Commodity Currencies vs Fiat Money - Automaticity vs Embedment

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Commodity Currencies vs Fiat Money – Automaticity vs Embedment

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Commodity Currencies vs Fiat Money – Automaticity vs Embedment

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Abstract

Commodity currencies have been stood against fiat money in the discourses on the history of money, implying a development from primitive forms of money – which needed anchor in a real commodity to gain acceptance, for instance gold, silver or copper – to a more sophisticated monetary regime based solely on confidence and trust. This paper argues that the idea of a gradual replacement of the former form of money by the latter is an ahistoric construct: commodity and fiat monies have replaced each other over the millennia, and the latest craze for commodity currency was as recent as the 1920's when numerous European currencies were based on gold. More fundamentally, money is here viewed as a social relationship, where the anchoring of money in commodities over the centuries may be seen either as strengthening the social contract between the regent and the people, or as undermining it by reducing the space of politics at the expense of automatic regulators. With the break-through of democracy in the early 20th century, the benefits of automaticity were increasingly questioned, and finally abandoned in the 1930's.

In this light, the Bretton Woods regime (1945-1970), although based on dollar-gold convertibility, is not to be interpreted as a commodity currency system but rather as one where politics took the lead over market forces, ushering post-WWII Europe, North America and Japan into a stage of embedded liberalism. It is customary to pin the demise of this era to the misuse of the USA of its *de facto* international currency monopoly, but the

crucial shift was rather the advent of neoliberal political domination of the 1980's which disembedded markets from politics once again, not the over-reach of the USA. The tying of the hands of politics, and thus of democracy, of disembedding the markets, took another leap forward with the convergence criteria established by the EU as a precondition for joining the euro zone.

The paper concludes that just as the embedding of the markets post-WWII grew out of the interwar years' dismal economic, social, political and military experiences, so, too, a re-embedment of markets may take its point of departure in the economic, social and political catastrophes following the financial crisis of 2008, and the difficulty of dealing with its consequences which have beset the euro zone countries ever since. If such a trend begins to take hold, it is argued, it is the political embedding of markets which we should focus on, not the tying of currencies to a commodity anchor.

Key words: commodity currency, gold standard, fiat money, automaticity, embedded liberalism, Bretton Woods, disembedment, minting monopoly, seigniorage, social contract, mercantilism

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1. Misconstruing the origin of money

Although most economics textbooks state three functions of money – a means of exchange, a unit of accounting, and a store of wealth – it is traditionally the first of these roles which is seen as the driver behind the rise of money, and it has become a commonplace to state that money appears on the world scene in order to facilitate exchange: as economies become more complex and more inter-dependent, and as a social division of labour takes hold, the need to facilitate the exchange of goods is presented as a natural, almost self-explanatory process. To take two seminal and historical studies of economies published a century apart:

- Karl Marx, in the first volume of *Das Kapital* (1876), gives exchange prime importance in his treatment of money by headlining Chapter 3 "Money, or the Circulation of Commodities".
- Similarly, Ferdinand Braudel, in *The Structures of Everyday life* (1979), stresses the historical importance of money to exchange, simply as a matter of fact which does not need any further elaboration to substantiate the assertion.

As we can see, Marx and Braudel view the primary role of money as being a facilitator of exchange. Here, they are in good company, already Aristotle (384-322 BCE), in one of the first registered astute discussions on economic exchange and the social role of money in the European discourse, held that money exists in order to ease exchange (Oresme 1956, see also Roll 1961:31, Davies 2002:17, Mäkeler 2003:56).

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In *Politics*, Aristotle discusses exchange and the use of money under the heading The Art of Acquisition. Barter, he maintains, is still in use within families and "among barbarous races who exchange with one another the necessities of life [...] giving and receiving wine, for instance, in return for corn and other such commodities". However, as societies develop, the nature of exchange takes on another and more important form, becoming in essence a social exchange, uniting men and binding their societies together:

> "Exchange [...] is of natural origin, arising from the fact that some men have too much and others too little for their needs. [...] The necessities of life are not all easy to transport: and so men agreed to employ among themselves, for the purposes of mutual exchange, something of intrinsic use and easily applicable to everyday requirements, such as iron, silver, or some other metal. The value of this material was at first determined simply by weight or size, but in course of time it was stamped to save the trouble of weighing and to indicate the amount it represented" (Aristotle 1959: 17-18, 1257a, Book 1, Section 3).

The same figure of thought, placing the origin of money in the natural process of exchange, is repeated almost word by word over the centuries, as scholars try to explain what money is. The French philosopher Nicola Oresme (1320 -1382), 1600 years after Aristotle, in one of the first tracts wholly dedicated to give advice to contemporary rulers as to the best way to manage money carried the logic of Aristotle forwards, and introduces his subject by stating that barer was inconvenient and that money, although it "does not directly relieve the necessities of life" it "is an instrument artificially invented for the easier exchange of natural riches" (Oresme 1956:4-5).

Some 400 years later, the same argument is used by Adam Smith in *The Wealth of Nations* (1776), in phrases which until today are repeated in economics textbooks:

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> "Division of labour being established, every man lives by exchanging. [...] Difficulties of barter lead to the selection of one commodity as money, [...] for example, cattle, salt, shells, cod, tobacco, sugar, leather and nails. Metals were eventually preferred because durable and divisible" (Smith 1976:26-27).

Not much has been added in the subsequent two hundred years and more, as far as understanding is concerned, at least not in the economics textbooks. Money is still depicted as arising primarily in order to facilitate exchange. Just listen to this version from an influential textbook on International Economics:

> "The most important function of money is to serve as a *medium of exchange*, a generally accepted means of payment. To see why a medium of exchange is necessary, imagine how time-consuming it would be for people to purchase goods and services in a world where the only type of trade possible was barter trade – the direct trade of goods or services for other goods or services. To have her car repaired, for example, your professor would have to find a mechanic in need of economic lessons!
>
> Money eliminates the enormous search costs connected with a barter system because it is universally acceptable. It eliminates these search costs by enabling an individual to sell the goods and services she produces to people other than the producers of the goods and services she wishes to consume. A complex modern economy would cease functioning without some standardized and convenient means of payment" (Krugman et al. 2012:385, italics in original).

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As we can see, there is no evolution, not to speak of increasing sophistication, in the thinking about money and exchange evidenced here over millennia (but note that the gender of the economic actor has been changed from male to female in the span of 2300 years). In fact, the recognition that money has a social meaning is weakened as the social context of money, other than as a facilitator of exchange and a store of value, is hidden from view. Compare this to Friedrich Engels who in the *Origins of the Family, Private Property and the State* (1844) saw money as a tool used by the wielders of power, as a means for exercising control over resources and men. Already in the Athenian state, Engels stressed, money, although invented to facilitate exchange, carried with it dire social consequences:

> "But when men invented money, they did not think that they were again creating a new social power, the one general power before which the whole of society must bow" (Engels 1884, chapter 5).

It is this approach which we will follow here, one that relates money – and the tradition to "anchor" money in something real, preferably a precious metal – to the issue of how to establish a socially acceptable balance between markets and societies.

2. The missing links: money, gold and the social contract

Reflections on the origin of money, at least in the textbooks and in the general understanding of mainstream economics, are mostly built on conjecture, and it is striking how often they take a hypothetical point of departure: "assume", such tales begin, "let us suppose", or "imagine" a state of barter, and that this "barter economy" needs a means of exchange in order to develop. Money thus appears in order to facilitate exchange by making

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it swifter, easier, more efficient and less cumbersome. In other words, money is portrayed as a facilitator of the natural process of exchange. [1] But a scholar specializing in money and its origin, takes as his point of departure actual societies and concludes that

> "modern textbooks on money [...] have tended to overstress the disadvantages of barter but have also tended to base the rise of money on the misleading narrow and mistaken view of the alleged disadvantages of barter to the exclusion of other factors, most of which were of very much greater importance" (Davies 2002:110).

To this we could add an anthropological perspective, where the origin of money is the need to keep track of exchange which *already was taking place*, an exchange which most frequently occurred reciprocally, an act of give-and-take, an exchange of gifts, sometimes recorded as debts, and Davies (2002:11) even talks of the "persistence of gift exchange". Such records of debts in ancient Egypt and in Mesopotamia 3 500 years BCE had been made long before the invention of coins by the use of papyrus or wooden rulers (Graeber 2012:38). Later, money was used as an aid in registering resources, so that sovereigns would know what assets and means they had available, rather than as an aid in imagined exchanges. Summing up, Graeber (2012:39) concludes that money in no way was

> "the product of commercial transactions. It was actually created by bureaucrats in order to keep track of resources and move things back and forth between departments".

Already here we find money entangled in social relations of power and subservience. "Rather than employed to acquire things", Graeber argues, the various currencies used,

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from shells to woodpecker scalps, "are mainly used to rearrange relations between people" (Graeber 2012:60). Here, the various currencies – and there is a long list of objects, metals, cattle, cowries, cocoa beans – are indeed anchored, but not necessarily in any precious metal, although that also happened. More importantly, money expressed an arrangement, how to settle social issues, and thus, relations of power.

The making of money increasingly came to be seen as the prerogative of the sovereign long before it became a state monopoly, thus providing a source of income which gave the emitter of money the power to appropriate resources both at home and abroad, either by peaceful means or by the use of force. In a context where tax collection in kind was the only other local source available to amass wealth, the mints which manufactured coins out of bullion attained a special importance. With the increasing costliness of warfare, sovereigns got in the habit of debasing the monies that they themselves had the monopoly of producing, thus opening up a new way of financing war by appropriating purchasing power from the holders of ever more hollow coins. As peasants, artisans and workers, as well as mercenaries, were paid in such "inflated currencies", the real cost to the war lords was concomitantly reduced. It is this use of the monopoly power of creating money which justifies the quip by two observers of the history of money that "the chronology of money is driven by warfare" (Bordo & Redish 2012:2).

But the relationship money emission – war financing also implies that the invention of money should be seen in the context of the establishment of a social contract (to use a concept which gained currency with Jean-Jacques Rousseau in the mid-1700s) between the king or queen and his or her people. The possibility to mobilize armies, and to pay for them, was an essential component of the power of the medieval rulers, but also a prerogative which they were advised to use with caution, or their power would be questioned by opposition and popular rebellions. Thus money is to be understood as embodying a link between the ruler and the ruled; also in this sense is money to be seen as a social relation.

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Although the concept of a social contract commonly is included among the general ideas of the Enlightenment, the social function of money, and the social responsibility which goes with the monopoly of producing money, has been stressed since Aristotle. In *Nicomachean Ethics*, Aristotle underlined that exchange, and the role of money in facilitating exchange, is a positive activity, something which "keeps people together" as long as it is seen to be reciprocal, that is, as long as we are talking about an exchange of commensurable entities. This is more than a beneficial effect caused by the activity of exchange, it is actually the precondition for association, for sociability: if there is no reciprocity "there is nothing to keep the parties together" (Aristotle 2002: 165-167, book 1, 1133).

As it is money which creates the commensurability among incommensurable things and services, and makes exchange between a doctor and a farmer, a builder and a shoemaker possible (to use the examples provided by Aristotle), money and exchange are held to be socially benevolent. Oresme puts the social function of money in even clearer terms, as a "duty" of "one or more public persons deputed by the community". The reason is simple, Oresme says: "money is essentially established and devised for the good of the community" (Oresme 1360/1956:9-10, chapter V), a perhaps overly optimistic perspective of how it ought to be.

3. Why did gold become the favoured monetary commodity?

From the understanding that money, and the exchanges it facilitates, including tax collection and payment of armies, are to be understood as social relations benefitting, in the best of cases, all of society, it follows that money based on metals is to be preferred to other materials, since such currencies possess a double advantage: they are easy for

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everyone to measure (by size or weight, and with, more special knowledge, by fineness), and it is possible to see when they have been tampered with, thus endangering the mutual social benefits, the precondition for accepting the monopoly power of the ruler.

Oresme went to great length in his treatise to discuss the five different ways that "alteration in money" can be achieved. The monopoly over the coinage, Oresme, maintained, was to be used with caution and he warned against the various ways that rulers could cheat by changing the value of money by manipulating:

> "in form or shape; then, in bimetallic ratio; in value and denomination; again, in quantity or weight, and lastly in material substance" (Oresme 1956:13).

But although such tinkering with money was known to take place, Oresme claimed that it was clear that the value of currencies should not be altered "without necessity": "a change in money should never be made, unless perhaps under eminent necessity or for the obvious advantage of the whole community" (Oresme 1956:13). As we will see such "necessities" arise on a regular basis when it comes to finding ways of financing state expenses, not only in times of war. But it was obvious to Oresme in the mid-fourteenth century that metals had an advantage over other anchors as they were seen to be more difficult to manipulate without the people concerned taking notice. And as the money did not belong to the prince but to the community, and to individuals (Oreste 1956:11), the prince was advised not to tamper with it as he pleased.

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Historically, then, bullion (and especially gold) has been favoured as the anchor for money, but the sovereigns nevertheless did as they saw fit often enough as they opted for easy finance as soon as they thought they could get away with it. Thus it has been surmised that Aristotle's discussion of the social significance of money was not a description of what existed in Greece, but on the contrary was brought forth by what may have been one of the world's first substantial currency debasements, in Athens 405 BCE (Davies 2002:229).

The advantage of bullion over other bases of monies was stressed already in the late-medieval era by Nichola Oresme, and it is frequently stressed that the appeal of gold should be understood in a comparative light, as it had lasting qualities compared to the alternatives: gold does not change colour like copper, rust like iron, or tarnish as silver. Thus it is likely that gold has occupied this special place as the favoured commodity from which to make coins, presumably because of its historic, cultural and mythic qualities (Weatherford 1997:26). As Columbus quipped in a letter from Jamaica 1503: "Gold is a wonderful thing! Whoever possesses it is master of everything he desires. With gold, one can even get souls into paradise" (quoted by Marx 1876, Chapter 3, Section 3). And in Columbus's diary from his first travel to the Americas, he relishes at the prospect of finding gold at least 65 times.

4. Misreading Mercantilism

Although Martin Luther most certainly did not agree with Columbus's ironic (?) comment that gold was the entry ticket to paradise, Luther nevertheless did think that gold was a useful, beneficial good, and he lamented that

> "the Germans were making all the world rich and beggaring themselves by sending their gold and silver to foreign countries: Frankfurt, with its fairs, was the hole through which Germany was losing her treasure"(Quoted by Roll 1961:65).

This idea that precious metals – especially gold, silver and copper – carry an intrinsic value, which gives them a special significance, is closely (but, as we shall see, erroneously) connected to the doctrine of Mercantilism. Mercantilism, following the understanding which Adam Smith made popular in the late 18th century, is often described as an economic philosophy advising states to promote policies which would lead to the hoarding of material wealth, thereby trapping countries in a fallacy of identifying money, and hence gold, as the sole source of wealth. This view led states to stimulate exports of goods, which brought them gold in exchange, but to counter imports in order to stem the outflow of precious metals, something which Smith, writing from the point of view of the rising commercial classes, ridiculed (Magnusson 1994: 25-6).

This line of argument dominated the understanding of the mercantilist doctrine in the first half of the 20th century, exemplified by Jacob Viner, one of the most influential interpreters of the Mercantilism. In 1930, Viner claimed that Mercantilism "at its core, was a doctrine which honoured 'precious metals as the sole constituents of the wealth of the nation'" (Quoted by Magnusson 1994:152-3). Also Eli Heckscher, in his wide-ranging study on Mercantilism published at about the same time, seemed to subscribe to Smith's critical stand.[2] States which opposed free trade, and especially the free outflow of gold and silver, were held to suffer from King Midas's disease by not recognizing that although precious metals were valuable, they were by no means the sole origin of wealth. As Smith says as he goes about debunking the "mercantile system":

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> "It would be too ridiculous to go about seriously to prove, that wealth does not consist in money, or in gold and silver; but in what money purchases, and is valuable only for purchasing" (Smith 1976:459).

Too ridiculous indeed, but Smith had constructed a mercantilist straw man so simple-minded that they only recognized precious metals as wealth, given rise to the derogative term "bullionism" (Davies 2002:223-33). But the philosophers and economists which later were to be lumped together as mercantilists, actually considered money (and hence gold) as one among several sources of wealth. In fact, to the mercantilists, money and bullion were usually described as "treasures", on a par with other sources of wealth (Magnusson 1994:152, 155).

A better informed summary of how these thinkers viewed economic development from the 1620s and onwards, shows a semblance with the very stance which Smith himself propounded 150 years later, allegedly in opposition to the mercantilist creed: mercantilists were not obsessed with precious metals, and they did welcome international trade and a deeper division of labour (Magnusson 1994:213). In other words, the mercantilists – in spite of what their many detractors have maintained – did not suffer from a Midas-like worship of gold, and contemporary economists and philosophers did realize that precious metals in fact were means to achieve wished-for ends, such as power and wealth.

Also when it comes to economic growth and development, mercantilists were later lauded for being clear-sighted. Thus, Keynes approved of the mercantilist quest to achieve a trade surplus, as he thought it reasonable – in the absence of a state capable of stimulating and regulating the economy – to aim for exporting more than you imported (and via this surplus amassing gold and silver) in order to stimulate investments at home in the 17th and 18th centuries. A trade surplus was beneficial to social and economic development when the

state was small, weak or opposed to providing finance to increase production (Keynes 1936, Chapter 23:II). A true mercantilist could not have advocated his/her case in more convincing words.

5. Gold standards of the nineteenth and twentieth centuries

It would be easy – but misleading – to assume that the world's currencies have evolved in a linear fashion, beginning as commodity currencies only to gradually rise to higher forms of sophistication and abstraction with the advent of pure fiat money, money built on trust and convention alone. But the historic record tells a different story: in addition to the fact that money did not emerge to replace barter, money also appears in many different guises over the centuries: see Table 1.

Thus, the emergence of gold standards before WWI and in the short interwar period does not constitute a return to an age-old uniform bullion-based currency system but rather a departure from a prior fragmented pattern.

Table 1. A typology of currency systems.

Currency systems	Characteristics	Examples
Commodity money	Multiple commodities Mixtures of gold, silver and copper	Bimetallism: France, Italy, Switzerland, Netherlands, USA, Latin Monetary Union (Belgium, France, Switzerland, Italy)
Commodity money	Single commodity	Silver: German states, Austria-

	Gold, silver or copper	Hungary, Scandinavia, Russia, UK prior to 1774 Gold: UK, Portugal 1854 Gold standard generalized 1880-1914 Interwar years, with a maximum of 45 countries on the gold standard 1931 Dollar/Gold exchange standard 1944-1971
Fiat money	No commodity anchor: fiduciary money, token coins, paper bills	Post Bretton Woods 1971-

Sources: Redish 2000, Eichengreen 2008.

We have seen that commodity currencies – be they bi- or mono standards – improve transparency and enable people in general to realize if and when the value of money has been tampered with, for instance by reducing the weight or fineness of coins. In this way currencies anchored in commodities strengthen the social obligations of the emitter, binding him/her to the wider society, and to the people affected by and dependent on a certain currency.

However, commodity currencies entailed an inner contradiction. While gold and other precious metals on the one hand may be said to re-enforce the social link and by the same token limit the sovereign's room of manoeuvre, commodity currencies on the other had two

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traits which may be seen as weakening precisely this social bond by limiting the room of manoeuvre of the state (or sovereign).

First, the automaticity which went hand in hand with anchoring money in a precious metal constituted a serious drawback on the possibility to hold the sovereign accountable, as there was nothing he/she could do, the net flows of bullion were independently and without explicit measures deciding the impact on peoples' livelihoods and on the allocation of the burdens of adjustment.

The automaticity of the gold standard operated thus: if an economy imported more than it exported, gold would flow out and force the deficit country to raise interest to lure gold back in order to re-establish the balance. This meant that a contractionary pressure was instituted for any deficit economy. The automaticity also led to rising prices as gold got scarce – remember, gold and money were identical, and with scarcity of gold prices climbed – and peasants and workers would lose purchasing power, thus in effect paying for the contraction initiated by the negative gold balance. In the long run, it was argued, a new balance would be established, with stable prices, and imports would slow down as purchasing power was restricted. In other words, the deficit would automatically be corrected. In this way, the gold standard, and the self-regulating market which it supposed, entailed a break on discretionary policies.

But the limits to politics imposed by the gold standard could also be seen to restrain the growth of the economy as a whole, and thus of capitalism. For instance, Rudolf Hilferding, the critic of finance capitalism at the outset of the 20th century, considered the then newly re-established gold standard to constitute a "golden chain" on capitalist expansion by limiting both policy options and imports, and as he in the traditional Marxist way saw expanding capitalism as the forerunner of socialism, he appeared to welcome the arrival of

an order where money would be unfettered by precious metals, and where gold "once and for all [had] lost its absolute domination" over finance capitalism (Hilferding 2006:274).

Seen from a more conservative vantage point, however, it was exactly the automaticity of the gold standard which was appreciated, as it also carried with it an anti-labour bias. The automatic pressures to achieve balance at the expense of the social strata which had the least resources to resist automatic adjustments, implied that peasants and workers were footing the bill for a monetary doctrine which tied the hands of the political sphere (Cohen 1977:78, Eichengreen 2008:29, Redish 2000:206).

We may conclude, then, in contradiction to the traditional literature on the gold standard which saw its emergence "as a matter of happenstance" (quoted by Redish 2000:139), that the rise of the gold standard by the end of the 19th century (see Table 2) was the outcome of a power struggle, the result of a specific balance of power, with clear winners and losers, not as a neutral or purely "technical" solution to a problem of international exchange. In the words of one observer, governments prior to the break-through of democracy did not care too much about how the gold standard affected the labouring classes. Monetary systems built on automatic regulation thus have a clear class bias, contrary to what the social contract perspective of Aristotle and Oresme held. With the gold standard of the interwar period:

> "the workers who suffered most from hard times were ill positioned to make their objections felt. [...] The worker susceptible to unemployment when the central bank raised the discount rate [to stop the outflow and encourage the return of gold] had little opportunity to voice his [or her] objections, much less to expel from office the government and central bankers responsible for the policy. The fact that wages and prices were relatively flexible means that a

shock to the balance of payments that required a reduction in domestic spending could be accommodated by a fall in prices and costs" (Eichengreen 2008:30).

The chosen terminology here – accommodate, required reduction in spending, fall in prices and costs – may appear innocuous, even objective, but we are dealing with a monetary system which puts the burden of adjustment squarely on the shoulders of the poorest strata of society. Thus, and although the automaticity of the gold standard during the heydays of the system is portrayed as its main benefit, it also heralds its downfall as the shifts in economic policies made urgent by the advent of democracy started to impact the rules of the currency game. In other words, the gold standard was easier to reconcile with authoritarian regimes and dictatorships than with democracies and the subsequent birth of the welfare state.

Table 2. The International Gold Standard Post-1889

	Circulation: largely gold coins	Circulation: gold, silver, token coins, and paper
Reserves: Gold	England, Germany, France, USA	Belgium, Switzerland
Reserves: Largely foreign exchange	Russia, Australia, S Africa, Egypt	Austria-Hungary, Japan, Netherlands, Scandinavia, Other British dominions
Reserves: Entirely foreign exchange		Philippines, India, Latin America

Source: Eichengreen 2008:Figure 2.2

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However, the automaticity was not as strong in real life as it appears when the system was described by its guardians, and there exists a danger that we let the *principles* of the gold standard occlude how it *in fact* functioned. Here, it seems that the impact of the automatic adjustments of the gold standard, its most important trait, did not operate as neatly as the propagators of the system have claimed. The reason is that regimes are not totally insensitive to the plight of their citizens, and many felt the need to attenuate the harsh impact which automatic adjustments brought. In fact we may be faced with a "myth of 'automatic adjustment'" as the "inflexibility of the gold standard" – not its automaticity – came to be seen as its main disadvantage (Skidelsky 2000:184). Similarly, Benjamin Cohen (1977:78-83) talks of the gold standard as an "image" and "a myth", and Bordo & Schwartz (1997:8) state that although there were some automatic traits in the gold standard, the "exceedingly long" lags for the self-regulation to materialize – 10-25 years, according to their view – meant that governments simply could not sit with their arms folded.

Even before WWI – that is, more or less simultaneous with the re-emergence of the gold standard of the late 19th century – central banks felt the need to try to intervene in order to soften the impact of the outflow of gold, and rarely missed an opportunity to try to influence the course of events by buying (or selling) gold, changing interest rates, or lowering reserve requirements of commercial banks in order to regulate the economy and speed up recovery after a crisis (Cohen 1977:79). The automatic traits of the gold standard may thus have been exaggerated, and it was not only the advent of democracy which heralded its demise, also the fact that social contracts were endangered by the gold standards forced the real standard to deviate from the theoretical one.

Secondly, the gold standard carried another drawback, also part and parcel of its seeming eternal and automatic traits. It was difficult to alter the relative exchange rates of any given

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currency as devaluation was seen not as an adjustment of exchange rates but as default. Thus, when the Roosevelt administration in its strive to counter the impact of the depression in the early 1930's wanted to force down the exchange rate of the US, "full-blown economic warfare" with the UK followed. Every morning Roosevelt is said to have met with two advisers in order to set the exchange rate dollar-gold in quite an arbitrary way, for instance reducing the value of the dollar by increasing the gold price by 21 cents, since tree times seven was seen that particular morning to be a lucky number. Keynes commented wryly that the world was faced with a "gold standard on the booze" (Skidelsky 2000:184-5. In fact, Roosevelt had already taken the US off the gold standard (in March 1933, Weatherford 1997:181) and was now only trying to assure that the dollar got steadily cheaper in order to stimulate recovery during the raging Great Depression.

Still, there were other benefits to the gold standard, apart from its social significance in terms of keeping the working classes hostage to an economic doctrine which forced them to pay for recovery, and they befell the state holding the monopoly right to issue money. The value of this so called seigniorage constituted quite a considerable source of public income, and the profits arising from seigniorage, equivalent to interest free loans, have been estimated at as much as 2-4 % of GDP during the heyday of the gold standard before WWI for Greece, Italy, Portugal and Spain, or 6-14 % of tax income for the same countries (Cohen 2008:41 and note 21). Similarly, during WWII, countries hoarding the British pound contributed an interest free loan to the war effort of the UK to the tune of 3 billion pounds (Cohen 1998:124).

Thus, abstaining from the gold standard and the monopoly profits which went along with it, would have carried a considerable cost. Still, the currency order which was negotiated post WWII signified exactly this, a new system decoupled from a metal anchor for all currencies, with one exception, the link re-established between the US dollar and gold.

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6. The Bretton Woods era of embedded liberalism

The Bretton Woods era 1945-1971 is usually described as an international monetary system tied to gold. This is only partly correct: it is true that the US dollar was tied to gold in one important respect, but Bretton Woods was not a regular gold standard but rather a hybrid monetary system which combined the absence of a commodity anchor for most currencies with a fixed but adjustable rate of exchange vis-à-vis the only currency tied to gold, the US dollar. The dollar in its turn was not based on a gold exchange – that is the emission of dollars was not based on the US gold stock – but it did convert dollars hoarded outside of its territory in gold when called upon to do so by the respective central banks.

By the end of WWII, a new understanding of the role of currency systems in relation both to society and to the economy had firmly established itself, following the rise of democracy. The new view stressed the importance of social ambitions at the expense of economic dogma and ideas of automatic, self-regulating markets (to use Karl Polanyi's term). As summarized in a study by economist Ragnar Nurkse in 1944, the balance had shifted in favour of making "international monetary policy conform to domestic social and economic policy and not the other way around" (quoted by Ruggie 1982:390).

Even before Bretton Woods, gold had lost its dominant position. After a brief period post-WWI, where the gold standard reigned (see Table 3), foreign exchange (and not gold) began to replace gold as reserve currency. Already in 1925, foreign exchange accounted for 27 per cent of the reserves in Europe and North America, twice the level pre-WWI. Subsequently, the substitution of foreign currencies for gold continued until they constituted 42 per cent of reserves in 1928 (Ruggie 1982:390). That is, at the same time as we see a resurgence of

the gold standard in the interwar period, we also witness the reduction of its importance in relative terms.

Table 3. Countries on the gold standard post-WWI, approximate numbers

1921: 5
1931: 45
1932: 20
1937: 0

Source: Eichengreen 2008: Figure 3.1, p 46.

This contradictory movement was evident also at the Bretton Woods conference in 1944, and the long series of negotiations which had preceded it between Great Britain (with its chief negotiator Keynes) and the US (led by Harry Dexter White of the US treasury). Although important contradictions and differences of opinion existed between the USA and the UK, both countries agreed that a new international monetary regime was needed to replace the confusion which had held sway previously, including the necessity to do away with the concept of unregulated markets and automatic adjustments connected to the gold standard. In the words of John Ruggie (1982:393), the new international economic order which was negotiated at Bretton Woods

> "unlike the economic nationalism of the thirties, would be multilateral in character; unlike the liberalism of the gold standard and free trade, its multilateralism would be predicated upon domestic intervention."

This new understanding, dubbed "embedded liberalism" (by Ruggie following Karl Polanyi), implied an abstention from the gold standard as anchor for national currencies. It was no longer possible to argue that golden rules of economic and monetary logic were to have priority over social objectives, and the benefits which flexible currencies bestowed on politics was preferred to the purported advantages of automatic and unregulated systems. The new order in effect invited "activist monetary policies" (Helleiner 2003:193) to replace automaticity, timeless principles and assumed beneficial relationships.

The realization that the world needed a new international set-up coloured the agreement reached at Bretton Woods. The IMF Articles of Agreement established a fixed exchange rate regime where member countries were expected to peg their currencies either to gold (a remnant of the previous role that gold had played until the Great Depression) or to the US dollar (IMF Articles of Agreement IV:1). Member governments, however, turned down the gold option and tied their currencies to the US dollar, which in effect became the sole currency linked to gold at the fixed exchange rate of 35 USD/ounce of gold. In short, a dollar-gold international monetary order was established at Bretton Woods, anchored in the US dollar, and the promise of the US government to honour its commitment to exchange dollar for gold at a stable exchange rate.

National currencies were thus free to serve other (i.e. national, social, and economic) objectives, but they were simultaneously expected to refrain from frequent exchange rate adjustments. The outcome of this contradictory ambition was a blended system called "adjustable peg", where exchange rates as a rule were fixed – pegged – in relation to the dollar from which they did not deviate by more than 1 per cent; but when there was a need to "correct a fundamental disequilibrium", it was foreseen that rates could be changed by as much as 10 per cent (IMF Articles of Agreement IV:5). Thus, the Bretton Woods agreement straddled two opposed positions, stability vis-à-vis flexibility: White, the US chief negotiator, considered Bretton Woods "a modern gold-exchange standard" while Keynes

stressed that it was "the exact opposite of the gold standard" as it conceded Britain great leeway in dealing with its domestic economic problems (quoted by Mikesell 1994:43).

The Bretton Woods understanding of course recognized the dominant position of the US globally, and this brought a potentially even more important stand than the realization that commodity anchors were not suitable to modern, democratic societies. The Bretton Woods regime in effect granted the US dollar the monopoly as the only internationally accepted currency of the Western world. This enabled the US to harvest a seigniorage estimated at 10-20 billion USD annually (Cohen 1998:124, Helleiner & Kirshner2009:5). Still more significant, it gave the US the prerogative to have its own currency valued as reserve asset by its trading partners around the world, thus turning what is an IOU (a bill emitted by the US, redeemable in goods and services of the US economy) into an asset, part of the monetary reserve.

The backing of these IOUs by the US obligation to exchange foreign dollar holdings for gold limited, at least in principle, the extent to which the US could perform this transformation of debts into assets. At the outset, however, this restriction was not a problem as the US economy then harboured as much as 2/3 to 3/4 of the world's monetary gold reserves (see Bordo 1993:38 for the first assessment, Cohen 1977:95 for the second).

In addition to the stability established by the fixed dollar-gold exchange rate, there also existed another reason why the US monopoly position was accepted at Bretton Woods: there was no alternative acceptable provider of international liquidity at the end of WWII. Since the dominating understanding then – coloured by the dismal experience of the post-WWI period – was not of a pre-eminent danger of misuse of a monopoly by emitting too many debt certificates (i.e. too many dollar bills) but rather the opposite – that there would

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not be forthcoming enough money to buttress the post-war recovery – every emission of dollars was welcomed, at least during the first post-war period.

This happy confluence of interests – the US of benefitting from its monopoly, the European states of accepting transforming trade surpluses into dollar reserves – was soon reversed as the world passed from fearing a "dollar gap", which could block economic recovery, to dreading the implications of a "dollar glut" on the stability of the international financial system. The "glut" fear gained increasing currency already by the early 1960s as a consequence of growing US budget deficit. Successive US administrations took advantage of the dollar regime to underbalance the federal budget in order to finance the war in Vietnam as well as the social reform programme, the Great society, initiated after militant protests and upheavals in the black ghettos of the US.

The transition from gap to glut – from lack to abundance of US dollars – in the international economy illustrates the necessity to analyse events contextually. The US deficit of the immediate post-WWII period is qualitatively, as well as quantitatively, different from the subsequent situation. Similarly, the drawbacks and advantages of the misuse of the dollar monopoly has not only one interpretation, but on the contrary at least two opposed understandings of its advantages and limitations: the possibility to finance public expenditures by printing dollars, instead of by claiming taxes from its population, was welcomed by those who approved of the reformist Great Society programme, while it was opposed by those who were critical of the US war in South East Asia (Weatherford 1997:187).

The need to avoid "reading" history anachronistically is also evident with regard to one of the contentious issues debated at the Bretton Woods conference: where should the headquarters of the international institutions be located? The UK delegation preferred

London, of course, at least for one of them, but in case both had to be placed in the US, the British argued "very vehemently" (Keynes' words) for New York over Washington, DC; the US delegation on the other hand unilaterally decided to have them both placed in Washington, DC (Horsefield 1969:20, 27, Helleiner 1994, Skidelsky 2000:464-5). Keynes's opposed locating them Washington not only because he wanted to protect the City of London as a global financial centre, but also because he feared that the US government would utilize the IMF and the World Bank to its advantage once the headquarters were in the political capital of the USA. In a speech at the inauguration of the twin institutions Keynes warned that if they ever became politicized he hoped that they would fall into "eternal slumber". Otherwise they would be cursed in the following manner:

> "You two brats shall grow up politicians; your every thought and act shall have an arrière-pensée; everything you determine shall be not for its own sake or on its own merits but because of something else" (quoted in Skildelsky 2000:465).

This "something else" was, of course, politics, US politics.

But seen from the other side of the Atlantic, the side of the New Deal and domestic power struggles in the US, the choice was interpreted differently. One of the key components of the Bretton Woods' agreements – the necessity to allow control of capital flows in order to secure an open trade regime in the face of fixed exchange rates, part and parcel of the embedded liberalism of the post-WWII era – had attracted sharp opposition from Wall Street, leading President Roosevelt, and his Secretary of the treasury Henry Morgenthau, to opt for Washington DC instead of Wall Street, in order to "keep [the World Bank and the IMF] free of the taint of 'international finance'" (Skidelsky 2000:464). The US position is favourably summed up by Giovanni Arrighi (2010:287): Morgenthau had "succeeded in

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transferring control over world liquidity from private to public hands, and from London and Wall Street to Washington".

There is something reasonable to this interpretation, as the decision to locate the two institutions in Washington, DC, was fervently criticized by New York bankers, leading one of them to compare the Bretton Woods agreement to the "Hitlerian monetary system" in a vain attempt to have the bankers' view carry the day by guilt by association (Helleiner 1994:41). Furthermore, locating the World Bank and the IMF in Washington, DC, could be seen as just another step along the road which the Roosevelt administration had begun already in the 1930s with the various acts instituted in order to curb Wall Street and speculation, for instance the Glass-Steagal Act of 1933 and the Banking Act of 1935 (Davies 2002:515-6). Thus, Bretton Woods was yet another step in shifting the balance in the direction of increasing the power of politics over markets.

Surprisingly, then, Keynes sided with the NY bankers concerning the urge to keep Washington out of the driver's seat of one of the crucial institutional set-ups of the post-WWII order. When closing the Bretton Woods conference, Morgenthau himself tried to assuage the fears (and the resistance) of the bankers by suggesting that they instead of speculation now could become interested in investing in the real economy. Although Morgenthau – tongue in cheek – recognized that the decisions just agreed on

> "would indeed limit the control which certain private bankers have in the past exercised over international finance. It would by no means restrict the investment sphere in which bankers could engage" (Morgenthau 1944:v).

He further promised that the World Bank would only extend loans where the private sector did not engage, at least not "at reasonable rates", thus holding out the prospect of complementarity instead of competition between the World Bank and Wall Street. Far from threatening serious banks, Morgenthau ironically concluded, the Bretton Woods agreement would "drive only the usurious money lenders from the temple of international finance" (Morgenthau 1944:v).

In sum, then, passing from the gold standard to fiat money, and taking steps to introduce embedded liberalism, increased the room of manoeuvre of the states, and thus of politics, compared to what a gold standard, or any other automatic regulatory regime, would have allowed. Bretton Woods abstained from tying the arms of the executive branches of government in Europe and elsewhere, thus allowing the rise of democracy to bring forth a welfare state.

This transformation of Europe and the rest of the capitalist world post WWII – during the golden era of capitalist development – took place under the umbrella of the US dollar-gold standard, an understanding which provided stability to the system and supplied the needed finance, indirectly via the US trade and budget deficits as well as directly from the US Marshall plan.

A traditional gold exchange of the kind that existed before WWI and during the first interwar years, would not have achieved as much. International studies have a tendency to focus on the negative aspects of the Bretton Woods era, the license to spend, the financial freedom that it allowed the US governments. But a more balanced assessment shows that the Bretton Woods system, viewed with the benefit of hindsight and against the backdrop of the speculative period which followed upon its demise, contributed to these social advances through a monetary order which fortunately did not attempt to copy the previous regimes

based on commodity currencies. The golden era was simply predicated upon flexibility more than upon automaticity, in this way embedding the liberal market economy.

7. Post-Bretton Woods: From embedded liberalism to neo-liberal dis-embedding

"In the past 7 years, there has been an average of one international monetary crisis every year. Now who gains from these crises? Not the workingman; not the investor; not the real producers of wealth. The gainers are the international money speculators. Because they thrive on crises, they help to create them".

President Nixon announcing the decoupling of the dollar from gold, August 15, 1971

As we have seen, the utility of the Bretton Woods agreement to the US economy arose not only from the seigniorage reaped by the US government, but more importantly from the fact that the international reserve status of the US dollar freed it from the need to balance the budget, allowing it to run ever larger deficits. This "exorbitant privilege", to quote Giscard d'Estaing, then French minister of finance, was clearly beneficial to the US.

By the late 1960s however, the privilege had become a burden in so far as the position of the US was tied to the promise to exchange dollars held by foreign central banks into gold, an option which was taken advantage of primarily by European governments. The passing from the dollar gap position (1945-1958) to the dollar glut situation (1958 -) also changed the attitude of the US creditor countries (the countries increasing their dollar reserves): during the gap period, the creditors kept almost all of their acquired dollars, and less than 10 per cent were turned into gold; during the decade following 1958, however, as much as 2/3 of the accumulated US deficits were exchanged for gold, almost emptying the US gold reserve kept at Fort Knox (Cohen 1977:99).

Something had to give. In 1968, the US partly decoupled from the gold standard – still 35 USD/ounce gold, the same ratio that was established after the Bretton Woods conference – and stopped redeeming private holders of dollar in gold, the first step towards letting the gold price on the international market float (in fact rise, since it had been kept down by the US exchange rate). Three years later, President Nixon announced that the US had unilaterally decided to terminate the dollar-gold standard. Through this move, the US in fact demonstrated that it had even more power than the dollar-gold monopoly implied. In the words of Susan Strange:

> "To decide one August morning that dollars can no longer be converted into gold was a progression from exorbitant privilege to super-exorbitant privilege; the US government was exercising the unconstrained right to print money that others could not (save at unacceptable cost) refuse to accept in payment" (quoted in Helleiner & Kirshner 2009:206-7).

From now on the position of the dollar as a global reserve currency rested only on two things: the still imposing role of the US economy, and the inertia created by habit and custom, both of which benefited the US economy (Helleiner & Kirshner 2009). Once a currency has become an internationally accepted asset, it may keep that position in spite of the fact that the original drivers which established the privilege may have passed. The importance of inertia in this respect has historic precedents, as when the Greek drachma was preferred over Roman coinage long after the demise of the Greek, and the rise of the Roman, empire; also the standing of the British pound sterling lasted for a considerable period of time although the UK had lost its dominant economic position (Cohen 2008:30-31).

The end of the gold standard also heralded the soon-to-come end of embedded liberalism. Embedded liberalism died not because the US had abused its monopoly position, but rather because the advent of neoliberalism brought the end to capital controls, arguable the main connection between the Bretton Woods era and embedded liberalism (Eichengreen 2008). Capital controls did in fact function more or less as intended by the architects of Bretton Woods, Keynes and White (Eichengreen 2008:231). The trick which created the golden era of capitalist development was the combination of the social ambitions of the post-WWII period with a regime limiting capital mobility.

Capital controls were not the only political tool available but rather part and parcel of a whole package of policies released after WWII, and the financial economist Barry Eichengreen has described the quarter century following WWII as

> "a period when governments intervened extensively in their economies and financial system. Interest rates were capped. The assets in which banks could invest were restricted. Governments regulated financial markets to channel credit toward strategic sectors. [...] Controls held back the flood because they were not just one rock in a swiftly moving stream. They were part of the series of levees and locks with which the raging rapids were tamed" (Eichengreen 2008:92).

But it was not to last, as the market logic resurfaced in the early 1980s, concomitant with the political advances of neoliberalism (symbolized by the victories of Margaret Thatcher in 1979 and Ronald Reagan in 1980). A major political shift took place, leading to a new dis-embedding of the market from political regulation. Eichengreen (2008:231, note 3) sees in this power shift in favour of markets a sign of "resilience", and he supposes that the architects of the post-WWII order would have been taken by surprise by the "extent to

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which markets would frustrate efforts to tightly regulate economic activity". But "surprise" is most likely too weak a term to capture what we can only surmise would have been Keynes's and White's feelings had they witnessed the advent of the neoliberal counter-revolution (Toye 1987). We may add, though, that it is misleading to view "markets" as actors in their own right as this hides from sight the power which rests in the hands of the individuals and classes who control capital, all of whom have benefited from the dis-embedding of markets.

The key in order to understand the logic behind the disembedding of markets, and the challenge of the welfare state in general, it seems to me, is not the misuse of the dollar-gold standard by the US government, nor the fact that fiat currencies have been the rule post-WWII, not even that the US unilaterally abandoned the Bretton Woods agreement by breaking the promise to redeem dollar holdings in gold. These circumstances did not block the establishment of welfare societies (of different scopes and ambitions) throughout the post-WWII world.

The fact that most countries interpreted and understood the catastrophes lived by large parts of the world beginning with WWI led to the final debunking of the myth of self-regulating markets, at least this is what it appeared to signify during the first post-WWII decades. That the gold standard, which had a brief revival during the first interwar period, as well as other monetary arrangements which restricted the freedom of manoeuvre of politics, and thus of democracy, were left on the wayside – in spite of the US commitment to respect the gold-dollar fixed exchange – testifies to the fact that a lesson had been learnt.

But the lesson was not that no anchor was needed for the world's currency systems, only that there was just one country which could be trusted to provide such an anchor for the entire globe, at the same time allowing all other countries to prioritize politically agreed

objectives. Hence, automaticity was in the Bretton Woods period reserved for the dollar-gold link, but not for other economic-political issues.

This is the deeper significance of the monetary system established during the period of embedded liberalism: without the combination of flexibility and stability the golden era would most likely have been much less of an economic and social success.

With neo-liberalism we are confronted with a resurrection of a market credo, which blaimed the end of the golden period of economic growth and social development on the expansion of the public sector, the power of the labour unions, and the controls of the movement of capital. This brought a most unfortunate revival of the belief in deregulated markets coupled with a reliance on automatic regulators of the economy, again tying the hands of politicians and limiting the political sphere.

The EU Maastricht Agreement of 1992 is a clear example of how far our understanding has retreated from the insights gained after the interwar years and encapsulated in the Bretton Woods agreements. The Maastricht Agreement established three "convergence" criteria for the member countries which were to join the European Monetary Union and adopt the euro currency: inflation is to be kept below 2 per cent of GDP, the public budget deficit must not exceed 3 per cent of GDP, and the public debt should not surpass 60 per cent of GDP. The outcome of these norms – the equivalent of the automaticity of the gold standard – is not only the mal-adaptation of the exchange rate of the euro to the varying needs of the different economies of the euro zone, but they also force the poorest and most vulnerable strata of the euro countries to pay the bill in times of crisis via a coordinated decline of wages, employment and social benefits.

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It has been noted that "the shift from Keynesian to neoliberal monetary ideas was a precondition for the [EU] monetary union" (Helleiner 2003:231-4) and that this shift had been prepared by the consistent writings on money and currencies by Friedrich von Hayek (see Hayek 1976). According to Hayek, national currencies lead governments to try to satisfy too many of the cravings of a population demanding ever more benefits, thus inflating the economy and weakening the budget discipline. To counter this tendency, Hayek argued in favour of private actors emitting competing currencies, in effect to denationalize currencies and thus to place them outside the reach of weak governments eager to please their constituencies. The outcome, Hayek inferred, would be that people voted for the most stable currency, and that governments, now bereaved of their monetary monopoly, would be forced to restrain spending and impose a strict budget discipline.

This is extreme, of course, but it nevertheless helps us understand the logic behind the disembedding of markets. The aim of his advice, Hayek, said, was "Protecting money from politics". "Money", Hayek mocked, "is certainly too dangerous an instrument to leave to the fortuitous expediency of politicians – or, it seems, economists" (Hayek 1976:16). Here, Hayek aimed his fire at Keynes, deriding him as "a man of great intellect but limited knowledge of economic theory" (Hayek 1976:10).

Hayek saw private and denationalized currencies as the best option as he realized that "there just is not enough gold about" to have gold constitute the anchor of currencies around the world (Hayek 1976a:110). Although he at timesrecognized that also gold and other metals had been tampered with by public institutions[3], he still concluded that any anchor is better than a currency left to the discretion of governments. The ultimate goal was "the abolition of monetary policy" as such (Hayek 1976:22). And for this purpose, rules are as good as gold.

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Hayek's arguments against governments' monetary policies have become the mainstream position as more and more central banks have become independent and set up to follow what Hayek called "established rules" (Hayek 1976:14). This is unfortunate as we at the core of the ongoing economic, social and political crises of the European Union find precisely "timeless" principles.

8. Conclusion

We may conclude, then, that the main deficiency of the current international monetary order does not reside in the absence of a suitable anchor, such as gold, but in the disembedment of the market forces – including the rules governing the world's major currencies – which has taken place in the following the neoliberal counter-revolution in development thinking.

But perhaps there is hope to be gained from the recent experiences of the European Union concerning what convergence politics and ill-adapted and poorly managed monetary systems can lead to. We have seen in several euro countries that a large share of the working age population has been thrust into unemployment at the same time as political constituencies – most recently evidenced in outcome of the elections to the EU parliament in France and Greece – have taken major steps in the direction of xenophobia and nationalism.

This is certainly alarming, but it may also be seen as potentially hopeful: just as it may be reasoned that the Bretton Woods era of embedded liberalism grew out of the experiences of the Great Depression of the interwar years (Ruggie 1982, Helleiner 1994, Eichengreen 2008, Helleiner & Kirshner 2009), it can be argued that we in the aftermath of the Great Financial Crisis of 2008 will see a new wave demanding the re-embedding of markets.

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[1] In addition to the sources referred to above, Graeber (2012:Chapter 2) lists a number of similar takes on what he calls "the fantasy world of barter", all surprisingly similar in their urge to convince the reader of the emergence of money as a technical device which facilitated exchange. Benjamin Cohen, simply but misleadingly states: "Before money there was only barter" (Cohen 1998 :11).

[2] In fact Heckscher had a more subtle analysis, and also stated that "Mercantilism as a monetary system is [...] not to be explained as a conscious idolatry of money" (quoted in Magnusson 1994:36).

[3] Hayek was quite inconsistent with regards to the benefits of the gold standard: on the one hand he saw it as regime which "imposed upon monetary authorities a discipline which prevented them from abusing their powers, as they have done at nearly all other times [without the gold standard] (Hayek 1976:9-10); on the other, he conceded that "a metallic money [is] also [just as fiat money] exposed to the risks of fraud by government" (Hayek 1976a:110).

Financialisation, Economy, Society and Sustainable Development (FESSUD) is a 10 million euro project largely funded by a near 8 million euro grant from the European Commission under Framework Programme 7 (contract number : 266800). The University of Leeds is the lead co-ordinator for the research project with a budget of over 2 million euros.

THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

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THE PARTNERS IN THE CONSORTIUM ARE:

Participant Number	Participant organisation name	Country
1 (Coordinator)	University of Leeds	UK
2	University of Siena	Italy
3	School of Oriental and African Studies	UK
4	Fondation Nationale des Sciences Politiques	France
5	Pour la Solidarite, Brussels	Belgium
6	Poznan University of Economics	Poland
7	Tallin University of Technology	Estonia
8	Berlin School of Economics and Law	Germany
9	Centre for Social Studies, University of Coimbra	Portugal
10	University of Pannonia, Veszprem	Hungary
11	National and Kapodistrian University of Athens	Greece
12	Middle East Technical University, Ankara	Turkey
13	Lund University	Sweden
14	University of Witwatersrand	South Africa
15	University of the Basque Country, Bilbao	Spain

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