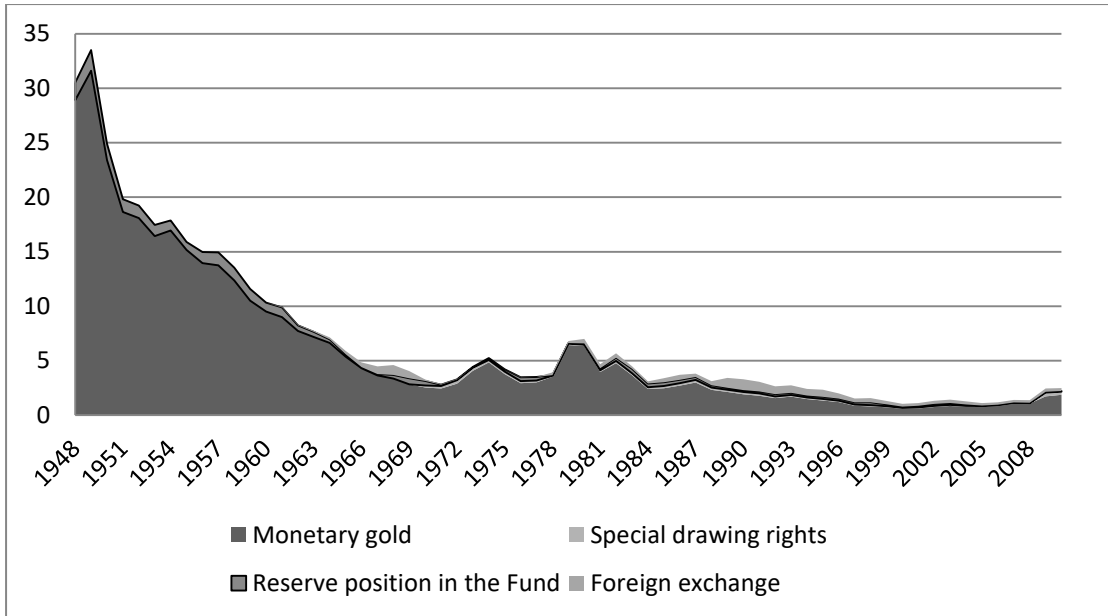


Figure I.5 Official reserves of USA in months of import, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

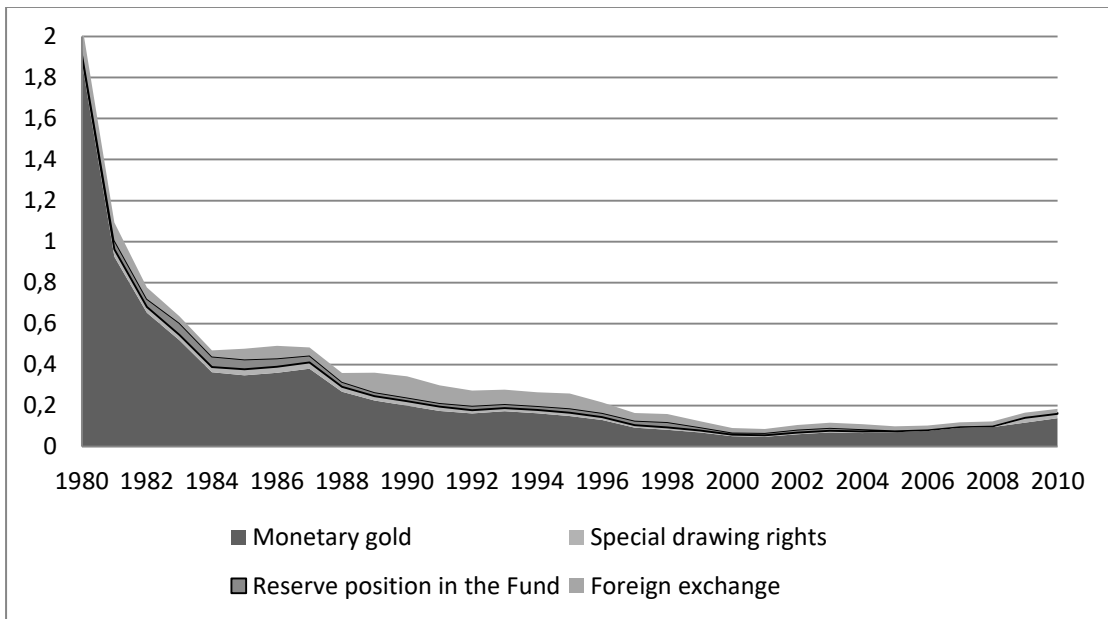


Figure I.6 Official reserves of USA as a share of FDI, by form, 1980-2010. Source: IMF, 2012a; 2012c; own calculations.

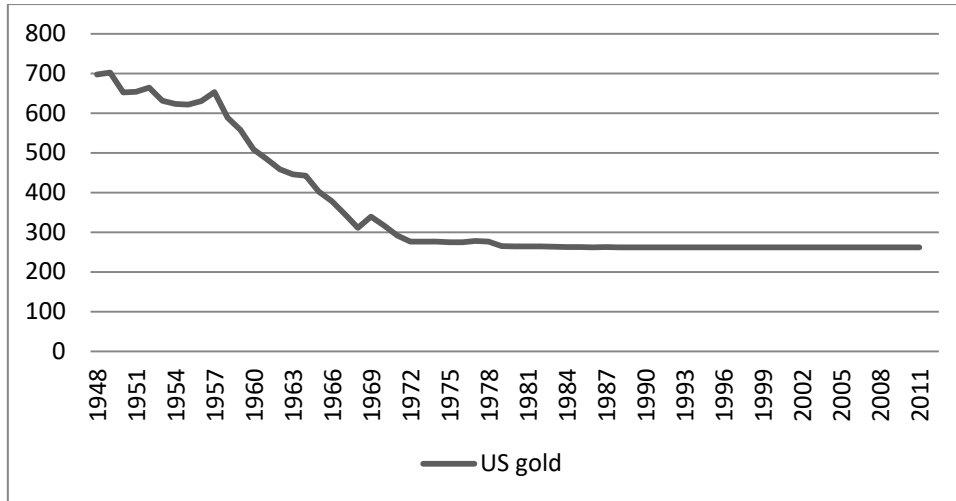


Figure I.7 Gold reserves of USA, in millions of fine troy ounces. Source: IMF, 2012c.

UK

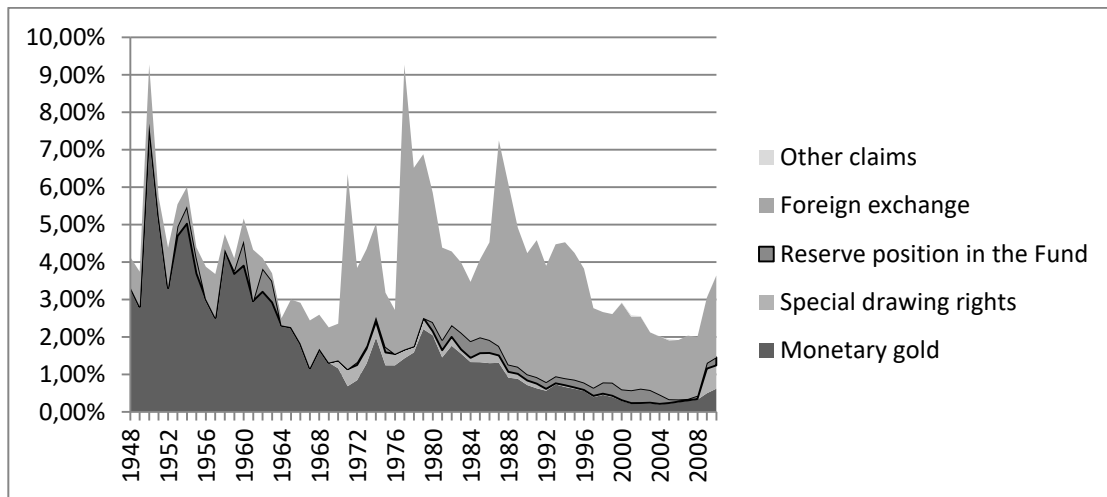


Figure I.8 Official reserves of UK as a share of GDP, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

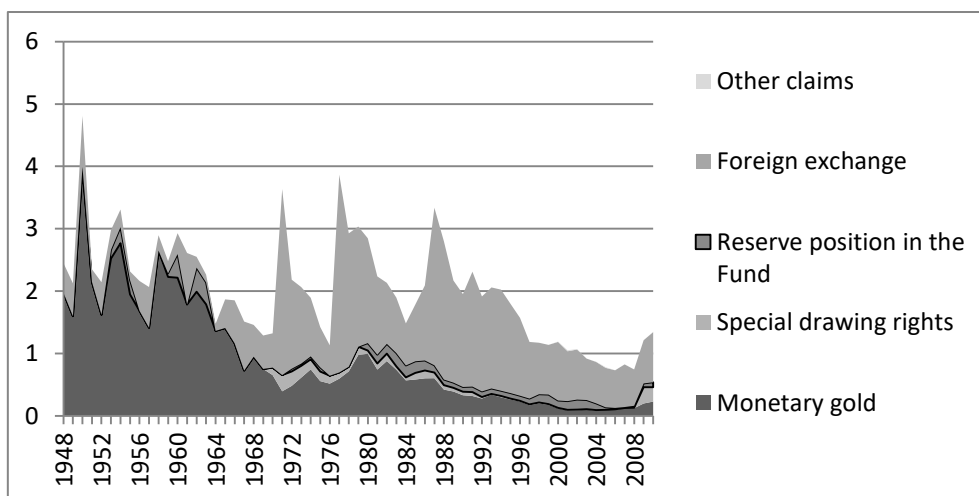


Figure I.9 Official reserves of UK in months of import, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

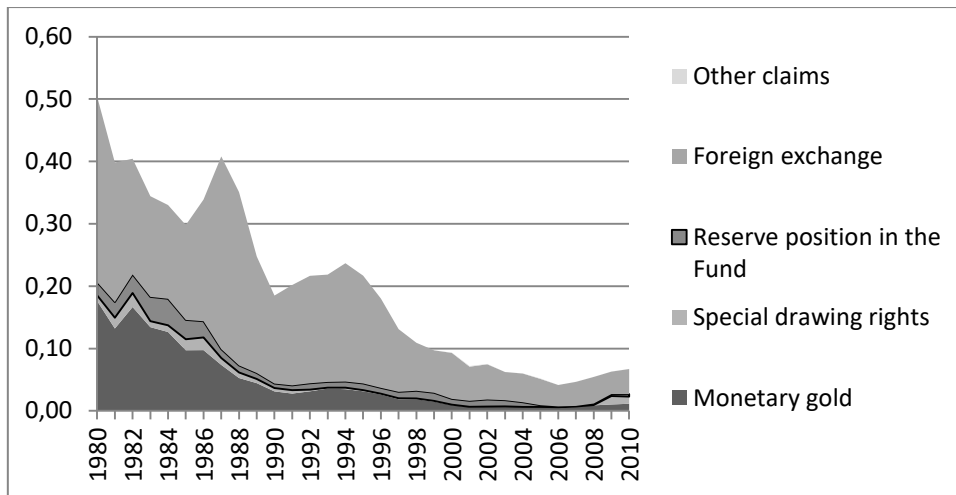


Figure I.10 Official reserves of USA as a share of FDI, by form, 1980-2010. Source: IMF, 2012a; 2012c; own calculations.

Switzerland

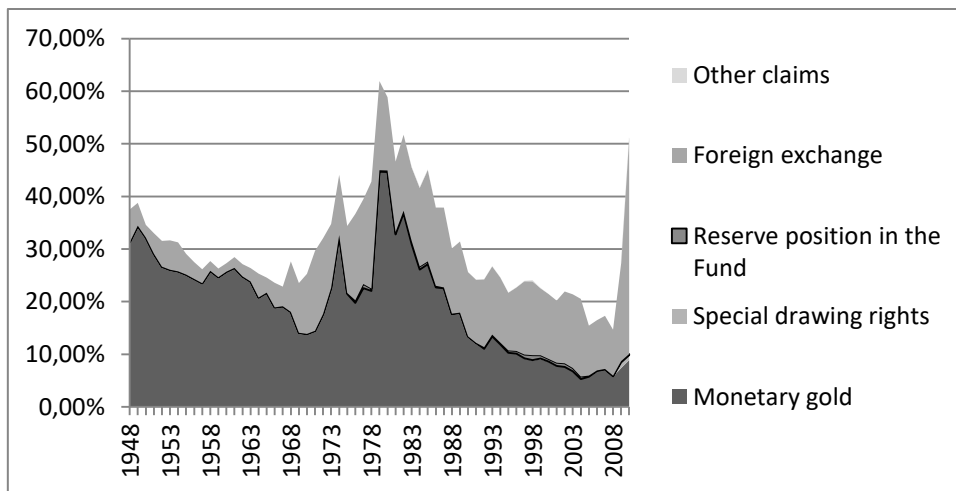


Figure I.11 Official reserves of Switzerland as a share of GDP, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

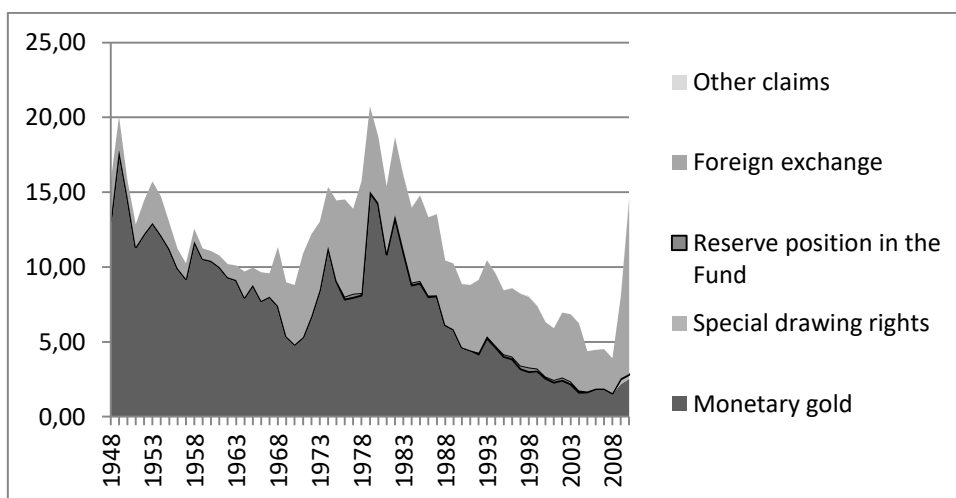


Figure I.12 Official reserves of Switzerland in months of import, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

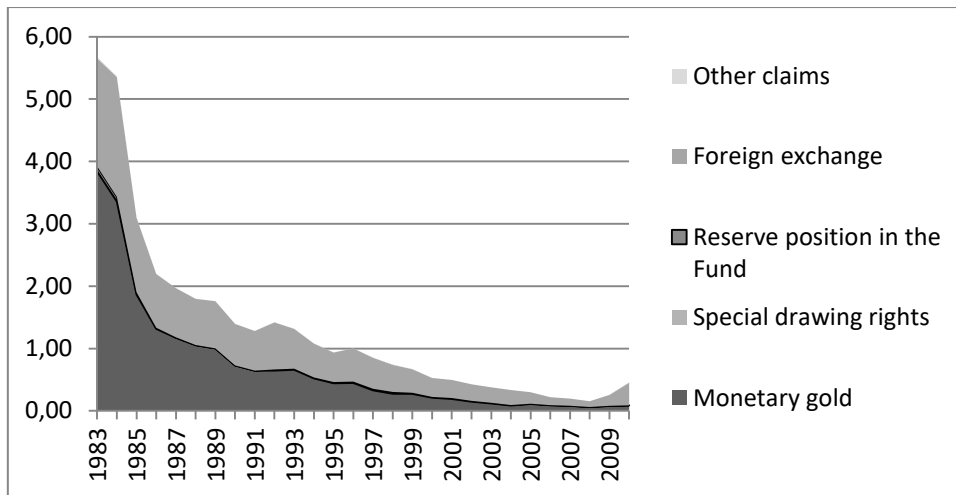


Figure I.13 Official reserves of Switzerland as a share of FDI, by form, 1983-2010. Source: IMF, 2012a; 2012c; own calculations.

Germany

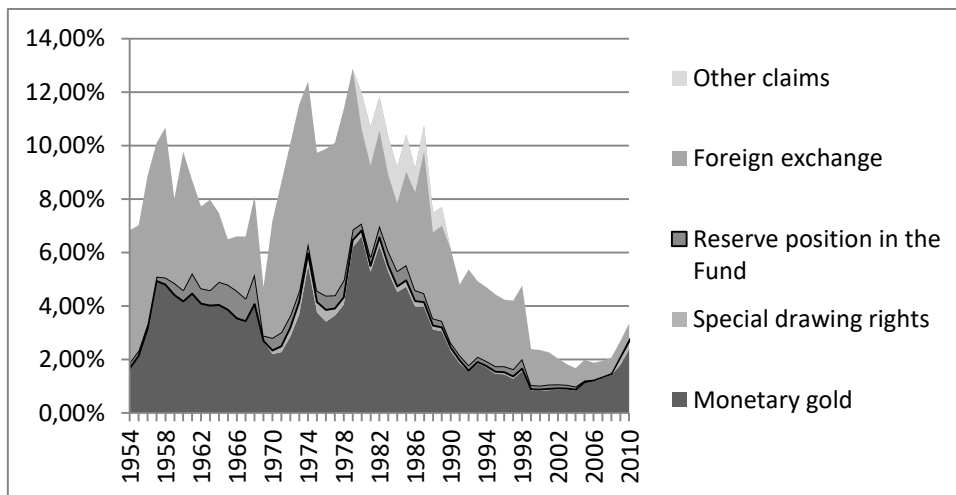


Figure I.14 Official reserves of Germany as a share of GDP, by form, 1954-2010. Source: IMF, 2012a; 2012c; own calculations.

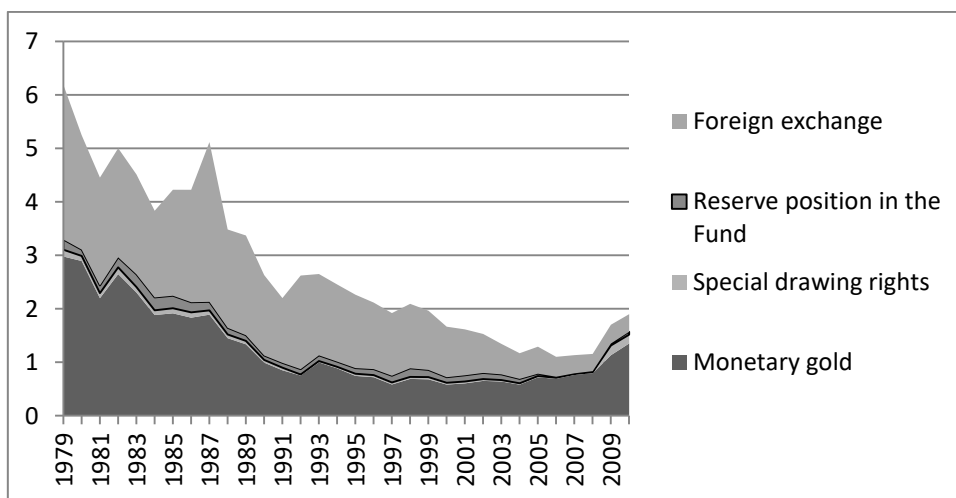


Figure I.15 Official reserves of Germany in months of import, by form, 1979-2010. Source: IMF, 2012a; 2012c; own calculations.

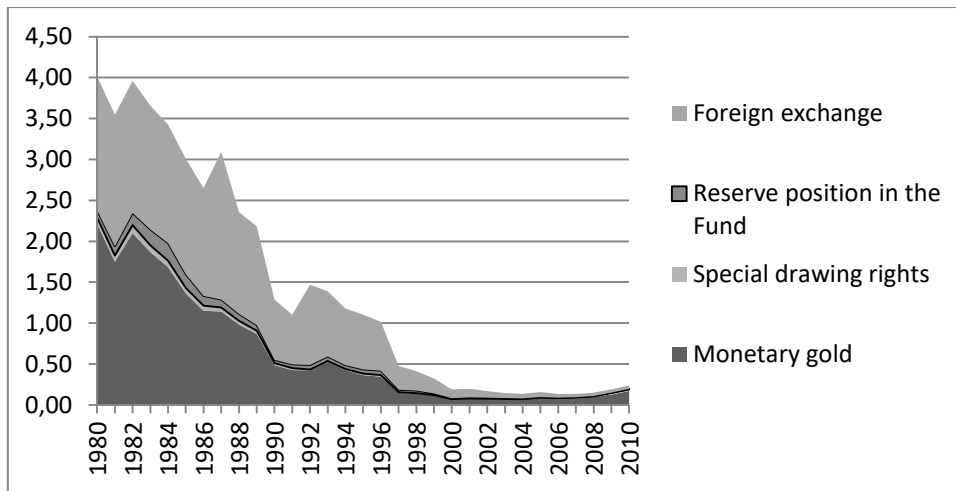


Figure I.16 Official reserves of Germany as a share of FDI, by form, 1980-2010. Source: IMF, 2012a; 2012c; own calculations.

France

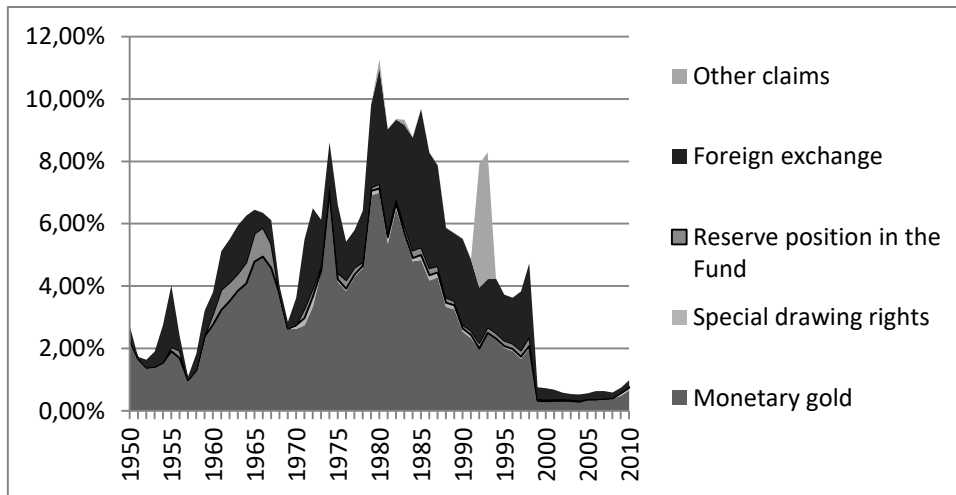


Figure I.17 Official reserves of France as a share of GDP, by form, 1950-2010. Source: IMF, 2012a; 2012c; own calculations.

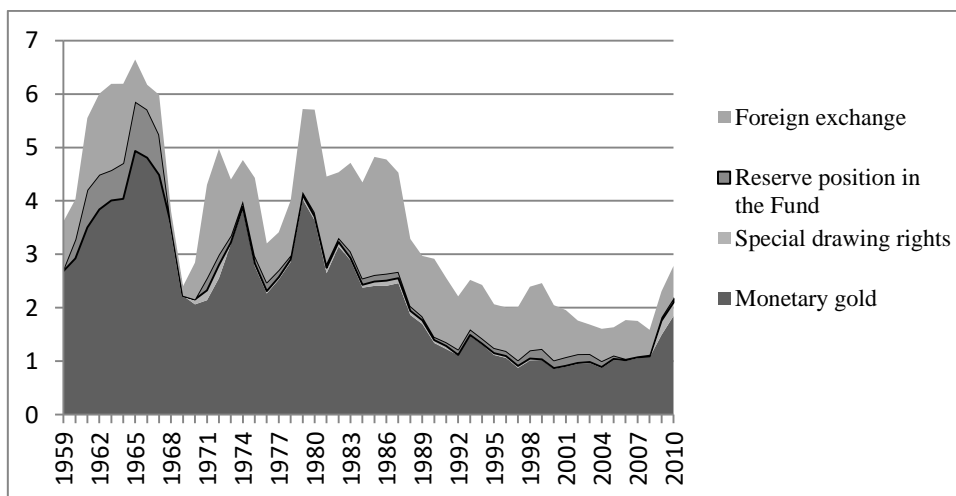


Figure I.18 Official reserves of France in months of import, by form, 1959-2010. Source: IMF, 2012a; 2012c; own calculations.

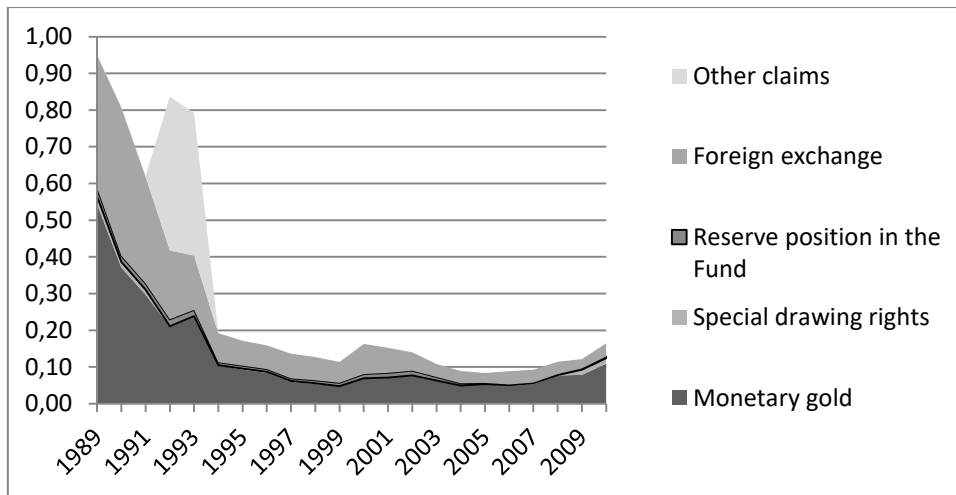


Figure I.19 Official reserves of France as a share of FDI, by form, 1989-2010. Source: IMF, 2012a; 2012c; own calculations.

Italy

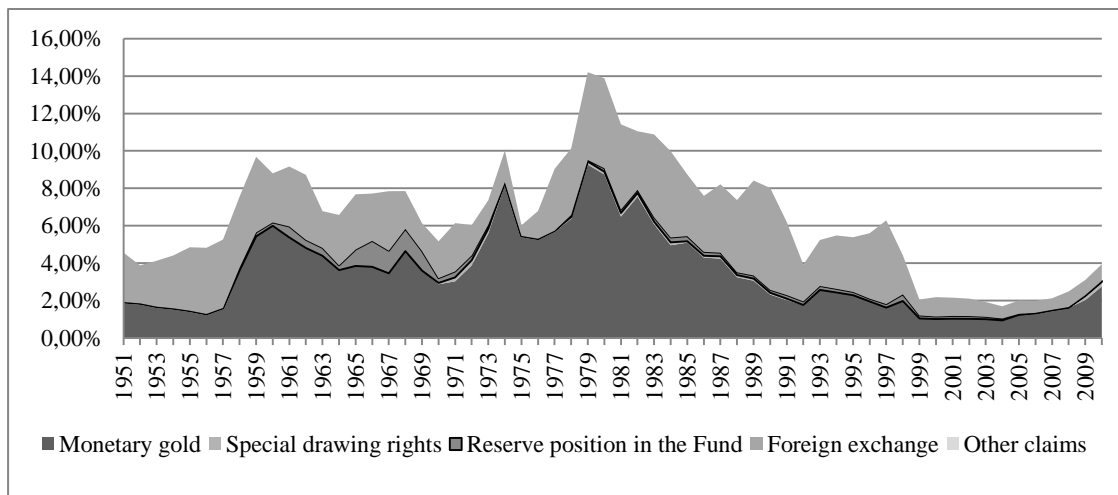


Figure I.20 Official reserves of Italy as a share of GDP, by form, 1951-2010. Source: IMF, 2012a; 2012c; own calculations.

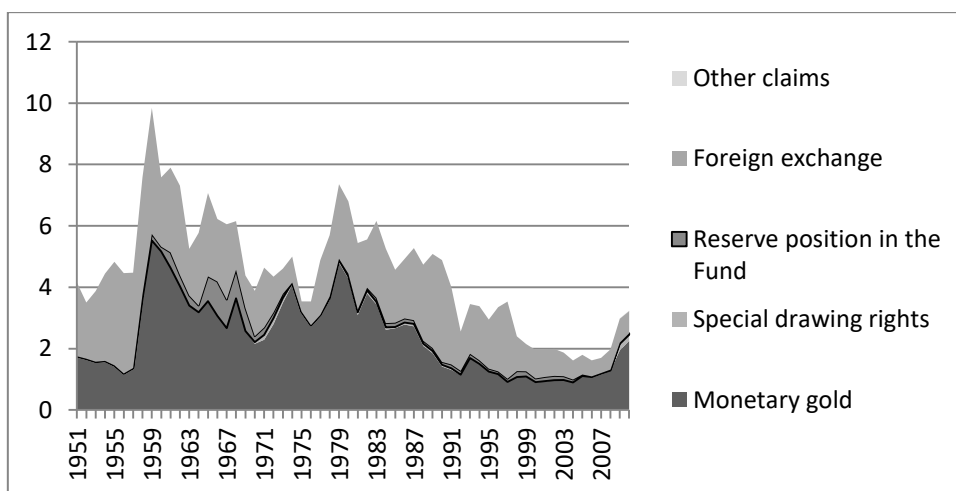


Figure I.21 Official reserves of Italy in months of import, by form, 1951-2010. Source: IMF, 2012a; 2012c; own calculations.

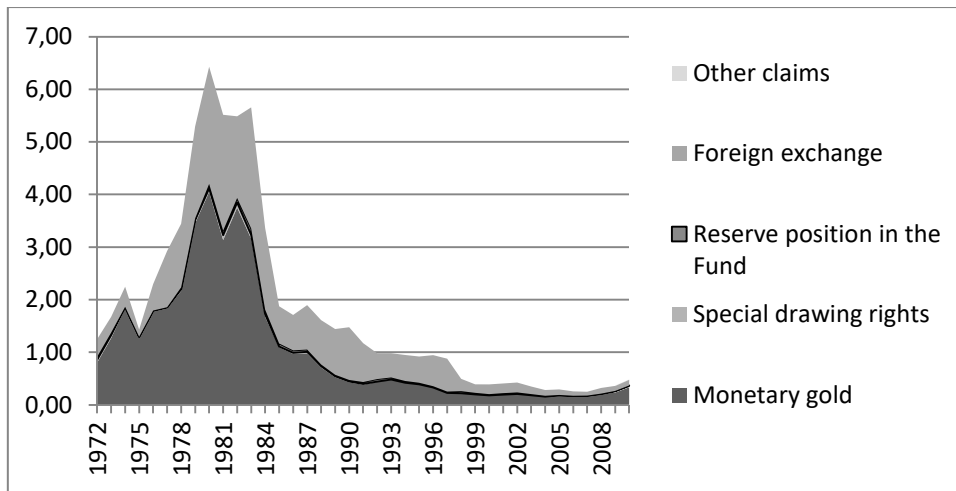


Figure I.22 Official reserves of Italy as a share of FDI, by form, 1972-2010. Source: IMF, 2012a; 2012c; own calculations.

Netherlands

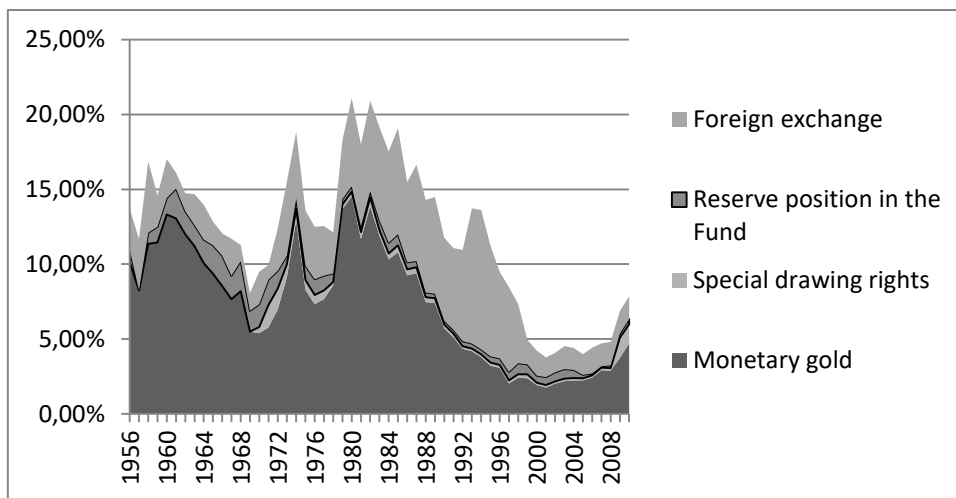


Figure I.23 Official reserves of Netherlands as a share of GDP, by form, 1956-2010. Source: IMF, 2012a; 2012c; own calculations.

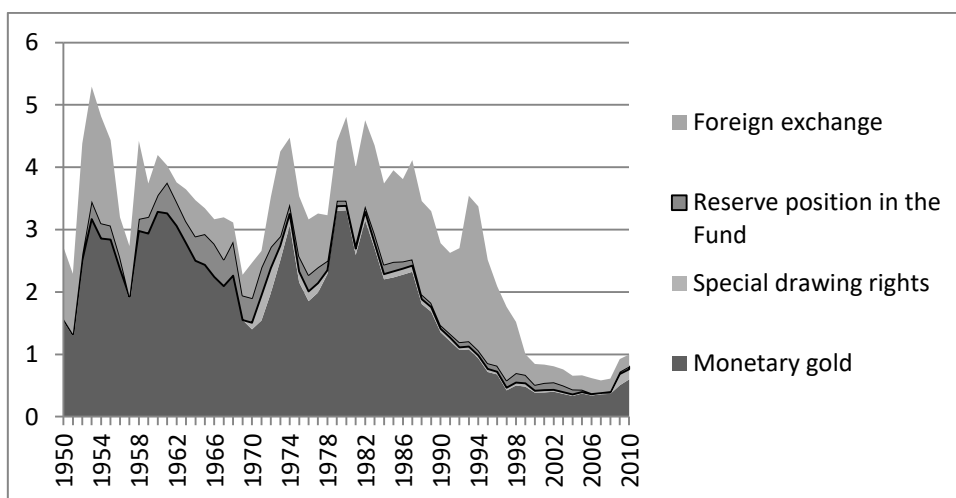


Figure I.24 Official reserves of Netherlands in months of import, by form, 1950-2010. Source: IMF, 2012a; 2012c; own calculations.

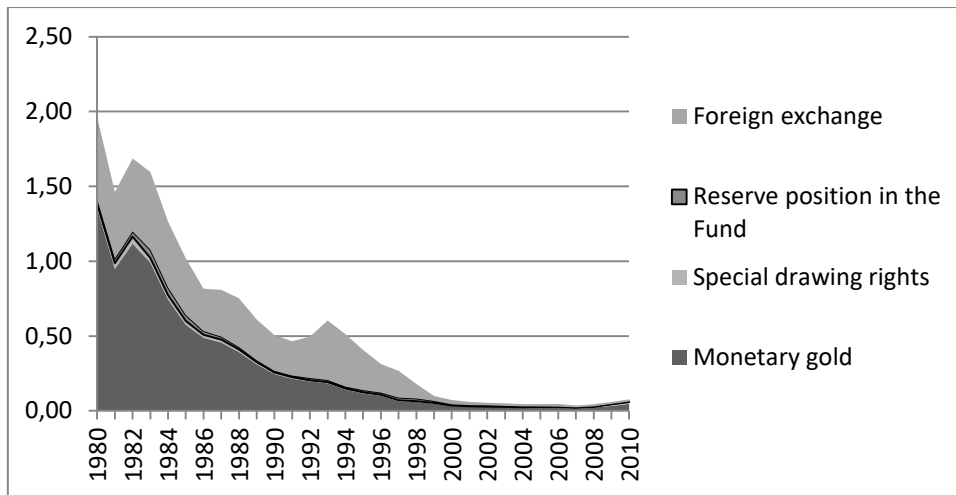


Figure I.25 Official reserves of Netherlands as a share of FDI, by form, 1980-2010. Source: IMF, 2012a; 2012c; own calculations.

Belgium

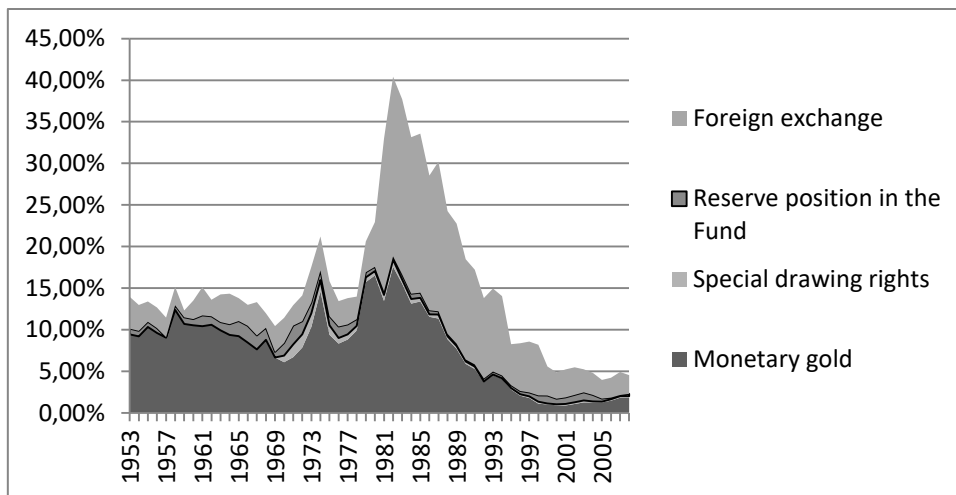


Figure I.26 Official reserves of Belgium as a share of GDP, by form, 1953-2010. Source: IMF, 2012a; 2012c; own calculations.

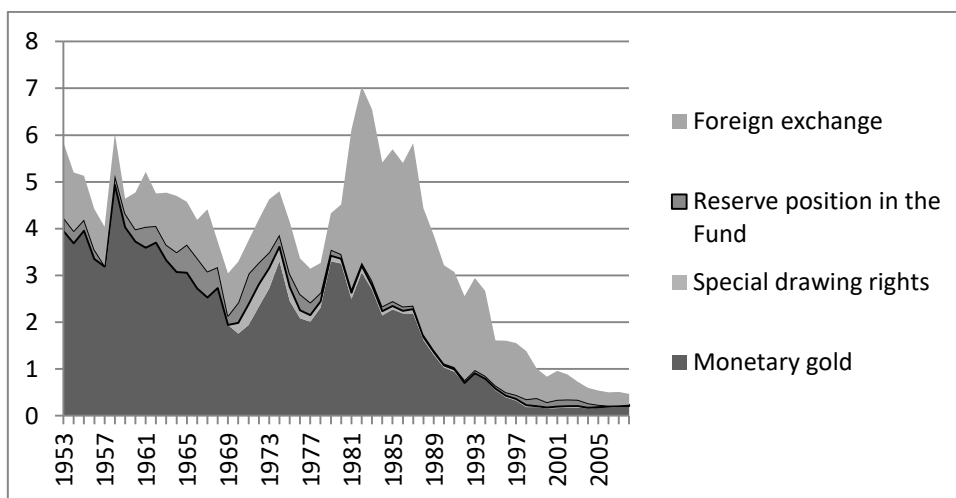


Figure I.27 Official reserves of Belgium in months of import, by form, 1953-2010. Source: IMF, 2012a; 2012c; own calculations.

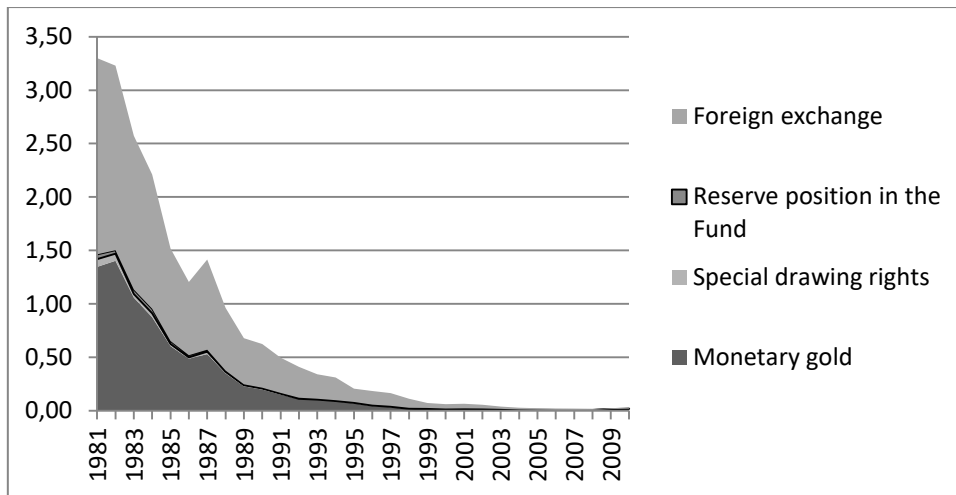


Figure I.28 Official reserves of Belgium as a share of FDI, by form, 1981-2010. Source: IMF, 2012a; 2012c; own calculations.

I.3. Emerging economies

China

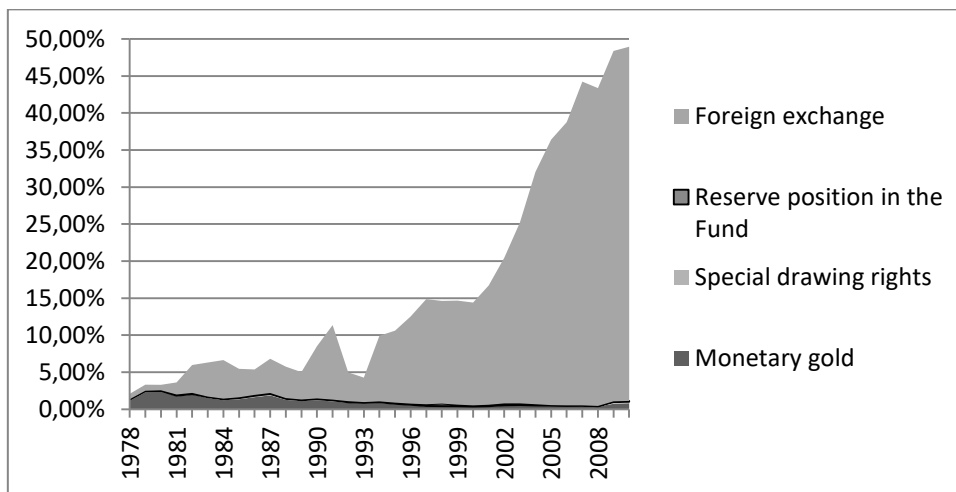


Figure I.29 Official reserves of China as a share of GDP, by form, 1978-2010. Source: IMF, 2012a; 2012c; own calculations.

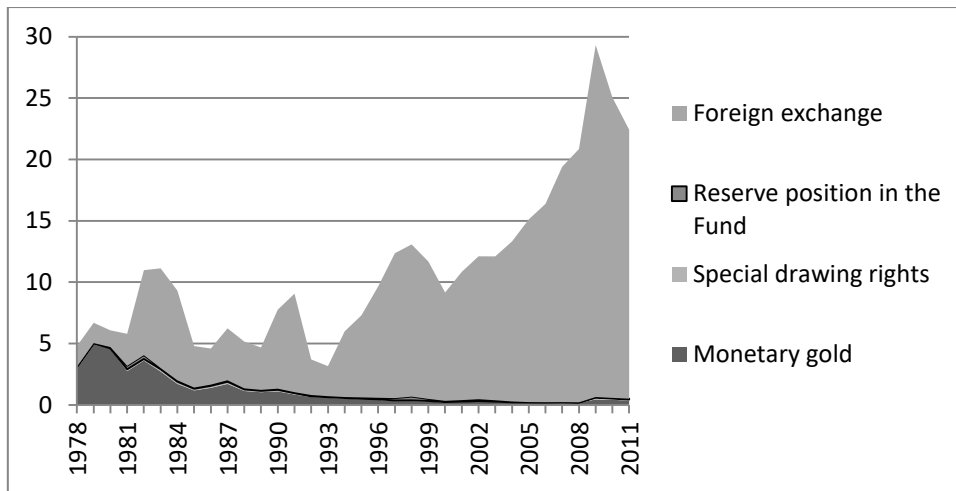


Figure I.30 Official reserves of China in months of import, by form, 1978-2010. Source: IMF, 2012a; 2012c; own calculations.

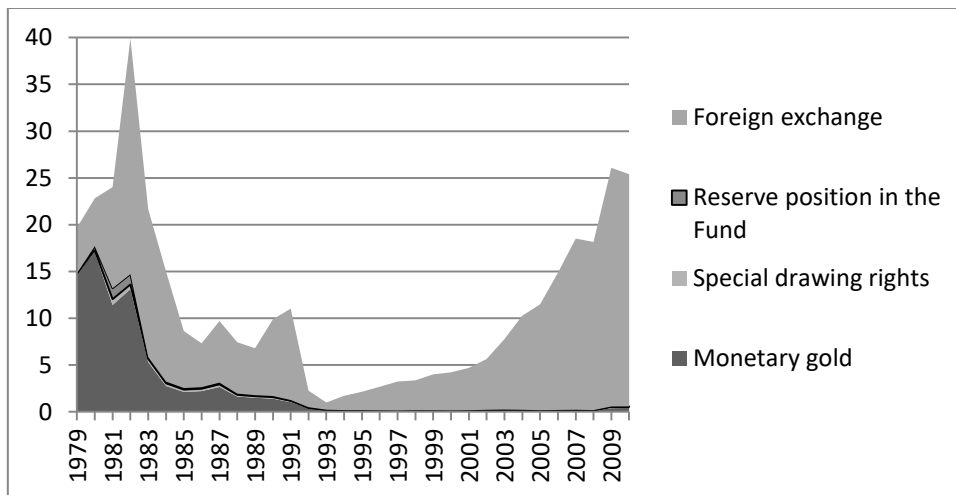


Figure I.31 Official reserves of China as a share of FDI, realised value, by form, 1979-2010. Source: IMF, 2012a; 2012c; MOFCOM, 2013; own calculations.

The data used here come from MOFCOM (2013) because the IMF provides data only for 7 years (2004-2010). MOFCOM provides data for incoming foreign direct investment discriminating with two main variables, namely realised investment and investment in contractual value. The two are quite differing since part of the investment that is contracted in a calendar year doesn't materialise either in the same year or at all. The problem in choosing the most appropriate variable is that reserves are related to investment in two ways. As a product of foreign investment, reserves are exclusively related to the materialised inflow of capital in the monetary form. Yet, as a security against capital flight and potential repatriation of either all or part of the realised investment, reserves should be kept in advance, when materialised investment is not known and the only thing that is known is the contractual value.

I produced both figures. Since the chapter doesn't examine the quantitative adequacy of reserves, but focuses on the trend of the latter over a certain measure, it is satisfactory that the trend depicted by both figures is the same.

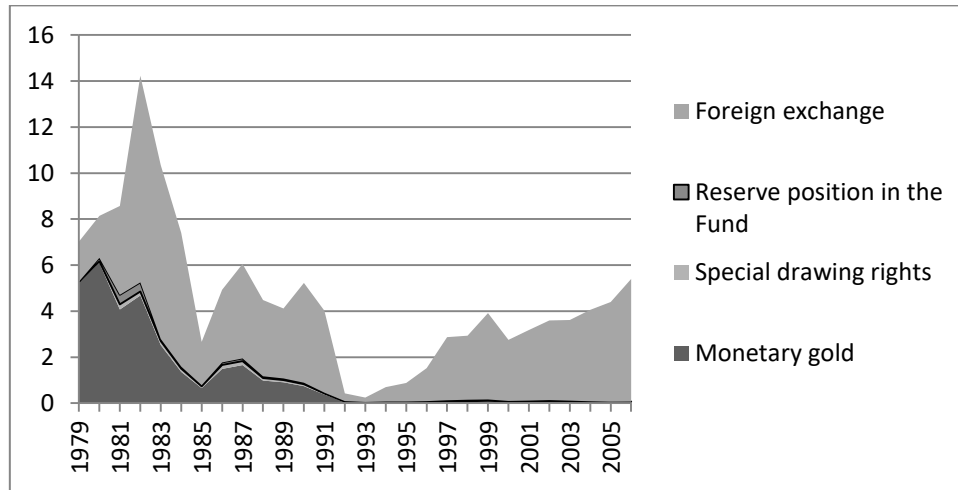


Figure I.32 Official reserves of China as a share of FDI, contractual value, by form, 1979-2006. Source: IMF, 2012a; 2012c; MOFCOM; own calculations.

Brazil

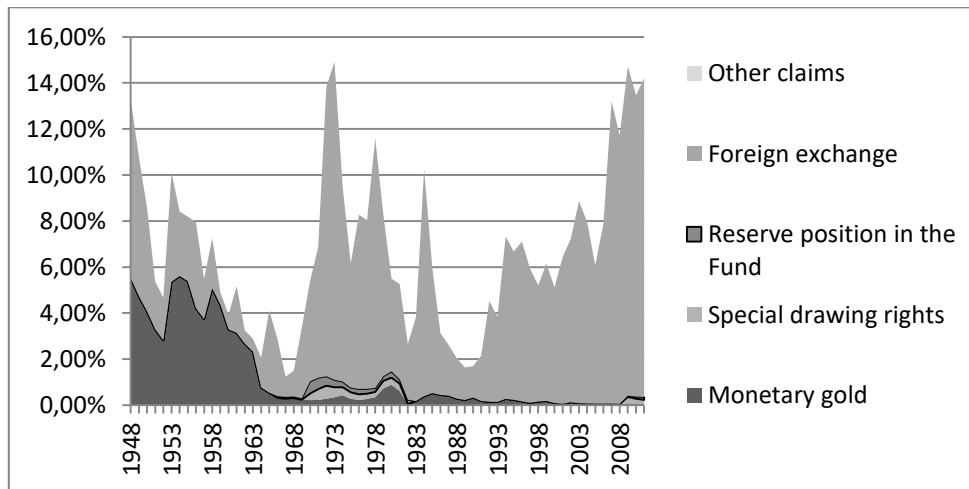


Figure I.33 Official reserves of Brazil as a share of GDP, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

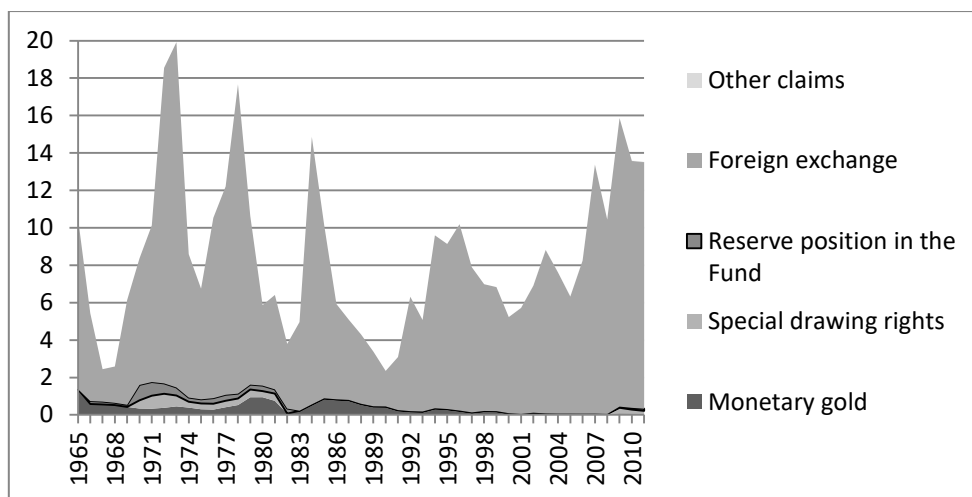


Figure I.34 Official reserves of Brazil in months of import, by form, 1965-2010. Source: IMF, 2012a; 2012c; own calculations.

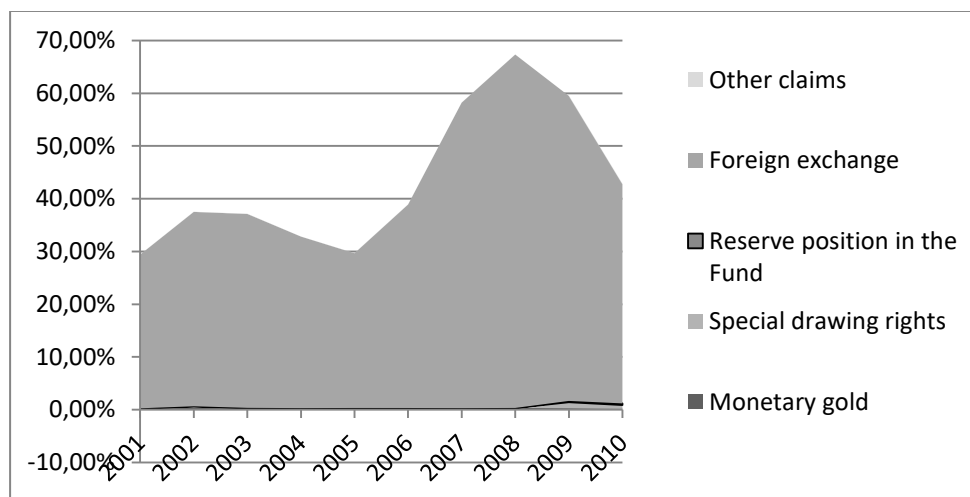


Figure I.35 Official reserves of Brazil as a share of FDI, by form, 2001-2010. Source: IMF, 2012a; 2012c; own calculations.

India

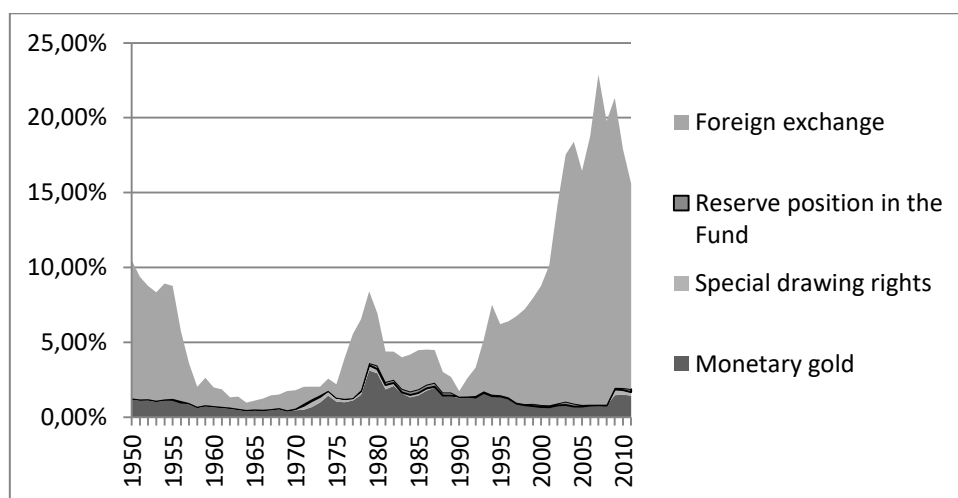


Figure I.36 Official reserves of India as a share of GDP, by form, 1950-2010. Source: IMF, 2012a; 2012c; own calculations.

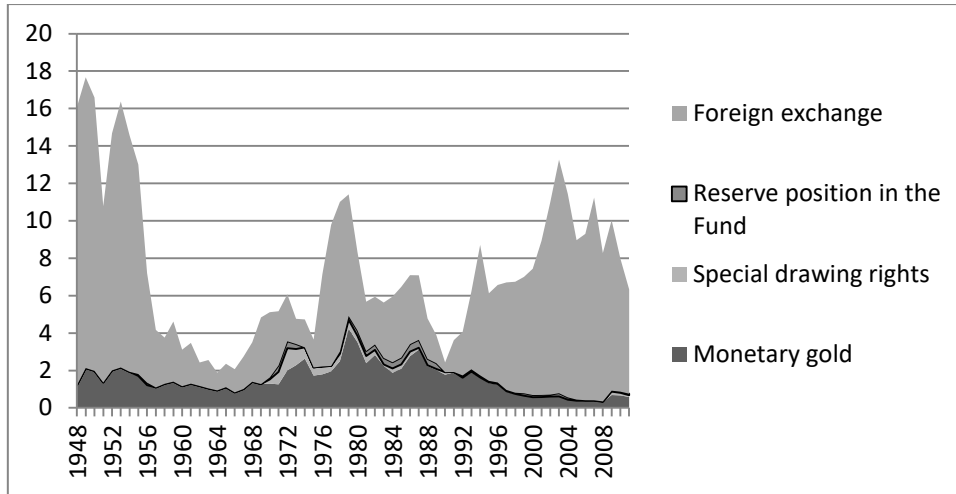


Figure I.37 Official reserves of India in months of import, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

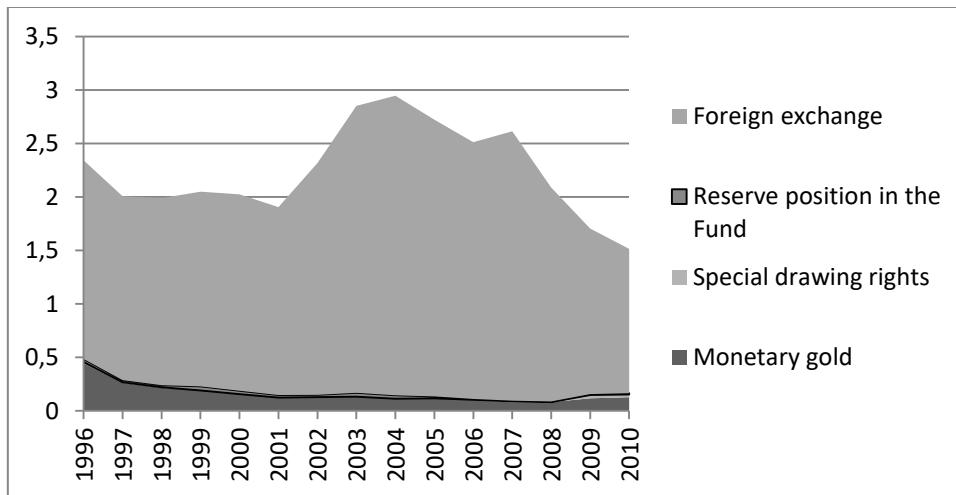


Figure I.38 Official reserves of India as a share of FDI, by form, 1996-2010. Source: IMF, 2012a; 2012c; own calculations.

Russia

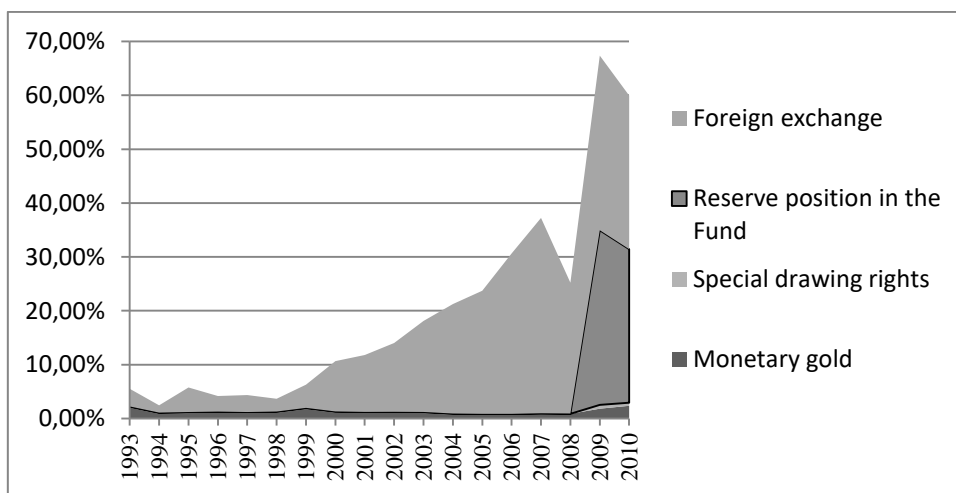


Figure I.39 Official reserves of Russia as a share of GDP, by form, 1993-2010. Source: IMF, 2012a; 2012c; own calculations.

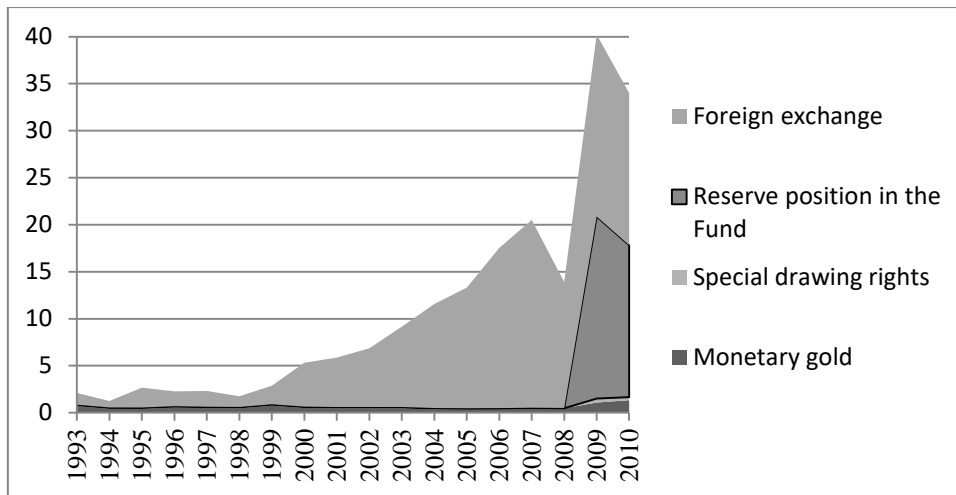


Figure I.40 Official reserves of Russia in months of import, by form, 1993-2010. Source: IMF, 2012a; 2012c; own calculations.

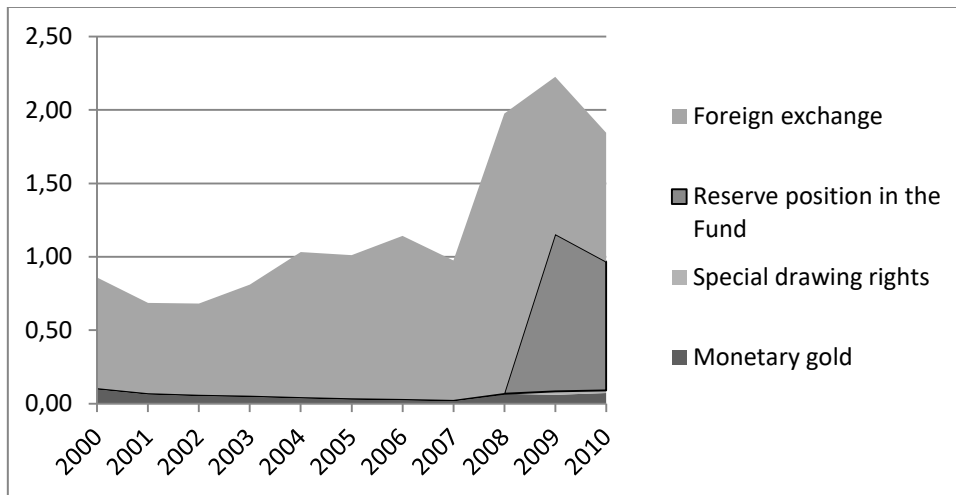


Figure I.41 Official reserves of Russia as a share of FDI, by form, 2000-2010. Source: IMF, 2012a; 2012c; own calculations.

South Africa

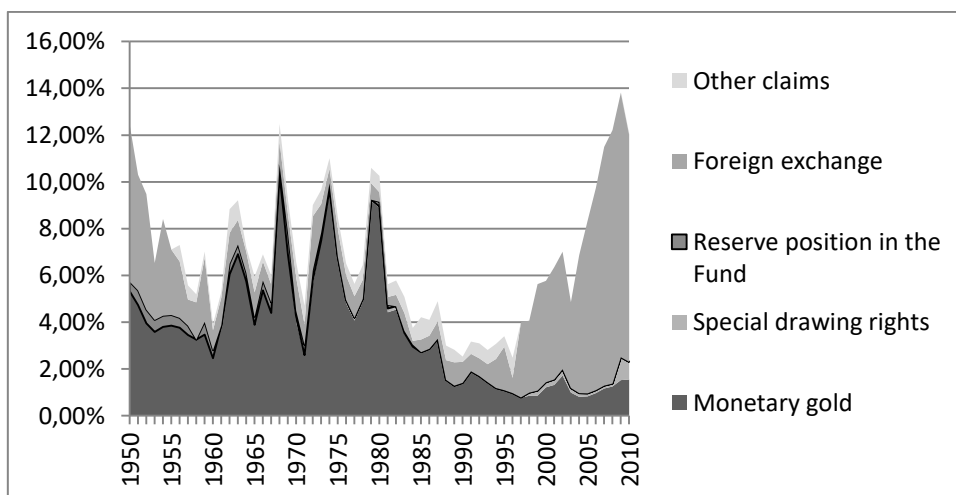


Figure I.42 Official reserves of S. Africa as a share of GDP, by form, 1950-2010. Source: IMF, 2012a; 2012c; own calculations.

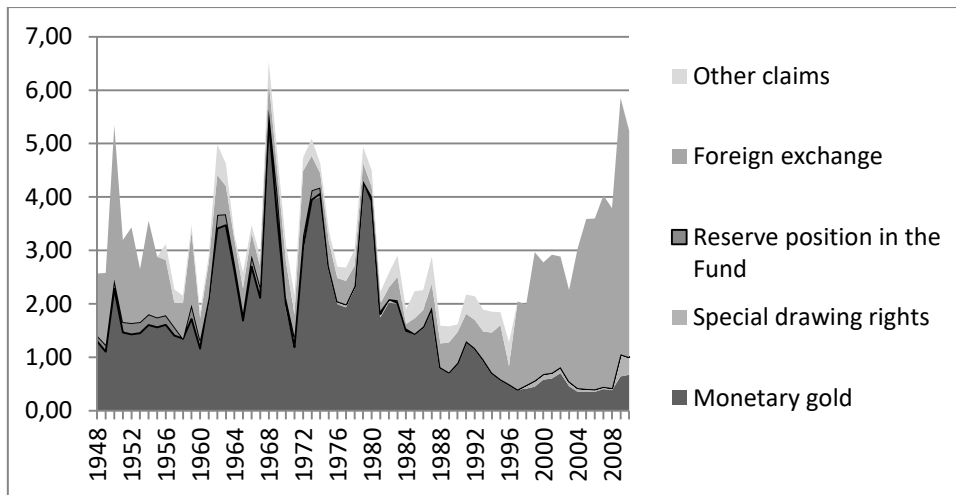


Figure I.43 Official reserves of S. Africa in months of import, by form, 1948-2010. Source: IMF, 2012a; 2012c; own calculations.

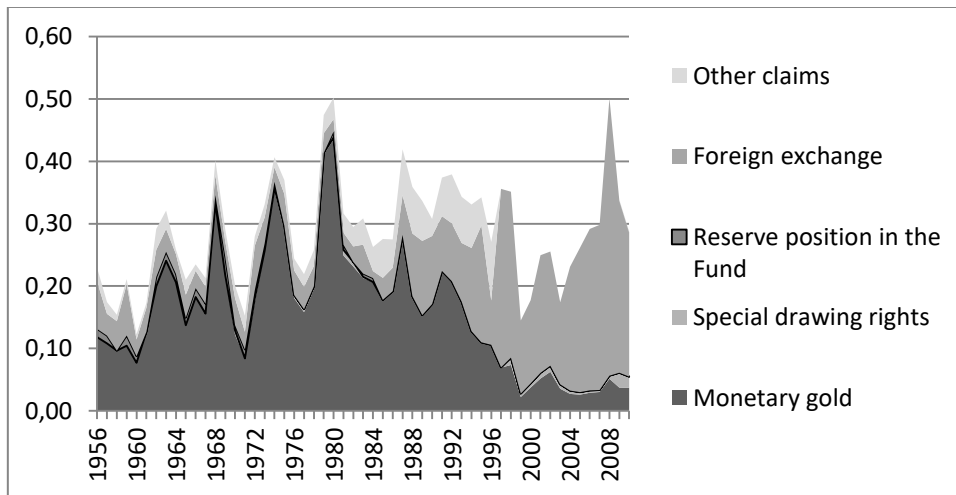


Figure I.44 Official reserves of S. Africa as a share of FDI, by form, 1956-2010. Source: IMF, 2012a; 2012c; own calculations.

Appendix II. Complement to chapter 6

Data for this chapter is drawn by the ECB's Statistical Data Warehouse (ECD SDW, 2013) and the IMF (2012c). The chapter examines the composition of reserves by form and the evolution of this composition; therefore the following variables are examined:

- Securities (mother bonds of quasi-world money, mostly USD mother bonds and to a much lesser extent Yen mother bonds, all denominated in Euros by the current exchange rate)
- Banknotes and bank deposits of foreign exchange (quasi-world money, mostly USD and to a much lesser extent Yen, all denominated in Euros by the current exchange rate)
- Gold
 - in million of ounces
 - in Euros
- IMF position
- SDRs

The main dataset comes from the ECB SDW. The dataset is named: International Reserves of the Eurosystem and it has the following characteristics:

- Frequency: Monthly
- Adjustment indicator: Neither seasonally nor working day adjusted
- Data type – BoP related data: Outstanding amounts at the end of the period (stocks)
- Currency breakdown: All currencies

The gold reserves in million of ounces are taken from the IMF's IFS (2012c) and in particular the dataset "Gold in Millions of Ounces". It is monthly series, outstanding amounts at the end of the period (stocks). Especially for the ECB that is not incorporated in this dataset, data is taken from the variable "gold (including gold deposits and, if appropriate, gold swapped)" of the SDW dataset.

The data for gold in Euros is coming from the SDW dataset and is essentially reflecting the data reported by the various member states. Although gold is recorded in historical cost, it was preferred to take the SDW estimation rather than producing the relevant series for the following reason. Due to the CBGA almost all Eurozone

countries proceeded in selling gold, even marginally and by doing so they revalued their gold (see chapter 9). Therefore the estimation of gold was not completely outdated.

To this there is one exception, namely Italy who didn't engage in any selling. But even in the case of Italy, gold is generally revalued and data reported is consistent with current prices. This implies that Italy may engage in gold transactions that are not recorded somehow, but they are enabling the Banca d' Italia to revalue her gold. This issue can be revealed by the following table. The first row renders the estimation that accrues from the IMF dataset. It is the gold stock of Italy in million of ounces, multiplied by the London price of gold in dollars (see Appendix I). Then, dollars are converted into euros with the annual series of exchange rates of the IFS (..AA.ZF) (IMF, 2012c). The second row provides the evaluation of gold by the Banca d' Italia (in euros). The third row calculates the level of the difference between the two and the last renders the percentage difference of the second on the first. It can be seen that for most years the difference is zero and it was above 1 percent only for the years 2009 and 2011.

The fact though that the difference is negative implies that it is not related to outdated evaluation of gold because all these years the price of gold was rising. So, if the evaluation of gold (2nd row) was outdated, then it would be expected to be lower than the first row. Most probably, the difference accrues to various coincidences that relate to the exchange rate of the USD to the Euro, the timing of accounting of gold etc. The issue goes beyond the scope of this Appendix. Suffice to say that analogous tests have been made for all the other countries and they rendered good results for the SDW dataset.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
IMF (2012c)	22775.4	23250.6	24732.0	25764.0	26042.3	25348.5	34279.2	38049.7	44646.4	49264.4	59507.5	82917.0	93273.6
SDW (2013)	22775.0	23098.0	24732.0	25764.0	26042.0	25348.0	34279.0	38050.0	44793.0	48995.0	60410.0	83197.0	95924.0
dif	0.4	152.6	0.0	0.0	0.3	0.5	0.2	-0.3	-146.6	269.4	-902.5	-280.0	-2650.4
%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.3%	0.5%	-1.5%	-0.3%	-2.8%

Table II.1 Estimation of the Italian gold stock, in millions of euros, 1999-2011, end of period. Source: IMF 2012c; ECB SDW, 2013; own calculations.

The various data that have been used for chapter 6 are presented below, in figures or tables, depending on the nature of the data. For the figures, all the corresponding tables are available upon request.

Establishing the ECB

Country	Austria	Belgium	Finland	France	Germany	Ireland	Italy	Netherlands	Portugal	Spain	United Kingdom
1998m11	7.72	7.62	1.60	81.89	95.18	0.36	66.69	27.07	16.07	15.63	18.40
1998m12	9.64	9.52	2.00	102.37	118.98	0.45	83.36	33.83	20.09	19.54	23.00
1999m01	13.10	8.65	1.58	97.24	111.52	0.19	78.83	32.53	19.50	16.83	23.00

Table II.2 Gold, in million of ounces, initial Eurozone countries minus Luxemburg, plus the UK, November 1998 to January 1999, monthly, end of period. Source: IMF, 2012c.

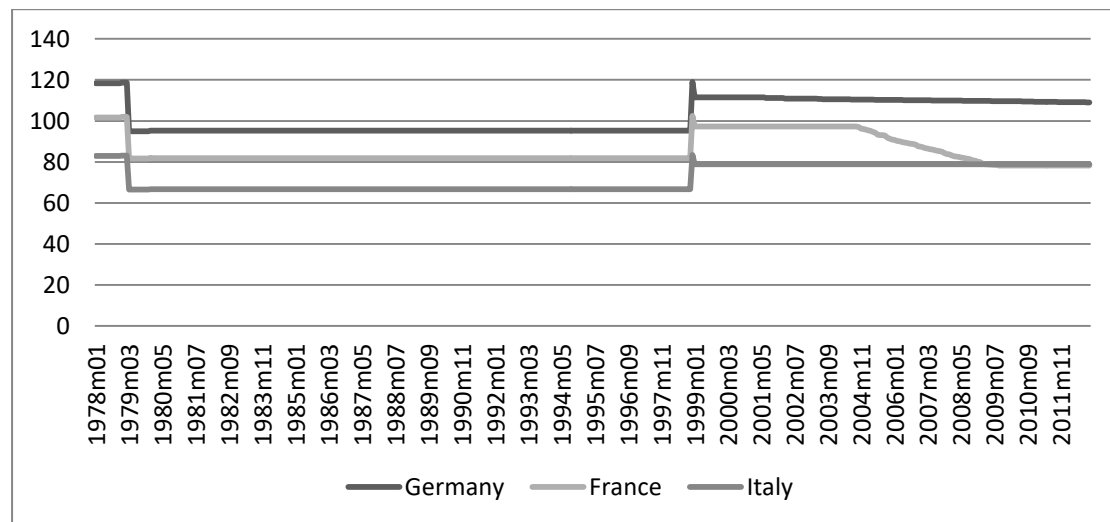


Figure II.1 Gold, in million of ounces, Germany, France, Italy, January 1978 to November 2011, monthly, end of period. Source: IMF, 2012c.

CBGA

	1997	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 Oct	'99-'12	'97-'12
Austria	7.9	13.1	12.1	11.2	10.2	10.2	9.9	9.7	9.3	9.0	9.0	9.0	9.0	9.0	9.0	-31.3%	14.3%
Belgium	15.3	8.3	8.3	8.3	8.3	8.3	8.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	-11.9%	-52.3%
ECB		24.0	24.0	24.7	24.7	24.7	24.7	23.1	20.6	18.1	17.2	16.1	16.1	16.1	16.1	-32.8%	
France	81.9	97.2	97.2	97.2	97.2	97.2	96.0	90.9	87.4	83.7	80.1	78.3	78.3	78.3	78.3	-19.5%	-4.4%
Germany	95.2	111.5	111.5	111.1	110.8	110.6	110.4	110.2	110.0	109.9	109.7	109.5	109.3	109.2	109.0	-2.2%	14.6%
Italy	66.7	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	78.8	0.0%	18.2%
Neth.	27.1	31.6	29.3	28.4	27.4	25.0	25.0	22.3	20.6	20.0	19.7	19.7	19.7	19.7	19.7	-37.6%	-27.3%
Portugal	16.1	19.5	19.5	19.5	19.0	16.6	14.9	13.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	-37.0%	-23.5%
Spain	15.6	16.8	16.8	16.8	16.8	16.8	16.8	14.7	13.4	9.1	9.1	9.1	9.1	9.1	9.1	-46.2%	-42.1%
Sweden	4.7	6.0	6.0	6.0	6.0	6.0	6.0	5.4	5.1	4.8	4.4	4.0	4.0	4.0	4.0	-32.2%	-14.4%
Switz.	83.3	83.3	77.8	70.7	61.6	52.5	43.5	41.5	41.5	36.8	33.4	33.4	33.4	33.4	33.4	-59.8%	-59.8%
UK	18.4	20.5	15.7	11.4	10.1	10.1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	-51.5%	-45.8%
Greece	3.6	4.2	4.3	3.9	3.9	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6	-15.1%	-1.3%
Sum	435.8	490.9	477.4	463.5	450.2	435.6	423.1	407.8	399.4	385.2	377.5	375.1	374.9	374.7	374.6	-23.7%	-14.0%

Table II.3 Gold holdings of major signatory central banks, 1997, 1999-2012 October, in million ounces and percentage change 1999-2012 and 1997-2012. Source: IMF, 2012c; ECB SDW, 2013; own calculations.

For this figure, all data is taken from the IMF (2012c) apart from data for the ECB (SDW, 2013). In a separate table that follows, I calculated the annual differences. Whenever these were above 15 percent, the corresponding cell in the above table was marked red; for an annual difference of more than 10 percent, and below 15, the colour is orange; and finally, for the range 5 to 10 percent, the selected colour is yellow.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 oct
Austria	-7.36%	-7.95%	-8.63%	0.00%	-3.15%	-1.63%	-4.54%	-3.03%	0.00%	0.00%	0.00%	0.00%	0.00%
Belgium	0.00%	-0.01%	-0.04%	-0.04%	-0.05%	-11.67%	0.00%	-0.03%	-0.04%	0.00%	-0.01%	-0.01%	0.00%
ECB	0.00%	2.61%	0.00%	0.00%	0.00%	-6.13%	-11.12%	-12.06%	-5.17%	-6.03%	0.00%	0.13%	-0.01%
France	0.00%	0.00%	0.00%	0.00%	-1.30%	-5.34%	-3.75%	-4.29%	-4.26%	-2.28%	0.00%	0.00%	0.00%
Germany	0.00%	-0.35%	-0.31%	-0.18%	-0.18%	-0.16%	-0.15%	-0.15%	-0.14%	-0.17%	-0.17%	-0.14%	-0.15%
Italy	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Netherlands	-7.15%	-2.99%	-3.71%	-8.71%	0.00%	-10.61%	-7.77%	-3.04%	-1.45%	0.00%	0.00%	0.00%	0.00%
Portugal	0.01%	0.01%	-2.46%	-12.62%	-10.61%	-9.70%	-8.36%	-0.01%	0.00%	-0.01%	0.00%	-0.01%	0.00%
Spain	-0.01%	0.00%	-0.01%	-0.01%	-0.01%	-12.53%	-8.96%	-32.43%	0.00%	0.00%	0.00%	0.00%	0.00%
Sweden	0.00%	0.00%	0.00%	0.00%	0.00%	-9.18%	-5.88%	-6.12%	-7.93%	-8.23%	0.00%	0.00%	0.00%
Switzerland	-6.59%	-9.13%	-12.82%	-14.79%	-17.08%	-4.74%	0.00%	-11.23%	-9.18%	0.00%	0.00%	0.00%	0.00%
UK	-23.73%	-27.13%	-11.65%	-0.21%	-0.31%	-0.46%	-0.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Greece	0.59%	-7.51%	-0.18%	-12.30%	0.35%	0.23%	3.51%	0.70%	-0.03%	-0.06%	-0.75%	0.03%	0.20%

Table II.4 Annual difference of gold holdings of major signatory central banks, 1999-2012 October, year by year percentage change. Source: IMF, 2012c; ECB SDW, 2013; own calculations.

Composition of reserves

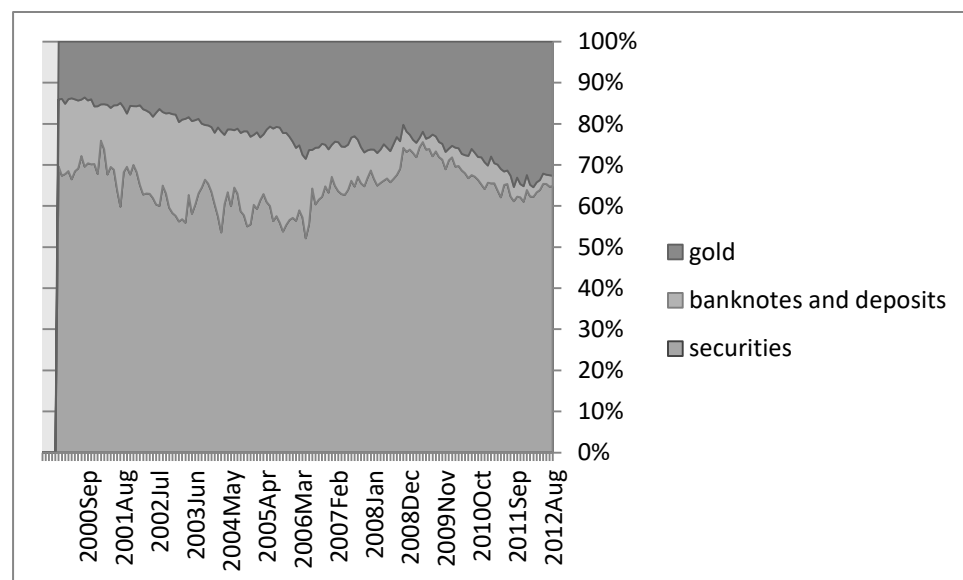


Figure II.2 ECB, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

	outstanding, end of period	sales	purchases
total		8729	841
2011Jan	16,142		20
2009Apr	16,122	1141	
2009Jan	17,263		106
2008Jul	17,157	964	
2008Jan	18,121		29
2007Dec	18,092	1350	
2007Jun	19,442	1190	
2007Jan	20,632		60
2006Dec	20,572	740	
2006May	21,312	1833	
2005Apr	23,145	1511	
2001Jan	24,656		626
1999Dec	24,030		

Table II.5 Sales and purchases of gold, by the ECB, in millions of ounces. Source: ECB SDW, 2013; own calculations.

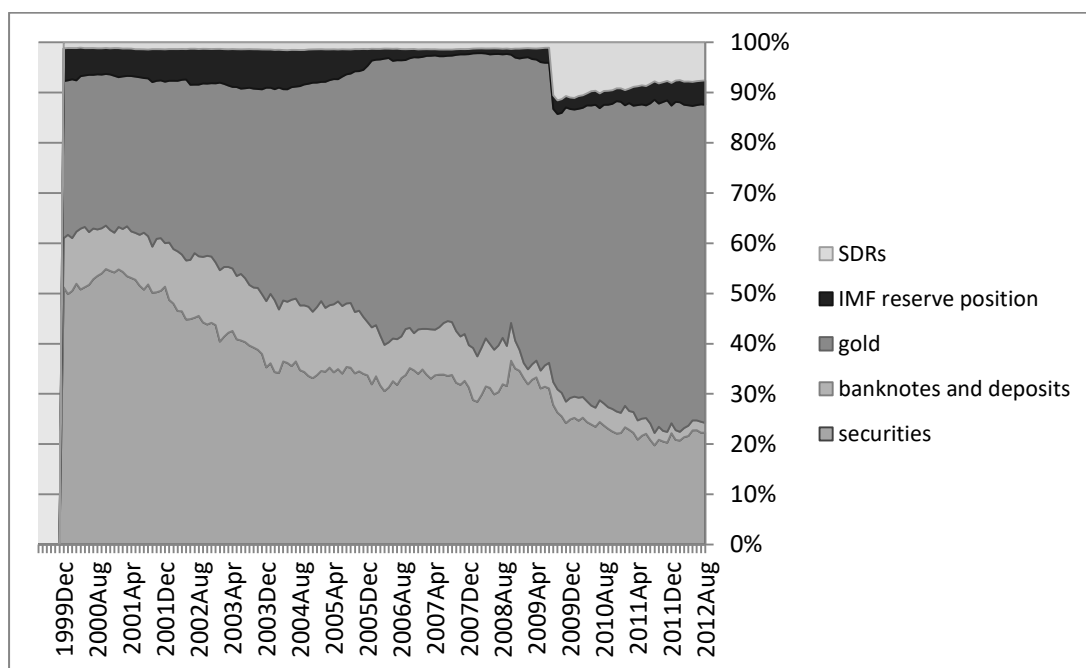


Figure II.3 ESCB, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

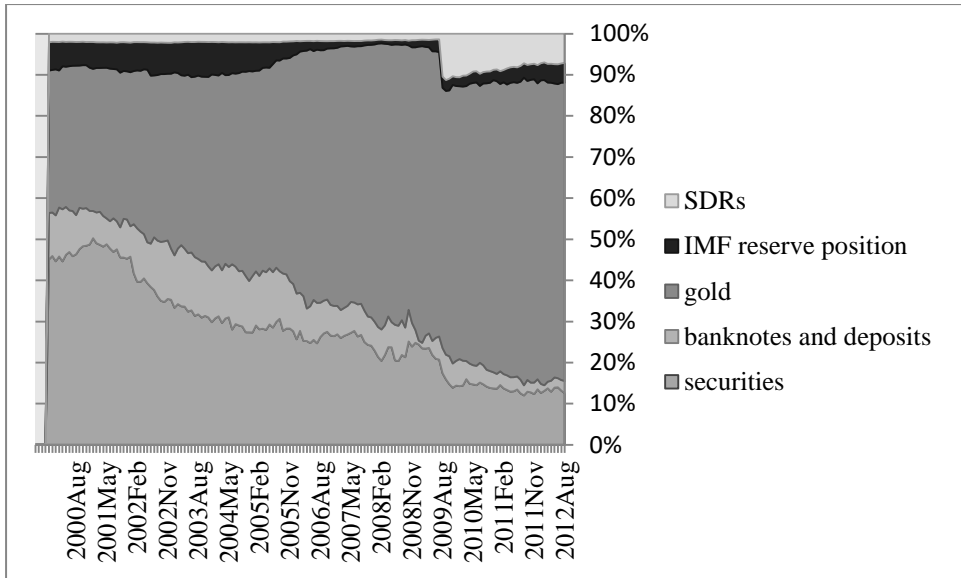


Figure II.45 Bundesbank, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

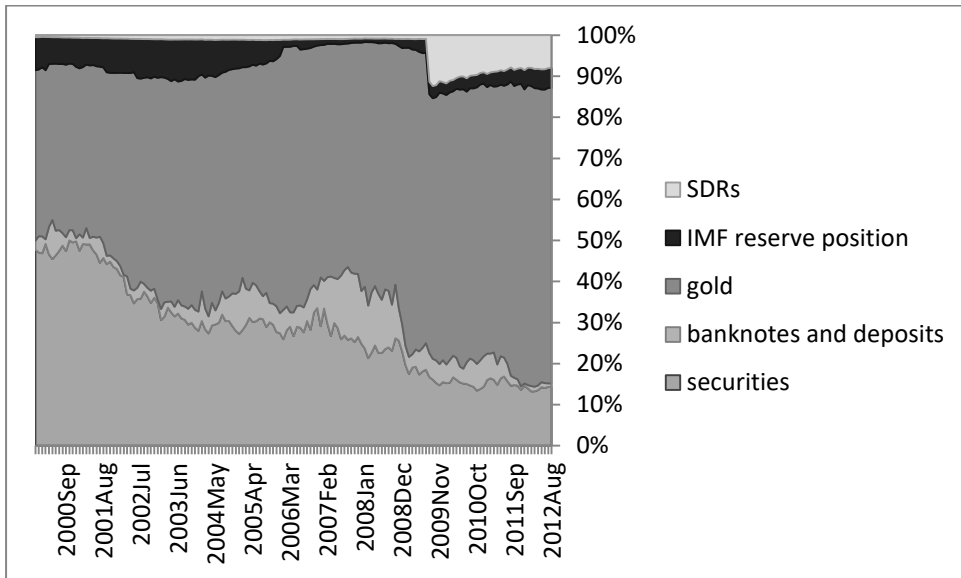


Figure II.5 Banque de France, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

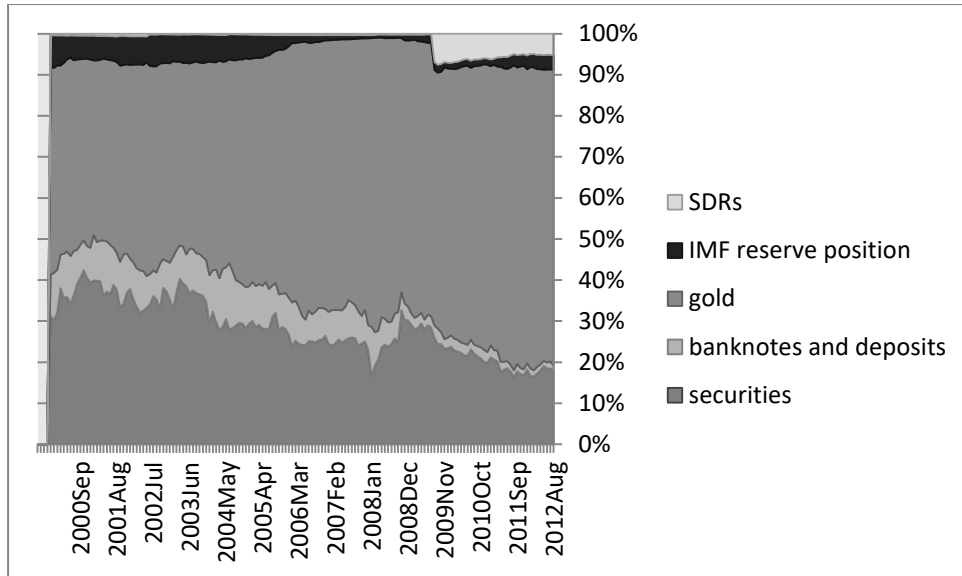


Figure II.6 Banca d' Italia, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

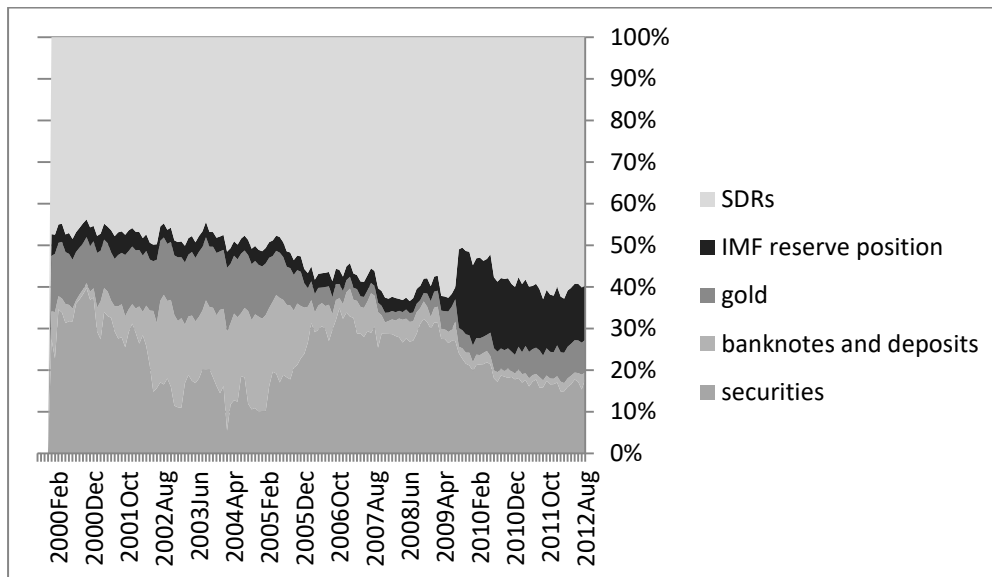


Figure II.7 De Nederlandsche Bank, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

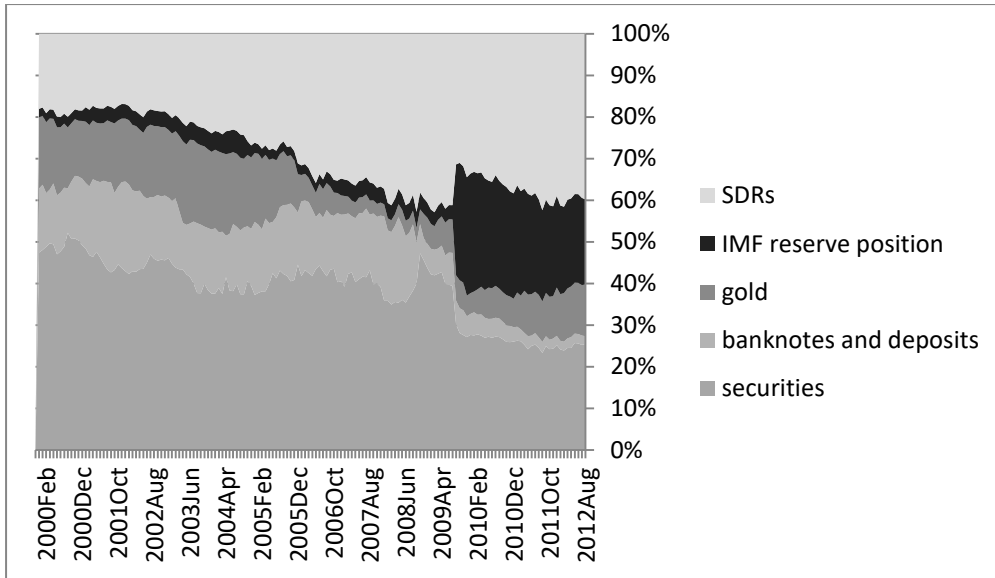


Figure II.8 National Bank of Belgium, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

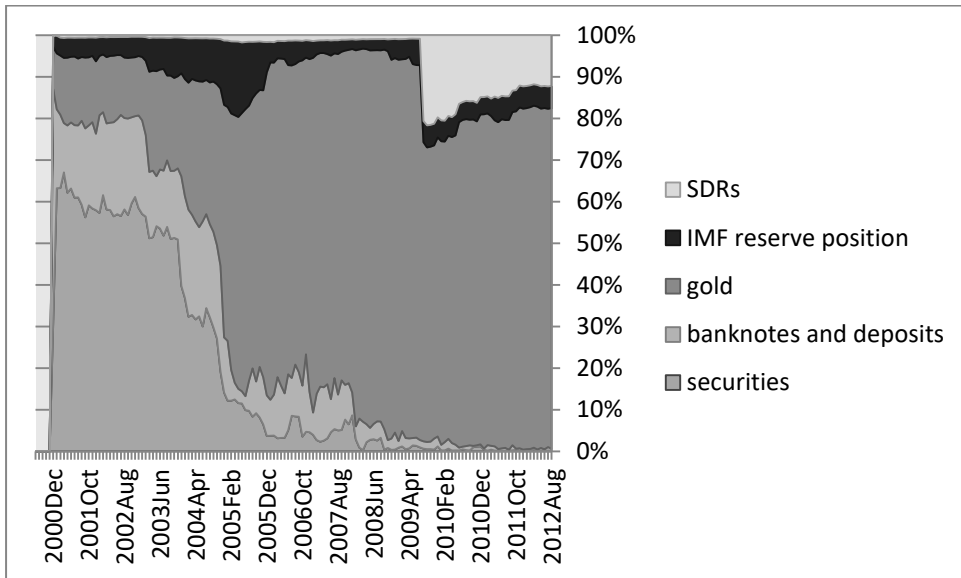


Figure II.9 Bank of Greece, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

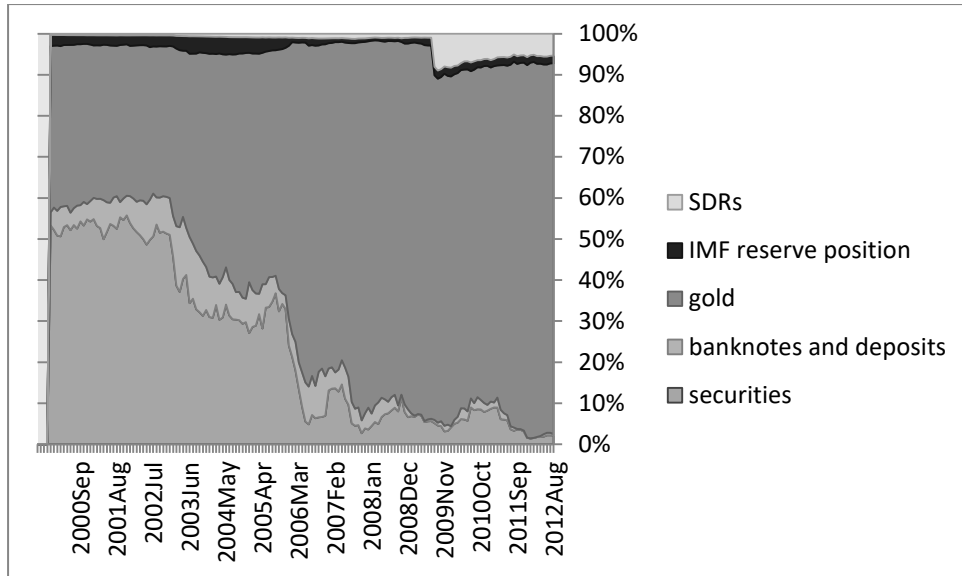


Figure II.10 Banco de Portugal, composition of reserves, monthly, 1999 to 2012. Source: ECB SDW, 2013; own calculations.

Appendix III. Complement to chapter 7

III.1. Discussion Guide

III.1.1. General Notes (the pilot phase)

The questionnaire will not be posted or appear as such during the interview. It will be memorized and the questions will be addressed in a relatively free form, depending on the time available and the response of the interviewee.

Not all questions will be addressed, due to limited time. Available time is expected to be max 40 min. In red, the questions that are not a priority and that will be asked only if there is ample time and a great willingness to cooperate from the interviewee.

The alternative “answers” exist generally to stimulate the discussion and help the researcher in taking notes; not to limit the respondent – the questions are mostly open. Nevertheless, the opinion of the interviewee for these answers is desired. The questions that are closed do not include the option “other”. In brackets [] there are notes that accompany the question (optional).

Aim of the research

Conducted under the researcher’s doctoral thesis, entitled: “The process of managing the contradictions of world money and its limits”. The aim is to investigate the relationship of official reserves to the functioning of money in the world market.

Credentials

- Curriculum vitae
- Certificate from UADPhilEcon
- Letters of recommendation
 - Prof. Lapavitsas
 - Prof. Vlachou
 - Other
- Other document

III.1.2. Sections

Gold reserves of the ECB and euro

1. Before the establishment of the euro was there a discussion on the necessary stocks?
 - i. Don't know / no answer
 1. Do you think that this discussion took place? If not, → sub question a
 2. If you feel that the discussion took place → sub question b
 - ii. No → sub question a
 - iii. Yes → sub question b
 - iv. Other
 - a. Why could it not be discussed?
 - i. Very hot
 - ii. Very trivial
 - iii. Secret / Don't know
 - iv. Other:
 - b. The debate was published?
 - i. Where?
 - ii. If not published: why?
2. [Regardless of the debate, and in disaccord with the Maastricht Treaty] The ECB was endowed with gold in its launch. Why
 - a. As a reserve of last resort?
 - b. As standard banking practice? (Without knowing why)
 - c. For the reliability of the euro, generally (again without knowing the reason)
 - d. To manipulate the relationship euro - gold?
 - e. Secret / Don't know
 - f. Other:
3. The NCB of the Eurozone countries bought gold (10/1998) while they had. Why?
 - a. Because it was not enough (the project demanded increased stocks).
 - i. Why? How is this measured?

- b. In case the project fell apart. The return to national currencies would require increased stocks
 - c. To influence the relationship euro - gold
 - d. Secret / Don't know
 - e. Other:
4. Maastricht anticipates gold reserves being kept by the ECB and by the NCBs; and inventory control of NCBs by the ECB. Why in your opinion was there such an anticipation?
- a. There is not enough confidence to migrate all stocks to Frankfurt
 - b. The euro, on the other hand, is "standing" with 400 mn ounces (compared to the stock of the U.S.) and not only 24 million ounces (same as Japan). Why?
 - c. Secret / Don't know
 - d. Other:

If the ECB demanded, would she actually control the gold reserves of member countries, as provided by Maastricht?

Has it been needed so far?

5. Is there a mechanism for calculating the necessary gold stocks? [Necessary for the functioning of the euro]
- a. Yes: ...
 - b. There must be, but don't know
 - c. There is not
 - d. Secret
 - e. No opinion

For the role of gold generally

6. Why gold is held in general?
- a. It is / can operate as world money
 - b. It is a measure of value
 - i. There is a correlation in the price of gold to the price of other commodities?
 - c. It is hoard
 - d. It is / can function as a means of payment
 - i. Could there be payments in gold?

- e. Secret / don't know
- f. Other:

Gold euro: why did they cut one?

What is the meaning of the nominal value of gold euro coins?

7. How could gold be used in the crisis?
 - a. Immediately, liquidating part or all
 - b. Indirectly, supporting the issuance of euro
 - c. Indirectly, by engaging in patterns of international liquidity (IMS)
 - d. Other:

Foreign exchange, securities and gold

8. Is it right to add the gold stocks with securities and bonds?
 - i. Yes → sub question a
 - ii. No → sub question b
 - iii. Other
 - a. At what price should gold be valued?
 - i. Market price
 - ii. To the price that is used by the corresponding CB
 - iii. Other
 - b. Why not add them?
 - i. They are different in nature
 - ii. It is technically difficult
 - iii. They are statistically not comparable
 - iv. Other

Why in your opinion is there a prediction in Maastricht only for gold stocks? How do they differ from foreign exchange?

- a. In the degree of liquidity
 - b. Gold is a carrier of value, while foreign exchange is not
 - c. Gold is an asset (nobody's debt), while foreign exchange is debt
 - d. Other:
9. The U.S. value their gold reserves in the historical cost of 42 U.S. dollars per ounce. Why might this be happening? [When the current price of gold is 30 times greater]
 - i. It is symbolic → sub question a

- ii. Out of inertia
 - iii. Secret / don't know
 - iv. Other:
- a. Symbolising what?
- i. The U.S. commitment to their role as the core of the IMS
 - ii. Assessment that the U.S. gold is not simply a stock, but mainstay of the IMS
 - iii. The U.S. indifference to liquidate their gold reserve
 - iv. Other:
10. Why do you think that advanced industrialized countries (USA, Japan, Germany) kept stable stocks for 30 years [with the first 2 continuing]?
- a. Out of inertia
 - b. By calculation (they need that much)
 - c. Trade in gold should be made with caution and only in great need
 - d. Other:

CBGA

11. In September 1999 the CB Gold Agreement was signed between a numbers of countries, including the countries in the Eurozone in order to sell large quantities of gold stocks. Are you aware of this agreement?
- a. Yes → question 12
 - b. No → question 15
12. What was the role of the CBGA;
- a. Regulating the relationship between various currencies to gold
 - b. Unloading gold from CBs that do not need it, because of the euro (Switzerland and England)
 - c. Revaluation of gold due to stabilization of the supplied quantity
 - d. Secret / don't know
13. The position of various states in the CBGA was different. The sales were made from non-Eurozone countries (Switzerland, England). Why?
- a. It was planned?
 - b. Other:
14. How was agreement achieved in relation to the shares of sales?
15. Who decides on the gold reserves and their management?
- a. Bureaucrats at the ECB.

- i. Do you know someone?
 - ii. Can you introduce me?
- b. Bureaucrats in the NCBs
 - i. Do you know someone?
 - ii. Can you introduce me?
- c. Political decision, at the central level (eg European Parliament)
 - i. Do you know someone?
 - ii. Can you introduce me?
- d. Political decision, at the level of a forum (finance ministers, lobbyists, think tanks, research centres, etc.)
 - i. Reference to a forum
 - ii. Can you introduce me
- e. Secret / don't know
- f. Other

III.2. Personal Information

- Name:
- Ethnicity:
- Gender:
- Age:
- Position:
- Employment / object:
- Previous experience relevant to the topic:
- Academic: no
 - yes, where:
- Contact information:
 - Email
 - Phone
 - Other

III.3. Comments on the interview

By the respondent (in the pilot stage, and where possible):

- Annoying style of questions
- Indiscrete questions
 - In which way?

- Shallow and of no substance
- unrelated to the knowledge of the respondent
- It would make sense to include the questions:
 - ...
 - ...
 - ...
 - ...

By the investigator:

Evaluation of the interviewee and the interview	Scale				
	B	a	Good	r	f
					P
					e
					r
					f
					e
					c
					t
1. Relative to the subject	1	2	3	4	5
2. Useful, in general	1	2	3	4	5
3. Answered many questions	1	2	3	4	5
4. Answered critical questions	1	2	3	4	5
5. Cooperative	1	2	3	4	5
6. Dispensable for a second communication	1	2	3	4	5
7. Friendly	1	2	3	4	5
8. Reference to others	1	2	3	4	5
9. Time available (very little → a lot)	1	2	3	4	5
10. Time that the interview lasted (very little → a lot)	1	2	3	4	5
11. Willing to follow the evolution of the research	1	2	3	4	5
12. Wants to see my written material	1	2	3	4	5
13.	1	2	3	4	5
14.	1	2	3	4	5

III.4. The interview sheets

1		
Question	Answer	Notes
1	iii, ii	no literature, no white paper, only discussions and unofficial debates
2	b,c, f	That was a good way to get rid of dollars in the pretext that they are buying gold for the ECB. This is something that the CBs always aim at, because they know that they are going to lose from the USD. A third reason is that the ECB wanted a third item in her balance sheet apart from USD and JPY
3	f	for accounting reasons. Thus they appeared buying at 240 and sell at the same price so that there are no profits to distribute
4	c	
5	e	
6	f	people's psychology: people want to know that his cb owns gold; people feel secure that way
7	-	
8	ii (no), b: i	In the risk assessment department, gold is managed differently from foreign exchange because the former is non-interest bearing and the latter is interest bearing
9		
10		
11	a	
12		Switzerland sold her gold for political reasons. There was a referendum for the sale so that a social program was financed. Selling gold from the ECB through the CBGA was made for reasons of managing the balance sheet. The ECB would have losses and, since this is not desirable, she sold gold.
		The reestimation of gold reserves is made upon selling, because of the principle of historical cost. So the whole gold stock is revalued when one part of it is sold.
13		The fact that the ECB joined CBGA1 is non-important since the ECB didn't sell during the first phase. Therefore it is wrong to ask why did the ECB sold 9 months after her establishment or why was the ECB equipped with gold since she would sell.
14		The ECB decided on her own how much to sell, without any exchange of views. Apparently there was a quota, estimated at 5%.
15		Political decision
other		CBs do not wish to present profits because they would then proceed in distributing them to the shareholders, that is to the state
		With the exception of the Czech CB, all the others have marginally positive balance sheet and budget
		The Czech CB is in deficit and that is problematic
		No state refinances its CB

		NY Fed doesn't charge for keeping gold but that is an issue of policy for attracting and managing the world gold stocks. This is where most of world gold is reserved.
		The valuation of gold is very important

Evaluation of the interviewee 1	
1	4
2	4
3	4
4	4
5	5
6	4
7	5
8	4
9	4
10	4
11	3
12	3

2		
Question	Answer	Notes
1	No, (a), i	
2	b	
3	d	don't know
4	c	
5	c	insisting
6	f	fetishist power of gold
7	-	
8	-	
9	iii	
10	-	
11	a	
12	d	Not able to speak about it
13		
14		
15	e, f	political decision
other		The recorded movements of gold are misleading
		The gold of ECB is in the UK
		The gold of many countries is in the UK, which is still the guardian of gold reserves of various countries
		Admitted the law of silence, like in the case of R. Zoellick

Evaluation of the interviewee 2	
1	4
2	3
3	2
4	2
5	2
6	1
7	1
8	1
9	1
10	2
11	1
12	1

3		
Question	Answer	Notes
1	i, a: iii	
2		
3		
4	c	
5	e	
6	f	expresses the interests of lobbies (gold producers, gold holders etc)
7	d	No use: that would mean huge destruction of capital
8		
9	i, a: ii	long-term relationship of gold-USD
10	c	
11	b	
12	-	
13	-	
14	-	

Evaluation of the interviewee 3	
1	4
2	2
3	3
4	2
5	4
6	5
7	5
8	3
9	4
10	4
11	4
12	3

4		
Question	Answer	Notes
1	i, a: iii	remarkable
2	a,b,c	gold backs a currency
3	d	don't know
4	a	
5	b	
6	b	gold functions potentially as money
7	-	
8		
9	i	very interesting
10		
11	b	
12	-	
13	-	
14		
15		Political decision
other		gold is carrier of value

Evaluation of the interviewee 4	
1	3
2	3
3	3
4	4
5	5
6	5
7	5
8	3
9	5
10	4
11	4
12	4

5		
Question	Answer	Notes
1	i, a: ii	
2	a, b	
3		
4	c	
5	e	
6		
7		no return
8		
9		
10		
11	b	
12	-	
13	-	
14	-	
15		
other		gold plays a role in the IMS

Evaluation of the interviewee 5	
1	3
2	2
3	1
4	1
5	4
6	4
7	5
8	3
9	4
10	3
11	5
12	5

6		
Question	Answer	Notes
1	no, (a), iii	
2	c	
3	a, e	they didn't want to take part with it
4	c	
5	e	
6	f	gives stability to a currency
7		
8		
9		
10		
11	b	
12	-	
13	-	
14	-	
15		

Evaluation of the interviewee 6	
1	2
2	3
3	2
4	2
5	5
6	5
7	5
8	5
9	4
10	3
11	3
12	3

Evaluation of the interviewee 7	
1	3
2	2
3	1
4	1
5	4
6	4
7	4
8	1
9	2
10	2
11	1
12	1

7		
Question	Answer	Notes
other		Many think tanks have encouraged the US to sell part of her gold reserves and thus reduce her debt
		The FED is against this for a series of reasons. First, the Fed doesn't want to provide with data relating to the available gold. Second, the Fed is afraid of the destabilisation in the market, the dollar and the IMS that would follow such a move
		all conclusions are "rational"

8		
Question	Answer	Notes
1	i, 1, a: iii	
2	b	
3	d	
4	d	of no practical significance
5	b	
6	f	asset of portfolio, as something different from all of the above. Closer to hoard
7		
8	i, a: ii	
9	i, a: iii	
10	a, c	
11	b	
12		
13		
14		
15		political decision

Evaluation of the interviewee 8	
1	3
2	2
3	4
4	3
5	5
6	5
7	5
8	3
9	5
10	5
11	4
12	4

9		
Question	Answer	Notes
1	i	
2	c	
3	b	
4	c	
5	c	
6	d	
7	c	
8	ii, b:i	
9	i, a: iii	
10	c	
11	b	
12		
13		
14		
15	a, i: no	
other		Why in your opinion is there a prediction in Maastricht only for gold stocks? How do they differ from foreign exchange? Gold is an asset (nobody's debt), while foreign exchange is debt

Evaluation of the interviewee 9	
1	5
2	5
3	5
4	4
5	5
6	5
7	5
8	5
9	4
10	5
11	5
12	5