

WORLD MONEY: FROM THE EURODOLLAR TO THE SINODOLLAR

Abstract

The paper presents an overview of major currency and capital developments after World War II, showing that the movements brought about by US investments in the fifties and sixties that created the offshore Eurodollar bear resemblance to what is now taking place between the US as the world's investor and China. The imbalances recorded are thus to some extent counterbalanced by the huge returns accruing to businesses of the west. This follows the 'dark matter' theory but with the twist that real value is extracted through FDI. International money creation takes place in a triangular process of long and short lending intermediated by short borrowing. However, real threats are also created in this way. Rather than in superficial notions of instability in currency markets, the high return on capital abroad supported the exaggerated financialization of the US and ensured its eventual meltdown. In addition structural problems are created in the world economy: the west is deindustrializing and losing employment at the behest of the east.

Introduction

Money unfolds its properties *par excellence* in the international setting where it is registered as more than a vehicle for spending people's income or storing their wealth. Sometimes the foreign-exchange market is at the forefront of attention, at other times it plays in the background. One currency has come to dominate, the dollar, but there is speculation that the dollar is losing out as an international vehicle of trade and capital while a bipolar system is emerging for the currency in which reserves are held, prices quoted and assets denominated and traded. There are fewer important currencies now with the advent of the euro, but what is the euro? Does it diverge from other currencies in its mode of functioning? What is its backing?

The analysis of the monetary developments after the Second World War justifies the contention that money is created in the capital accumulation process. Keynes in *The General Theory* latently saw the 'value' of money as deriving from the money/capital markets through the interest rate and the interaction of the latter with the 'marginal efficiency of capital', viz. the return on real assets. He thus approached the view that money was endogenous (i.e. created through the demand for it), but he did not develop a consistent monetary theory in his own *General one*. The different motives (transactions, speculative and precautionary) for liquidity preference do not constitute a complete theory since the motives for holding money do not indicate the genesis and substance of money. They are just a derivative phenomenon superimposed back onto money itself.

But essential is what money is, not only who issues/creates money. Mainstream economists tend to think that the institutions set to defend the value of the currency, the central banks, are what matters. Hard-core monetarists think that central banks should interfere as little as possible or be completely predictable. It shall here be argued that although central banks have a role in regulating markets, 'new' money results from the process of capital accumulation as the manifestation of surplus value creation in accordance with Marx who also thought that its value was basically determined via one particular commodity, gold. But Marx did not seem to recognize that these two 'functions' would eventually collide.

It is necessary to look at monetary developments to see how money can be understood today, which requires a review of the evolution of the international money system from the establishment of the

Bretton Woods system in the forties, its formal break-down in the seventies and an account of what happened later on.

Bretton Woods

The Bretton Woods Agreement of 1944 institutionalized the par value principle for currencies. During the reign of the predecessor “classical” gold standard there was no official, internationally agreed-upon par value, so actually Bretton Woods constituted a more rigid approach to exchange rates (fixed) than before. The pound had, with interruption 1919-25, been international money until 1931, but other countries had decided on the principles they wanted to adopt around the general acceptance of gold as the central value that currencies were mirrored in. By 1914 Britain had been on gold *de jure* for 70 years. The pound was the reference currency of trade because such a large part of world trade was in British hands. Since gold was not used in market transactions, only as reserves, it is a bit naïve to imagine that its stock should be of a particular size. In the nineteenth century David Ricardo sided with the Bullionists reclaiming convertibility of paper money into gold. But in actual fact, Bank of England tended to raise Bank rate when gold outflow threatened because of paper money losing its value. This was meant to prevent the outflow from taking place, and the exchange parities were reestablished so gold stock became unimportant. This debate was resuscitated in the nineteen sixties/seventies.

The US Congress enshrined by the Bretton Woods Agreements Act in 1945 that only Congress could change the gold content of the dollar. In 1949 major currencies became arranged around par values on the basis of the already prevailing ratio of \$35 for one troy ounce of gold. The gold-exchange standard or gold-dollar standard took off (Gilbert 1968). However, pars were not actually rigid. Currencies could move 1% up or down in the free market before intervention. Concomitantly the US decided to sell and buy gold freely, a decision which exempted it from pegging or defending exchange rates of other countries to keep them within one per cent of their par value with the dollar. In addition, adjustments could take place after market development indicators in the form of official devaluations. This part of the system came to be known as the ‘adjustable peg’. It was not until 1959, however, that the dollar became key currency by a by-law allowing a single convertible currency to be pegged to gold in lieu of that of every other member. Still, the US should not actively defend its currency, an obligation incumbent on other countries. This is often termed the *n - 1* (n minus one) problem. The dollar was not an asset for the US Federal Reserve System, only a liability. The US did not hold other currencies as reserves either, only gold. This was at the root of the asymmetry between the dollar and other currencies that emerged as a problem in the beginning of the seventies. Official devaluations did take place under Bretton Woods, the pound was for example officially devalued in 1967.

In August 1971 President Richard Nixon announced the discarding of market convertibility of dollars into gold. The giving-up of convertibility did not mean that there was no international monetary significance to gold anymore. It only meant that the official price became meaningless for all other purposes than transactions among central banks – if they could agree upon dealing in gold. And it did mean that the official price could be considerably at odds with the market price, timidly allowed already in 1968 through the acceptance of a two-tiered pricing system for gold. After the Smithsonian Agreement of December 1971 the dollar was devalued for the first time since 1934. One ounce of gold was to cost \$38 officially. In February 1973 the Smithsonian Agreement broke down and the most important exchange rates started floating. In Kingston, Jamaica, floating exchange rates were condoned officially by the IMF (1976), but at the same time it was stated that “a stable system of exchange rates” should be aimed at. Central banks were henceforth allowed to buy and sell gold freely.

At the turn of the year 1975/76 the average price of an ounce of gold was \$140 on the important exchanges. However, this was an improvement for the dollar relative to its status a year earlier when gold sold for up to \$198 (Dec. 1974).

The Kingston agreement abolished not only the gold standard, but also an officially agreed-upon standard altogether. Despite the fears experienced at the time, the international system survived. Had a *de facto* standard been developing behind the back of the gold-exchange standard in the sixties and beginning of the seventies so that it was ready to fly when the formal system had finally caved in? Around 1960 another reality had started to emerge, the dollar standard.

In the beginning of the nineteen twenties there was a similar situation, i.e. there was no internationally agreed-upon standard. However, neither was there a *de facto* standard, and some exchange rates were totally flexible or floating.¹ At that time the historical tendency away from gold and toward a dollar standard was articulated by Keynes in pregnant form,

“The theory on which the Federal Reserve Board is supposed to govern its discount policy, by reference to the influx and efflux of gold and the proportion of gold to liabilities, is as dead as mutton. It perished, and perished justly, as soon as the Federal Reserve Board began to ignore its ratio and to accept gold without allowing it to exercise its full influence,[.] merely because an expansion of credit and prices seemed at that moment undesirable. From that day gold was demonetised by almost the last country which still continued to do it lip-service, and a dollar standard was set up on the pedestal of the Golden Calf. For the past two years the United States has *pretended* to maintain a gold standard. *In fact* it has established a dollar standard; and, instead of ensuring that the value of the dollar shall conform to that of gold, it makes provision, at great expense, that the value of gold shall conform to that of the dollar. This is the way by which a rich country is able to combine new wisdom with old prejudice.” (Keynes 2000: 198).

Dollars came to substitute for gold, rather than to follow its moves. The monetary management became independent of the underlying gold base. Not allowing reserve inflows to exert full influence on credit later on became known as ‘sterilization’ and grew into an instrument cherished by a number of economists.

But what is (or was) a dollar standard? Prophecies are often not very precise, and Keynes himself saw its fulfillment as a rather grim outlook. In *A Tract on Monetary Reform* he conceded that also the reinstatement of the gold standard would imply the surrender of the price level and the handing-over of the credit cycle to the Federal Reserve Board, which started acquiring a lot of gold from overseas during the First World War. No matter, the experience of the Bretton Woods era was a development from a quasi gold standard to a dollar standard, but with a period of overlapping or, rather, the dollar standard existing in a prolonged chrysalis stage before it could finally fly. Contrary to the twenties, nobody has seriously looked back or tried to go back to gold ever since.²

¹ The distinction sometimes drawn concerns the variations around par, e.g. ‘managed float’ or completely flexible rates without any anchor.

² It can be argued whether the persistence of gold in reserves is a remnant or inherent feature of the monetary base. Despite the obvious ability of gold to store value, literally, and, notably in a crisis, to serve as a private store of wealth gold has ceased to have official monetary functions in the sense that central banks have stopped being relevant for gold.

An International Standard

The textbook definition of an international monetary “standard” is a currency/commodity with the properties ascribed to money generally, 1) of numeraire (which, to echo Marx’s criticism in the beginning of the *Capital*, is used for both the substance and the arbitrary units of the measuring rod), 2) of medium of exchange, 3) of store of value. Essential for Marx was that money is the general equivalent of the exchange value of commodities. Internationally, this has proven a more difficult proposition.

Derived from gold as standard, the dollar became the unit of account measuring the more or less of something of value, viz. the substance of the standard. It took 35 units of dollars to buy an ounce of gold. As it required e.g. 7 Danish kroners to buy a dollar in the Bretton Woods parity days, through the dollar it could be calculated how many kroners it would take to buy one ounce of gold, 245 kroners logically. A krone was worth 1/245 ounce of gold and, by extension, 1/7 dollar. In that sense the dollar could also become the substitute ‘substance’ standard for all currencies. As numeraire it often is “just one”, i.e. other currencies are stated in the numerator: 7 kroners to 1 dollar. But the pound is normally quoted in the denominator when it is part of a ratio, even vis-à-vis the dollar. This can be seen to be for practical and probably also historical reasons. Gold was the store of value, and dollars came to be the reference unit. Through its role as derived standard of value the dollar slowly assumed the ‘store of value’ function, which it could at first only do in a metaphorical sense by representing gold in a fixed proportion. Subsequently, the dollar transformed itself, not into a commodity store of value like gold, which would obviously be impossible, but into a store of value in an asset sense through its easy use in investments to command a rate of return. By being a roving vehicle of surplus extraction, it was as if the dollar in itself carried a yield.³

The dollar has for many years been the most-used medium of exchange in the world. It is also the means of borrowing and settlement of debt, of quoting prices of international commodities and trading in them (oil, cotton, coffee...). Consequently, all types of capital market instruments are issued and traded in dollars, and the US stock market is the most important one in the world. The market capitalization of New York Stock Exchange shares, excluding NASDAQ, compared with the rest of the world, reached 41% in both 1980 and 2001, but was lower in all other years. In 2005 it was 33%, a steady decline from 2001. At the end of 2006 it was down to 30%. Including NASDAQ the market capitalization reached a maximum so far of nearly 52% of world shares in 2001, but was down to 41.3% in 2005.⁴ The rest of the world here consists of Tokyo, London, Deutsche Börse and Euronext. At the end of 2007 NYSE was about 35% of the total, 44% with NASDAQ.

Keynes saw the dollar standard in terms of control of the price level and of monetary policy by the US. But the important point is that, Keynes or no Keynes, the dollar standard in the sense of its locking-out gold as ‘value’ in fact came about through the Eurodollar market that developed after convertibility of currencies was allowed after the Second World War, i.e. in trades combined with a gradual liberalization of capital account transactions. It was based not on price levels and official monetary policy by any central bank but on market developments. In *The General Theory* Keynes intuited this direction, but did not concern himself with such details as the finer mechanisms of the monetary system. He saw money creation in terms of ‘demand’ associated with more or less subjective motives. At any rate, the dollar could only become a reserve because it carried a premium of sorts, i.e. a reliable rate of interest, and this was perfected via the Eurodollar market,

³ “The major confusion here (...), i.e. that value as such (interest) comes to be the use-value of capital, is something that Tooke does not see.” (Marx 1991: 476).

⁴ Based on data from the NYSE official website, www.nyse.com (www.nyxdata.com/nysedata).

which also consolidated its role as international money that could escape the US money supply. The massive holding of US Treasury bills as reserves only developed later.

The Eurodollar and International Financial Intermediation

The claim that the full-blown dollar standard was created through the Eurodollar market calls for an explanation. This market developed around 1960. In short it denoted short-term deposits held with first of all British and, to a lesser degree, continental banks, but expressed in dollars instead of local currency. Holding dollars was not considered risky. Therefore the question is whether dollars had or came to have a special advantage, and how this came about.

In the first place, dollars seeped into Europe through the Marshall Plan. Altogether USD 13.3 billion were donated. The Plan itself consisted of shipment of US goods, but American private interests followed⁵ by Americans starting to invest in Europe because of the higher returns on long-term capital.⁶ Some of this investment may simply have started as a complement of the reconstruction.⁷ The long-term rates were higher in Europe after the war than in the US. On the other hand, the short-term rates should classically be higher in the US for standard international financial intermediation to take place. The Eurodollar market developed after the convertibility of currencies was reinstated in 1958 for the first time after World War II. Given convertibility and fixed exchange rates, there was no perceived exchange risk. The foreign-exchange departments in London could busy themselves with exploiting interest-rate differentials. The decline of the British empire also showed up in a need to attract funds.

Financial intermediation is often shortened to the formula of lending long and borrowing short, i.e. short-term deposits are converted to long-time lending.⁸ Translated to international financial intermediation (IFI), it denotes international (mutual) lending where one party borrows short, the other lends long. In normal definitions this only concerns financial assets. Short-term funds would flow to the US in return for the long-term investments overseas and be re-deposited in the US commercial system or come back to the Fed if foreigners wanted to exchange dollars for their own currency. A Keynesian 'theoretical' explanation for this type of IFI would be based on different liquidity preference schedules meaning that a lower short-term rate is accepted where liquidity preference is high (i.e. money holders require a premium on long-term instruments). Therefore liquidity preference as a function of the different 'motives' should be higher in Europe than in the US corresponding to lower short-term rates in Europe. However, this was not the case in England where the short rate was an average of 1.35 percentage points above the American rate in the period 1961-71 (Aliber 1974: 119) In the strictest sense, Eurodollars could be defined as short-term deposits held with British or Continental banks, but expressed in dollars instead of national currency. Maybe a fanatical disciple of the low liquidity preference/high short-term interest rate relation could show that the ex-colonialists had acquired such fortunes overseas that liquidity

⁵ Believe it or not, the Marshall Plan money is still around (Hundley 2004), "Marshall Plan Still at Work in Germany." This *Chicago Tribune* article recorded that the \$1.4 billion for West Germany had grown to \$12 billion. West Germany paid back one third of the original money and kept investing the proceeds in e.g. low-interest loans to industries. Other countries assumed they did not have to pay back and did not do so either.

⁶ The conclusion of de Long and Eichengreen (1991) was that it was the reduction of controls that mattered.

⁷ See Chapter 1, "Challenges to Capital," (Glyn 2006) about 'real' economic events after World War II.

⁸ In developing countries, particularly Africa, the conversion of short borrowing to long lending seems to be onerous and difficult. Bankers are prone to tell an inquirer that, since they have very little long-term deposits, they are not able to lend, as if maturities between lending and borrowing should match 1 to 1. Others contend that long-term lending prospects are not sufficiently profitable. So they finance the large commercial houses. A factual reason is that those who lend long for foreign direct investment (FDI) tend to come with their own cheaper money from home.

preference was quite low! At least that would be correct in terms of the relative level of the comparable interest rates on each side of the Atlantic.⁹

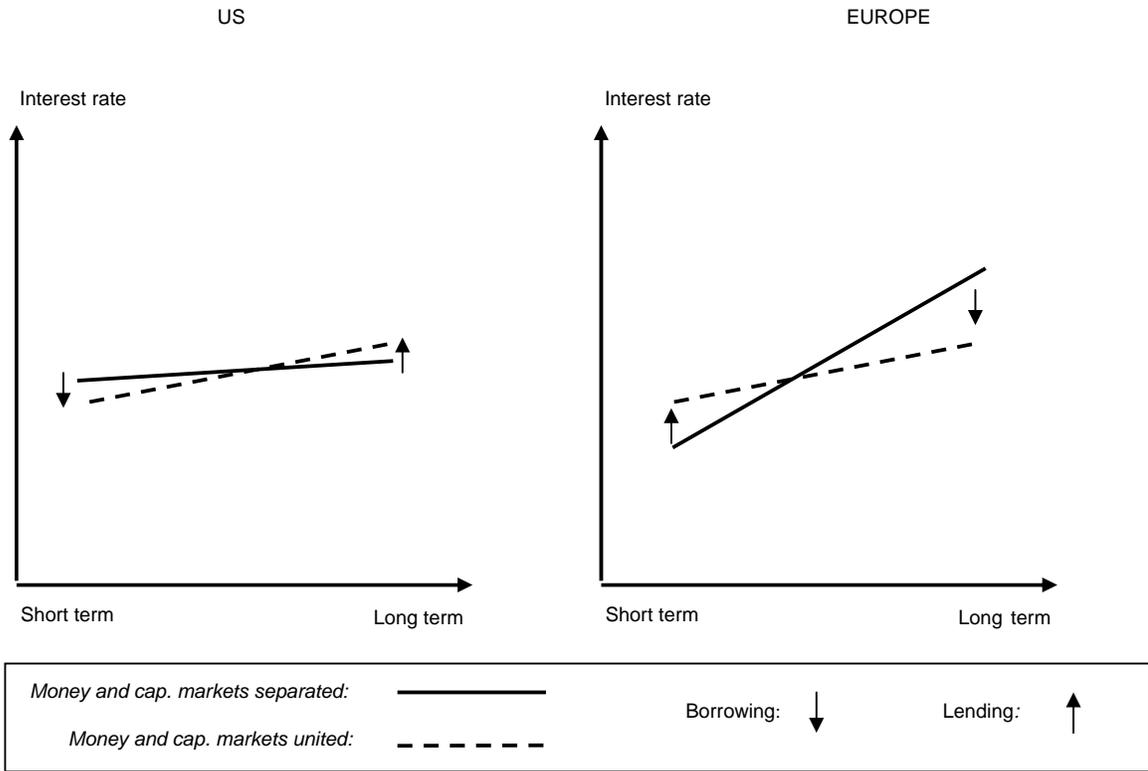
But this would be another sad case of bungling reality into a lame theory. Money rates in the US were not very favorable, in the first place because of the famous Regulation Q forbidding, since 1933, Federal Reserve member banks to offer interest on demand deposits. Furthermore, when analyzing rates one should also look at reserve requirements, deposit insurance etc. Thirdly, Europeans had confidence in the dollar. European money markets did develop but with the higher rates offered in England and the fact that foreigners had free access to London banks and could get higher rates also on dollars, funds that were paid to Europeans for long-term investments were not converted into local currency but kept in dollars. These dollars exited from the US money supply by becoming private deposits in overseas foreign banks.

When the United States money supply (M_1 : cash and demand deposits) was counted, deposits by foreigners in the US Federal Reserve banks were included. In M_3 were included dollar deposits of US residents at foreign branches of US banks and banking offices in Canada and the UK. Foreign banks' assets were excluded. The English concept of the money supply, on the other hand, excluded deposits by all foreigners in English banks and British deposits in foreign banks. The exclusion of deposits by foreigners from the money supply could then be seen as further ground for a special Eurodollar market in England (Yeager 1966: 467-71). And true enough, although US investments tended to go to other European countries than the UK, the post-war money market developed in London. So both short and long-term rates were higher in the UK/Europe than in the US with long-term rates favorable on the continent, short-term rates high in the UK.

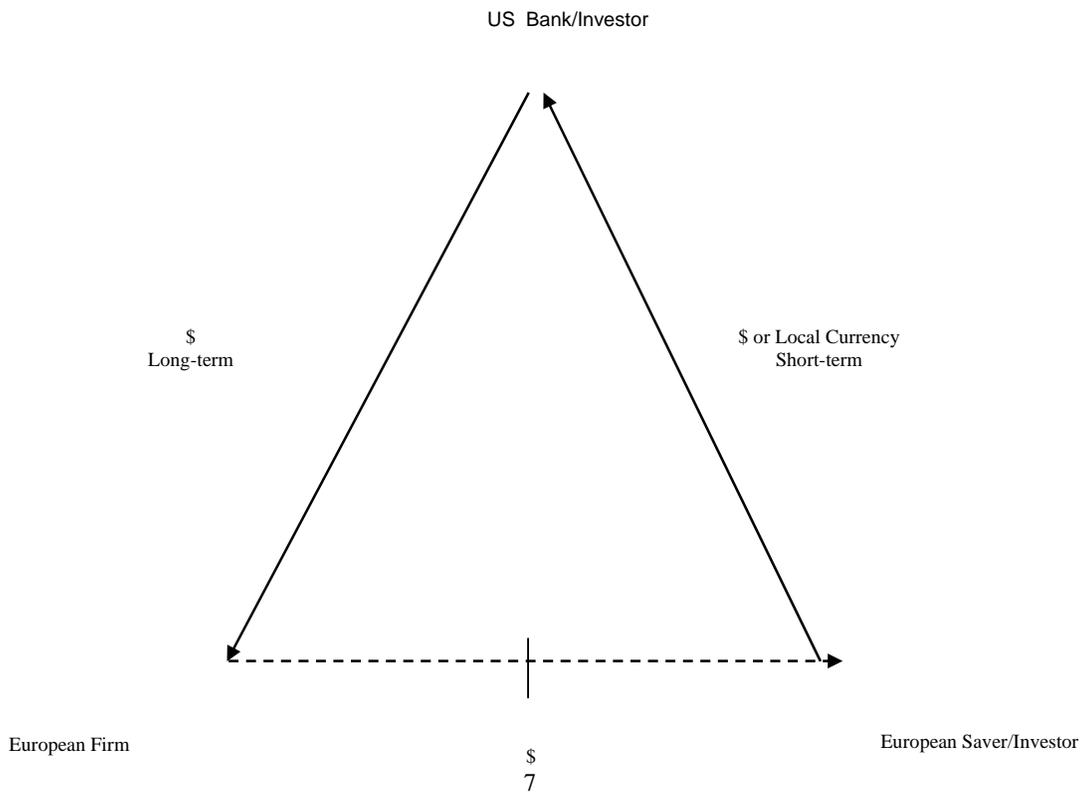
A Marxian explanation could handle this (investments are made where profits are higher and basically money rates are lower than profits), the Keynesian one on different liquidity preference was limping. A Keynesian could then retort that the reason was that Regulation Q 'distorted' the market. Particularly faulty has been the contention that rates would eventually be unified because liquidity preferences would cross and the schedule would become the same in both markets, as per the broken line below.¹⁰ The Eurodollar market exploited differences. When long-term rates started falling, this had nothing to do with liquidity preference but with a falling 'marginal efficiency of capital'.

⁹ This is one step away from Keynes who thought very literally about liquidity as cash. Maybe it is better to think of liquidity preference not from the asset but from the liability side, the one with liquidity preference will only borrow if rates are low and then perhaps not.

¹⁰ The graph is from Kindleberger (1966: 7).



When a dollar became a Eurodollar it was not missed. This of course could only happen because there was a triangular relationship where something was created without countermovement but rather based on layering in a banking sense, surplus value creation in a 'real' sense.



Starting from the top, a US bank/investor sought investment abroad.¹¹ The bank acquired a European asset, matched by an outflow of dollars transferred to a European-owned account (the solid arrow starting from the US bank). The bank could then borrow short in Europe (the other solid arrow). This represented, technically, a liability where the inflow equilibrated the outflow. The European firm could simply maintain its proceeds in the US as working balances. If, instead, a European saver would borrow this money, this would be the case of pure international financial intermediation. In this case no international money would be created, only circulated. In order for money creation to take place, a financial asset would have to be transferred from Europe, which was the case through the titles acquired to European businesses. The international money creation thus became the *quid pro quo* between the European firm and the saver through the banking system converting long to short-term lending. The firm would hold its dollars in the Eurodollar market. On the other hand, the US bank could take a short-term loan in Europe to fund its long-term investments. This might be helped by European savers acquiring dollars by selling own currency, adding to the pressure to get dollars, and this represented the element of international money. In fact, Americans both borrowed and put money into the Eurodollar market, partly because it is difficult to have one without the other, a further reason that Kindleberger's prediction of a tendency towards unification of rates did not have much to it. If one divergence is disappearing, new ones will emerge. Long-term lending will of course ultimately be related to real investments. It is difficult to imagine how money can be created without some real counterpart, just because it turns over.

The Eurodollar market represented a blow-up on a larger scale of two of the sides in the above triangle: the lending from Europe to the US, and the lending from European to European (the dotted line). This explains two contentions by Helmut Mayer (1970), 1) the Eurodollar market grew with growth in claims on American banks, and 2) the growth was stimulated by placement of American deposits in the market generated through the long-term lending. The first was the basis, the second the outlet. An interesting difference must be noted between the treatment of foreign bank and non-bank holdings in the US, with the former being part of the American money supply.

Balance of Payments Concepts

In order to understand these problems better, it is necessary to look at balance-of-payments (BOP) concepts and measures. The following is built upon the first chapter of Charles P. Kindleberger's book, *Europe and the Dollar*, quoted from earlier.

If there were no capital transfers, BOP would look as follows in the good old days of gold clearance between central banks:

Exports of goods and services
 less imports of goods and services

 equals net inflow of gold

The solid line indicates a surplus or deficit on the balance of payments which must be reflected in below-the-line opposite, accommodating moves. If the value of exports is larger than import value in a given time period, then gold should flow into the country in this primitive schedule. The below-

¹¹ Author's graph (1976).

the-line items are the passive flows. If they are not needed for further flows, they get stuck as reserves.

With capital, short-term and long-term, this became:

Exports of goods and services		
less imports of goods and services		} current account
equals net outflow of long-term capital		
plus net outflow of short-term capital		} capital account
plus net inflow of gold.		

This way of positing the problem suggests that if capital and current account cancelled each other, then the desired equilibrium would obtain, i.e. if the surplus of goods and services corresponded to a capital account deficit (the current account surplus was converted to capital outflow), no gold would have to flow. In fact, many economists have thought that way (Johnson 1969). It is worth remarking that long-term capital flowing out of a country is a negative. However, the outflow for investment may turn around immediately and flow into the capital exporting country again, either to buy goods or to deposit the funds in the outflow country. This creates endless confusion, even accusations of corruption.

Realizing that outflow of long-term capital signifies a transfer – albeit not necessarily a “real” one – of the same impact as imports, i.e. both having corresponding money outflows, the *basic balance* of Nurkse can be explained.¹² Net outflow of long-term capital was moved up above the line with a negative sign and short-term capital flows were treated as a measure (with gold) of surplus or deficit:

Exports of goods and services		
less imports of goods and services		
less net outflow of long-term capital		
equals net inflow of short-term capital		
plus net outflow of gold.		

A surplus or deficit is still read above the balance line. If the items listed there sum to a negative number, this amounts to a deficit on the balance of payments. Therefore the below-the-line items must be positive to obtain the balance. There is a duality here: it is both a condition of stability and a quasi-automatic phenomenon.

The *liquidity balance* or the Department of Commerce definition (also attributed to Walther Lederer (1963)¹³) divided short-term capital movements. Net outflow of short-term capital through increase in foreign assets was allowed to figure above the line together with net outflow of long-term capital (and with the same sign). As balancing items were thus only kept – in this crude framework – net inflow of short-term capital through increase in foreign liabilities together with net outflow of gold.

¹² Ragnar Nurkse, Estonia-born economist, 1907-1959. Was prominent in the interwar years for his work on capital movements and sometimes termed a pre-Keynesian. He was the main author of *International Currency Experience – Lessons of the Inter-War Period*, League of Nations, 1944.

¹³ Lederer was director of the balance of payments division of the US Commerce Department from 1954 to 1969.

The liquidity balance could be stated as *gross* or *net*. The *gross liquidity balance* was:

Exports of goods and services
less imports of goods and services
less net outflow of long-term capital
less net outflow of short-term capital (increase in foreign assets)

equals net inflow of short-term capital (increase in foreign liabilities)
and sometimes also of Treasury securities plus net outflow of gold.

Appearing at the same time as the Eurodollar market, the liquidity balance had to do with the “triangular” problem. However, what it does is to represent the European *quid pro quo* in the form of counting the basis for liquidity creation in addition to the liquid liabilities themselves. The European might hold his dollar acquisitions in liquid form; at the same time an American might borrow on the market to acquire the asset, and the ensuing liability would also be considered to be liquid. Patricia H. Kuwayama wrote about the absurd results (1975). And so did Charles Kindleberger who lamented that the difficulty with this measure was that it was asymmetrical (1966: 2). The liquid liabilities to foreigners in fact grew so excessively that the measure lost meaning (Kuwayama 1975: 188). This question emerged if the balance was read from below the line. The *net liquidity balance* tried to sort out if a short-term liability was ‘liquid’ or not. Some loans were not considered to be liquid and thus moved above the line, but this distinction can also be shown to be arbitrary.

The *official settlement* balance (or the Bernstein Committee concept) pushed the net inflow of short-term capital above the line where it figured with a positive sign like exports, but this was only if it represented liabilities to foreign private creditors; the balancing item was – apart from gold – net inflow of short-term capital through increase in foreign liabilities to foreign official creditors.

Exports of goods and services
less imports of goods and services
less net outflow of long-term capital
plus net inflow of short-term capital (foreign private creditors)

equals net inflow of short-term capital (foreign official creditors)
plus net outflow of gold.¹⁴

Kuwayama thought that the underlying assumption of this balance was that central banks gained or lost reserves in accordance with their direct foreign-exchange market intervention. But this was not the only case for losing official reserves. If foreign official authorities placed dollar holdings with for instance Eurodollar banks, this would be counted as an addition to short-term liabilities to private foreigners for the US and be credited above the line. Hence the sum of official settlements

¹⁴ The reader may wonder that net *inflow* of gold was at first listed as the balancing item and then it was changed to net *outflow*. This is not to be taken too seriously but depends on the fact that Kindleberger sometimes assumes that the balance is zero, and then the above and below the items will have to equal zero each of them. The important point is that net inflow of short-term capital and net outflow of gold are listed in parallel. It means that if there is a deficit, then in order to have a balance, gold should be moving out – as presumably happened in the good old days – or there must be inflow of short-term funds, otherwise it will not be tenable. So therefore, obviously, the current wailing about the US deficit is a bit pathetic. It is in the nature of the animal. This will be looked at from another angle in the section on dark matter below.

would not necessarily sum to zero when all countries added their corresponding balances (Kuwayama 1975: 190). Nevertheless this concept seems to have become the official measure.

Kindleberger brought a discussion of one or two additional concepts or variants of BOP measures, but one of them mixed motives of 'liquidity preference' as justification to put flows above or below the line, and that is too immaterial and psychological to have any practical significance (Kindleberger 1966). Finding out motives can be difficult enough in a court of law. Here it would take far too many resources to use such concepts for statistical purposes. Conversely, it shows that easy measures and intuitive categories may not have the significance normally ascribed to them.

A contention of Kindleberger's was that both the liquidity and official settlements concepts were obsessed with liabilities, not with assets. One could sympathize with the complaint, but would have to point out that it was based on the fact that the dollar, basically, was a liability only to one party. It is true that this could be triangulated into an asset also for dollars (i.e. a foreigner holding dollars being lent out to another foreigner based on an asset that could be made liquid – but there were still three phenomena that had to be squeezed into two or doubled into four).

These BOP statistics became highly debatable, particularly for the 'world money' country. In the end the US gave up publishing full balance of payments statistics, concentrating on current account and the stock of capital held abroad by US citizens and businesses and by foreigners in the US.

The End of the Eurodollar

The interest in the balance of payments was first of all the direction it gave for pressure on exchange rates. This was the underlying concern in majority and minority views.

Under fixed exchange rates capital movements were not induced by exchange-rate speculation, at least less so than under floating or flexible rates and only to the extent that variation was possible. Once capital flows were allowed below the line as a balancing item along with gold and other traditional reserves because of the particular interest-bearing character of the dollar, the balance of payments got out of whack. Similar capital movements were entered seemingly interchangeably above and below the line, and it was impossible to make a clean cut between the relevant types. The more fundamental question could then be put: why this concept of *balance or equality with opposite signs* between below-the-line and above-the-line items? The concept of balance corresponded to a situation in which there was either no growth or the reserves were growing symmetrically. Which means that the reserve should not be a liability for one country and an asset for another at the same time. By the dual role of the dollar, there was no real clearing, only a blow-up of the monetary base. It might also be said that the reserve should preferably have the ability of falling home whenever it was moved. Why was this a problem which the dollar standard could not deal with?

On the official settlement balance outstanding dollar liabilities were counted in the same way as outflow of gold. They were substitutes. However, if dollars were sold to the US for other currencies, they were repatriated. If a country repurchased its own currency holdings with the Fed, nothing would be changed in the balance of payments. A liability would be mutually cancelled. If dollars were used abroad for intervention purposes, nothing happened to the balance. But if Eurodollar funds were sold for European currency, this would augment the deficit of the US. No official holdings were involved previously, implying that it would then be a pure drain on American gold or currency reserves, to take the extreme case. This, then, was the danger of the Eurodollar

market from an American point of view: the Eurodollar market could create or seriously augment the “deficit” without any moves above the line. The hidden money came out in the open, going from international to national money. In a way, the liquidity balance best took this threat into account.

A high proportion of the operations against the dollar in 1971 was financed by the Eurodollar market. The flight was into D-Mark and yen. The American borrowing did not help. The dollar depreciated, gold was abandoned in three stages and flexible rates substituted for fixed in at least *duo tempi*, through stages of allowed floating. However, other currencies fared worse than the dollar or, rather, the dollar showed ability to sustain itself. Those that fared better were the D-Mark and the yen. The dollar standard was limping (McKinnon 1974). But it survived.

In the beginning of the 70's the US initiated a monetary expansion. Lower borrowing rates enabled American banks to repay their Eurodollar debt; concomitantly, the American part in the Eurodollar market was reduced.

Under the Bretton Woods system, once parities were established, imbalances required adjustments, particularly for the *n - 1* countries but in actual fact also for the core country if its currency was threatened. As exchange rates were fixed, albeit only by *fiat*, imbalances should be averted. But disturbances were as ever inbuilt, and the Eurodollar market did represent a threat - momentarily. In hindsight it represented a way of getting out of the narrow rules of the game imposed by people living in the past who had designed a system that hampered international cross-border growth in investments and financial flows.

It is ironical, at any rate, that at the same time that the Bretton Woods system collapsed, the Eurodollar market also retrenched. Keynes had been worried about London losing out. In fact, it barely did. After the Eurodollar market had peaked, it still maintained its role as the prime partner of Wall St. The Libor (London interbank offered rate) is still a benchmark and may be seen as a later offspring of the Eurodollar market. It started as a dollar rate for corporate borrowers. However, it is not identical with the Eurodollar deposit rate.

Exchange Rate Determination with Flexible Exchange Rates

The Kingston agreement abolished the gold standard in the form of an official gold price and thereby the last shade of official pegging of exchange rates. In response to the currency crisis the IMF had already created the Special Drawing Rights in 1969, purportedly as an additional reserve, but it never took off as a standard since its “value” in turn was a weighted average of the 16 most important currencies after the collapse of the gold exchange system. It started out at SDR 35 to 1 ounce of gold, i.e. at par with the dollar. After the abolition of the gold exchange standard, it came to measure the weighted average devaluation or revaluation of the dollar because all other currencies were measured in the dollar. The SDR thus also expressed the importance of other currencies for the dollar, or the economies of other countries for the US. The common devaluation of most currencies was not measured. Now it only consists of four currencies, the dollar, the euro, the yen and the pound. The SDR as ‘measure’ is only for IMF and World Bank use. It is basically accounting money. The outcome of the breakdown of Bretton Woods was in the first instance flexible exchange rates, later regrouped around centers of common currencies with fixed rates or altogether new currencies, such as the euro.

The unfettered market for foreign exchange was nothing new. It exploded after the fixed parities were given up, but there were intermittent bouts in earlier history. Again Keynes comes in handy. He wrote that forward rates for the dollar were quoted already before the First War, but they did not really gain momentum until after the “unpegging” of the leading currencies in 1919 (Keynes 2000: 121).

The mechanism of the spot and forward rates was laid out by Keynes and gave a hint at the later Eurodollar market. If dollars would be cheaper forward (the current price of the currency delivered at a future date) than spot, this would show a preference for holding dollars (in the English notion of cheaper, i.e. at lower pound costs). A buyer of pounds would, by selling dollars spot and buying them back forward, earn in dollars. If he did not gain (or think he would not gain), the transaction would not be performed, i.e. he would think that the dollar was somehow more safe and would stay put. The premium was the same as the opportunity cost of not holding dollars during the time elapsing before the forward contract matured. The market’s preference for holding dollars is the interest-rate differential, presumably. But only if there are no other factors to take into account, and interest-rate differentials are not primarily products of international exchange rates.

Now, there are two variables in the equation for forward exchange, one being the interest-rate differential, the other the spot/forward ratio for two different currencies. If the premium or discount equaled the interest-rate differential, there would be no transaction. It is noteworthy that the spot and forward rates were taken as exogenous and obvious that they could “flex” (as well as the exchange rates themselves in a world of flexible exchange rates). The market for spot and forward exchange developed such that the interest rate differential was used for calculating the premium as a way of hedging against exchange risks. The reason was that the interest-rate differentials were much more stable than the exchange rates, at least in the short run. Or, the other way around, exploitation of interest-rate differentials could not thrive within a span of 3 months, the normal term for forward contracts. Mostly the market was used by business to hedge foreign sales and purchases against exchange risks. It became, however, also a short-term credit market.

The sixties preference for the dollar was developing in an awkward way around different interest rates. The Eurodollar market developed, not only because rates were higher in Europe than in the US but because, even though the rates on the British pound were higher, yet there was no flight into the pound, on the contrary. Therefore, one has to agree with the view that the emergence of the Eurodollar market showed the strength of the dollar. If the interest-rate differential between two major currencies did not correspond to the difference between the spot and the forward exchange rate - of course over the same time horizon - there would be a ‘currency preference’ for the one that was chosen despite indications. But forward rates were obviously not precise predictors. Once a margin around spot parities was accepted, this could be exploited and developed further. In fact, the currency could be forced to devalue as happened in the later pound crisis (1992) where George Soros played a prominent role by dumping pounds, forcing Great Britain to defend the pound and to leave the European Exchange Rate Mechanism that tried to have fixed exchange rates among a number of players.

By having both different short interest rates and variable exchange rates, the system became more indeterminate.¹⁵

¹⁵ Any observer knows that, e.g., sometimes raising central bank rates will make the domestic currency appreciate, sometimes not. Economists are prone to exclaim that the information was already internalized or the rate should have been raised by more points or inflationary expectations were already out of control or other such highfaluting hogwash if the classical Bank-rate style reaction of appreciating exchange rates does not ensue.

In the heyday of the Eurodollar reign, the difference between the spot and forward rates and the short-term interest rate differentials would be erased for the dollar, if it were accepted that the Eurodollar interest rates were those prevailing for the dollar. In a sense, therefore, gold was thrown out as an active player when other factors became more interesting, and that was first of all the interest rates. The classical gold standard had no inhibitions on exchange rate changes between paper currencies. The grand old differences between the new interest-rate significance and the pre-WWI days was that interest rates then referred predominantly to trade differences and not to investments. Not that outward-bound investments did not take place but these were so long term that they had little market significance. Therefore the absurdity of continuing to maintain in economic textbooks that the determinants of exchange rates are price levels or perhaps changes in price levels (inflation). Exchange rates are now determined in the complex game between interest rates capital yields in developed markets whereas those of underdeveloped markets are determined by the variety of reasons for buy-and-sell of foreign currencies.

The New York Stock Exchange Getting a New Role

With the demise of the Eurodollar as an important phenomenon and flexible exchange rates accepted, something else happened, again based on capital markets. The US had regained its competitiveness or, rather, Europe had lost momentum. The flow was henceforth reversed, and massive funds found their way to the principal US Stock Exchange. Wall Street became the main attraction. This caused another observation: there was an interaction between share prices and exchange rates, not necessarily as a one-way street as there were observations of both increasing and lower stock prices with the same direction of exchange rates. But foreign buy orders increased. In the first quarter of 1978 foreign investors purchased \$670 million of American stocks, which was 25 percent above the inflows during the same three months of the year before. The absolute amount may not seem overwhelming, but relatively foreigners accounted for 36.5 percent of all net purchases of stocks in 1977 (Arenson 1978). The dollar depreciated so large foreign equity investments and increase in stock prices accompanied declines in the dollar exchange rate, but at times the two went in the same direction. Both the dollar and the stock market fared better in the beginning of 1979. Information from NYSE indicates that trades in US shares as per the rest of the world was 44% in 1980, a height it has not reached since. And this does not include NASDAQ, which took off in a major way around 1990.

The observed relation between currency rates and the stock market did not mean that the stock market determined the exchange rate. It might, however, be true that the stock market summed up relevant information for determining the exchange rate although the basic relation remains the classical one (Elliott Wave International 2009).¹⁶

Before coming to the euro and its obsession with PPP (purchasing power parity), whether in its inflation, its absolute-price-level form or its more grotesque version as the 'law of one price', documented by such as the Big Mac index, it would be good to make clear that even if prices were uniform at given exchange rates or moved uniformly, this might be based on internal differentials in factor costs and productivity. For example, poor countries have very low labor costs but

¹⁶According to this source the Dow Jones Industrial Average and the US dollar index both rallied from 1995 to August 2000, then fell together from March 2002 to early 2003 and since then have traded opposite each other. In a later publication (April 2, 2010), EWI states that from July 2007 to June 2008 the stock market and the dollar both declined (S&P500 vs US dollar index). The author of this paper thinks that the reason is the different importance of different markets at different times (stock market vs. bond market dominance, notably), Elliott Wave that no two markets will stay positively or negatively correlated all the time.

productivity will be lower. The same wholesale price of a product across the world may thus reflect differences that are in no way developing uniformly. Over long stretches of time the differentials can be hidden, but eventually they will come unstuck and the 'equilibrium' be unhinged. This is another form of Marx's statement that surplus value is lower but profits higher in the poorer parts of the world, with the modifier that profits nowadays have to be higher because otherwise investments will not take place. Marx obviously thought that investment costs for fixed capital and intermediate products would be lower in poor countries, but this is not necessarily the case in today's world. Intermediate goods may be more expensive in poor countries. On the other hand, there is less overall investment in equipment and, notably, a lot of ancillary investments are lower or inexistent (safety, cleanliness, environment). The point here is that behind identical prices a lot of differences can be hidden, at least if you do not assume that which should be proven.

The end seventies and beginning of the eighties were confusing times. The eighties have been called the lost decade. Capital was ample, not least because of the sums accumulated in western banks due to the oil revenues that Arab countries had procured for themselves. Capital was lent to Asia, Latin America and even Africa. But interest rates were high and the returns on the invested capital often disappointing. The money could not but boomerang back to Wall St. immediately because the profitable investments were not really found. These phenomena have hurt countries and people enormously, but will not be discussed here because they do not represent new form developments or mechanisms. This money ping-pong helped Wall St. until it crashed in 1987, simply because there was no real surplus value creation behind the figures (Bergeron 1992, particularly the third part, which decries the evils of the eighties as felt in Africa). However, the fall on Wall St. in 1987 was but a downward blip in an otherwise upward direction. The nineties started to find the new forms, but the Asian crisis 1997-98 may be seen as another example of money flowing around aimlessly without being based on real value creation.

The Euro

The euro was created in part to overcome internal differences and jealousies and to facilitate the internal market of the European Communities countries when they were in the process of transforming themselves into a union.

The lack of currency market stability in the seventies led to attempts at aligning European currencies in the snake (1972) and later the European Monetary System (EMS) in 1979. It aimed at fixed exchange rates through the Exchange Rate Mechanism. Deviations triggered consultations among central banks, not exactly a dramatic response. *The Economist* once more gave vent to economists trying to change the course of economic history when it published the so-called "All Saints' Day Manifesto" on November 1, 1975. Here the Europa was trumpeted. It should have constant purchasing power (i.e. using a questionable theoretical concept for actual currency creation) and should co-exist with national currencies.

The work towards an Economic and Monetary Union was furthered in 1988 by the creation of the Delors Committee preparing the Maastricht Treaty adopted in 1992. In the eighties exchange rates stabilized and nominal interest rate differentials narrowed in Europe. The emphasis on price stability and zero or very low inflation was overwhelming, bolstered by fiscal policy restraints. The advantages of a common exchange rate were seen to lead to much more predictability in economic relations, with lower transaction costs and better economic and financial market integration, and to be beneficial at an overall level as it had been an experience with flexible rates that nominal exchange rate changes did not soften external shocks. The emphasis for the EMU was – again - on

price stability plus convergence criteria (limits on fiscal deficits and debt ratios) and the creation of the European Central Bank (ECB). Mechanisms to ensure financial stability (capital market stability) were not included in the eventual euro set-up (Sørensen 2004). Coincidentally with the Maastricht Treaty, in 1992 the pound was forced to exit from the Exchange Rate Mechanism through speculation against it. Also the Swedish krone and Italian lira got into serious trouble. Going forward to create the euro can be seen as daring, and its technical success surprising.

The euro is not entirely monetarist in a narrow sense as it is also surrounded by restrictive fiscal policies, cemented in the Growth and Stability Pact that imposed limits on government deficits (less than 3% of GDP) and debt levels (less than 60% of GDP), reinforced by institutional emphasis. A stable price level (rising less than 2% annually) was and is the overriding issue, however, although this is only the so-called second pillar, the first being an indicator of the growth of monetary aggregates in the form of announcement of the desired path of M_3 (von Hagen and Matthias 2001). The euro has been able to keep an exchange rate vis-à-vis the dollar that has mostly been higher in a value sense (i.e. fewer euros for one dollar) than it was when it started. It can be discussed whether Euroland ever was an 'optimum currency area' according to the criteria defined in 1961 by the 1999 Economics Nobel Prize winner, Robert Mundell, involving the degree of integration of the various markets, including the labor market (McKinnon 2000).¹⁷ However, here it is the monetary mechanism and international significance that is of interest.

The euro is fundamentally different from the dollar. Its creators were not concerned about a large reserve base. The ECB's reserves or paid-up capital are just €4 billion. However, the total asset base is about €40 billion, of which 15% are in gold and 85% in US dollars and yen. The National Central Banks (NCBs) can claim equivalent amounts in euros. Downstream, its backing consists of assets that are pledged against the purchase of euros on auctions/tenders. Thus the euro is asset-backed but in a diffuse fashion. Various instruments are of course offered by the ECB, from short to longer-term euro securities. Its weakness is that it is not backed by past state deficits materialized in outstanding government bonds where mature states have to honor their debts, which, paradoxically, provides a guarantee for the future. In this case it is the contrary. The ECB tenders are not based on debt and it imposes on states not to have too high debts. It is as if ECB does not really want to get involved in international financial intermediation and has shown itself very restrictive and promoting disinflationary measures. At various points the ECB has been criticized for not lowering interest rates sufficiently to get economies started. This criticism abated after the serious increase in oil prices and the beginning turn-around in euro economies and after the US Fed started its series of rate increases in 2004 where ECB stayed put for a long time. After the 2007 credit crunch the ECB also retained its rate, not lowering it when the Fed and the Bank of England did. But the ECB tried to assist during the beginning crisis by pumping out liquidity/overnight funds. Later on panic struck and it lowered its benchmark.

The euro is very much a unifying 'policy' instrument. It is thus rather the articulation of a common monetary policy than a truly common currency as it just tries to harmonize the different tendencies. To note that all – now 27 - EU central banks are part of the European System of Central Banks (ESCB), which is in charge of the common monetary policy executed by ECB. In addition there is some confusion if it is the NCBs of the Eurosystem (the 16 countries that have so far adopted the euro as currency) or the ECB itself that determines the direction. It is perhaps logical that it must be one or two-stringed as it would otherwise end in confusion, but its single-mindedness has caused problems, too. As a currency unifier, it has been a success, as a means of promoting what could be defined as common European economic goals it has been a fiasco. Take your pick. An absurd

¹⁷ Mundell, skeptical at first, later on came to defend monetary integration in Europe.

juxtaposition of phenomena is that Europe became less of a unity after the currency unified. European businesses were basically, like others in the rich part of the world, leaving Europe.

In its mode of operation the euro is managed predominantly through the central banks that make up the system. Open-market operations are performed with refinancing operations, mostly reverse transactions where a transaction is evened out after a certain time or covered by assets. The open-market operations are executed through tender, either with a fixed interest rate and variable volume or fixed volume and variable interest rate. Counterparties, commercial banks registered with Euroland NCBs, can bid. The winners are determined by auctions comparing the bids as per the cut-off points. Also swap operations in foreign currency can be performed (ECB 2004). There is no need to further detail the way the euro is operated. No doubt it is done very skillfully, but this should not deter one from criticism of its economic base and interaction patterns as has become clear for all to see from the beginning of 2010.

In a way it is not so strange that rates have become low in the Eurosystem in historical terms. Its basis is the ECB rates and the ECB does not need a high rate in order to cash in 'seignorage' because its own debt is low. This also shows that it is not fully integrated in capital markets in the way the dollar is. The dollar responds to and expresses first of all capital markets in the US and those which respond to the US markets in other parts of the world. The euro remains un lively. It has nearly lived up to the Europa economists' dream of a yawningly stable price level guarantor while letting capital markets on the loose. But obviously it is the contention of this work that the ECB cannot determine price increases and worrying signs occurred in 2008.

The combined stock market capitalization of the EMU countries was 28% of the US in 1998, already in 2000 it was 38% of that of the US.

Denmark voted on the euro in 2000 and said no. However, the Danish policy has been to maintain a pegged rate towards the euro with a small margin, managed through monetary policy instruments, trying to keep the interest rate very close to the euro rate and having a restrictive fiscal policy, especially through the freezing of taxes and thereby declaring that expenditures must be limited too. The outcome was low interest rates and high house prices and an economy praised for its dynamism, whether there is a connection or not to the euro tie. In no way could anybody claim with a shadow of verisimilitude that the Danish economy has suffered from not being member of the Eurosystem. However, in the panic of 2008 the Danish Central Bank raised its lending rate by 0.4 percentage points to 5.0 to defend the Danish krone the day before the ECB lowered its key rate by 0.5 percentage points to 3.75%. Later in October the Danish Central Bank increased this rate further to 5.5%. Given that the market rates do not necessarily follow, or rather, that the central banks have limited power over market rates, it did not make that much difference.

Maybe this rather shows something else, viz. the prior contention that the Eurosystem is a coordinating mechanism with some random common paper, which countries could adopt as a currency or not, at least when they are at the margin. It is the coordinating mechanism that counts, and Denmark is obviously part of ESCB. Differences remain, but are patched over on the surface. It could perhaps be claimed that Denmark has double-dipped: benefiting from the existence of the euro and not having adopted it officially.

Some bright economists have now noticed that a stable consumer price level of commodities is not enough. They have discovered that there are more price levels than one and that asset prices can diverge from consumer price levels even more when the focus is on the latter. This was exacerbated when cheap goods started entering from the east in a massive way. Distinctions are made between

headline inflation and core inflation, though. The latter excludes food and energy prices.¹⁸ There would be some sense in taking housing (another rent phenomenon) out also. Then core inflation should be negative (= deflation) even before headline inflation went down in the latter half of 2008 with the spectacular fall in oil and housing prices and to some extent agriculture.

If there are core price increases in Euroland and its satellites, it is a sign that inflation, if anything, is even higher as prices or rather, values, of a lot of goods have decreased in real terms. This is another sign that inflation is in practice extremely ambiguous, i.e. even if prices are stable, they should perhaps be decreasing, or there are huge internal redistribution among different elements or towards middlemen. Even *The Economist* started to see the problem of inflation in a world of lower prices (2006a). It admitted that inflation could have been lower at the beginning of the noughties, but claimed that it was due to central bankers that it was not because they held down interest rates.

When one thinks about the euro and its philosophy, one cannot help exclaiming: economists understand economic laws perfectly – except those governing capitalism. The 2008 panic showed that the ECB was pushed aside when the crisis really hit because of the lack of official financial market integration in Europe, and the national governments had to take over, and this despite the fact that many banks reached far beyond national borders.

Dark Matter

“Global imbalances or bad accounting? The missing dark matter in the wealth of nations” by Ricardo Hausmann and Federico Sturzenegger (H&S) made waves at the end of 2005-beginning of 2006. The paper dealt with the fact that current account statistics do not include the international wealth effects of investing abroad. Note first of all that there is only discussion of current account, which also includes interest payments. The below is based primarily on the revised version taking account of criticisms (September 2006).

Dark matter. Only about a fifth of the universe’s matter is known. The rest is known as matter with a mass, which cannot be observed directly. It works through its gravitational effects on ordinary light-emitting matter. Metaphysically it can be described as “the absence of knowledge of matter”.

The paper argued that the USD 792 billion current-account deficit that the US registered in 2005, coming on top of cumulative deficits, was in fact counterbalanced by the difference in service flows between liabilities and assets and adding capital gains and unmeasured asset returns. The interest rates paid on US debt were a lot lower than the earnings on assets invested so even if the flows were not unilateral, there would still be a positive difference in favor of the US, viz. when capitalized at the same risk-free rate of (in this case) 5%. Therefore, in fact, the low-interest country might be able to borrow a lot more than it invested and still come out with a zero balance.

The authors looked for capital gains or unexplained returns and concluded in three factors, “... and they all involve a persistent return differential between assets and liabilities. This difference in returns may originate in three main sources: a return differential for FDI investments, the sale of insurance, and the provision of liquidity services.” (H&S 2006: 10). The first channel involves FDI

¹⁸ One explanation is that these prices are “volatile”. Taking certain goods and services out, makes the indexes less of an indicator of inflation according to the classical definition of ‘general price rises’. It simply means that the notion of inflation as a monetary phenomenon evaporates. The *Economist* says (2008), “Ultimately, inflation is a monetary phenomenon, so responsibility lies with central bankers.” Agreed that inflation is a ‘monetary’ phenomenon, but not that this necessarily places its causes in central bank action, let alone makes it possible for central banks to control it. But secondly, prices may well increase without it being a monetary phenomenon.

investors coming with ideas, a blueprint, a product and a business know-how that is usually poorly accounted for. Because of the difficulties in tracking the international service operations of corporations it is likely that official numbers underestimate their worth. The second channel may arise because the underlying stability of an economy¹⁹ to sell some of this stability to the rest of the world, akin to the sale of insurance. The third channel was related to the provision of liquidity services to the rest of the world, basically through the desirability of a currency (read: the dollar) or the lower return on its liquid financial markets.

The authors found an approximation to their FDI hypothesis in the fact that the S&P 500 reflected gains from overseas investments (and if they were included in foreign accounts, the net position of the US would be even more positive). However, they attributed them to “the stability of the US economy, its role as a cradle for ideas, or the ability that it commands on liquid assets and prudent macroeconomic policies.” (H&S 2006: 21).

The insurance (in a figurative sense) related to US stability may appear a bit strange. In order to bolster the insurance argument, the authors dragged in Nobel laureates Kenneth Arrow and Gerard Debreu merged into the sometimes hyphenated theorem, Arrow-Debreu. Their theorem on contingent securities used to reduce risk was deployed to argue that the US had a lower risk premium. Since this was what they started out assuming, there is nothing surprising about the result although it required a bit of math. It really says that if there was a perceived risk in some countries, this would lead to a risk premium which meant that investments would require a higher rate of return. Whether it is true that the risk was higher in other countries is not examined. At one point the authors seemed to think that the value of insurance not only increased after the Asian crisis but that the “benefit may have further increased after 9/11 as the US is, . . . , still the economy that can better deal with the global implications of such threats.” (H&S 2006: 13). This seems to amount to claiming that the US has become ever safer after it has made the world even less safe since what the authors set out to do was to prove that the US is the most risk-less and stable country, a somewhat questionable claim, but well in line with mainstream economics that refuses to deal with profits and power. It nearly resembles a slip of the tongue.

Liquidity services could in part yield seignorage, in part reflect the fact that the rate of return on the dollar was lower than equivalent paper in overseas markets (not lower than that of the yen, but let that be). It was lower in the sense that the dollar was accepted abroad. The advantage for the US dollar would be if people around the world would hold US cash at no or lower interest rates than other currencies. Contrary to their original thoughts published at the end of 2005, later on the authors found that it was not an important source of dark matter.

At the end of the paper the authors went on to measure dark matter and came to the conclusion that “To the extent that FDI assets abroad continue to rise and to generate excess returns then we should expect to measure continued export of dark matter”. (H&S 2006: 20). In this way poor China “remains an important importer of dark matter” (H&S 2006: 19), a somewhat strange statement, given that it is true that it is an importer of foreign capital but to state that it imports others’ excess profits, sorry, excess returns, is a bit odd. Wouldn’t it be truer to say that China exports excess profits because these profits are generated in China with foreign capital? Of course mainstream economists think that the Chinese just pay back for all the technology so generously and unselfishly put at their disposal.

¹⁹ In their revision, the authors have toned down the insistence on the US and made the propositions more generic.

Dark matter is not one thing for these authors. It is exported, yet it also comes back as returns. It is not an export bought with money, it is an export that only manifests itself through all the matter that oozes back to the US and other dark matter “exporters” (or, more correctly, importers) and which is not an equivalent amount to anything but the darkest of secrets: high or excess profits as the other side of the capital export coin.

Dark Matter and the Eurodollar Debate

Despite the critical remarks on the explanations offered by H&S, there is no doubt that they in a way revived questions dealt with in the Eurodollar debate. The asset side in the foreign balance is important and has to do with – not official reserves – but US private investments. At least it springs to mind that part of the overseas investment may be outsourcing so that it is the same firms that got a markup on the US stock markets that dragged huge profits out of the countries to which outsourcing took place. So the undervaluing in the current account statistics had the equivalent in the overvaluing on the stock market. But the US stock market valuations do not show up in the current accounts except through foreigners’ return on investments.²⁰ In addition, many US firms investing abroad were not listed on the major exchanges despite huge returns on their investments which may not be due to their technological superiority but to their ability to extract surplus labor out of workers. Also, the more the US imports from China (just to take this simple case), the more profit is repatriated. However, because of the national bias, there will be a transfer out of the country, too. Again a triangular relationship. China has simply replaced Europe in the relationship.

Interpreting this in terms of flow of funds, there was a trade deficit, the US was buying more than it sold. But those who sold to the US might actually be an American firm invested abroad that used the proceeds to reinvest locally. And because of the returns implied in the goods sold, they would have earned so much that it about balanced the excess borrowing. A loan might have been taken in the US and invested in China. In principle it had to be converted to renminbi and the dollars deposited in the Reserve Bank of China (here is a lack of parallelism to the Eurodollar). But after the process developed new investment came about through excess dollars generated in the process. The relatively low rate on those also made it possible to take market loans on cheap terms. US businesses might borrow in euros too, but there was still an exchange risk to take into account which might make it look unfavorable. As long as US businesses or banks lend (to themselves) in dollars, there will be a constant inflow of short-term dollars as the review of BOP ways of presenting things showed. Inflow is the other side of outflows.

Rewriting the balances from the section on balance-of payments concepts:

Exports of goods and services
less imports of goods and services

equals current account balance

To make it more comprehensible, it should be:

²⁰ H&S complained that the US has adopted the IMF convention not to allow capital gains on assets in current account. The capitalization of differential service flows is a different matter, but in a sense the authors tried to estimate how much the capital gains should be if correctly reflected in asset prices and then incorporated this capitalization in their current account revision. However, ‘capital gains’ is a capital account phenomenon so the complaint should be about the treatment of capital account/balance. The problem occurs because capital account is not fully published.

Exports of goods and services
 less imports of goods and services
 plus return on capital and interest earned abroad (inflow)
 less return on capital and interest earned by foreigners (outflow)

equals current account balance

where commercial, technological and professional services enter into the first two lines together with goods and the last two expressions ‘above the line’ are financial service flows. In previous notions the services in current account implicitly also included return on capital,²¹ but return on capital should be viewed as a special item, particularly if capital flows themselves are ignored. These are truly the ‘invisible’ items. However, capital flows should be included in the analysis as there are capital movements in the form of FDI and short-term movements behind this:

Net outflow of long-term capital plus
 Net outflow of short-term capital

Equals (net inflow of long-term capital and)
 net inflow of short-term capital

Adding the two we have:

Exports of goods and services
 less imports of goods and services
 plus return on capital and interest earned abroad (inflow)
 less return on capital and interest earned by foreigners (outflow)
 less net outflow of long-term capital
 less net outflow of short-term capital (foreign private creditors)

Equals current balance plus

 net inflow of long-term accommodating capital and
 net inflow of short-term capital including Treasury bills

This is in fact an attempt at a reconstruction of the balance-of-payments measures, just including the return on capital explicitly. If these returns are very positive, then in fact there is ‘balance of payments’ surplus. As it is, normally the current account balance is mixed up with capital flows; therefore current account balance is not as negative as is assumed, it is rather that capital is flowing out and the net inflow of short-term capital that is equal to the so-called deficit is nothing more than the capital abundance of the dominant economy. The net inflow of short-term capital below the line thus has to do with the net money creation when money is an asset that is also the reserve currency whose central bank (The Federal Reserve) issues it as a liability.

That the US money is in fact a liability that can come back to haunt the dominant economy means that the Fed has to keep interest rates low in order not to have to pay too much on its own debt, and for a long time this worked successfully, stimulating markets at home at the same time as capital flowed out. But this does incur the risk that the bills will be exchanged for higher-interest-bearing securities in another currency denomination, especially when the currency – the dollar - is

²¹ And probably also implicitly, capital gain.

appreciating but perhaps expected to depreciate. Therefore the US interest in keeping the dollar low, urging the Chinese to revalue. But if the dollar is depreciating, the Chinese could have an interest in getting higher remuneration in the US or moving elsewhere, thus an insolvable dilemma, which was for a long time resolved through the conservatism of the Chinese.

Looking at the capital flows alone, assuming that there is no inflow of long-term capital to the US, US outflow of long-term and short-term capital is equal to net inflow of short-term capital. This is exactly how it works: long and short-term capital is exported from the US to fund investments and goods. The net inflow is simply the holding of Treasury bills by the central bank of the capital-importing country. However, the current account does not account correctly for the remuneration of investments (or rather, the capital flows stemming from the service flow, viz. profits that are reinvested as new capital) and thereby China can hold huge reserves of Treasury bills and at the same time this is not necessarily a deficit problem for the US.

As can be seen above, if read above the line, the balance could be positive, except that the 'return on capital' is not really recorded.

When the crisis struck, H&S were seen as having been too positive. The *Financial Times* mentioned the dark matter theory as one of those which had erred on the optimistic side. "Academics and the Fed also fell into the trap of rationalising unsustainable features of the global economy. In 2005 a paper by Ricardo Hausmann and Federico Sturzenegger of Harvard caused excitement about the possibility that financial "dark matter" would prevent a big bang in the world economy. The failure to believe in this dark stuff, the authors concluded, made "analysts predict crises that, for good reason, remain elusive"."(Giles 2008).

True, but the question here is if the meltdown had its reason in the financial imbalances that Hausmann and Sturzenegger did not think were real. The problem may well lie in the fact that the US did not find sufficiently profitable investments at home in a 'productive' sense, which helps explain the employment losses in the US. The high return on capital abroad supported the exaggerated financialization of the US and led to its eventual meltdown.

The Emergence of the "Sinodollar"

Other countries also import from China and similarly export capital to it. Reinvestments develop China's internal economy. One could ask why China itself could experience a boom when it imports-exports so much dark matter? This has to do with the structure of the Chinese economy that is based on sub-contracting where Chinese entrepreneurs extract their own profits at the behest of low-paid workers. There is enough for everyone, even if the resulting goods come out at the cheaper end. Despite having modernized its views on the world a bit by for example admitting that profits are increasing relative to wages worldwide, the ever-vigilant *Economist* persists in the erroneous notion that China, by having a current-account surplus vis-à-vis the US, does not also import capital. In fact, *The Economist* occasionally thinks that China is hoarding its surplus (e.g 2006b). This view of Chinese hoarding became patently absurd in 2008 where it was realized that the economy had rather been overheating before it sank down and needed stimulus.

International financial intermediation has to do with one 'real' asset as the foundation of different financial instruments (long and short lending and short borrowing), or rather, the long lending creates an asset through direct investment. The money returns to the banking system as short lending for the private capital market (US and international investment banks and funds operating

in Hong Kong and Shanghai) that can be the basis of short borrowing or converted to reserves and thus to Treasury bills as a way of getting remuneration on this extra money.

There is here a major difference between China now and Europe after the Second World War. The Eurodollar came after the liberalization of capital account but with some banking restrictions at work. China still has restrictions on capital account, which means that the excess dollars cannot easily be held privately and if they have nothing to do (are not invested overseas) they will tend to be hoarded by the Reserve Bank of China in the form of US Treasury bills. However, Mainland Chinese have been allowed to invest in Hong Kong. New firms are entering all the time. They come in with foreign currency that is eventually converted to renminbi.

Ere long, the firms will have exported and bring in new currency for the part that is registered locally as exports. The part that is registered externally of course does not enter Chinese accounts. To be fair, some of these companies also source and sell in China. Despite the fact that they should probably be much higher, enormous exports are still registered. The market for those dollars that are converted to short-term deposits in commercial banks (over and above those that come into the coffers of the China Reserve Bank) are the Sinodollars, which have taken on a life of their own despite restrictions. They are 'hot money' (Martin and Morrison 2008), but not all hot money in China is Sinodollars, which denotes the dollars that have exited the US money supply without entering the Chinese official coffers. It is the triangulation that makes them Sinodollars. This shows among others that in developed capitalism the ways of finding an outlet can not be regulated for ever. Events will enforce liberalization when capital flows are allowed, and new problems are bound to ensue.

When it comes to large foreign firms extracting enormous profits in China, these are not necessarily registered as external and therefore not entering the service account. Or rather, China exports commodities that are not each of them split up in its components. Therefore it will also 'export' the profits as if they were homegrown when measured in commodities. But when it comes to the final day of reckoning, all of this is split differently. And it is difficult to reconcile. Add to this the tax interests of firms in obscuring matters, i.e. pretending that costs (production prices) in China are higher than they are.²²

This will also make China vulnerable. The first sign was in March 2007 when the Shanghai stock exchange fell dramatically in just one day. Commentators were bewildered and hurried to say that there was no connection to the US market. There was. This happened when the housing market in the US weakened. One large sub-prime mortgage company went belly-up based on increasing default rates in the underlying housing market. Later on China fared better as the financial meltdown in the west barely touched it because Chinese banks had not invested extensively in all the strange derivative vehicles. China started suffering in a real sense in the last part of 2008 through the US consumer purse and his/her influence on markets. But also through the 'mark-to-market' effect of its capital investors who got into difficulties.

History has not ended yet. The strength of China has been reinforced and it is going more in the direction of autonomy. Yet, net FDI into China has not diminished and the Chinese authorities are trying to curb bank lending. Therefore China today is as much dependent on the US as vice versa. Until such time as it has gained full reign of its own investments and industry.

²² To their home governments. In China they would do the reverse, i.e. pretend that profits were low.

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