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A new global financial infrastructure

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Introduction

Since the collapse of the Bretton Woods exchange rate system in 1971, the world's monetary system has been based on a so-called 'paper standard'. In this system, the US dollar plays the role of global currency anchor. Although this paper standard has functioned reasonably well for several decades, with ups and downs, its disadvantages are becoming increasingly obvious. One of these have been the global balance of payments disequilibria, which have become increasingly marked in recent decades. The US, whose currency functions as global currency anchor, has evolved into the world's biggest debtor, with one major deficit on its current account after the next. By contrast, there are a number of countries with substantial surpluses and rapidly accumulating reserves (in practice US debt). For many years now, economists have expressed doubt about the sustainability of this development. This uncertainty has been heightened by the recent crisis, which was triggered by the collapse of the US subprime mortgage market.

In recent years, calls are regularly heard for the establishment of a new global currency standard. In this article we will try to sketch the contours of a new system. To this end we will first look at a number of other systems in Part 1, such as the gold standard and the Bretton Woods system. We will also explore a possible alternative to the gold standard – a commodity standard, as has previously been proposed, for example, by Hayek (1943). Part II opens with the question as to why we need an international standard that is not based on the national currency of a prominent country. We then address the issue of what a new international paper standard might consist of. Important considerations in this context are to what extent this new international standard can be made 'future proof', and how it will contribute to greater equilibrium in global balance of payments (current account) positions.

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Part I: Monetary standards

Background

In the past, the value of money tended to be based on one or more commodities. Sometimes the link to the commodity was direct, as in the case of full value coinage; alternatively, an indirect link was established by linking inherently relatively worthless money to a commodity or index of commodities. Full value coinage means that the intrinsic value (of the material itself) is equal to the exchange value that the money has in commercial transactions. This can only apply to coins. When the value of the material used for the money is lower than the value it represents, this is known as fiduciary money. Since the collapse of the exchange rate agreement based on the Bretton Woods standard in the early 1970s, the international system is no longer based on a commodity standard. Money as we know it has virtually no intrinsic value; it is completely fiduciary. This means that the value of money is based solely on the universal confidence in its general acceptance. A second feature of the 'paper standard' as we now know it, is that the marginal production costs of money are virtually zero, particularly in the case of demand deposits.

Although the gold standard (1871 – 1914) is the one that most often comes to mind, a variety of materials has served as money throughout the centuries. The Cowrie shell in particular, was used as money in parts of Africa until the early 20th century². In many respects the era of the gold standard was a period of economic progress, a time when real globalisation first started to develop. Thus the gold standard may be regarded as the first modern global monetary standard.

In this section of the article we first discuss how the gold standard and the Bretton Woods system actually worked, as well as the pros and cons of both systems. Then we examine proposals for a monetary standard linked to a more broadly based commodities index. But before discussing the standards, the concept of intrinsic value requires further brief clarification. This is because a clear understanding of this ostensibly straightforward subject is necessary for evaluating the merits of the various systems.

The intrinsic value of money: a closer look

A central issue in the analysis of monetary standards is the often recurring question as to the necessity of an intrinsic value. Does money have to consist of or be covered by something valuable? In other words, does it need to have or represent an intrinsic value, or is it sufficient for it to be generally understood that it can be exchanged for something of value?

As far back as 1900, during the heyday of the gold standard, the necessity of an intrinsic value was disputed by Simmel. He believed it was sufficient for money to serve as a yardstick to express the relative value of goods or services. Likewise Knapp (1921, cited by Visser, 2010) expounded the theory that the essential value of money is that it is a legal creation.

The concept of intrinsic value or material value is by definition problematic. An objective

² For a comprehensive overview of the history of money, see Davies (2004). Less heavily documented, but highly readable and at times hilariously funny is Galbraith (1975).

evaluation is only possible when a comparison is made between the relative values of two types of money that are different, though based on the same material: the intrinsic value of a 10 gram gold coin is twice as high as a five gram gold coin. But this is where the objective evaluation ends. All money, including so-called full value coinage, is at least partly fiduciary in nature by definition. Whether the money can be exchanged for something that can be used will always depend on the local context.³ And the relationship between the full value money and the amount of goods or services that can be purchased with it depends by definition on the relative amounts of the money in circulation and the goods to be purchased. This means that an important role of full value money is to link one fiduciary system to another. Yet money that is largely based on material value has one major advantage compared to fiduciary money that has little or no material value. Fiduciary money is so easy to produce, and its production costs are far lower than its purchasing power in the economic system, that the only constraint on its production is the discretion of the monetary authorities. This constraint has proven insufficient over time, particularly during periods of economic difficulty. It is then that the money supply grows excessively and inflation becomes a threat. Seen in this light, it may be asserted that the true intrinsic value of money consists in the scarcity of the material with which it is made, and the fact that the money is therefore difficult, or at least expensive to produce. Then the growth of the money supply will respond automatically to the economic situation, via a feedback loop.

Historic international standards

In the past, the value of money was often based on precious metal. Some systems were based on a single metal, mainly gold or silver; but there are also known instances of bi-metallic systems. Each system had its own characteristics and problems.⁴ This section discusses the two systems that had the greatest impact in terms of numbers of participating countries, and were therefore the most important systems of the past centuries: the gold standard and the Bretton Woods system.

The gold standard

During the era of the gold standard, the value of the coins in circulation was based on their weight in gold. It should be pointed out that this was chiefly the case for larger denominations; there were large quantities of lower value money in circulation, used for small transactions. Even during the heyday of the gold standard, the vast majority of domestic money flows took place in low denominations of money with an uncertain and strongly fluctuating value. Even in those days, most people rarely if ever saw a gold coin during their lifetime, and few ever possessed one or more (Helleiner, 2003). The gold standard was effectively mainly of importance for international commerce and large-scale business. Not only does gold lend itself to the production of physically manageable (and easily comparable) coins with a large face value, it also greatly facilitates international transactions linked to a standard that is based on the weight of gold. Although there was free minting and melting down of gold coinage, during the era of the gold standard, it was by no means a pure gold coin standard. In addition to gold coins, and apart altogether from the low-value coinage used for domestic transactions, the use of paper money and demand

³ Indeed throughout the centuries, mystical properties have been attributed to physical substances used as money, regardless of the intrinsic value, whether Yap stones or gold.

⁴ It is beyond the scope of this article to deal comprehensively with all these systems. See Visser & Van Goor (1997) for a concise yet thorough overview of how these systems worked.

deposits (fiduciary money) was greatly on the increase.⁵ A limited quantity of gold bullion was reserved centrally to cover domestic liquidity, and as a means to manage the exchange rate.⁶

In order for this kind of system to function properly, a code of conduct is required. Additionally, a number of environmental factors need to be favourable (Korteweg & Keesing, 1974). First, the main - if not the only - task of a central bank operating under the gold standard is to ensure that the ratio between the total domestic money supply and the gold reserves remains unchanged. Any decline or increase of a country's gold reserves should therefore translate into an equal change in the total domestic money supply, including paper money and demand deposits. Second, an assumption is made that any change to the money supply will have a direct effect on prices, but not on economic activity as such. This assumption can only be realised if wages and prices are fully flexible and move in line with the money supply. Even then, the assumption is heroic, because inflation and deflation also influence the wealth and debt positions in a society. Thus, changes in these will in practice have a knock-on effect on real economic activity. The code of conduct for the gold standard further assumes that the government will not try to influence the natural business cycle by intervening in the money supply. Third, the system depends on international free trade, otherwise domestic price changes will not be reflected in international competitiveness, and trade imbalances will not be adjusted. Fourth, the system can only function if there are no international capital flows, other than those required to even out trade imbalances. Once investment capital is used to anticipate future developments, the real adjustment process is disrupted, because international capital flows have their own effect on the domestic money supply in the countries involved. And finally, the gold standard requires smooth international cooperation.

The most important feature of a gold-based standard is that the price of gold must remain constant. Under the gold standard, money could be exchanged for gold and vice versa at a fixed price. This did not mean, however, that the value, or rather the purchasing power, of gold was fixed. Even under the gold standard, there could be a shortage or surplus of gold. Once the relationship changes between the supply of monetary gold (and hence the amount of money in circulation) and the supply of other goods and services, this has to be expressed in a change in relative prices. For instance, when large gold strikes were made, such as in California in 1848 or South Africa around 1895, the gold supply increased.⁷ In a non-gold standard, such as today's, this *ceteris paribus* would lead to a drop in the gold price. During the days of the gold standard, however, the price of gold was fixed and the prices of all other goods and services had to rise (inflation) to bring about the relative price

⁵ In 1844 25% of money in circulation consisted of gold coins; by 1913 it had dropped to below 12% (Mayhew, 1999).

⁶ Incidentally, opinions are divided as to whether sterling derived its value from gold or vice versa. According to Korteweg & Keesing (1974) it was actually the value of the pound sterling that was superimposed on gold. Consequently this metal was elevated to the global standard on the strength of the success of the British empire. Initially, Britain was the only country with a gold standard. It was not adopted internationally until 1871, when Germany followed in England's footsteps, rapidly followed by the other major European countries. The US had already joined on a de facto basis, but this was not made official until 1900.

⁷ The supply of monetary gold can also increase as a result of technological developments which improve the efficiency of the production process, or as a consequence of changes in the alternative purposes for which gold is used.

decline of gold. Conversely, if the gold supply dropped, for example through exporting it, resulting in a domestic shortage of gold, the opposite was the case, and a process of general price decline (deflation) was triggered. In a system not based on the gold standard, the gold price would rise.⁸

Shocks could come from international trade, for instance. In practice, adjustments were made in the following way. Suppose a country is running a deficit on the trade balance, as a result of excessive price rises; it then loses competitiveness and ends up importing more than it exports. On balance this means a net outflow of gold, because international trade deficits were paid for in gold. Depending on the rules used, the outflow of gold translated into a proportional drop in the money supply. This in turn had a dampening effect on domestic prices. The opposite was the case with the trade partner in question, which had a trade surplus. The surplus meant an inflow of gold, increased money supply and consequently a rise in prices. Accordingly, the competitive gap remained narrow and the forces towards equilibrium in international trade were both automatic (i.e. did not require G20 summits) and strong.⁹

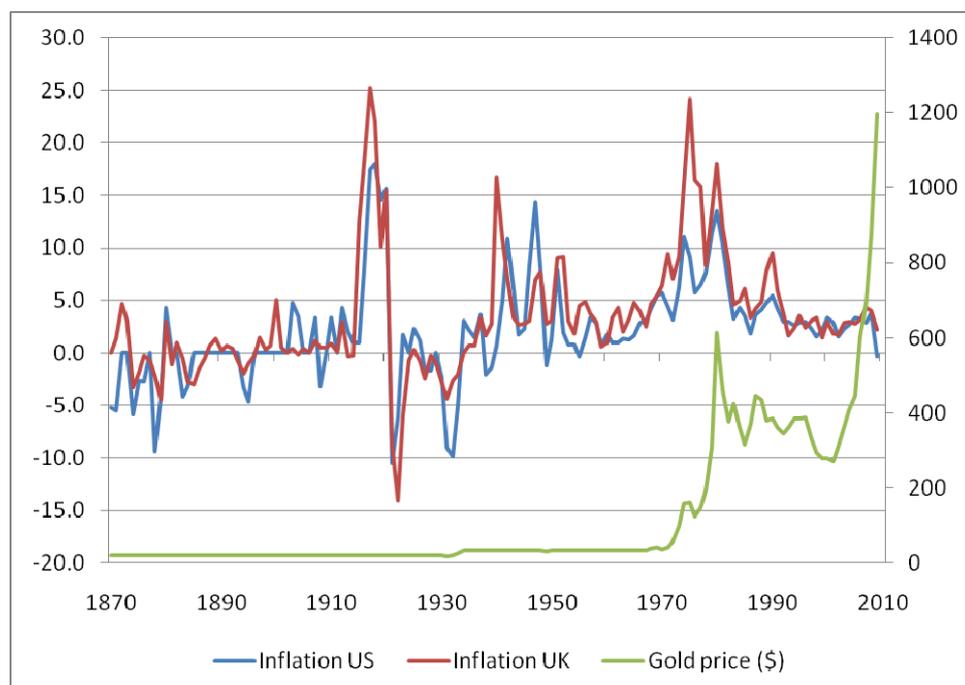
Of course shocks can be caused by other factors besides international trade or upheavals on the supply side. For instance if confidence deteriorates, investment is curbed and savings rise; gold – or more precisely monetary gold – becomes scarce and its relative value will rise. Because the price of gold is fixed, this means that the prices of the other goods and services will come under downward pressure. It also means that the production costs of gold will fall, which could translate into an increase of the gold supply. Furthermore, the supply of non-monetary gold (such as jewellery) may then also grow for the purpose of conversion to monetary gold. The ensuing increase in the gold supply will halt the process of deflation. In practice this mechanism does not work terribly well. Hayek (1943) pointed out that the price elasticity of the gold supply is low and that the additional supply is also small in relation to the available stock.

In his view, the additional gold supply was delayed for so long that its effect only became palpable after the economic downturn was already over, and the extra gold then served to further boost the upswing. Thus the gold standard was procyclical in nature. Hayek, who is often cited as a major exponent of the gold standard system, was in reality rather critical of it. While he welcomed its positive features – automatic policy rules and the physical limits to the production of money – he was not blind to the irrationality of gold worshipping, as is evidenced by the following quote: *“..The true irony of the gold standard is that under its rule a general increase in the desire for liquidity leads to the increase in the production of the one thing which can be used for practically no other purpose than to provide a liquidity reserve to individuals..”* Hayek (1943, p. 108). True, apart from its aesthetic qualities and durability, gold has few practical applications. For Hayek this was the reason to argue for a monetary standard based on commodities (see below).

⁸ This mechanism, introduced by David Hume, is known as the price-specie-flow mechanism (De Roos, 1976),

⁹ It should be noted that in practice, central banks usually responded by resorting to the interest rate weapon. By raising interest rates, it is possible to attract foreign capital (and hence gold), which slowed down the monetary adjustment process, while conversely, higher interest rates strengthened the adjustment process in the real economy.

Figure 1: Price development in UK and US and the gold price from 1870 to date



Source: EcoWin

Under the gold standard, the value of money reflects the value of the gold. This standard can only be maintained if all the gold does not leave the country. Internal adjustments in the form of inflation or deflation serve to restore the required balance in international trade. In other words, everything is subordinated to the importance of the fixed link of money to gold, and the required equilibrium in international trade. If this necessitated long-term deflation and even a recession, then this was accepted as part of the deal. Accordingly, the era of the gold standard had a number of periods of deflation, lasting many years.¹⁰ After 1945 price development (with the exception of the UK) was in general more moderate than under the gold standard, and certainly more so than during the interbellum. However, there was slightly more inflationary pressure; compared to the decades prior to World War II deflation was less of an issue.

¹⁰ Incidentally, one can by no means attribute all deflationary pressure during the gold standard to a decline in the money supply. In fact, a marked number of recessions and deflationary periods were caused by supply shocks, such as mass imports of grain from new regions, or falling prices due to productivity enhancing innovations (Wilson, 1962).

Box: Gold standard and financial stability

The call for a return to the gold standard is loudest during times of crisis. Some people appear to have the impression that the gold standard period was one of relative calm. However, the reality is quite different. Under the gold standard, the world experienced major financial crises. A prime example is the Baring crisis of 1890, which can be seen as an earlier version of the Lehman Brothers debacle. Only through substantial support from France and Russia was the Bank of England able to survive this emergency. Both countries shipped sizeable quantities of gold to England, which they lent to the Bank of England. Without this support, the Barings episode would certainly have had a comparable economic impact to that caused by the fall of Lehman in recent times. The Barings crisis was not an isolated incident. Between 1826 and 1920 there were ten cases that induced the Bank of England to resort to seeking help from other central banks (Bernstein (2000), chapter 15; Mayhew (1999), chapter 6). At the same time, these examples illustrate one of the strengths of the gold standard. The central banks of the participating countries were prepared to take prompt and incisive coordinated action. Together they shared the same vision about the working of the monetary system and they accepted the consequences of it.

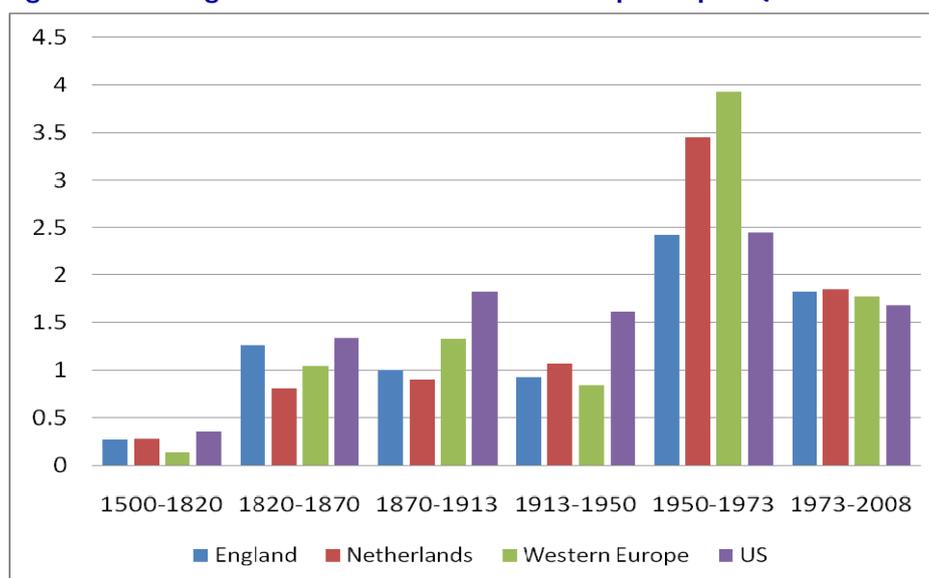
The heyday of the gold standard ended in 1914 when World War I broke out. After the war, attempts were made to restore the gold standard. However, Britain was seriously impoverished as a result of the war and had suffered rampant inflation, pushing prices up to a high level, also internationally speaking. Nonetheless, Britain re-adopted the gold standard in 1925 at pre-war parity. This resulted in a very deflationary policy, which was accompanied by a deep depression. France, on the other hand, reduced the gold parity of its currency. This boosted competitiveness and led to a strong inflow of gold to France. In 1931 the British found themselves forced to leave the gold standard, and in 1936, it was abandoned by the remaining countries as well.

Against this background, it is clear that the classic gold standard was a historic phenomenon. In the 19th century, the credit system, and particularly private credit, was not yet well developed. Both private wealth and debt positions were of limited importance. Wages were flexible both in an upward and a downward direction, and were thus easily adapted to prices. By comparison with modern day standards, international capital flows were extremely modest. Thanks to the flexible situation, the real effects of price movements were relatively limited, but not entirely absent. The years just prior to and during the gold standard can be broadly divided into three episodes. Between 1850 and 1870 (in the wake of the California gold rush), the economy flourished and prices rose. Between 1870 and 1896 there was a downturn, accompanied by deflation. This was partly, but as explained earlier, not entirely caused by the fact that during these years the demand for gold rose faster than supply. Prior to 1930 this period had been known as the Great Depression (Mayhew (1999), Bernstein, (2000)). From 1896 to 1914 was boom time again, partly because of the increased supply of gold, thanks to the invention of a new chemical procedure which greatly boosted the productivity of the existing gold mines¹¹. Generally

¹¹ By this is meant the so-called MacArthur-Forrest procedure (Bernstein, 2000, p. 280). Incidentally it is not entirely fair to characterise the era of the gold standard entirely in terms of (the growth of) available monetary gold. This was an era when new continents were opened up, important producers of (mainly) agricultural products joined the global markets and when Germany and the US in

speaking however, economic growth was far from exuberant during the gold standard era. Although growth was higher on average than in the previous decades and (with the exception of the Netherlands) between the two world wars, (1919–1939), the per capita increase of affluence pales compared to the post-war period.

Figure 2: Average annual increase in real GDP per capita (1500 – 2008)



Source: Maddison (2007), OECD

Nowadays, it is scarcely thinkable that a population would accept a prolonged period of weak economic growth or even economic contraction combined with declining incomes and high unemployment, if its only goal were to keep the price of gold stable. For a start, the costs of deflation are much higher now than was formerly the case. And the financial system is more advanced nowadays, as is expressed in the larger size of financial debt and asset positions. In this kind of context, inflation and deflation lead to a radical redistribution of wealth. Secondly, trade unions are nowadays active in combating any major drop in affluence caused by exchange rate policy. And finally, it is unlikely that in a democracy, policy leading to a sharp drop in living standards for large segments of the population would be tolerated for long. Voters would soon make their voices heard.

The Bretton Woods system

The disadvantages of the gold standard and its accompanying fairly inflexible rules became increasingly apparent as time went on. Therefore an effort was made during the Second World War to develop a new post-war system that would build further on the presumed stability of the value of gold¹², but was at the same time sufficiently flexible to minimise the risk of deflation. This was to become the Bretton Woods system.

particular followed in Britain's footsteps and experienced rapid industrial growth. See Bernstein (2000, Chapter 16), Wilson (1962) and Allen (1960).

¹² In this context, Keynes refers to the 'great psychological value' of gold (1942, p. 12)

While the value of the currencies participating in this system was still expressed in gold weight, there were some major differences compared to the gold standard. First, with the exception of the US dollar, which was linked to gold at a value of \$35 per troy ounce, the various currencies were no longer directly exchangeable for gold. Gold could be obtained by accumulating dollar reserves and exchanging these with the US for gold. Secondly, it was no longer necessary that the extent of the domestic money supply should be dependent on gold reserves. Nor could gold coins be freely minted or melted down any more. Thus the relationship between the money supply and gold reserves was now considerably more loose than was the case under the gold standard. The exchange rates of the participating countries were linked to the dollar, with a so-called 'adjustable peg' – a fixed rate which could be moved up or down by agreement. Much has been written about the emergence, functioning and demise of the Bretton Woods system (Korteweg & Keesing, 1977-IV; De Roos, 1976; Eichengreen, 2007). It is sufficient for the purpose of this article merely to refer to these, as it is the following assertions that are relevant. First, the link between gold and money had already become very loose under Bretton Woods. The transition to a fully fiduciary system, without a link to any material whatever, was therefore less radical in practice than might appear on paper. In this context, Redish (1993) uses the metaphor of an increasingly long chain with which the monetary system was ever more loosely anchored to gold. Secondly, the US dollar acquired a central role in the system, since all the participating currencies were linked to gold solely via the dollar. Thus the dollar's role under Bretton Woods was even more pivotal than that of sterling under the gold standard. The dollar's central role in the global economy since the collapse of Bretton Woods can be seen as a direct consequence of how that system worked.¹³ The position adopted by a number of central banks also played an important part. The German Bundesbank, for instance, had never been in favour of a major international role for the deutschmark. It saw the disadvantages, particularly the threatening uncontrollability of the monetary aggregates, as outweighing the advantages in the long term. Internationalisation of the deutschmark was actively opposed, which further strengthened the central position of the dollar. Currently, similar considerations concern the renminbi (Lee, 2010). A third assertion is that the International Monetary Fund (IMF) was unable to evolve into the central bank of central banks. From the beginning it was too small for such a role, lacked a money creating capacity and even today cannot function as automatic 'lender of last resort'. A fourth assertion is that while the IMF's core task was to preserve the equilibrium in balance of payments positions, the burden of adjustment fell disproportionately heavily to the countries with trade deficits. This outcome was hardly surprising, in view of the position of the US at the time which was not only the most powerful, but also the richest country in the world.

Interestingly, the proposal that was put forward by the British in 1942 prior to the Bretton Woods conference contains a number of very topical elements.¹⁴ One of the proposals of this plan, which was drawn up by John Maynard Keynes, was to link the system to gold, not via a national currency, but through a new currency, to be called the *bancor*. The link to gold would have to be flexible. Keynes anticipated that the gold reserve – small and inelastic as it is – would be insufficient to permit adequate growth of the money supply. For this reason, Keynes even wanted the IMF (or as he called it, the International Clearing

¹³ Eichengreen (2010) points out that under the gold standard, a number of currencies more or less equally occupied the position of reserve currency. At best, sterling was 'primus inter pares'.

¹⁴ Keynes (1942).

Union (ICU)), to be able to create bancors, in a similar fashion to the way central banks can create fiduciary money¹⁵. In this scenario, international transactions could be conducted in bancors. Countries would be able to obtain bancors in exchange for gold, but would not be able to buy back gold. Keynes also wanted the ICU to assume the role of automatic 'lender of last resort' for countries with liquidity problems, although he did not use this term directly. Finally, interest would have to be paid on balances held at the ICU, not only by the countries that had debts with the ICU arising from current account deficits, but also by the surplus countries without ICU debt. The purpose of this was to provide an incentive to the surplus countries to aim for greater equilibrium in the balance of payments.

The above proposals were not adopted at the time, partly because they were not acceptable to the US as the largest surplus country of the period.¹⁶ Yet one might imagine that some of these elements might nowadays meet more favour with the US, now that it is the world's largest debtor country.

Alternatives to metal standards

Although the disadvantages of the gold standard are clear, and it can be argued that the Bretton Woods system in practice had virtually no real link with gold in the end, there are still advocates today for a return to the gold standard¹⁷. Many of these – some of whom can be taken seriously - have a strong aversion to government interference in the economy. In a similar vein, Hayek insisted that throughout history it was chiefly rulers and governments that caused the loss of purchasing power of money, leading to inflation. In his words *"..the source and root of all monetary evil...[is] .. the government monopoly on the issue and control of money"* (Hayek, 1978, p. 133). The lure of generating wealth through money creation (seigniorage) by increasing the supply of fiduciary money has often been too great, as evidenced by the many episodes of hyperinflation throughout history.¹⁸ The lure of seigniorage is also one of the explanations for the tenacity with which rulers have pursued counterfeiters throughout history.

The above explains the aversion of gold standard proponents to government interference. This sentiment was voiced strongly in 1933 by US president Herbert Hoover (1929 – 1933), who told his just elected successor (President Roosevelt): *"..We need gold because we cannot trust governments.."* (Bernstein, 2000, p. 346).

¹⁵ In the words of Keynes: *"The plan aims at the substitution of an expansionist, in place of a contractionist, pressure on world trade"*, (1942, p. 4)

¹⁶ See Boughton (2002) for a more comprehensive analysis of the American and British viewpoints and of the reasons why the American White-plan prevailed in many respects.

¹⁷ A look at the websites of the gold standard institute or the American equivalent proves to be an eye-opener. Much of what these contain, however, cannot be taken seriously on economic grounds. These websites exude a highly anti-government bias and a preference for conspiracy theories, such as the article "The fed is a fascist cartel" by a certain N. Hultberg.

¹⁸ Seigniorage occurs when the intrinsic value of newly released money is lower than its economic value. Those who have released the new money into circulation thus make a one-off profit. It should be noted that seigniorage does not occur in the case of money creation by commercial banks when debts are accepted mutually, because the increase in bank deposits (which are a liability for the bank) is by definition neutralised by the increase in the client's liabilities. The client has ended up with a bank deposit of equal size of his debt to the bank.

This appeal was made in the context of doubt - later proved to be justified – as to whether President Roosevelt would be prepared to leave gold parity of the dollar unchanged.

Hayek was not, however, blind to the disadvantages of the gold standard, as can be seen from the following quotation: “... *The Gold Standard as we knew it undoubtedly had some grave deficits.....A wisely and impartially controlled system of managed currency for the whole world might, indeed, be superior to it in all respects.....*”. Yet he found the gold standard to be superior to the alternatives in many respects, because: “...*Compared, however, with the various schemes for monetary management on a national scale, the gold standard had three very important advantages: It created in effect an international currency without submitting national monetary policy to the decisions of an international authority; it made monetary policy in a great measure automatic and thereby predictable; and the changes in the supply of basic money which its mechanism secured were on the whole in the right direction...*”. In this he was fully aware, that the important issue was not so much gold as a standard, but the rules that were agreed under the gold standard system: “...*It will be noticed that none of these points claimed in favour of the standard is directly connected with any property inherent to gold....*”. (Hayek, 1943, pp. 106 – 107).

Hayek therefore showed himself to be an advocate of a commodities standard, which he saw as having several advantages over a gold standard (Hayek, 1943). Incidentally, the idea of linking money to a commodities index instead of gold is as old as the gold standard itself.

The mechanism works in the following way. Under a commodities standard, the money that is in circulation is not covered by gold reserves but by a basket of commodities. This is defined in terms of physical quantities, such as 10 litres of oil, five kilos of grain, five kilos of maize, 100 kilos of iron ore and 100 kilos of coal per thousand money units. Of course this is an entirely random example. In his proposal, Hayek himself did not list a concrete number of commodities; however a more recent proposal lists as many as 28 commodities in the basket (Ussher, 2009).

Suppose an economy experiences a slowdown because people become uncertain about the future and start to increase their liquidity. The savings rate rises, spending declines and prices come under downward pressure. Under a commodities standard, the government (or central bank) will release extra money into circulation by buying up commodities consistent with their weighting in the index at the fixed price. The extra money initially finds its way to the producers. While their production costs have declined due to the general deflationary pressure – as is the case with the gold standard – their selling price remains more or less the same. Thus they are in a position to drive up production, which in turn provides momentum for the economy. It is worth noting that Hayek, despite his lifelong criticism of post-war Keynesian policy, effectively proposed an automatic spending stimulus via the commodity producing sector.¹⁹ During times of economic upswing, the mechanism works in the opposite way. The government removes money from circulation by selling commodities consistent with their weighting in the index at the fixed price. The money supply then falls and economic activity cools. Again, the adjustment mechanism works via the sectors that produce the goods that are included in the index. Their production costs are driven up by

¹⁹ With this kind of monetary stimulus, we are only one step away from a policy in which an economic slowdown is automatically countered by a monetary financed spending stimulus; while an upturn is met with automatic monetary tightening (a liquidity contraction).

the economic boom, while prices are kept stable thanks to government intervention. Therefore, they reduce their output.

Hayek saw several advantages to this model. He maintained that a higher liquidity preference thus translates into the accumulation of useful products (commodities), instead of a product that has virtually no useful application (gold). He also expected that the economic effect of the automatic government intervention would be larger than that under the gold standard, because of the greater influence of the commodity producing industries in the economy compared to the gold industry.²⁰ The supply of commodities is much more elastic in terms of price, compared to gold; therefore adjustment mechanisms will take effect relatively quickly, and the commodities standard is likely to be less procyclical than the gold standard. Hayek was furthermore of the opinion that it would be best to adopt the commodities standard on an international scale, as it would lead to confusion if various countries were to operate standards with different commodities.²¹

Hayek did recognise a number of disadvantages, however, referring to the costs of storing the goods to be bought up. He also acknowledged that the index would have to be adjusted from time to time, according as the importance of various products went up or down. And he proposed a system of future contracts, to be put in place if the government had used up its reserves. Of course this system requires international free trade in commodities. But, said Hayek, if this condition is to be met, ... *“a great step would have been taken in the direction towards a more prosperous and stable world economy”* (Hayek, 1943, p. 114).

For Hayek the dangers of unbridled government monopoly on money creation weighed more heavily than the practical drawbacks of a metal standard such as the gold standard, or a commodities standard. This applied not only to the international financial infrastructure, but also to domestic monopoly on money creation. He later drew the conclusion that it would be better for domestic financial stability too if the government's monopoly were to be broken. Therefore, in the twilight of his career, he argued for a transition to a system of competing currencies, to be released into circulation by private market parties, (Hayek, 1978a; 1978b).²²

Hayek's enthusiasm for a commodities standard was not shared by Friedman (1951), who was eager to point out its disadvantages. Because all adjustment mechanisms are automatic, as is the case with the gold standard, they offer no scope for pursuing an anti-cyclical policy. While the feedback-mechanisms in a broadly based commodities index may

²⁰ Ussher, who draws on earlier proposals by Kaldor, expects that this effect may in fact be so strong, that a commodity standard would not only lead to monetary stability, but would speed up economic growth in the (commodity producing) developing countries and would contribute to sustainability of the global economy (through including sustainable energy and CO2 emission rights in the index).

²¹ Interestingly, the gold standard has more advantages for international trade and less for the domestic economy. However, the commodities standard as put forward by Hayek is chiefly a domestic model, intended to anchor the discretionary authority of a government with regard to creating money. The commodities index can only function internationally if all countries operate an identical commodities index. The likelihood of this is not great, in view of the divergence of interests among the different countries. An oil producing nation will by definition operate a different index from a country that specialises in agricultural produce.

²² It is beyond the scope of this article to dwell further on this subject. See Hayek (1978) for his theories in this regard. A critical analysis was conducted by Visser (1991, chapter 5).

operate more effectively and more quickly than under the gold standard, it remains a deficient form of managing the business cycle. Furthermore, commodities standards are expensive, as they require large reserves. Friedman estimates the costs of holding reserves at some 3% of GDP. The periodic rebalancing of the commodities index, seen as necessary by Hayek, cannot be based on objective rules, thus creating opportunities for political interference. He concludes: ... *"the commodity reserve currency is better analyzed as a particular countercyclical gadget or as a device for providing government assistance to a particular group of producers than as a basic monetary reform"*. (Friedman, 1951, p. 214). Moreover he points out that it does not make sense that when a failed harvest leads to economic hardship, governments should exacerbate the food shortage by buying up agricultural produce in the commodities index, in order to provide cover for money released into circulation.

Friedman concluded that while a monetary standard based on commodities may have certain advantages vis à vis the gold standard, these are more than undone by the *"... tremendous inferiority to gold in the ability to command unthinking support and reverence..."* . Compared to fiduciary or paper money (*fiat currency*) it is, in his opinion, technically inferior in every respect. He concludes: *"... (A commodity reserve currency)... can not match the nonrational, emotional appeal of the gold standard, on the one hand, or the technical efficiency of the fiat currency, on the other."* (1951, p. 232).

To conclude, it may be asserted that neither the gold standard nor a monetary standard based on commodities can offer a sound alternative to the current dollar-based system. In part two of his article we will address a possible alternative.

Part II: Towards a new system

The necessity of a universal currency

In part one of this article we have shown that a return to a monetary standard based in one way or another on a commodity is not likely. It is therefore probable, that in the future, the global currency standard will still be a 'paper standard'. This immediately begs the question as to what are the pros and cons of an international monetary system that is based on the currency of a single financially dominant country.

History has few examples of currencies that played a globally dominant role as trade currency, investment currency, vehicle currency and reserve currency. In the past two centuries, only two currencies have played a globally dominant role of this nature. In the 19th century, during the era of the gold standard it was the British pound sterling. After the Second World War, the dollar assumed the role that had been occupied by sterling, and initially as anchor currency for the Bretton Woods system. As has already been explained, this system accorded an important formal role to the dollar, linking it to gold, which permitted the dollar to evolve into the most dominant currency worldwide. Even after the link between dollar and gold was severed, the dollar retained its pre-dominance, albeit without its formal role. It may thus be asserted that in 1971 the Americans unilaterally embarked upon a new monetary experiment of global proportions. Because, while in the past, precious metals had played a background role in shoring up confidence in the currency, from 1971 for the first time there was a global standard based purely on fiduciary money. Although in daily practice the differences between the years prior to and after the collapse of Bretton Woods were not very sizeable, nonetheless the global economy entered an entirely new era in 1971.

What Great Britain in the 19th century and the US in the 20th century had in common was that they were the undisputed world leaders of their time. These were countries that formed the global economic centre of gravity. They had the most advanced banking systems and the most far-reaching financial markets. Financially, these were very powerful countries, enjoying a strong international net creditor status. They were also political heavyweights commanding a military power that could be projected throughout the world.

A country whose currency is used as a global anchor enjoys certain privileges. The main advantage is that it can finance its deficit largely or entirely in its own currency. Thus it does not accumulate liabilities in a foreign currency. This applies both to how it finances its current account deficit and to the funding of its investment in foreign companies and securities. Effectively this is an international version of seigniorage, comparable to the profit made by a central bank after releasing fiduciary money into circulation. Moreover, there are benefits to be gained from what is known as the safe-haven effect in times of turbulence.

Lastly, there is the international trade advantage. The country that owns the anchor currency incurs virtually no exchange rate risk in its international trade dealings, because the bulk of its exports and imports are conducted in its own currency.

Clearly, these effects will be greater, the fewer alternative safe-haven currencies there are. In theory, the euro constitutes a good alternative to the dollar in many respects. However, particularly in times of upheaval, the euro has suffered from the fact that European integration has not yet been completed. The financial markets within the EMU are still very

much fragmented along national lines (Boonstra 2009b). The crisis surrounding Greek government finances in early 2010 further exposed the vulnerability of the euro.

A combination of the above effects may in practice result in overvaluing of the anchor currency. This occurs not only in turbulent times, when a safe haven is sought, but also during periods of relative calm. Even then, international demand for the anchor currency is greater than can be explained by economic fundamentals. This situation causes a deterioration of competitiveness for the anchor country, putting pressure on exports and pushing up demand for imports. The result is a sustained and rising trade deficit.²³ Because the deficit can largely be financed in the country's own currency, an important disciplinary force is lacking, which might otherwise reduce the external deficit. This situation can prevail for as long as the reputation of the anchor currency remains strong. Thus a paradox is created whereby a strong reputation will inevitably set the forces in motion that will undermine this reputation by weakening its financial status. This is analogous to the so-called 'Triffin dilemma' which was identified as far back as 1959.

These advantages – which on reflection may turn out to be a mixed blessing in the long term – are countered by an important obligation, viz., a global monetary anchor is expected to provide stability. The anchor currency is meant to be solid, not be prone to high inflation and certainly not constitute a source of financial instability. This requires above all of the dominant country that it acts responsibly vis à vis the special privileges that it enjoys as a consequence of having the anchor currency. Thus, not only direct domestic interests but also the international role of its currency must be taken into account in formulating national policy (Zijlstra, 1992). This requires a level of discipline from policymakers that in practice appears unlikely.

The US has been guilty of neglecting its task as guardian of international stability on a number of occasions, such as on the dissolution of Bretton Woods and in the run-up to the present crisis²⁴. Its recent use of so-called quantitative easing to stimulate domestic demand, in the process flooding the world with newly created dollars, is just new proof of the country's inward orientation. In addition, America's international financial position has weakened, the country's economic weight in the global economy is showing a downward trend and its political influence, although still substantial, is under pressure. In many ways the situation is comparable to that of the British Empire after the First World War.

Calls for an alternative are becoming louder and are also coming from China (Zhou, 2009). However, it would not be logical for an alternative to emerge from another currency linked to a particular country. In contrast to 1918 when the US dollar was already clearly emerging as successor to sterling in view of the global shift in power, there is now no obvious successor. Neither the eurozone nor China is sufficiently dominant from an economic, financial, political or military point of view to emulate the British position in the nineteenth century or the American position in the twentieth century. Moreover, European financial

²³ Indeed this development can wreak havoc on the real economy. A fundamental overvaluation of a country's currency can damage both the exporting industries and those that produce goods for the domestic market. Entire sectors may even disappear. This means that depreciating the currency will not quickly improve the trade balance. The supply side of the export industry will simply be too weak to bring about a rapid recovery of exports.

²⁴ See Boonstra (2009a, 2009c) on the role played by the US external deficit in unleashing the financial crisis of 2007 – 2009.

integration has not yet been completed, with fragmented and therefore less liquid bond markets within the EMU. China, on the other hand, is not yet a free market economy, its financial markets lack depth and the renminbi is not a fully convertible currency.

The fact that nowadays no single country is as dominant in the global economy as the US and Britain once were is merely a matter of fact. If there is no obvious successor to the US dollar, for pragmatic reasons it might be thought that we may as well continue with the dollar for the time being. However, the problem remains that the Americans lack any restrictions on running savings deficits, thus remaining a source of major instability for the global economy. It would appear preferable, as in the words of Hayek (1943), to seek *"..wisely and impartially controlled system of managed currency for the whole world"*. The remainder of this article discusses how such a system might work.

A new anchor

With the waning financial strength of the US, it may be expected that the world is heading towards a period without a central currency anchor. A multi-polar system would make more sense, with the dollar, the euro, the yen, the renminbi - and in due course perhaps other currencies - playing an important regional role, but no longer dominating globally. The question is however, whether this system would require an anchor, and if so of what nature.

There is good reason to assume that a multipolar system as that suggested above would function better with a central anchor. Otherwise, financial markets will themselves seek a key currency for the purpose of conducting international trade and transactions on the commodities markets. Central banks will want to hold their reserves in the most important currency. This would mean that the US dollar would continue for some time to occupy the role it currently plays, albeit with increasingly less conviction. Alternatively, the markets could shift their focus to the euro, as expected by Eichengreen (2007) for instance, or in the longer term to the Chinese renminbi. However, the same paradox will remain in place: the stronger the new currency is, the more powerful will be the forces that will undermine the economic fundamentals. Likewise, global stability will ultimately depend on the way in which the dominant country weighs up its national priorities against global interests. Thus instability would seem almost inevitable, since the starting position of the successor to the dollar will be considerably weaker than that of the dollar itself in 1945 or of sterling in the 19th century. It would therefore appear preferable to create an entirely new, more stable anchor.

Towards a new international standard

A new standard requires first and foremost renewal of the international infrastructure. In view of the central position still occupied by the IMF, the most obvious solution would be to reform this institution to enable it to form the basis for a new system. However, this would require the necessary changes to be made, some elements of which can be derived from the above cited points of the Keynes plan.

The required reforms relate to:

- 1) The governance of the IMF
- 2) Making the IMF a 'lender of last resort'

- 3) Converting the existing special drawing rights (SDR) to a fully-fledged global currency standard.

Re 1) The governance of the IMF

Any increase in the global influence of the IMF should start by broadening its political support by making it a better reflection of the global economic powers. Therefore, if the IMF is to play a more heavyweight role as global economic supervisor, it is crucial that voting rights in the IMF are changed in favour of the emerging countries (Molle, 2009). The voting rights should be matched as closely as possible to the economic weight of the countries concerned within the global economy. This will result in healthy competition between countries: the better a country performs economically in relation to other countries, the more political influence it will have on the world stage and the more stable the SDR will be. Moreover, the IMF directors should be given greater autonomy in determining the amount of SDRs to be released into (or removed from) circulation (see below). Adjusting the supply of SDRs must be a decision based on monetary considerations, and must therefore be completely removed from the political arena. Needless to say, the directors will have to be answerable for their policies.

Re 2) Making the IMF a 'lender of last resort' for solvent countries

Solvent countries that are faced with acute liquidity outflows must at all times be assured of automatic access to sufficient liquidity, without the imposition of additional conditions. This is crucial, in order to remove the incentive for countries to accumulate large reserves via sizeable surpluses on their current account of the balance of payments. For the global payments imbalances to be reduced, it is necessary not only that the US should reduce its savings deficit, but that the surplus countries should aim at reducing their surplus. Seen in terms of improved living standards, international trade is not a '*zero sum game*', but in terms of trade balances, this is the case. The surpluses of some countries are by definition mirrored by the deficits of others. By setting up a sound and reliable '*lender of last resort*', it will no longer be attractive to accumulate large reserves. And by removing the intrinsic overvaluation of an anchor currency (see above), the undervaluation of other currencies will automatically be reversed.

A function of this nature for the IMF requires strict monitoring of the solvency of countries. However, this 'credit rating' would be purely directed at the question: how solvent is the country? Does it merely have a liquidity problem or is there a solvency issue? Indeed this is not so far removed from the current working of the IMF, on the basis of which its conditionality is determined. Yet there are also a number of differences. The main difference is that countries must be told confidentially what the result of their solvency rating is.²⁵ It must also be made clear how this opinion has been formed, and more importantly perhaps, the IMF must act with restraint in issuing qualitative judgements on policies pursued. Then perhaps a repeat of the effects may be prevented that were experienced by the Asian tiger countries during the Asian crisis of 1997. These countries, which only shortly before had been held up as models of development, found themselves saddled with a strict, bordering on absurd set of conditions when they turned to the IMF at the height of the crisis. Highly

²⁵ One disadvantage is that countries may take even greater risks once they know that they are judged by the IMF to be solvent. However, it is not known how great this 'moral hazard' in reality is.

indignant, they lost confidence in the IMF and in order to minimise their dependence on the Fund, they sought to build up enormous currency reserves via large surpluses on their balance of payments.²⁶ Thus, the policy of the IMF during the Asia crisis unintentionally contributed to an increase in the global payment imbalances (Strauss-Kahn, 2009). Second, when providing liquidity support, the IMF should refrain from issuing a value judgement on the policy of the country in question. This should be reserved for the annual consultations. Liquidity support can best be given by buying local currency treasury paper as collateral in exchange for support in SDRs. However, the exchange rate risk accompanying this transaction should lie entirely with the member state and not with the IMF.

Re 3) Converting the existing SDR to a fully-fledged currency standard.

The IMF's special drawing rights (SDR) need to be completely revamped if they are to fulfil the role of the *bancor* from the Keynes plan. SDR is a unit of account created by the IMF in 1969, based on a basket of currencies which in terms of its design, closely resembles the European Currency Unit (ECU) which was launched in 1979. This unit of account could, subject to the conditions below, ideally play the role of international monetary anchor. If central banks were to hold the bulk of their reserves in SDRs, commodity prices were listed (and possibly also traded) in SDRs, and the official value of currencies were listed in SDRs, the result would be a stable anchor currency.

However, as was said earlier, the composition of the SDR will have to be adapted if it is to become a currency standard. If a basket of currencies is to be taken seriously as a global currency anchor, this basket must be a sound reflection of the global financial and economic balance of power. Currently, the SDR does not meet this requirement because it consists only of the dollar, euro, yen and sterling. The basket of currencies will therefore have to be adapted, taking account of the following criteria. First, each currency has to be viewed in terms of its importance in the global economy, as measured by gross domestic product. Next is its importance in world trade, using the aggregate of imports and exports as a percentage of global trade as a guideline. An additional criterion might be the extent to which a currency plays a role as regional currency anchor, although this measure could be expected to overlap with the first two. Accordingly, the SDR should be composed of the currencies from the world's ten most important economies as determined on this basis. In contrast to Keynes' *bancor*, the future SDR (just like the current one) should not have any link to gold or commodities.²⁷

Secondly, the SDR should not be defined on the basis of percentages, but on the basis of the amounts of the participating currencies.²⁸ Of course, these amounts should initially be

²⁶ Incidentally, China's accumulation of reserves appears to be chiefly the result of its export driven growth strategy.

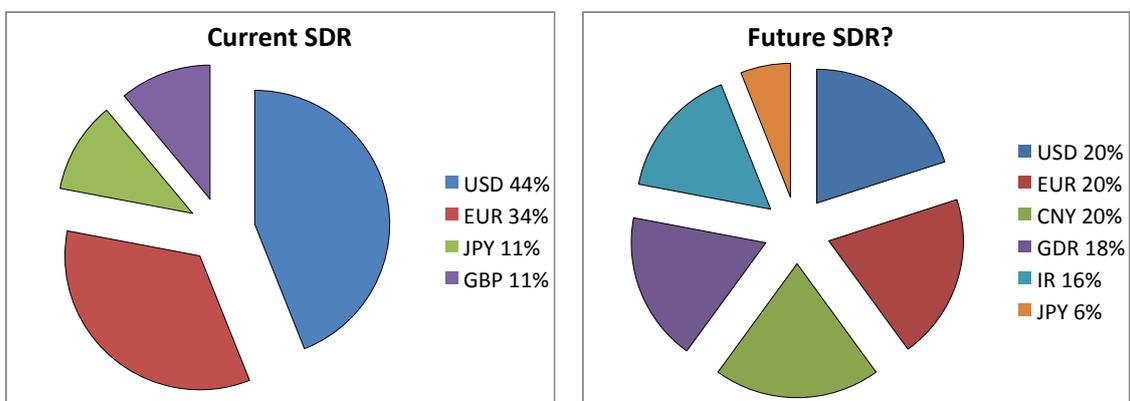
²⁷ A recent IMF paper called for the creation of a new international currency alongside the SDR basket. This currency, named the '*bancor*' in honour of Keynes, would be the real nominal anchor (Moghadam, 2010). In my view, this proposal is fundamentally flawed. The nominal anchor currency – the *bancor* – is not itself linked to anything, and its valuation is totally arbitrary. It would be better to allow the SDR basket to evolve into real money (see footnote 35). Because of the composition of the basket, the valuation of the currency is then totally objective.

²⁸ This was also the case with the ECU. If a basket of currencies is made up of a fixed number of currencies, it is known as a '*fixed basket*'. The weights attached to the included currencies will,

determined in such a way that the percentage-wise composition of the SDR will reflect the currency weights in the global economy; however, these percentages will shift as soon as exchange rate fluctuations occur. This means that the weight of the weaker currencies in the basket will gradually decline, while that of the stronger currencies will increase. The valuation of the SDR in relation to the national currencies is then of course based on a weighted average of the individual currencies. Thus a certain element of competition is introduced between the most important currencies –at international level at least.

Purely for the purposes of illustration, the figure below shows a possible composition of the new-style SDR.

Figure 3: Current and possible future composition of the SDR



Note: USD = US dollar, EUR = euro, JPY = Japanese yen, CNY = Chinese renminbi, IR = Indian Rupee, and GDR = gulf dinar (the common currency of the Middle Eastern oil producing countries, which does not yet exist)

Source: IMF, Rabobank

The quantity of SDRs in circulation

In a similar manner to how base money (M0) is created by central banks, the IMF could release SDRs into circulation.²⁹ This is necessary because the supply of SDR should be elastic enough to accommodate the demand resulting from growth in world trade. Recall that the inelastic and uncertain supply of gold was one of the main flaws of the gold standard.

As a rule, central banks have two channels through which they can manipulate the amount of base money; these are the so-called open-market operations through which the central

however, fluctuate according to their relative exchange rate development. If the weight of the included currencies is to remain constant ('fixed weight basket'), then the composition of the basket is always subject to change.

²⁹ Base money, also known as the monetary base, or M0, consists of bank reserves plus cash in circulation (for the purpose of simplicity we will disregard any full value coinage in circulation). Because these reserves in turn form the basis for the liquidity creation process of commercial banks, M0 is also known as 'high powered money'.

bank buys securities from the commercial banks (M0 rises, +) and sells them (-) or by issuing loans to banks or governments. When governments borrow money directly from the central bank, this is known as direct monetary financing. When commercial banks deposit government bonds with the central bank, this is indirect monetary financing. Normally, (government) loans are redeemed after a period of time. If the intention from the outset is to allow (part of) the increased base money to become permanent, then a perpetual government bond can be lodged with the central bank. SDRs released into circulation by the IMF effectively constitute an international variant of base money. The following balance sheets illustrate how things might work with the IMF in the role of global central bank for the member states.

IMF balance sheet changes when SDRs are created

1) *Permanent increase in the quantity of SDRs*

assets	liabilities
perpetual government paper +	reserves of member states +

Clarification:

To date, the IMF has released SDRs into circulation on three occasions (in 1969, 1982 and 2009). On the asset side of the balance sheet, an item 'allocations' was listed. This item actually has no meaning – the member states do not deposit funds with the IMF in order to obtain SDRs. This constitutes the main difference compared to ordinary drawing rights. New SDRs are created 'out of nothing'. The size of the allocations item is particularly of importance in determining the interest rates to be paid by or to the Fund. Countries whose SDR balance exceeds the allocations receive interest; in the reverse scenario, they pay interest to the IMF (De Roos, 1976, par. 2.3; IMF, 2010). Although the currently used method for creating SDRs could remain in place for the system proposed here, there is a lot to be said for allowing the IMF's money creating process to operate in a similar way to that of central banks. This example shows that the value of SDRs released by the IMF is ultimately guaranteed by the member states.³⁰

³⁰ In order to prevent discussion about the interest rates to be paid by the member states on the perpetual bonds to be accepted by the IMF, it is proposed that for the creation of SDRs – only in the case of a permanent increase - the IMF should accept perpetual zero bonds from the member states on a face value basis. Member states must undertake to buy back these bonds – likewise at face value – if the supply of SDRs is meant to shrink. This could happen if, for instance, world trade were to stagnate for a lengthy period or even contract.

1. Temporary increase in the supply of SDRs via open-market operations

assets	liabilities
Government bonds +	reserves of member states +

2. Temporary increase in the supply of SDRs via the extension of credit

assets	liabilities
Loans to member states +	reserves of member states +

In all cases, the supply of international liquidity increases. This is of course the weak spot of every monetary system, including the one proposed here. After all, by creating fiduciary money, including SDRs, the temptation remains to create extra money in order to increase seigniorage. Therefore it would be necessary to bind the IMF to an automatic policy rule, such as a fixed money growth rule based on the trend increase of global real GDP and/or world trade. This will mean that the supply of global base money can grow apace with the global real economy.³¹ As under the gold standard, this would ensure that the global monetary standard is beyond the influence of everyday politics, thus removing the main disadvantage of a fiduciary monetary standard. And the main disadvantage of the gold standard – unpredictability and inelasticity of the money supply – is also gone. Furthermore, the supply of SDRs can also be boosted by substitution. In that case, central banks exchange their reserves of, for instance, dollars or euros for SDRs. While the supply of SDRs then rises, the amount of dollars and/or euros is reduced by the same amount. Thus no new reserves are created – it is just the composition of them that changes. See below.

³¹ In practice, this would mean that the IMF would create a supply of SDRs annually (or quarterly or monthly) to be determined on the basis of economic indicators, by crediting the accounts of the central banks of the member states with an amount of SDRs in proportion to their economic weight. The asset side of the IMF balance sheet would then show an equally large item consisting of member state government bonds – whether perpetual or not. If a reduction of the money supply is needed, the same balance sheet entries would be shown, albeit in reverse.

2) *Changes to the supply of SDRs via substitution*³²

IMF Balance Sheet	
assets	liabilities
currencies (member states) +	reserves of member states +

Member State Balance Sheet	
assets	liabilities
foreign currency reserves -	
SDR reserves +	

When base money is created in the form of SDRs, this gives rise to seigniorage. This profit can be for the account of the member states or the IMF. When SDRs are created by the lodgement of perpetual government paper with the IMF, the seigniorage goes entirely to the member states. In that case, the profit can be considerable, i.e. the total supply of the SDRs created minus the cash value of the difference between any interest payments on the perpetual loan (see footnote 29: in this proposal this would be zero) and any interest gains on the SDRs received. For this reason, it is important to remove this process entirely from the political arena and base it on objective criteria. These criteria need to be established contractually, in order to completely eliminate the lure of seeking excessive money creation.³³ In the case of other types of money creation, the extent of the seigniorage for the IMF is determined by the difference between the interest revenues to and interest paid by the IMF.

Ideally, the IMF should charge interest at market rates, with little or no interest paid on SDR deposits created via open market operations or loans.³⁴ The seigniorage accruing to the IMF from creating SDRs should be used to finance the running costs of the organisation, and any surplus should be added to the reserves.

³² The Figure illustrates an increase in the SDR supply. If the supply is reduced, the symbols are reversed.

³³ In order to ensure discipline regarding the growth of the global supply of base money by the IMF, it could be decided that any change to the code of conduct can only be implemented if permission is given by a qualified majority.

³⁴ This raises the question as to what market interest rates are for countries. Often, countries will require extra international liquidity if they have difficulty in raising money on the international financial markets. It may be that the prevailing interest rates may not be representative of the fundamental situation of that country at the time. Therefore, it is important that agreement be reached beforehand, that the IMF will provide support at a rate based on a long-term average calculated over a period preceding that of the acute liquidity requirement.

The IMF should pay interest at market rates on SDR balances that are created via substitution.³⁵ Only in this way can countries be induced to hold their reserves in SDRs. Keynes' proposal (1942) to charge interest also to those countries with a positive credit balance with the IMF (ICU in Keynesian terminology) would appear unrealistic nowadays with free movement of capital. Since the aim is for central banks globally to hold their reserves largely in SDRs, it would be counterproductive to 'penalise' them for doing so. They can do this by lodging their currency reserves with the IMF in the form of an SDR deposit. Banks – both commercial and central banks – can also have deposits in SDRs with each other. In this respect too, past history with ECUs may pave the way. In contrast to the SDR, which although introduced in the early 1970s has so far played a subordinated role, the ECU was successful as an anchor currency from the start within the exchange rate mechanism of the European Monetary System. The currencies in the ECU basket reflected the economic weight of the participating countries within the European Union. Alongside the official ECU created by the authorities, a market for private ECUs soon emerged, in particular for investment products. In 1999 the ECU was discontinued as a currency basket, and was converted to the euro at parity³⁶

Floating currency blocks

Although the SDR in the role proposed here can develop into the world's most important internationally used currency, it is not envisaged as 'world money' in a literal sense. In our scenario, each country has the option of retaining its own currency or of introducing another currency, as for instance in the case of monetary integration.³⁷ In practice there are many examples of countries – particularly smaller ones – that have established some kind of link with another country's currency – usually that of a major trading partner. Under the proposed system, countries could continue to determine their own exchange rate system. A currency could be linked to a large currency such as the dollar, euro, yen or in due course the renminbi; alternatively it could be floated freely or 'managed' or linked directly to the SDR. The most important anchor currencies would have to be included in the SDR basket.

³⁵ Interest on official SDR deposits is determined by the weighted average of interest paid on the currencies in the basket. Interest on private SDRs may deviate to a modest extent, because this market has a different dynamic. In this respect, experience with private ECUs may point the way.

³⁶ Clearly, an important question is why the launch of the official ECU was quickly followed by the emergence of a sizeable market for private ECUs, whereas this did not succeed with the SDR. According to Allen (1986) the reasons for this include the following. The ECU was a so-called 'fixed-basket', whereas the SDR was a 'fixed weight basket' is. Thanks to its stable content, the former is better suited to the formation of private contracts, because private parties can create their own ECU from the currencies in the basket. This was not the case with the SDR. And the ECU was immediately subjected to widespread usage, because the EU conducted its financial business in this currency. Again, this was lacking with the SDR. The SDR had a large weight in dollars, whereas the ECU had a broader spread of currencies. And finally, the volatility of the SDR currencies is much greater than those that made up the ECU. The latter can be seen as a sensible compromise between the stronger and weaker currencies, an element greatly lacking in the case of the SDR (Allen, 1986, Chapter IV). In addition, Aglietta (2000) points to the paralysing effect of the discord between the US and France over the role of the SDR.

³⁷ The creation of the EMU and the introduction of the euro is an obvious example. There are also countries that have voluntarily adopted the currency of another nation. Panama, for instance, has been using the US dollar for a long time; and Montenegro introduced the euro immediately after obtaining independence.

Greater equilibrium in the balance of payments

A final important question is what influence the proposed system might have on global payment imbalances. A system based on the SDR can be expected to have a moderating effect. Because of the diversification inherent to the currency, deficit countries will no longer be able to receive unlimited credit in their own currency. This will remove a major cause of the current global imbalances. Moreover, a well developed function of 'lender of last resort' should remove the incentive from most present day surplus countries to continue to build up excessively large reserves.

Nonetheless, there will always be countries with savings surpluses and those with deficits. There are often fundamental reasons for this, such as diverging business cycles, exchange rate fluctuations or demographic differences.

However, if a consensus can be reached to the effect that a certain degree of equilibrium in trade should be aimed for in the foreseeable future, and that the exchange rate should play a role in restoring balance, then exchange rates should become more predictable. This can certainly be expected once the renminbi joins the ranks of 'normal' currencies. The removal of the misplaced incentives that characterise the current system will curb the development of large global payment imbalances.³⁸

Transitional Problems

In order to progress from the current inherently unstable situation to the system proposed here, changes in policy are required from all the major countries. To a point, this can be achieved by removing the faulty incentives from the system, and replacing them where possible with healthy incentives. Thus the incentive to accumulate excessively large currency reserves caused by the absence of a reliable *lender of last resort*, and the incentive for Americans to accumulate unbridled foreign debt due to the special role of the dollar, will have disappeared from the new system. This means the removal of two major causes of the global balance of payments disequilibria. If trade in the major commodities is conducted in SDRs, countries will have an incentive to hold most of their reserves in SDRs and no longer overwhelmingly in dollars.³⁹ As the SDR gains in importance, the market for private SDRs will grow and the proposed system will increase in effectiveness.

Both Europe and China face significant challenges. The euro and the renminbi will have to evolve into true competitors to the dollar. For the euro, this means that snags in its design

³⁸ Although interesting in theory, Keynes' proposal that not only countries with debts to the IMF but also countries in credit should pay interest would not be feasible in today's world. In order to induce countries to hold their reserves in SDRs, SDR-denominated products will have to yield a financial return (to be based on the weighted yields on comparable products denominated in the currencies in the basket). Nor is it plausible in a world of free capital movement that countries could be forced to hold their reserves in a specific currency. By according a large role in international trade to the SDR, for instance, by listing and trading the major commodities in SDRs, the competitiveness of the SDR would be greatly enhanced. However, the other major currencies in the proposed model would continue to play a role as reserve currencies. Thus the ensuing competition – between the currencies themselves, and with the SDR – could be expected to have a disciplinary effect.

³⁹ Countries may already hold their currency reserves in a currency basket – which they actually do in practice. However, dollars are grossly overrepresented in the basket. This can mainly be attributed to the overwhelming importance of the dollar in international trade.

will have to be addressed. One of these is the fragmentation of the EMU bond market into national sub-markets which almost proved fatal to the currency during the Greek crisis. For China the challenge lies in a long trajectory of deregulation of its financial markets and of international capital movement, before the renminbi can establish itself as a credible international currency.⁴⁰

Some countries will have to make concessions. For the US, a system based on the SDR means giving up the exorbitant privilege that it has enjoyed for over half a century. Although in the long term this will be good for America's own financial stability, the extra financial discipline required by the SDR system will not initially be seen by US policymakers as an improvement to their lot. In the long term, however, this discipline could be what might help prevent a de facto bankruptcy of the US.⁴¹ The other major player – China – will also have to make adjustments to policy. A policy of export-driven growth, based on an undervalued currency is in any case not sustainable, if only on account of the international tensions it provokes – including a serious threat of protectionism. More painfully, perhaps, China will have to accept a hefty loss on its overwhelmingly dollar-denominated reserves when the SDR comes into effect.

Against this background, it is immediately clear that a transition to a new regime should take place gradually. It should start with the reform of the IMF and the incorporation of the right incentives, as described above. Bolstering the market for private SDRs is another important pre-condition. However, it will likely take some time – and perhaps another crisis or two, or a couple more trade wars, before both the US and China recognise that their future interests are best served by a reform of the global financial infrastructure.

In conclusion

The stability of the global economy would be greatly enhanced if instead of a national currency in the role of global anchor currency, a supranationally managed currency unit were to be introduced. It has been argued above that neither a return to the gold standard nor the introduction of a commodities standard would be a valid alternative. Therefore this article calls for the introduction of a nominal anchor in the form of a currency basket. As such, the SDR appears to be an ideal candidate for this role, but if it is to find universal acceptance, it will have to do greater justice to the interests of the emerging countries.

For a global currency to be managed, an international organisation is required. The IMF would appear to be the obvious candidate, in view of the role it has played since its inception. However, this organisation would itself first need to be reformed, both in terms of its structure and in the role it would have to play as *lender of last resort*. Only then can countries be induced to stop accumulating unnecessary savings surpluses. Deficit countries would have to contend with disciplinary forces at an earlier stage than is currently the case; accordingly, policymakers would have an incentive to address

⁴⁰ This does not mean that international capital movement has to be free of all restrictions. It is entirely justifiable for countries to want to curb inflows of speculative capital, as for instance Chile has traditionally done. Clearly, however, a country whose currency occupies an important position in the international system will liberalise its international capital movements as much as possible.

⁴¹ According to Kotlikoff (2005) it is inevitable that the US – taking all long-term liabilities into account – will ultimately become bankrupt.

imbalances before they get out of hand. No single country would have an exclusive advantage based on its ownership of the key currency any longer.

With the growing importance of the SDR as official anchor, it may be expected that a private SDR market will soon develop, as was the case at the time with the ECU. If commodities are listed and traded in SDRs, this process will quickly gain traction. Major currencies like the euro, the dollar and the renminbi will continue to play an important role as regional anchors for the currencies of countries that have close trade links. These currencies, which will remain important players, may in principle fluctuate freely against each other. All in all, the end result will be a much more stable global economy.

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