

**Dollar-Euro
Exchange Rate
1999-2004 -
Dollar and Euro
as International
Currencies**

Rasul Shams

HWWA DISCUSSION PAPER

321

Hamburgisches Welt-Wirtschafts-Archiv (HWWA)
Hamburg Institute of International Economics

2005

ISSN 1616-4814

Hamburgisches Welt-Wirtschafts-Archiv (HWWA)
Hamburg Institute of International Economics
Neuer Jungfernstieg 21 – 20347 Hamburg, Germany
Telefon: +49-40-428 34 355
Telefax: +49-40-428 34 451
e-mail: hwwa@hwwa.de
Internet: <http://www.hwwa.de>

The HWWA is a member of:

- Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz (WGL)
- Arbeitsgemeinschaft deutscher wirtschaftswissenschaftlicher Forschungsinstitute (ARGE)
- Association d'Instituts Européens de Conjoncture Economique (AIECE)

HWWA Discussion Paper

**Dollar-Euro Exchange Rate
1999-2004 -
Dollar and Euro as International
Currencies**

Rasul Shams

HWWA Discussion Paper 321

<http://www.hwwa.de>

Hamburg Institute of International Economics (HWWA)
Neuer Jungfernstieg 21 – 20347 Hamburg, Germany
e-mail: hwwa@hwwa.de

This paper has been prepared within the HWWA research program „Trade and Development“.

Edited by the Department World Economy

HWWA DISCUSSION PAPER 321

May 2005

Dollar-Euro Exchange Rate 1999-2004 - Dollar and Euro as International Currencies

ABSTRACT

On January 1, 1999 euro became the currency for 11 member states of the European Union. Since then the dollar-euro exchange rate has completed a full turning. Three years of depreciation of the euro followed by three years of appreciation without wild fluctuations asks for an explanation which would adequately account for the position of the euro as an emerging international currency. In this paper, first we present a concise summary of the theory of world money. Then we apply the theory to explain the development of the exchange rate of euro versus dollar in the subperiods 1999-2002 and 2002-2004.

Key Words: Exchange Rates, Balance of Payments, International currency

JEL-Classification: F 3, F 41, G 15

Rasul Shams
Hamburg Institute of International Economics (HWWA)
Neuer Jungfernstieg 21
D-20347 Hamburg, Germany
Phone: +49-40-42834-442
Fax: +49-40-42834-451
E-mail: Rasul.Shams@hwwa.de

1 Introduction

On January 1, 1999 Euro became the currency for 11 member states of the European Union. Since then the Dollar-Euro exchange rate has completed a full turning. Euro depreciated since its introduction steadily and without any major interruption until February 2002. Then it began to rise against Dollar smoothly and reached a height of 0.74 Euros to 1 US\$ in December 2004 (see table 1). Three years of depreciation of the Euro followed by three years of appreciation without wild fluctuations asks for an explanation which would adequately account for the position of the Euro as an emerging international currency. Theories of the exchange rate which are based on interest rate and price differentials or revisions of expectations causing short term capital movements can not provide for such an explanation. Since both, Dollar and Euro are international currencies we apply the theory of world money to explain the steep downward and upward movement of Euro against Dollar in the period 1999 to 2004.

Dollar replaced its predecessor sterling already in the immediate post-war years as the dominant world money and is today the leading international currency with vast scale economies and externalities due to its long standing international monetary functions (Shams 2002, P. 11). The common European currency Euro is just in the process of assuming an important role as an international currency. Its introduction induced a discussion on rivalry between Euro and Dollar (Bergsten 2002; Kenen 2002; Cohen 2003). The approach followed here to explain the development of the Euro-Dollar exchange rate will allow us also to evaluate some arguments on the world money role of both currencies brought up in this discussion.

We first present a concise summary of the theory of world money as discussed in Shams (1983). Then we apply the theory to explain the development of the exchange rate of Euro versus Dollar in the subperiods 1999-2002 and 2002-2004.

Table 1: Dollar – Euro exchange rate 1999 – 2004

Euro to 1 US \$

	1999	2000	2001	2002	2003	2004
January	0.862814	0.987351	1.0667	1.13226	0.941605	0.791328
April	0.934604	1.05862	1.12048	1.12846	0.920756	0.834161
July	0.964629	1.06551	1.16103	1.00665	0.879984	0.815356
September	0.952685	1.17338	1.10531	1.01924	0.854156	0.799695

Source: Historic outlook, x-rates.com-website 20 January 2005

2 The Regionalisation of the World Economy and World Money

One of the basic statement of a full developed theory of world money is that the world economy exhibits a specific structure, which is changing through time and that the world money adjusts to these specific characteristics of the world economy and underlies therefore itself large-scale changes in the long run. To understand the development of the world money and any long-range modification in its manifestation through time one has therefore first to study the dynamic stability of the world economy. To grasp this dynamic stability we propose to conceive the world economy as a living economic unit focussing on the shape and formation of the totality of the international transactions and not on its differentiated parts (international trade, international investment, international finance, etc.). This unique and dynamic movement is best formulated in terms of structural characteristics of the world economy, which could serve its level of development in every moment of time. We propose four different structural characteristics (Shams 1983, pp. 48-124).

In terms of the totality of international transactions the first structural characteristic is its steady growth. Here we have to focus on the long run, covering centuries and not decades. The second structural characteristic is that this long run growth of the world economy exhibits fluctuations. Periods of downswing supersede periods of upswing covering several decades. Periods of world-wide downswing are characterised by the process of search for new path-breaking technologies and their introduction, testing and development while periods of upswing are characterised by further development,

application and exploitation of major technologies. Another structural characteristic of the world economy is the slow process of the intrusion of the market economy into new regions leading to a differentiation of the world economy between developed and underdeveloped regions. After a long process of structural changes some of these regions develop into market economies and become parts of the world economy.

For the purpose of our discussion in this paper the most important structural characteristic is the regionalisation of the world economy. The world economy possesses a specific spatial dynamic which leads to a differentiation of the world economy into regions characterised by a high intensity of intra-regional exchange and a low intensity of inter-regional exchange. This is the result of processes of agglomeration which lead to huge industrial complexes covering usually the territory of several nation states.

Inside industry complexes usually exist a specific division of labour among the respective countries. We can differentiate among central countries and peripheral countries. The peripheries are dependent on the large central countries as markets for their products and the structure of their production is oriented towards these countries.

One of the results of the interaction of the different structural characteristics of the world economy is a specific pattern of integration, catching up and outstripping of different central countries during the alternating periods of upswings and downswings of the world economy (for details see Shams 1983, Chapter III).

A central country exploiting the possibilities of new technologies in an upswing can easily capture a leading position on the world market in terms of share of exports in goods with a high intensity of capital and technology. Other countries, which have the potential to develop into a central country have the possibility to catch up with the hitherto leading economy during a world-wide upswing. Some less developed areas with a future potential of being a central country could get the possibility of industrialising themselves in an upswing. The whole picture can change in the course of the following world-wide downswing. While the hitherto leading economy would lose its dominant position on the world market, the upcoming central country could outstrip the leading economy, which will be in a process of becoming a nascent mature economy. The industrialising developing country in its turn would grow slowly in a position of becoming an emerging economy, ready to catch up as a central country in the following upswing.

In a world of nation states and the absence of a world government a national money that fulfills all money functions at the level of the world economy will assume the role of an international currency (Shams 1983, pp. 125-130). The potential of a national currency to assume this role is determined in the first place through the share of the corresponding country in international transactions (Shams 1983, pp. 126-130). Depending on the respective structure of the world economy therefore, the national currencies of one or a few central countries must assume the role of an international currency. Since the structure of the world economy changes over time due to the changing interaction of the different structural elements of the world economy, there will be also changes in the roles of the different national monies as international currencies (for details see Shams 1983).

3 Euro Depreciation 1999-2002

There have been many explanations for the Euro depreciation 1999-2002. Welfens (2001) uses the monetary approach to the exchange rate to demonstrate his case. A depreciation of Euro can be expected due to a higher growth rate of money in the EU; a higher growth of per capita income; a higher growth rate of population; a higher rate of capital accumulation; a faster rising index of stocks or higher interest rates in the US. He points out specially a mistaken fiscal policy leading to a growth weakness in Germany and the EU as the reason for the weakness of Euro. This is a simple but not a far reaching explanation. In 2003 the Euro began to appreciate, but as the IMF World Economic Outlook September 2004 states, the fiscal situation in Europe has not improved markedly and the long-term fiscal situation in many countries remains difficult (IMF 2004, P.27). There is also no improvement in the growth differential or unemployment situation in favour of Europe (IMF 2004, P.6, Table 1.2.). If we follow Welfens, the depreciation of the Euro is allegedly explained but its appreciation remains a puzzle.

Some economists look at the productivity differential between Europe and United States as a factor determining the Dollar-Euro exchange rate (Alquist and Chinn 2002, Bailey et al. 2001). An improvement of US-productivity for example can increase the rate of return on capital and trigger substantial capital flows out of Europe to United States depreciating the Euro vis-à-vis the Dollar. But Schnatz et al. (2004) using four different

measures of average labour productivity could not find any evidence for productivity differential to explain the weakness of the Euro vis-à-vis the Dollar in 2000-2001.

De Grauwe (2000) takes as a starting point fundamental variables that have an impact on exchange rate (growth rate, inflation differential, current account etc.). He points out the fact that it is the unexpected part of these variables that affect the change in exchange rate. An examination of the fundamental variables for the period 1999 until May 2000 shows that the news about the US economy was less favourable relative to Eurolands's economy. But contrary to expectations the Dollar increased in value relative to the Euro. De Grauwe presents his own explanation for this phenomenon. According to him (De Grauwe 2000, P. 14) it is not the news in the fundamentals that drives the exchange rate changes, but rather the other way round. In an uncertain world changes in the exchange rate lead to a selection of news about the fundamentals that is consistent with the observed exchange rate changes. When, for example, the Dollar starts moving up, this will be considered as evidence of strength of US economy. Good news about US economy will be searched for a while bad news will be disregarded. At the same time a declining Euro will trigger a search for bad news about the European economy. These beliefs then reinforce the movements of the exchange rate. The Dollar increases further and the Euro continues its decline. This process can last for a while. At some points too many discrepancies between facts and beliefs reduce the credibility of the latter and a turn in the market can reverse the process.

Applying this theory to the period 1999-2002 would lead to the conclusion that the decline of the Euro since the beginning of the period was set off by mounting bad news about the European economy outright by introduction of the Euro. The beginning appreciation of the Euro two years later in contrast would have been caused by accumulation of good news which increasingly were contrary to the beliefs about the weakness of the European economy. But the bad news about the European economy originate from a time well before the introduction of the Euro and continue without major interruptions even today after the Euro has appreciated remarkably.

News must have a basis in the real development of the fundamentals and can not lead their own life for long in spite of accumulating facts. The theory assumes that the agents participating at the market do not learn from their past experiences. Otherwise they would realise very soon that beliefs are contrary to the facts and not for long would revise their beliefs. Periods of appreciation and depreciation of a currency would become shorter and shorter until no serious discrepancy would exist between beliefs and

facts. The Period 1999-2004 is a too long period to believe in a rational ignorance of economic agents due to uncertainty about the link between fundamentals and the exchange rate.

In another study two different approaches are presented to explain the depreciation of the Euro in 1999-2002 (Meredith 2001). The first one is based on the surge in U.S. equity prices since mid-1990s. According to this explanation this surge in equity prices raised market capitalisation relative to GDP to unprecedented levels. This boosted both consumption and investment, leading to a shock on the demand side. The anticipated future impact of this positive demand shock caused the long-term real interest rate to move up sooner than the short term real interest rates. Since the exchange rate is determined by uncovered interest parity, and thus reflects both the current and all expected future interest, this leads to the appreciation of Dollar vis-à-vis Euro (Meredith 2001, P. 20-33).

Assuming that equity valuations stabilise relative to GDP at the level observed in 2000, the exchange rate would peak in 2000 and decline thereafter. It would not fall back to its initial level until 2040 (Meredith 2001, P. 27). The gradual depreciation of the Dollar is to the fact that U.S. output rises relative to the output in the rest of the world. The depreciation leads to a decline in the relative price of U.S. output to equilibrate world product markets. This is the case because the two outputs are assumed as imperfect substitutes.

The hausse in equity prices reached its highest value at the beginning of 2000 and the equity prices were not stabilising but falling thereafter. In contrast to the results of the model, the appreciation of the Dollar vis-à-vis Euro peaked in 2002. It fell back to its initial value already in the beginning of 2003. In spite of falling equity prices since 2000 a negative demand shock in United States can only be observed for 2000-2001. The American economy experienced the end of the last recession in November 2001 (Deutsche Bundesbank 2003). The dollar depreciation since 2003 can not be therefore interpreted as being necessary to equilibrate world product markets.

Sinn and Westermann (2001) have another explanation why the Euro has been falling. The starting point is the remarkable stock of DM in Eastern Europe. They estimate, based on Bundesbank sources, that in mid-1990s the stock of DM circulating abroad was between 60 and 90 billion DM, equivalent to 30-45 billion Euros. As another important source of stocks of European currencies they mention the black money in

Europe. A reduced preference for DM would induce the holder of DM in Eastern Europe and the holder of black money to switch to Dollars. The result would be a depreciation of Euro vis-à-vis Dollar. Sinn and Westermann (2001) understand this as an devaluation of the Euro.

According to Welteke, the then President of the Bundesbank, a comparison between amounts of DM which have been possibly exchanged into a foreign currency and those amounts which are traded daily on the foreign exchange market, shows that the exchange rate of the Euro could be hardly affected by switching in Eastern Europe from DM into Dollars (Deutsche Bundesbank 2001, P. 11).

Sinn and Westermann (2001) give as reasons for the holder of DM to switch to Dollars the lack of information about the currency conversion in 2002 outside Germany and the money laundering laws which hinder the holder of the black money to convert their DM into Euro via official channels (bank counter). Both reasons are unconvincing. It may be true that in spite of given fixed conversion rates between European national currencies and the Euro a lack of information could lead to uncertainties and a switch to foreign currencies. But right from mid-2001 preparations were made to inform the holder of DM in East Europe and Turkey about the conditions for the conversion of DM to Euro in order to reduce existing uncertainties (Deutsche Bundesbank 2001, pp. 2-6). Regarding black money in Western Europe, neglecting the question of magnitude, the argument presupposes that switching into Dollars do not pose any problem for black money holders and money laundering laws do not apply in this case. Furthermore black money could be made legal via laundering before conversion into Euro. Switching into Dollars would not be necessary in this case.

In World Economic Outlook October 2000 (P. 15) five different reasons for the depreciation of the Euro are discussed. First, the widening of private sector estimates of the differential in growth in 2000 between the Euro area and the United States is seen as a partly explanation of the Euro depreciation. A second explanation is based on the Euro area-U.S. interest rate differentials. But this would apply only for the period until June 1999. Thereafter, however, the differentials have narrowed while the Euro remained weak. Third, the relative medium- and long-term growth prospects are mentioned as a reason for large financial outflows from Europe, especially foreign direct investment, weakening the Euro. A fourth potential reason is seen in the fact that non-residents contributed greatly to an increase in the share of Euro-denominated bonds in global

bond issues and switched the proceeds into Dollars. A final reason is cited to be the adverse perceptions of Euro area policy making.

These explanations are not very convincing. The first two are realised as fragmentary. The third reason relies on huge capital flows from Europe to United States. But focussing on the DM and Dollar and looking at table 2 there is, no indication for a dramatic change in the direction of capital flows, neither direct investment nor portfolio investment. Direct investment outflows are higher in 1999, but thereafter inflows surpass outflows or as in 2001 outflows are not too high. Taking other investments into account even the figures for 1999 lose their importance. These figures do not support the view that capital flows have been the source for a continuous depreciation of DM against Dollar. For the Euro area as a whole (table 3), outflows of direct investment are important in 1999 and 2001 and that of portfolio investments in 2000. But including other investments, net outflows are negligible for 1999 and 2000.

Table 2: German Capital Account net / Billions of US-Dollar

	1998	1999	2000	2001	2002	2003
Direct investment	-66.29	-53.99	150.35	-15.76	26.26	9.75
Portfolio investment	5.42	-12.40	-150.67	21.59	41.4	65.93
Other investment	86.71	40.39	40.76	-35.76	-136.78	-154.64

Source: February 2005, International Monetary Fund: International Financial Statistics, p. 420

Table 3: Euro Area Capital Account net / Euro billions

	1999	2000	2001	2002	2003	2004
Direct investment	-120.6	-23.0	-101.5	-41.5	-3.4	-36.4
Portfolio investment	-41.7	-120.4	38.1	103.4	41.7	54.7
Other investment	163.1	131.6	8.8	-146.6	-32.1	-73.7

Source: ECB, Balance of Payments of the Euro Area, Various Years (ECB homepage)

The fourth reason given in the Outlook is much more demanding. It assumes that to raise money in Europe since 1999 was less expensive than in the United States. Switching the proceeds into Dollars would depreciate the Euro and lead automatically to higher costs of issuing Euro-denominated bonds. Why non-residents could, in spite of this fact, continue to raise money in Europe for four years consecutively looks to be at least questionable. As a matter of fact only in 1999 net issuance in Euro exceeded that of in US Dollars. In the year 2000 the issuance in US Dollar was nearly double that of Euro, marking a return to a long-standing pattern in the international debt securities market (BIS Quarterly Review, November 2000, P. 27). Besides this, the largest issuer in Euros were European firms and not the non-residents as the theory suggests (BIS Quarterly Review, November 2000, P.28). Since 2003 the share of Euro-denominated bonds in global bond issues has increased dramatically again (BIS Quarterly Review, November 2000, P. 34) but the Euro appreciated vis-à-vis Dollar.

The May 2001 edition of World Economic Outlook (pp. 66-70) is much more pessimistic. It comes to the general statement that the depreciation of the Euro seems to defy explanations from conventional exchange rate models. Neither changes in current account transactions, nor interest rate differentials or disorderly market conditions and associated bandwagon effects as explanation for the exchange rate movements seems to pass an empirical verification. Also the evidence supporting the view that bilateral equity flows driven by the perception of greater economic growth in the United States is looked at to be anecdotal, and subject to little rigorous analysis.

The depreciation of the Euro from 1999 to 2002 remains therefore a puzzle. We maintain that until the introduction of Euro coins and notes at the beginning of 2002 Euro has not been perceived as a full-fledged money by consumers and investors. This lack of confidence led to a weak demand for the new European money throughout 1999-2002. The Euro depreciation in this period has been simply due to the depreciation of some of the national European currencies which via fixed conversion rates translated into Euro depreciation. These national currencies existed until January 2002. But on the foreign exchange markets only Euro was notified. The demand and supply for every national currency translated via fixed conversion rates automatically into demand and supply for Euro. The Euro depreciation was therefore the result of the depreciation of at least some of these national currencies. To understand the depreciation of the Euro in this period we had therefore to look at the development of the exchange rate of these national currencies. But for this purpose no data exist, since these national currencies,

although as a matter of principle absolutely possible, were not notified at the foreign exchange markets.

4 Euro Appreciation 2002-2004

On February 28, 2002 national banknotes and coins were finally withdrawn from use. Euro is now not only a denomination currency but also a store of value and a transactions currency (medium of exchange). Just from this time the Euro begins to appreciate for three consecutive years and stabilises at the end of this period at a high level vis-à-vis Dollar. What explains this creeping appreciation of the Euro? The most recent literature on Euro-Dollar exchange rate is preoccupied with the explanation of the intra-day, daily or monthly rates (Cyree, Griffiths and Winters 2004; Prast and de Vor 2005; Frömmel, MacDonald and Menckhof 2005). Another branch of literature which could be important in this respect discusses the possibility of Euro challenging the international currency position of Dollar. Cohen (2003) is very critical of this possibility. He bases his arguments on the many negative aspects of European economic development weakening the position of the Euro. He specially refers to the fact that Europe's markets for public debt remain segmented, increasing the transactions costs, the anti-growth bias which is built into the institutional structure of the EMU, dampening rates of return on Euro-denominated assets, the Euro area's governance structure which continues to be riddled with ambiguities and obfuscation.

Kenen (2002) and McKinnon (2002), both looking on the use of Euro in trading, bond issues, bank liabilities and official reserves, appreciate the strong role of Euro as an international currency but do not believe, it could be in a position to displace the central role of the Dollar. McKinnon refers to the reinforced Dollar standard by the ongoing price stability in the United States as the main reasons why the Dollar supremacy will continue.

Other Authors (Hartmann and Issing 2002; Huismann, Meesters and Oort 2000; Beckmann, Born and Kösters 2002), looking at the evolving international role of the Euro come to the conclusion that the Euro has indeed a great potential to expand further its international role but that this will be a long run process, not to be realised in the near future.

The most optimistic view is held by Bergsten (2002). For him the hitherto existing supremacy of Dollar is explained by the fact that it has had no competition. Comparing Euroland to the United States the Euro will provide the first real competition for the Dollar. Transitional considerations account for the lag in the Euro's acquiring its large international role. For Euro to assume its role, according to him, four additional conditions must be fulfilled. First, Euroland need to further integrate its money and capital markets. Second, Europe will need to get its act together institutionally. To realise full equivalence with United States it may be necessary for Europe to achieve full political integration, and to become a single nation. Fourth, a mismanagement of the Dollar by the United States may be necessary for the Euro to realise its potential and reach rough parity with the Dollar. So it is probable that the Dollar will experience a sharp depreciation in future which will induce the necessary structural portfolio diversification into Euro and mark the arrival of the Euro as a major competitor of the Dollar.

Reviewing the literature, therefore we are confronted with the situation entailing any statement regarding the future of the Euro. None of them can provide an adequate explanation for the present situation where the Euro has appreciated vis-'a-vis the Dollar for three years without being still perceived as a competitor or rival in the public in general. To get a more precise understanding of the present situation of the world economy and the status of different national monies as international currencies we have to draw our attention to the sequence of different central countries in the course of the secular and cyclical development of the world economy as it was depicted in section 2 above. Against this background the Euroland can be considered as an upcoming central country while United States would be viewed as the hitherto dominating economy. While the Dollar therefore can be seen as an established international currency, the Euro is gaining the status of an emerging international currency. How the respective position of one of these currencies is evolving vis-à-vis the other can only be traced if the structural features of both central countries are carefully evaluated.

After joining together of formerly small and medium-sized economies, the Euro area has emerged as an economy with a large internal market with a share of world GDP of 15% in 1997 and a population of 292 million in 1998. Its degree of openness measured by the ratio of exports of goods to Euro area-wide GDP is standing around 14%, by and large comparable to that of United States and Japan (for figures see ECB Monthly Bulletin, January 1999, P. 11). The most important indicator for the potential status of a national currency as an international currency is, as it was mentioned in section 2, the

share of the corresponding area or country in international transactions. The share of the Euro area in total world exports of goods amounts to almost 16%, which substantially exceeds the share of both the United States and Japan. The share of the United States in total world exports was around 12% during the 1990s and it is slowly decreasing since 2000, falling to 9.7% in 2003 (calculated from IMF, International Financial Statistics Yearbook, 2004, P. 82). Looking at these figures, the appreciation of the Euro vis-à-vis the Dollar after it became a full fledged money in February 2002 is not a puzzle any more. Since 2005 the Dollar-Euro exchange rate has stabilised at a level that gives expression to the value of the Euro as an emerging international currency.

The importance of the Euro as an international currency is slowly increasing. The share of Euro as an invoicing currency in international trade has increased for most of the Euro area countries, especially in the case of exports. Its share in official foreign exchange reserves has increased from 19.3% in 2002 to 19.7% in 2003. Five years after the introduction of the Euro, debt securities denominated in Euro account for around 31% of the total stock of international issues (ECB 2005). Non-bank entities in developed countries outside the Euro area constitute the main borrowers from Euro area banks. The Euro is the second currency of denomination of loans granted by Euro area banks, with an average share of around 36% as of the first quarter of 2004, after the US \$, with around 38%. The Euro is also the most widely used currency of denomination of deposits by non-Euro area non-banks with banks in the Euro area, accounting for around 51% of the total deposits in the first quarter of 2004 (ECB 2005, P. 24). Referring to the Euro area non-bank residents borrowing from banks outside the Euro area, the bulk of such borrowing (61%) is in Euro. Deposits from Euro area residents held in banks outside the Euro area are also largely denominated in Euro.

These increases in the use of the Euro, relative to other currencies, have been highest among the residents of countries that are neighbours of the Euro area. The increasing importance of the Euro exhibits therefore a regional focus. As it is stated in Shams (2002, P. 12) "what we presently witnessing is not a process of succession of national currencies as international monies but the parallel existence of several national currencies as international monies". The use of Euro as an international currency may improve further in the coming years. But the Dollar as the currency of the hitherto leading country enjoys a decisive comparative advantage which results from the scale economies and externalities realised through its hitherto international monetary functions.

Only a persistent fall in world export shares of a leading economy would in the long run wear away the international monetary functions of its currency. This would be the case for an ageing economy without the ability to rejuvenate. If this is true in the case of United States is a matter of discussion. Not only the decreasing world trade shares of the United States in recent years but also the unprecedented trade deficit are signs which could be interpreted in this manner. The discussion on the sustainability of US current account deficit is not conclusive in this respect. The reason behind the increasing current account deficit, well in excess of 600 billion \$ annually since 2004, is seen to be the low saving rate of the United State's economy (Summers 2004, Roubini and Setser 2004). To a large part this huge deficit must be financed by reserve accumulation of foreign central bank. Regarding the sustainability of this arrangement one risk is the projectionist pressures that are generated by such a large deficit. Important in this respect is also the willingness of external investors to continue to finance these deficits at low rates. There is the risk that at some point in future the interest rate necessary to attract external financing has to rise and/or the exchange rate of the Dollar has to depreciate. The risk of adverse consequences is that supportive macroeconomic policies seems necessary for the needed adjustment to happen smoothly.

Some opinions see no serious risk in current account imbalances. Greenspan (2004) is of the opinion that adjustment may eventually become necessary. But this would take the form of greater diversification of their Dollar assets by foreign investors in non-Dollar assets, especially in Euro, a process, which is likely benign.

For Griswold (2001) America's record trade deficit is not an economic problem. He looks at it as benign consequence of a persistent surplus of foreign capital flowing into the United States. Also, the negative net international investment position of United States is not alarming when compared to the overall size of the U. S. economy. In United States, growing trade deficits are typically accompanied by improving economic conditions. The trade deficit is the result of strong growth and a healthy investment climate.

In theoretical terms there is a flaw in this argument. If strong growth leads to trade deficits, the external debt must increase since only part of deficits can be financed by direct investment and acquisition of equities by foreigners who are attracted by the high growth rates. By growing indebtedness at some point in future surpluses in current account are necessary to settle the foreign debt. For this purpose the absorption must be reduced and the exchange rate devalued. Griswold (2001, P. 12) states that because of

the larger capital stock the American economy will be more productive, thus expanding the economy and easing the relative burden of servicing the net foreign investment position. But this is only the case if the export capacity is growing concomitantly with the rising productivity. Summers (2004, P. 3) reports that in the last years the composition of investments in United States has changed substantially toward the non-traded goods sector. Moreover, United States is a mature capital exporting economy. Outward foreign direct investment has substantially exceeded inward foreign direct investment. So the U. S. needs not only to finance a current account deficit but also a huge amount of outward foreign direct investments (Roubini and Setser 2004, P.5).

Regarding the sustainability of the U. S. current account deficit one important fact which should not be forgotten is that the United States is a centre country. A centre country pays foreign goods with its own money because its money is internationally accepted to settle payment contracts. Reserves denominated in the international currency are accumulated by foreign countries, not because they bear a high interest rate but because they impart international liquidity. Current account deficits of the centre country are easily cleared because surplus countries are ready to hold reserves in the international currency. As long as the national currency of the centre country has not lost its functions as the international currency its current account deficits can be seen as a means to endow the world economy with the necessary international liquidity.

But a national currency functioning as an international money can, as a matter of principle, lose its international monetary functions degrading to its original role as a national currency. This is all too known from Sterling, which enjoyed a high esteem as an international currency well into the 1940s. Is U. S. Dollar going to share the same fate?

For this to happen the world export share of the United States must be falling over a long period. This would imply that the country is steadily losing its international competitiveness. An ageing economy losing its international competitiveness is characterised at least by three different conditions:

- The current account runs into deficit with no sign of early improvement
- The manufacturing industry is consisting of weak and competitive industries. Weak industries have a negative and worsening trade balance while the competitive industries have a positive trade balance. The list of weak industries is getting larger while some of competitive industries may get more and more into difficulties

- Other sources of overseas income are not enough to make good any loss of net revenue in manufacturing trade

Is this the case presently in United States? Those, who are diagnosing the problem of trade deficits as a result of a low saving rate may argue that reducing fiscal deficits would be enough to bring the trade balance into surplus. They are relying on an ex post identity, which is always valid:

$$\text{Net exports} = (S_{\text{privat}} + G_{\text{government}}) - I$$

A reduction in government deficits or a government surplus would accordingly lead to an improvement of the trade balance. But it would be fallacy to make a theoretical exposition on the basis of an ex post identity. Net exports may remain constant since ex ante private saving may reduce further and/or investment may increase. Even if aggregate saving increases, the long run problem of a worsening trade deficit may persist. Due to reduced absorption imports are reduced and resources are free to be transformed into goods for export. If the manufacturing industry is not competitive internationally, prices for export goods must fall. This will happen via a devaluation of the currency. In the short run the trade balance improves. But due to the weakness of the manufacturing industry the short run success cements its international specialisation on goods with a low demand elasticity on the world markets. In the long run the problem of a worsening trade balance appears again with the consequence of a falling world export share.

In the case of the United States there are no signs of an ageing manufacturing industry in the sense just described. But some parts of manufacturing industry is experiencing strong foreign competition especially from low wage countries. The rise of imports from these countries has a high negative impact on trade balance but the manufacturing industry possesses a high adjustment flexibility. Import competition from low wage countries has grave consequences for the U. S. manufacturing sector. A study covering the period 1977 to 1997 (Bernard et al. 2002) comes to the conclusion that greater competition from low wage countries increases plant failure across industries. Both employment and output growth rates are significantly lower at plants that face high levels of low wage import competition. For plants that are the most labour-intensive the growth is even slower. A major effect of import competition has been to accelerate the process of capital deepening and skill upgrading across and within U. S. manufacturing

industry. Some plants respond to low wage competition by changing their product mix or switch to sectors that are more capital and skill intensive.

Taking into account the high flexibility of the U. S. manufacturing sector, a long run fall in world trade share of the United States with dramatic consequences for the Dollar-Euro exchange rate can not be currently anticipated. The importance of Euro as an international currency may increase further for a while due to the time necessary to unfold its full monetary functions world-wide (adjustment of currency structure of portfolios). But for the foreseeable future what we are experiencing is the proper functioning of a multi-currency standard led by Dollar and Euro than the birth of a global money, be it Dollar or Euro.

5 Asian Currencies and Euro-Dollar Exchange Rate: A Digression

Asia is in the process of catching up and is due to become a large-scale industrial complex. In its entirety, Asia is in a process to develop and depart in several industrialised regions with their own centre countries and neighbouring smaller countries oriented towards their respective centres. Accordingly, in the long run, this process will lead to creation of several monetary unions around the currencies of the respective centre countries, which will slowly evolve into international currencies.

Emerging large-scale industrial complexes are characterised by an increasing share of world exports and current account surpluses (Shams 1983, pp. 95-105, 154-169). As emerging centres, the large countries in such regions develop a high demand for international reserves. This is in accordance with theoretical considerations, where the size of international transactions and political factors (the evolving role as world political actors) prove to be important determinants of reserve holdings.

All this is currently the case in South-East Asia. But the recent large build-up of international reserve holdings of countries in the region is also motivated by the experience of the recent Asian financial crisis. As Aizenman and Marion (2002, P. 25) write "when countries attach more weight to bad outcomes than to good ones, they also find it optimal to hold sizeable precautionary balances of international reserves, even if the opportunity cost is significantly positive".

Looking at table 4 against the background of high demand of Asia for international reserves and the current state of the United State's economy, there does not seem to exist any urgent and substantial need for adjustment in the current accounts. The United States with its national currency is fulfilling the essential function of supplying the necessary international liquidity for the world economy.

Table 4. Summary of Payments Balances on Current Account (Billions of U.S. Dollar)

	2000	2001	2002	2003	2004	2005
United States	- 413.5	- 385.7	- 473.9	- 530.7	- 631.3	- 641.7
Euro area	- 29.7	9.3	52.8	25.5	72.2	87.6
Japan	119.6	87.8	112.6	136.2	159.4	148.9
Other advanced economies	73.5	85.7	92.2	122.4	133.6	134.8
Memorandum: Newly industrialised Asian economies*	41.4	52.3	62.5	86.4	85.0	86.0
Other emerging market and developing countries	86.3	39.5	84.2	148.9	201.3	183.2
Memorandum: China	20.5	17.4	35.4	45.9	38.5	49.5

* Korea, Taiwan, Singapore, Hong Kong

Source: IMF, World Economic outlook, September 2004, Tables 25 and 28

Any future need for adjustment due to excessive Dollar holdings by Asian countries would either induce an appreciation of their respective currencies against Dollar or lead to a diversification of their portfolio holdings towards other international currencies especially Euro. The Result would be therefore a further appreciation of Euro against Dollar.

6 Conclusions

The period 1999-2002 is marked by a permanent fall of the newly created Euro against the Dollar. There exist many explanations for this phenomenon. But at a closer look, none of them seem to be truly convincing. Until the introduction of coins and banknotes, the Euro was not a full-fledged money and its depreciation was therefore simply the result of the depreciation of some national currencies in Europe when converted via fixed conversion rates into Euro.

The appreciation of the Euro after 2002, immediately after the introduction of coins and banknotes, was possibly due to the fact that the Euro became a full-fledged money performing, from that point on, all monetary functions, as well as evolving, as the national currency of a large-scale industrial complex, into the role of an international currency. It is absolutely possible that in future the Euro will grow further in its role as an international currency. But it will not be in a position to displace the U. S. Dollar in its role as an equal important international money. This is due to the fact that, taking the high flexibility of the U. S. manufacturing industry into account, a permanent decrease in the U. S. world market share of exports can not be expected in near future.

References

- Aizenman, J. and N. Marion (2002), The High Demand For International Reserves In the Far East: What's Going on?, NBER Working Paper 9266
- Alquist, R., and M. D. Chinn (2002), Productivity and the Euro-Dollar Exchange Rate Puzzle, NBER Working Paper 8824, Cambridge, Mass.
- Bailey, A; S. Millard, and S. Wells (2001), Capital Flows and Exchange Rates, Bank of England Quarterly Bulletin (Autumn), pp. 310-318
- Beckmann, R.; J. Born and W. Kösters, The US Dollar, the Euro, and the Yen: An Evaluation of their Present and Future Status as International Currencies, in: W. Kleenex and H. Watanabe (eds.), Globalisation and Regional Dynamics, Springer, Heidelberg, pp. 51-79
- Bernard. A. B.; J. B. Jensen and P. K. Schott (2002), Survival of the Best Fit: Competition From Low Wage Countries And the (Uneven) Growth of US Manufacturing Plants, NBER Working Paper 9170
- Bergsten, C. F. (2002), The Euro Versus the Dollar: Will there be a Struggle for Dominance, Journal of Policy Modelling, 24, pp. 307-314
BIS Quarterly Review, November 2000
- Cohen, B. J. (2003), Global Currency Rivalry: Can Euro Ever Challenge the Dollar?, Journal of Common Market Studies, Vol. 41, No.4, pp. 575-595
- Cyree, K. B.; M. D. Griffiths and D. B. Winters (2004), An Empirical Examination of the Intraday Volatility in Euro-Dollar Rates, in: The Quarterly Review of Economics and Finance, Vol. 44, Issue 1, pp. 44-57
- Deutsche Bundesbank (2003), Monatsbericht November
- Deutsche Bundesbank (2001), Protokoll der Pressekonferenz im Europäischen Haus in Berlin am 17 Juli 2001: DM-Bargeld-Umtausch in Osteuropa und der Türkei, Presse und Information, Frankfurt am Main 26 Juli (homepage of the Bundesbank)
- ECB (2005), Review of the International Role of the Euro , Frankfurt a. M.
- ECB (Various Years), Balance of Payments of the Euro Area, (ECB homepage)
- ECB (1999), Monthly Bulletin, January
- Frömmel, M.; R. MacDonald and L. Menckhoff (2005), Do fundamentals matter for the D-Mark/Euro-Dollar? A Regime Switching Approach, in: Global Finance Journal, Vol. 15, Issue 3, pp. 321-335
- Grauwe, P. De (2000), The Euro-Dollar Exchange Rate In Search Of Fundamentals, Center for Economic Studies Discussion Paper Series DPS 00.17, Katholieke Universiteit Leuven, Department of Economics
- Greenspan, A. (2004), The Evolving U. S. Payment Imbalance And Its Impact on Europe and the Rest of the World, Cato Journal, Vol. 24, No. 1-2, pp. 1-11
- Griswold, D. T. (2001), American Record Trade Deficit, A Symbol of Economic Strength, Trade Policy Analysis No. 12, CATO Institute
- Hartmann, P. and O. Issing (2002), The International Role of the Euro, in: Journal of Policy Modelling, Vol.24, pp. 315-345

- Huisman, H.; J. Meesters and R. Oort (2000), The Euro and the Financial System, in: van Bergeijk, P.A. G.; R.J. Berndsen and W. J. Jansen (eds.), The Economics of the Euro Area, Edward Elgar, Cheltenham, UK, Northampton, MA, USA, pp. 133-152
- IMF (2005), International Financial Statistics, Washington D. C.
IMF (Various Years), World Economic Outlook, Washington D. C.
- Kenen, P. B. (2002), The Euro Versus the Dollar: Will There Be a Struggle for Dominance, *Journal of Policy Modelling*, 24, pp. 347-354
- McKinnon, R. (2002), The Euro Versus the Dollar: Revolving A Historical Puzzle, in: *Journal of Policy Modeling*, Vol. 24, pp. 355-359
- Meredith, G.(2001), Why Has the Euro Been So Weak?, IMF Working Paper (WP/01/155)
- Prast, H. M. and M. P. H. de Vor (2005), Investor Reactions to News: A Cognitive Dissonance Analysis of the Euro-Dollar Exchange Rate, in: *European Journal of Political Economy*, Vol. 21, Issue 1, pp. 115-141
- Roubini, N. and B. Setser (2004), The U. S. as a net Debter: The Sustainability of the U. S. External Imbalances, (<http://www.iue.it/RSCAS/Research/Eurohomepage/>) vom 16.12.04, 65 pages
- Schnatz, B; F. Vijselaar; and C. Osbat (2004), Productivity and Euro-Dollar Exchange Rate, *Review of World Economics*, Vol. 140, No. 1, pp. 1-30
- Shams, R. (2002), Is it Time for a World Currency, HWWA Discussion Paper 167
- Shams, R. (1983), *Internationale Währungsbeziehungen und die Entwicklung der Weltwirtschaft*, München, Köln, London, Weltforum Verlag
- Sinn, H-W and Westermann, F. (2001), Why Has the Euro Been Falling?, CESifo Working Paper No. 493
- Summers, L. H. (2004), The U. S. Current Account Deficit and the Global Economy, The 2004 Per Jacobsson Lecture, (<http://www.iue.it/RSCAS/Research/Eurohomepage/>) vom 16.12.04, 7 pages