

THE EURO AND ITS IMPACT IN THE INTERNATIONAL MONETARY SYSTEM

By ANDRE LUIZ ANDRADE BOBROFF

Minerva Program, Spring 1999

contents

INTRODUCTION [*](#)

CHARACTERISTICS OF THE EURO AREA [*](#)

INTERNATIONAL TRADE [*](#)

FINANCIAL MARKETS [*](#)

THE IMPACT OF THE EURO ON THE LATIN AMERICA [*](#)

CONCLUSION [*](#)

INTRODUCTION

On January 1, 1999, the final stage of European Economic and Monetary Union (EMU) began with the establishment of a currency union encompassing 11 of the 15 member countries of the European Union (EU) – Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. On this date, these countries locked their exchange rates and adopted the Euro as their common currency, with monetary and exchange rate policy determined by area-wide institutions. Thus, each country gave up the possibility of independent monetary and exchange rate policy.

The introduction of the Euro is a major event for international monetary relations and the international monetary system. It will have important implications not only for the Union and its Member States but also for other countries in the world.

EMU changes the locus of responsibility only for monetary and exchange rate policies. Policies affecting external trade and the integration of internal markets are already a matter of EU competence.

The monetary and exchange rate policies conducted at the Euro-area level will be of considerable global importance. The prospective Euro area rivals the United States in terms of output and trade, and the role of the Euro in financial transactions eventually may challenge that of the U.S. dollar. The size of the Euro area, the stability orientation of its policy framework and the integration of its financial markets imply that the Euro will likely become an important world currency. This will fundamentally change the nature and functioning of the international monetary system.

EMU will be particularly important for countries with close trade and financial ties with the Euro area, notably countries in central and Eastern Europe, in the Mediterranean basin, and in many African countries.

For the past half century, the U.S. dollar has served as the world's preeminent international currency. In the post-World War II period, the pound sterling provided some competition to the dollar, while in the 1980s the increased use of the mark and Japanese yen led to speculation that the international monetary system was becoming a tripolar currency regime. By the early 1990s, however, the international uses of the mark and yen stabilized at modest levels and expectations of a tripolar regime subsided. During the past few years, and of course, since the introduction of the Euro there has been increasing speculation that the international monetary system may become bipolar, with the dollar sharing the spotlight with the Euro.

The present paper presents a general analysis of the introduction of the Euro and its impact in the international monetary system, and thus identifies the advantages and disadvantages of the creation of this currency.

This document also presents a first analysis of the external aspects of the Euro. It is structured as follows. The first part sets out some economic indicators in order to evaluate the weight of the Euro-area in the world economy, particularly relative to that of the United States and Japan. It will be shown that in many respects the Euro-area would develop – over time – an economic weight similar to that of the United States.

The next section discusses the implications of the introduction of the Euro on non-EU countries through the transmission mechanism of international trade: the impact of higher growth in the Euro area, the spillover effects from the higher synchronization of economic cycles in the EU, and the use of the Euro in trade invoicing. Another section looks at the changes that will affect financial markets: these relate to the use of Euro as a vehicle currency on foreign exchange markets, the use of the Euro in private portfolio holdings, and the role of the Euro in international borrowing. Finally, this paper attempts to present an overview of the affects of the Euro on Latin America. It is also analyses the future development of the Euro as an international currency and its impact in Latin America.

CHARACTERISTICS OF THE EURO AREA

An EMU of 15 Member States have the following main characteristics.

Table 1

Economic Indicators: US – Japan – European Union **ATUALIZAR**

	Population	Share of	Share of	Export GDP	Foreign
--	------------	----------	----------	------------	---------

	(m)	OECD GDP (%)	world trade (%)	ratio (%)	exchange reserves in Bn \$
	1995	1996	1996	1996	End 1995*
USA	263	32.5	19.6	8.2	49.1
Japan	125	20.5	10.5	9	172.4
EU15	370	38.3	20.9*	10.2	349.8

*Excluding intra – EU trade

**Source: IMF

Its economic and commercial weight is comparable to that of the United States and larger than that of Japan. In 1996 the European Union's share of the GDP in the OECD amounted to 38.3%, as against 32.5% for the United States and 20.5% for Japan. If intra-community trade is excluded, the European Union accounts for 20.9% of world trade, as compared with 19.6% for the United States and 10.5% for Japan.

The average degree of openness of the Member States of the European Union (as measured by the share of exports in GDP) is currently 29.8%, compared with 8.2% for the United States and 9% for Japan. The degree of openness of some Member States is higher, rising to more than 60% in the case of Belgium and Ireland.

If intra-Community trade is excluded, the degree of openness of the euro area is 10.2%, similar to that of the United States and Japan.

Due largely to a convergence of economic policy objectives, the economic cycles in the different Member States have over the last ten years become more synchronized. This trend is reinforced in EMU owing to the implementation of a single monetary and exchange rate policy, the increase in economic interdependence and the intensification of economic-policy coordination. This greater cyclical synchronization, combined with the size of EMU, will make economic developments in the Euro area more important to the world.

The economic performance of Euro area is less sensitive to exchange rate fluctuations. This reduced vulnerability will result from the disappearance of strains between European currencies that can stem from fluctuations in the currencies of third world countries or shocks outside the European Union. For example, the weakness of the dollar at the beginning of 1995 created strains in the EMS by reinforcing the German mark's role as safe haven. The implied exchange-rate variability within the single market, which reduced consumer and investor confidence, disappeared with the introduction of the Euro.

INTERNATIONAL USES OF A CURRENCY

The EMU created an area whose economic potential is comparable to that of the United States. Given the size of the Euro area, it is expected that the Euro will play an important role as in the international currency.

Traditionally, the economic literature expands the three functions of money

- a. unit of account;

b. medium of exchange;

c. store of value

to the international level by making the distinction between the use of a currency by the private and by the official sector, as in table 2.

Table 2

THE ROLES OF AN INTERNATIONAL CURRENCY

Function	Private sector	Public sector
Unit of account	Invoicing of foreign trade; international financial transactions; quotations of prices on international markets	Determination of exchange rate relationships
Medium of exchange	Settling of international trade and financial obligations; vehicle currency; substitution currency	Interventions in foreign exchange markets; official financial flows
Store of value	Denomination of financial instruments	Denomination of official international reserves

A currency serves as a unit account when it is used in private sector trade invoicing and international financial transactions. Also the quotation of prices on international markets, e.g. markets for a raw materials, could be considered as a unit of account function of an international currency. In official sector use, this involves the use of a currency in the determination of exchange rate relationships, e.g. when a currency is used as a peg. The international private use of a currency as a medium of exchange comprises the payment of international trade flows and the discharging of international financial obligations, including foreign exchange operations. Also the use of a currency within a third country as a parallel currency would fall in this category. In public sector use, the medium of exchange functions includes the use of a currency for interventions on foreign exchange markets and for the settling of official financial flows, e.g. state-to-state loans. Finally, the international role of a currency as a store of value includes the expression of financial wealth, both private and public, in that currency.

The extent to which Euro will assume one or more of these various functions of an international currency, will affect other countries, because it will offer them the additional opportunity of using the Euro instead the dollar, which is now the predominant international currency world-wide. While some of these functions may be of particular relevance for the analysis of the implications of the introduction of the Euro on other countries, others may not be at all.

The creation of a single currency will enhance the two functions: a single currency will be the standard of measurement of a much wider set of goods and services. As such, it will facilitate more transparent markets and stronger competition.

In addition, the Euro will be very widely accepted means of payment. The result will be very large economies of scale in transactions, as well as the elimination of transaction costs that are now needed to convert one European currency into another.

In 1999, fears have been expressed that the Euro will be less strong than the strong currency in Europe last year and will thus probably display fewer qualities as a store of value. The Treaty of Maastricht has created a number of safeguards, including measures to ensure sound fiscal policies, the independence of the European fiscal authorities from each other. These safeguards were designed to ensure that the third economic function of the Euro, the store of value function, is as good as possible. Of course, inflation depends on inflationary expectations, and the latter reflects central bank credibility, which will only be established over time as the new central bank establishes a track record.

THE US DOLLAR AND THE EURO

There is one fundamental difference between the use of money in a single economy and the use of an international currency in a multi economy setting.

In the single economy, governments typically declare the currency that is used as legal tender within their jurisdictions.

While the process determining the use of international currencies responds to market forces, there may be some inertia owing to the costs of changing currencies.

Because the choice of international currencies is mainly a market-driven process, money's functions as a medium of exchange and a unit of account tend to predominate over its function as a store of value and tend to lead to the use of a single international currency or, at most, several international currencies. To explain this phenomenon, consider that modern portfolio theory suggests that – in order to diversify their risks – investors will typically choose to hold a wide range of international currencies as assets, with the particular quantities of each currency depending upon their respective risk and return characteristics.

Consequently, if the choice underlying the international use of currencies depended exclusively on asset motives, many currencies would be held and there would be no reason why the dollar should dominate investor's portfolios. For example, deutsche mark-denominated assets and yen-denominated assets have provided considerably higher returns – in terms of nominal yields plus capital appreciation – than have dollar-denominated assets. Yet the dollar is the dominant international currency.

Underlying the dollar's dominant position are the medium of exchange and unit of account functions of money, and the role of money in conveying information about relative prices. By using money, individuals reduce the amount of information that they must acquire and process, and the number of transactions in which they need to engage.

A currency hardly functions as useful unit of account and medium of exchange if only a single person uses it. The utility of money depends, in part, on how many others use it. The more popular a currency is, the more useful it is to those who hold it. Furthermore, even if individuals should have an incentive to switch to another currency, they would have to convince many other agents to make the same switch before it would become worthwhile to do so.

Several factors are necessary for a currency to be used internationally.

First, there needs to be confidence in its value and, therefore, in the issuing country's inflation performance.

Table 3

Euro area and United States' inflation performance (%)

	1999	2001	2005	2006	2007	2008
--	------	------	------	------	------	------

	1993	1994	1995	1996	1997	1998
Euro area Consumer price inflation	3.6	2.9	2.7	2.2	1.6	1.4
USA Consumer price inflation	3.0	2.6	2.8	2.9	2.4	1.6

Source: EIU The Intelligence Unit – Country Forecast 1998

In order to serve as an international unit of account and medium of exchange, a currency should have a stable value – that is, its price relative to other currencies should provide sufficient information to economic agents, making it unnecessary for them to undertake costly investigations. High and variable inflation generates nominal exchange rate depreciation and uncertainty.

In this connection, the inflation performance of the United States has compared favorably with the performances of the other major industrial countries since the move to managed floating exchange rates in 1973; among the Group of Seven industrial countries, inflation (as measured by consumer prices) has been higher on average in The United States than in Germany or Japan, but lower than in Canada, France, Italy, or the United Kingdom. Table 3 shows us that in the last four years the inflation performance of the United States compared with the Euro area is higher.

Second, there need to be confidence in the political stability of the issuing government.

Third, the issuing country should possess financial markets that are substantially free of controls, broad (that is, containing a wide variety of financial instruments), and deep (that is, having well-developed secondary markets). Well-developed financial markets contribute to the international demand for a country's currency, reflecting central bank's and other investor's preferences for safe, liquid financial instruments.

The United States has the world's largest and deepest financial markets. For example, domestic debt outstanding in the capital market is larger than the combined total of domestic debt outstanding in the capital markets of all the other Group of Seven economies, and the U.S. stock market's capitalization is almost as large as the combined total of the stock market capitalization of all the other Group of Seven countries.

Final sets of factors underlying international currency use are the issuing country's characteristics, including its share of world trade and the size of its economy. The larger a country's share of world trade, the more likely its currency is to be familiar to traders and more useful is that currency as a unit of account and medium of exchange.

The United States is the world's largest exporter. In 1996, its share of world exports was 15.2 percent, thus contributing to the international use of the dollar. Concurrently, the U.S. economy was, and is, the world's largest (accounting for about 21 percent of world GDP in 1996), so that its economy is relatively closed despite the fact that it is the world's largest exporter; in 1996, the sum of U.S. exports and imports as a share of its nominal GDP (a measure of how open or closed an economy is) was only 23.6 percent, whereas the average for the three largest economies in the European Union – France, Germany, and the United Kingdom – was about 52 percent.

International use of a currency provides several major benefits to the issuing country. First, it derives seigniorage, because the noninterest-bearing claims on it are denominated in its own currency. The Board of Governors of the U.S. Federal System estimates that this seigniorage revenue for the United States amounts to US\$ 30 billions per year.

Additionally, because the nominal interest rate on debt comprises a real component and an expected-inflation component, a country with an international currency can create extra seigniorage by unexpectedly inflating its currency, although doing so would jeopardize the currency's international use.

Second, as the international use of a currency expands, loans, investments, and purchases of goods and services will increasingly be executed through the financial institutions of the issuing country. Thus, the earnings of its financial sector are likely to increase.

Third, the tendency of world trade in general to be denominated in U.S. dollars means that the U.S. economy is less vulnerable to changes in the value of its currency than are other economies.

The main costs of having a currency that is used internationally are the following: (a) under pegged exchange rates, a shift in preferences by foreigners can lead to large capital flows and undermine the capacity of the monetary authorities to control the monetary use and influence domestic economic activity; and (b) under floating rates, such a shift can lead to large variations in the exchange rate, which could also limit the degree of influence exerted by the authorities over the domestic economy.

THE DOLLAR'S USE INTERNATIONALLY

Trends in the volume of currencies traded in foreign exchange markets can be used as proxies for trends in the relative importance of currencies as units of accounts and mediums of exchange.

Table 4

SHARES OF SELECTED CURRENCIES IN GLOBAL GROSS FOREIGN EXCHANGE MARKET (%)

	April 1989	April 1992	April 1995
U.S. dollar	45.0	41.0	41.5
Deutsche mark	13.5	20.0	18.5
Japanese yen	13.5	11.5	12.0
Pound sterling	7.5	7.0	5.0
French franc	1.0	2.0	4.0
Swiss franc	5.0	4.5	3.5
Other currencies	14.5	14.0	15.3
All currencies	100.0	100.0	100.0

Source: Bank of International Settlements – 1995

Although the data show that the dollar's share of turnover fell from 45% in 1989 to 41.5 % in 1995, foreign exchange market trading is still dollar dominated; the dollar's share in 1995 was larger than that of the next four competitors (deutsche mark, Japanese yen, pound sterling, and French franc) combined.

In 1996, the dollar accounted for about 75% of external bond issues, 64% of official holdings of foreign exchange, and 45% of Eurocurrency deposits. In general, the dollar accounts for between 40% and

80% of the various categories of international currency use, with the categories at the high end of this range representing mainly the unit of account and medium of exchange functions of an international currency.

THE CHALLENGE OF THE EURO

The Euro's potential to become a leading international currency will depend upon the factors contributing to international currency use.

The European Central Bank (ECB) will have to earn its anti-inflation credentials. Although the ECB will enjoy a high degree of independence in its efforts to achieve price stability, it will have to prove that it is credibly committed to the pursuit of price stability. Earning its anti-inflation credentials will take time. The mix and stance of monetary and fiscal policies in the Euro area will be important factors determining the strength or weakness of the new currency.

Increased integration of Europe's financial markets, with the Euro taking place of many national currencies, should lower costs of financial transactions, narrow interest rate spreads and expands the supply of Euro-denominated assets as borrowers tap into the expanded European financial system. Deeper and broader financial markets will also produce attractive investment and financing opportunities. From an investor's point of view, opportunities will be available to build up a more diversified portfolio (without additional currency risk).

The larger economic base of the Euro (relative to the base of individual countries in the past) and the elimination of the transaction costs currently involved in exchanging multiple European currencies are likely to lead to a gradual increase in the Euro's use as a unit of account in the denomination of trade flows.

Political stability is an important determinant of international currency use. Differences between, for example, Germany and Portugal over macroeconomic policy issues can not be eliminated.

In sum, the Euro certainly possesses the potential to challenge the hegemonic role now played by the dollar in international transactions. Whether the Euro will fulfill that role or go the route of other challengers to the dollar will, to a large extent, depend upon the credibility – both in terms of inflation performance and political cohesion.

INTERNATIONAL TRADE

EFFECTS FROM THE ECONOMIC PERFORMANCE

Two main effects from the Economic and Monetary Union are expected. The first one is the microeconomic efficiency gains, arising from the elimination of exchange rate uncertainty and the transaction costs within the Union, thereby stimulating trade within the EU and thus leading to a permanent increase in output.

The second one is macroeconomic stability effects, arising both from the elimination of intra-EU exchange rates and from greater discipline in monetary and fiscal policies, which will lower the risk premia built interest rates and thus lead to higher investment and will also benefit economic growth.

The European Commission estimated that the transaction costs related with the existence of different currencies in the EU amounted to around 1% of GDP on average over the period 1986-1995. The efficiency costs related to resource misallocation are more difficult to evaluate, as the extent to which risk premia would decline is hard to ascertain, but they may be even larger. Baldwin estimated that a reduction in risk premia of 0,5 percentage points could lead to an increase in EU GDP by between 5% and 10% in the long run. Also the impact on economic growth of other effects resulting from the

creation of EMU is difficult to quantify. However, there is broad agreement that the introduction of the Euro will give a substantial growth to the countries of the EU.

As a result, the EU demand for imports from non-EU countries will also be boosted. The size of this effect of course depends critically on the share of the EU as a market for country's exports. For the Brazilian economy the EU is most important partnership in the import goods from Brazil, which is around 27.4% (1997).

The creation of a single market has led to external liberalization towards non-EU countries, because market access has been made easier with a single system.

While the effect of the Euro on growth in Europe is difficult to quantify, a number of simulation exercises have been presented by the IMF. IMF presents a scenario in which EMU, on the fiscal side, an additional reduction of government spending of 2% of GDP is assumed over the medium term, and on the structural side, it is assumed that product market liberalization, reinforced by the efficiency gains from the introduction of the Euro, will lead to rise in total factor productivity, while labor market reform will lead to greater real wage flexibility and a reduction in the natural rate of unemployment. In this scenario, the level of output in EMU member countries lies almost 3% higher than in the baseline scenario in the medium term (2010). By 2002, GDP exceeds that of the baseline scenario with 1%.

Table 5

IMPACT OF EMU ON ECONOMIC GROWTH (% deviations from baseline scenario)

2001	2002	2003	2010		
EMU members	0.2	0.9	1.0	1.1	2.9
Non-European G-7	-0.1	0.0	0.0	0.1	0.1
Other industrial Countries	-0.1	0.1	0.1	0.0	0.2
Developing countries	0.0	0.1	0.2	0.2	0.3

Source: IMF (1997)

It appears from these simulations (table 5) that even if the effect on the member countries of the Euro area may be substantial, the impact of on non-EU countries may be relatively small on average. The developments for some individuals and some regional groupings of countries, which will be affected much more by higher growth in the EU than it, would appear in the table above, because of their close trade and economic links with the countries of the EU.

In sum, the impact of the Euro on non-EU countries will depend crucially on the share of these countries' trade with the countries of the Euro area in their total external trade, and on the trade elasticity of these countries' economic growth.

THE USE OF THE EURO AS INVOICING CURRENCY

The US dollar is still by far the dominant international currency in trade invoicing, although its role has gradually been reduced over the past two decades. Table 6 shows us that nearly all international trade that is not invoiced in the currency of either the exporter or the importer, is invoiced in US dollars. The internationalization ratio of the dollar, which is defined as the ratio of the invoicing share of the dollar in

the world exports to the share of the US in world exports, and which gives an indication of the extent to which the dollar plays a role as international currency, was almost three times higher than the internationalization rate of the mark in 1995.

Table 6

Currency use in international trade

SHARE OF THE MAIN CURRENCIES AS REGARDS USE IN INTERNATIONAL TRADE

	1980			1995	
	Share of world exports %	Internationalization ratio (1)	Share of world exports %	Internationalization ratio (1)	
USD	56.4	4.5	52.0	3.9	
DEM	13.6	1.4	13.2	1.4	
FRF	6.2	0.9	5.5	1.0	
GBP	6.5	1.1	5.4	1.1	
ITL	2.2	0.5	3.3	0.8	
NLG	2.6	0.7	2.8	0.9	
JPY	2.1	0.3	4.7	0.6	

Source: European Commission

(1) The internationalization ratio is the ratio of the share of world exports denominated in a currency to the share of the issuing country in world exports.

Moreover, the share of the dollar in the denomination of both US exports and imports is substantially higher than the share of their respective currencies in the external trade of other major countries (table 7). The combined share of invoicing of the five EU countries for which information on the currency denomination of their external trade is available amounted to 30.2% in 1995.

Table 7

Currency denomination of international trade in 1995 %

Exports	USD	JPY	DEM	FRF	GBP	ITL	NLG	Other
USA	92.0	2.4	0.9	0.6	0.9	0.3	0.6	2.3
Japan	52.2	36.0	2.4	0.7	1.4	0.3	0.9	5.8
Germany	9.5	0.9	74.7	3.2	2.6	2.2	1.3	5.6
France	18.6	1.0	10.5	51.7	4.2	3.1	1.5	9.4
UK	23.1	1.1	4.0	3.1	61.6	1.6	2.3	3.0
Italy	21.0	0.6	18.0	8.0	3.5	40.0	1.5	7.4

Netherlands	20.6	0.6	18.5	4.5	4.1	1.5	43.8	6.4
Imports								
USA	80.7	2.8	3.8	0.9	1.7	0.8	0.3	9.0
Japan	70.2	22.7	2.7	1.0	1.3	0.8	0.3	1.0
Germany	19.5	1.4	51.5	2.5	1.7	1.0	0.9	21.5
France	23.1	1.0	10.1	48.5	2.9	3.7	1.4	9.3
UK	24.6	2.0	11.1	4.6	43.0	1.8	2.5	10.7
Italy	29.0	1.0	14.0	7.0	3.8	37.0	2.4	5.8
Netherlands	25.4	1.3	17.5	2.8	3.4	1.0	42.8	5.8

Source: IMF

Dollars now account for about two-thirds of global currency reserves and nearly half of the world trade. But as time goes on, central banks will want to hold more Euros, while importers and exporters will also prefer the new vehicle.

The shift into euros is already beginning. J.P.Morgan & Co., thinks that in a few years, over 30% of world trade will be invoiced in Euros, vs. the current 21% for the 11 Euro-zone currencies.

Investors, too, will want to take advantage of blossoming of another big, liquid capital market. Avinash Persaud, currency strategist at J.P.Morgan, figures such considerations could lead to some US\$ 900 billion switching in the coming years.

In the long term, Robert Mundell thinks central banks around the world will steadily diversify their reserves by moving into euros. By 2006, he predicts, the dollar and the Euro could each account for 40% of the world's currency reserves.

Of course, portfolio shifts are likely to be gradual, but if a stampede into the Euro could lead to a sharp fall for the dollar, forcing the FED to respond with much higher rates.

From the export and import's point of view both will have a preference for a currency which can easily be bought and sold on financial markets, with low transaction costs, and a currency with a high degree of acceptability for other transactions. Alternatively, both exporters and importers will have a preference for a third currency with a high degree of international acceptability, and with deep, wide and liquid foreign exchange and financial markets.

What can be concluded from this as regards the use of the Euro as an international currency in world trade? First, in 1995, 24,8% of world exports were expressed in the four main EU currencies participating in the Euro area (table 6). Adding also the remaining EU currencies of the Euro zone will increase this figure with a few more percentage points. However, one would not be able to conclude that, the introduction of the Euro, more than a quarter of world trade will be denominated in Euro as a result of the purely mechanical effect of replacing the existing national currencies by the Euro.

The Euro should have a trade creation effect, but probably also a trade diversion effect. The reduction of transaction costs and the elimination of exchange rate risk within the Euro area will lead to an increased competitiveness of Euro area countries. In some cases, trade between the countries of the Euro area will therefore replace certain import flows from outside the EU. Also in non-EU countries, some imports from non-Euro area countries may be replaced by imports from within the Euro area as a result of this higher degree of competitiveness. Over time this will probably also lead to an increase of the share of the Euro in the international trade.

Furthermore, given that the EU will be the largest single trade bloc in the world, non-EU companies will be facing more counterparts having an invoicing preference for the Euro than for any other currency in the world, assuming that the home currency preference of Euro area companies is similar to that of US companies. Consequently, network externalities will begin to work, leading to further increases of the share of Euro invoicing of world trade.

This phenomenon will be reinforced further by the fact that certain non-EU countries, which have close trade with the European Union, will wish to link their currencies to the Euro through some sort of exchange rate peg.

FINANCIAL MARKETS

THE USE OF EURO AS A CURRENCY ON FOREIGN EXCHANGE MARKETS

Economies of scale play an important role in the foreign exchange markets. The higher the volume, the lower will be the transaction costs. A result of these economies of scale is the use of vehicle currencies on the foreign exchange markets.

While the US dollar was the sole vehicle currency during the 1960s, 70s and early 80s, the mark has emerged as a second vehicle currency during the 1980s (table 8), mainly as a result of the existence of the ERM (exchange rate mechanism).

Table 8

Denomination of foreign exchange transactions (% of daily turnover)

	1989	1992	1995
USD	90	82	83
DEM	27	40	37
JPY	27	23	24
GPB	15	14	10
FRF	2	4	8

Source: IMF

Krugman (1980) argues that transaction costs are the main determinant of the use of currency as a vehicle currency. There are in turn determined by the volume and the volatility in the bilateral markets for a particular currency. Volatility, which is not expected, increases transaction costs, as it increases the inventory risk of currency holdings. Transactions volume decreases transaction costs as a result of economies of scale in market making.

The future role of the Euro as a vehicle currency thus depends mainly on the size of the transaction costs associated with exchanging the Euro. The size of Euro market as compared to that of the existing national currencies will likely result in a lower level of transaction costs, and should therefore increase the Euro's potential as a vehicle currency as compared to that of the existing national

currencies. The potential use of the Euro as vehicle will also benefit from its increased use as an invoicing currency in the international trade and from its growing role in international capital markets, in the world's wealth portfolio, and as reserve currency. Given that overall, these developments are expected to occur only gradually.

THE USE OF THE EURO IN PRIVATE PORTFOLIO HOLDINGS

The introduction of the Euro has created the largest single currency financial market in the world. Viewed as a single set of markets, the value of EU bonds, equities, and bank loans in European capital markets totaled more than US\$ 27 trillion at the end of 1995. That compared to US\$ 23 trillion in the US capital markets, and US\$ 16 trillion in Japan's. In 1996 the combined domestic market capitalization of all 15 EU equity markets was around US\$ 3.5 trillion, compared to well over US\$ 6.5 trillion for the US markets.

The size of the Euro area compared with USA, the elimination of the exchange rate risk, the existence of a single monetary policy and thus unified money and interbank market and the efficiency resulting from financial market integration will lead to a substantial growth in European financial markets.

McCauley and White (1997), at longer maturity, expect the Euro market to be very liquid from the outset, based on the relative size of the swap markets in the existing EU currencies, the dollar and yen.

EMU has created one of the largest government bond markets in the world, and it can expect that this market will develop rapidly.

Most analysts also expect international portfolio shifts to take place into an increasingly broad, deep and liquid Euro market. The international demand for financial assets denominated in Euro relative to the demand for assets in the constituent currencies should rise as a result of the greater depth and liquidity of the Euro markets.

In the long term, the factors already identified will tend to increase the attractiveness of the Euro. A diversification of international portfolios away from the dollar is already under way: between 1981 and 1995 European currencies' share of the world private portfolio increased from 13% to 37%, while the dollar's share fell from 67% to approximately 40% (table 9).

Table 9

SHARE OF WORLD PRIVATE PORTFOLIO

	END 1981	END 1992	END 1995
Dollar	67.3	46.0	39.8
European currencies	13.2	35.2	36.9
Of which: mark	n.a.	14.7	15.6
Yen	2.2	6.9	11.5

Source: BIS

Similarly, the importance of European currencies is growing in the international bond portfolios, with their share almost doubling to 37% between 1981 and 1995 (table 10).

Table 10

SHARE OF OUTSTANDING INTERNATIONAL BONDS

	END 1981	END 1992	END 1995
Dollar	52.6	40.3	34.2
European currencies	20.2	33.0	37.1
Of which: mark	n.a.	10.0	12.3
Yen	6.9	12.4	15.7

Source: BIS

Taken together, the various factors, which will contribute to the increased attractiveness of the Euro, are likely to produce a strong demand for Euro assets over time. A factor operating in the opposite direction will be the tendency for EU domestic investors to diversify somewhat away from Euro assets in order to achieve an optimal risk/return balance.

But the shift away from the dollar into EU currency assets is happening already. From 1988 to 1995 the share of EU currencies in the total private wealth portfolio has risen from around a quarter to over a third, while the dollar's share has fallen from over 50% to around 40%.

The rate of growth of international portfolios (which have grown by 300% in the ten years up to 1995), and the other important changes taking place in the international economy, like the emergence of major new players, means that the Euro-related portfolio shifts will be only one feature of international developments in future years.

THE USE OF THE EURO IN INTERNATIONAL FINANCING

The introduction of the Euro may incite European companies to appeal to the bond market for obtaining corporate credit. There is a tendency that the Euro market will reduce the costs and increase the benefits of issuing corporate bonds.

The potential is illustrated by comparing the European situation with the US. At the end of 1995 bank loans accounted for nearly 55% of all EU financial instruments compared to only 22% in the US. With greater competition and greater efficiency enterprises will be able to approach the capital markets directly.

Borrowing costs would be reduced because of higher competition in a European-wide financial market. Also, the cost of hedging a particular borrowing by lenders would decline in a deeper and more liquid Euro market. At present, debt issues of a certain size typically favor the US dollar for a number of reasons: the market is more liquid, there is a greater availability of derivatives instruments and investors are also of a larger size.

Therefore, also for large debt issues the Euro could become an alternative to the dollar. While at present, developing countries have only a limited access to international capital markets, so that is not always possible to diversify their liabilities, the Euro could open additional opportunities for these countries to optimize the currency structure of their foreign debt by increasingly borrowing in Euro.

At present, the currency denomination of the foreign debt of Latin American and Asian countries shows a relatively low share of European currencies (table 11). Given the existing trade exposures of

the countries of those regions, there would be scope for additional borrowing in Euro's.

Table 11

CURRENCY COMPOSITION OF DEVELOPING COUNTRY DEBT (in billions of US dollars and % of total, end of 1996)

	USD	JPY	EU currencies	Other	Total
Latin America	421.1	66.0	72.0	65.2	624.3
In %	67.4	10.6	11.5	10.4	100
Asia	344.7	234.4	71.7	85.4	745.1
In %	46.3	32.7	9.6	11.5	100.0

Source: McCauley and White (1997), based on World Bank

THE EURO AS AN EXCHANGE RATE ANCHOR

Since the breakdown of the Bretton Woods system, there has been a declining trend towards greater flexibility in world exchange rate regimes. While in 1975, 86,8% of the member countries of the IMF had some form of exchange rate peg, this percentage has fallen to 44,2% in 1996.

Despite this declining trend, dollar and franc remained the main choice. (Table 12)

Table 12

World exchange regimes (% of the number of IMF member countries)

	1975	1981	1989	1993	1996
USD	50	29.5	25.5	13.8	11.6
GBP	7.8	0.7	0	0	0
FRF	10.2	10.1	9.2	8.4	7.7
OTHER CURRENCY	3.1	2.2	2.6	3.6	5.0

Source: IMF

Despite this declining trend, dollar and franc remained the main choice as a peg. (Table 12)

The decline in the number of countries pegging their currency to either the dollar or to one of the EU currencies is not the result of a change of the anchor currency, but of the tendency towards more flexible exchange rate regimes.

The rationale for pegging a country's currency to an anchor currency is based on two major policy concerns: the minimization of exchange rate risk, and the stabilization of inflation.

Countries that depend heavily on exports of raw materials have often chosen the dollar as an anchor, as most raw materials prices are quoted in dollars on international markets.

The choice of a particular currency as an exchange rate anchor therefore depends on three major factors: the importance of the trade relations with the anchor currency, the importance of the financial flows with the country, and the stability of the anchor currency.

On the basis of these three factors, it is to be expected that the role of the Euro as an exchange rate anchor will gradually increase over time. First, trade relations with the Euro area will intensify. Not only will the size of trade flows increase, but also the invoicing practices will change towards a larger use of the Euro, depending of course on the share of their trade with the Euro area.

It is expected that financial flows will increasingly be expressed in euros and will also become quantitatively more important over the medium term, as financial markets in Euro develop.

Finally, the stability orientation of the Euro area's policy mix will contribute to the stability of the Euro's exchange rate.

THE EURO AS A RESERVE CURRENCY

Since the end of the Bretton Woods system, the share of the dollar in official currency reserves declined from 76.1% to 63.7% in 1996 (table 13). Over the same period, the share of the four main EU currencies in official reserve holdings (pound, mark, French franc, and Dutch guilder) increased from 14.3% to 25.7%.

Table 13

CURRENCY COMPOSITION OF OFFICIAL CURRENCY HOLDINGS %

	1973	1979	1985	1991	1996
USD	76.1	73.2	64.8	58.4	63.7
JPY	0.1	3.6	8.0	9.4	6.2
GPB	5.6	1.8	3.0	3.6	3.5
DEM	7.1	12.0	15.1	16.5	14.0
FRF	1.1	1.3	0.9	2.8	1.6
NLG	0.5	1.0	1.0	1.1	0.4
CHF	1.4	2.4	2.3	1.4	0.8
OTHER	8.1	4.8	4.9	6.9	9.8

SOURCE: IMF

For some countries, reserves provide the assurance that external obligations resulting from trade and other current account flows can be met. Countries also typically want to shelter themselves from unexpected capital outflows through an appropriate level of international reserves.

Therefore, the currency composition of central banks' reserve holdings depends on major elements: the country's exchange rate arrangements, the direction and currency composition of its trade flows, the currency denomination of its debt, the yield and the risk. For industrial countries, exchange rate arrangements are the major determinant of the currency composition of reserves, as these are mainly held for intervention purposes.

For developing countries, reserves remain important for financing trade and debt servicing, given that this role is fulfilled to a lesser extent by private markets than in more advanced economies.

As we said before the role of the Euro as an exchange rate anchor will gradually increase over time. In connection with this development, also its importance

as a reserve asset will gradually increase.

For developing countries, which will see their flows with the Euro area grow, while also the denomination of these trade flows will increasingly be based on the Euro, this may be an incentive for augmenting the share of the Euro in their international currency reserves.

With respect to international debt management, countries trading mainly with the Euro area or pegging their currency to the Euro would benefit from increasing the share of Euros in their international debt composition.

THE IMPACT OF THE EURO ON THE LATIN AMERICA

The last part of this final paper will face the risks and opportunities for Latin America countries as consequence of introduction of the Euro. The relationship between the Euro area and Latin America encompasses various dimensions from trade, investment and financial flows. As showed above, the Euro will lead to growing integration, liquidity, and efficiency of European financial markets and will contribute to the international use of the Euro.

The Euro started as the second most important reserve currency and could over time rival the dollar. The development of the Euro into a major international currency will be gradual, but important to countries with close links to the European countries.

Brazil, for example, represents 40% of the Latin America GDP, and have a major relationship in terms of trade with the European community as we can see on table 14.

Table 14: Foreign trade – (BRAZIL)

Major exports 1997	% of total	Major imports (1997)	% of total
Transport equipment & parts	12.8	capital goods	42.8
Soybeans, bran & oils	10.8	Raw materials & intermediate inputs	31.8
Metallurgical products	11.4	Consumer goods	15.3
Chemical products	7.2	Fuel & lubricants	10.1

Leading markets (1997)	% of total	Leading suppliers (1997)	% of total
US	17.8	US	23.4
Argentina	12.8	Argentina	13.4
Japan	5.8	Japan	5.9
EU	27.4	EU	26.6

Source: EIU - The Economist Intelligence Unit 4th quarter 1998.

For Brazil and other countries that have a strong relationship with EU there will also be important implications.

Since January 1st the EU started to produce important changes in exchange and financial markets that certainly will affect economic activities in Latin America.

For developing countries, as Brazil for example, the EU is an important trading partner, a counterpart in economic cooperation, and a supporter of development aid. Developing countries are important trading partners to the EU and this trade will be contracted partly in Euros.

For the financial point of view, the Euro will work as catalyst for the development of integrated money and bond markets in Europe. It already started competition among bank and between banks and other sources of funds that certainly will lead to efficiency gains in terms of resource allocation and stimulate investment and job creation.

THE EU AND THE LATIN AMERICA

For the Latin America point of view the Euro is considered an external shock. The impact can be separated into supply and demand effects. For the supply side, price effect could enhance the capacity of the Latin America countries to develop a comparative advantage and an increase in the supply of financial products in the EU. The demand side effect concerns the expected growth effect within the EU.

PERSPECTIVE OF TRADE BETWEEN AREAS

Given the size of the European economy and diversity of its trade with the rest of the world, changes in European economic growth affects growth prospects in other countries, including Latin America. Around 22% of EU's exports go to developing countries, while 20% of EU's imports originate in those countries.

Trade between Latin America and the EU has increased in recent times. Latin America's exports to the EU tripled over the last two decades, and today they amount to US 38 billion. Exports from Europe to Latin America quadrupled since 1977. Between 1990 and 1997, EU exports to LAC increased from an annual US 27 billion to US 54 billion.

For the next years the perspective for trade is that Latin America is be able to take advantage of invoicing in a single currency when trading with different European countries. If European economic growth indeed picks up as a consequence of increased efficiency and competition in Europe, then increased import demand in the Euro area will increase exports from Latin America.

In the reason of convergence criteria for the introduction the Euro, the decline in risk premia in turn is reflected in lower interest rates, and should promote higher trend growth in these countries. Furthermore, the Euro reinforces financial deregulation that develops the capital market in Europe contributing to improve the performance of European companies.

As such, the positive impact on trade from Latin America is unlikely to be large in size.

On the other hand, it is possible with the end of exchange-rate risk and transaction costs are eliminated within Europe, a trade diversion effect could emerge from increased competitiveness within the Euro area, leading to reduce import flows from Latin America countries.

In sum, we expect both expansionary influence from possibly faster European growth, and any small impact from trade diversion, to be relatively marginal in scale.

CAPITAL FLOWS

The access to foreign sources of capital is playing an increasingly important role for the private sector in Latin America. In the 1990s the Latin America countries has been the largest recipient of FDI (foreign direct investment) among developing countries. In 1997 around 40% of all FDI flows to developing countries (US 45 billion out of a total US\$ 120 billion).

European FDI in the Latin America region increased dramatically over the last decade, and this effect is thought likely to have been highly beneficial, both because FDI is more stable than portfolio investments, and because of the transfer of technology and managerial know-how, as well as the positive impact on competition within Latin America countries.

With the introduction of the Euro, Latin American countries could enhance inflow of investment from Europe, in part reflecting portfolio shifts. Growing pools of savings in European countries with aging populations are expected to continue seeking superior investment returns, by building exposure to faster-growing developing countries, including Latin America countries.

Additionally, if Europe grows faster, its savings should also increase. Private institutions in the Euro area, such as pension funds and insurance companies, may shift a larger share of their portfolio into Latin American countries.

Another positive impact could arrive, as companies feel squeezed competitively in the Euro area and search for new places to expand, either through mergers and takeovers, or through new investments.

VOLATILITY OF THE EURO AND ITS VALUE

The main question is whether the Euro will increase or reduce exchange rate volatility among the US dollar, the Euro, and the yen. The answer to this question has important policy implications for the Latin America as a region to the extent it determines their international environment and policy choices.

Exchange rate volatility could lead to portfolio shifts both into and out of Euros. The currency composition of private wealth in 1996 was in US dollar 41%, European currencies 37% and yen 12%. Henning (1997) argues that risk aversion and tax evasion will motivate and initial capital outflows from European assets to dollar assets. This should motivate an Euro depreciation followed by an appreciation in the long term. Bergsten (1997) estimates the portfolio shift to be between US 500 billion to US 1 trillion dollar. This could cause an initial overshooting of the exchange rate because of excess demand for the Euro.

The impact of an appreciation of the Euro vis-à-vis the dollar on Latin American countries will depend upon each country's exchange rate policy and trade pattern.

Since January 1st 1999, the Euro has been volatile. It's started stronger and now is devaluating. The Euro is likely to remain weak versus the US dollar in the near term, reflecting a sluggish Euro-area economy and political discussion over monetary policy and reform of EU finances.

Views among economists of the effect of the EMU on long-term exchange rate volatility vary considerably, as do their views on the likely strength of the Euro. Some argue that the Euro will appreciate against the dollar in the medium term. One rationale for this forecast is that national savings in Europe are expected to increase and lead to a current account surplus.

There is no doubt that ECB will pursue a goal of price stability. The ECB has the credibility to influence the Euro's international value. But the strongest reason for doubting any big appreciation in the short term of the Euro internationally is the political and social concern in Europe for the implications of a strong Euro for unemployment.

FINANCIAL IMPACTS

There is also no doubt that competition among banks and other sources of funds will lead to efficiency gains in terms of resource allocation.

It seems possible that the short term and long term effects may go in opposite directions. Over recent years, we have seen a substantial expansion in the involvement of European banks in Latin America. In the immediate future, the Euro may encourage a moderation in this trend, as traditionally based banks, in Germany and elsewhere, attach top priority to expanding their base across Euro-land. In the longer term, however, as the competitive situation within Europe heats up, and margins are competed down, a renewed expansion into non-European markets may again look more appealing.

FOREIGN DEBT

There is some difference between interest rate in USA and EU. In the USA the interest rate is higher than EU. A shift in Euro interest rate would have an effect on foreign debt service because part of the Latin America countries's debt will be denominated in Euros.

In the immediate term, since the current share of Euro currencies in Latin American debt is small, as we saw in Table 11, the impact would be minor. Furthermore, Latin American countries could offset adverse effects of economic shocks by changing their debt-management policies, which the new Euro currency facilitates.

RESERVES

Foreign exchange reserves may become in excess in the Euro area (Mundell; 1998). Therefore, reserves can be invested outside the region. Because the reserve needs will be lower in the Euro area, Latin American countries could receive new capital inflows.

The Euro is expected to have an effect on the structure and management of foreign exchange reserves of Latin American countries. Table 13 show us total worldwide official currency holdings in 1996 were mainly in US dollars 63.7%; European currencies constituted 20%, and 6,2% was held in the yen.

The Euro is giving an opportunity to re-align the currency composition of foreign exchange reserves, but on the other hand, the uncertainty about new currency will at first continue to favor the dollar because the Latin Americans are familiar with the American currency.

In the future, if the Euro can acquire a reputation for stability, some countries in Latin America may see reasons of portfolio diversification to increase their Euro holdings.

Some indirect effects can be expected by changes in macroeconomic policies in Latin American countries. The Euro could have broader economic implications on Latin countries to the extent that it would imply changes in the exchange rate policies of these countries, leading to an encouragement to reconsider their exchange rate regimes in the light of expected economic and financial developments in the EU and Latin America area.

CONCLUSION

I should like to conclude with a personal view of prospects. Broad monetary union in Europe introduced an Euro that would generally carry more weight as international money than the mark carried.

In the foreign exchange market, the Euro is likely to be on 60% of all transactions. In the invoicing of international trade, as a reserve currency and in terms of international private assets we expected an increasing in the Euro participation.

The international trade relations between non-EU countries and the Euro area are expected to increase.

It may be expected that companies from Euro area countries will express their home currency preference for the Euro. Therefore, the Euro should present a structural break in the invoicing practices in international trade relations, and trade invoicing in Euro should increase rapidly.

The role of the Euro should also expand in international financial markets. Portfolio shifts can be expected to take place into these markets, while also the supply of financial assets in Euro should grow.

Furthermore, economic growth in the Euro area will increasingly affect other regions in the world given the increasing degree of synchronization of business cycles.

Latin America, for example, will be affected in the short and long run. Increased competition and efficiency should increase economic growth in the EU, which in turn should increase imports from the Latin America. At least in the short run, Latin America and the Caribbean are highly dollarized, and I do not expect a major change immediately. In the long run some changes is expected, specifically countries more linked with international trade could use a basket of currency instead of dollar.

For Latin America, the main impact of the Euro is likely to come through financial linkages. Increased financial deepening in Europe could have some effect on growth in Europe, and thus could lead to a small increase in exports for Latin America. It could also lead to increase financial flows between the regions.

Latin America debt is mainly denominated in US dollars. No significant appreciation of the Euro is expected for 1999. Its appreciation against the dollar is only expected after 2000. Thus the immediate impact of the Euro on debt value and debt service is small.

The Euro, however, create the opportunity to re-align the currency composition of foreign exchange reserves in light of trade flows, other transactions, and possibly, in the longer term, portfolio diversification.

Latin America countries should become more attractive as destinations for European investors as they seek diversified portfolios, including higher return components.

A prosperous EU is expected to contribute to greater trade and financial flows between Latin America and the EU. Currency certainty, low inflation, increased trade, and more efficient markets all promise large benefits for the EU, and also benefits for Latin America.

In sum, the Euro certainly possesses the potential to challenge the hegemonic role now played by the dollar in international transactions. Whether the Euro will fulfill that role or go the route of other challengers to the dollar will, to a large extent, depend upon the credibility – both in terms of inflation performance and political cohesion. Directly there is no impact of the Euro in the United States but indirectly it could be some impact in terms of GDP, interest rate etc.

REFERENCES

Baldwin R.E. (1994), *Towards an Integrated Europe*, CEPR

Benassy-Quere, A. (1996), *Potentialities and Opportunities of the Euro as an International Currency*, Study prepared for the European Commission, Economic Papers No. 115, July

Bergsten, C. 1997. *The Impact of the Euro on Exchange Rates and International Policy Cooperation*. Paper prepared for the IMF conference EMU and International Monetary System, March.

Bishop, Graham, 1997. *User Guide to the Euro*, Salomon Brothers

Dennis, R.Appleyard; and Jr, Alfred J Field. 1998. *International Economics*

Dooley, M.,J.Lizondo, and D. Mathieson (1989), *The Currency Composition of Foreign Exchange Reserves*, IMF Staff Papers, vol. 36, June

Reed, S. in: *Business Week*, January 18, 1999

European Commission (1997), *External Aspects of Economic and Monetary Union*, Directorate-General for Economic and Financial Affairs, Euro Papers No. 1

Hartmann, P. (1996), *The future of the Euro as an International Currency: A Transactions Perspective*, CEPR Research Report No. 20

Henning, R. 1997. *The global Impact of Economic and Monetary Union*. Institute for International Economics, February.

Krugman, P (1980), *Vehicle Currencies and the Structure of International Exchange*, Journal of Money, Credit and Banking, Vol. 12, August 1980, pp. 513-26

Krugman, P and Obstfeld, Maurice (1997), *International Economics Theory and Policy*

McCauley, R.N. and W.R. White (1997), *The Euro and European Financial Markets*, BIS Working Paper No. 41, Basle, May

Mundel, R. 1998. *The International Impact of the Euro and Its Implications for the Transition Countries*. Paper prepared for the Fourth Dubrovnik Conference on the Transition Economies, June.

Salomon Smith Barney, March 5, 1999. *International Market Roundup*