THE IMPACT OF THE EURO ON LATIN AMERICA

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February 2000
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Washington, D.C.
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SUMMARY FINDINGS

The key finding is that the euro is not likely to cause any single major change in Latin America and the Caribbean (LAC). There will, however, be a lot of small effects—in different directions—in the short and long run. In the main, the impact of the euro on Latin America is expected to be of secondary importance, since no structural trade change is expected.

The Latin American and the Caribbean countries are very heterogeneous. The European Economic and Monetary Union (EMU) and the euro are therefore likely to impact countries differently. Countries and regions with strong links—culturally and geographically—to the United States (such as Mexico and Central America) are likely to be less affected than countries with weaker links.

The main findings in this paper are the following:

- Increased competition and efficiency should increase economic growth in the European Union (EU), which in turn should increase imports from the LAC region, given that the trade diversion effect is not likely to be very important.

- LAC countries are highly dollarized, and we do not expect a major change immediately with the launching of the euro (though the longer term effect is much harder to predict).

- For LAC countries, the main impact of the unified European market and the single currency is likely to come through financial linkages.

- Increased financial deepening in Europe could have some positive effect on growth in Europe and could lead to a small increase in exports for LAC. It could also lead to increased financial flows between the regions.

- LAC debt is mainly denominated in U.S. dollars. No significant appreciation of the euro relative to the initial value is expected. Thus, the immediate impact of the introduction of the euro on debt value and debt service is expected to be small. The euro will, however, create the opportunity to realign the currency composition of foreign exchange reserves in light of trade flows, other transactions, and, possibly in the longer term, portfolio diversification and political considerations.

- LAC countries may become more attractive as destinations for European investors seeking diversified portfolios, including higher return components and as intra-European investments show converging returns.

- LAC and Mercosur cannot be seen as optimal currency areas at this time; therefore, at this stage the euro does not serve as a blueprint for Latin America.

A prosperous EMU is expected to contribute to greater trade and financial flows between LAC and the EU. Currency certainty, low inflation, increased trade, and more efficient markets all promise large benefits for the EU as well as some benefits for Latin America. Furthermore, a prosperous EMU requires sound financial structural policies, including reforms of both labor markets and public spending. Over the long term, this should also benefit other countries, including those in the LAC region.
ACKNOWLEDGMENTS

The Impact of the Euro on Latin America is a product of LCSPR and was prepared by Dorte Verner. Eliana Cardoso helped in developing the project and advised during the production. Background papers were provided by Rudiger Dornbusch (Massachusetts Institute of Technology), Eduardo Levy-Yeyati (Universidad Torcuato Di Tella, Buenos Aires), and Federico Sturzenegger (Universidad Torcuato Di Tella, Buenos Aires). Hazel Vargas edited and processed a large part of this document.

Thanks are due to various commentators, including Luis Serven, Katherine Bain, Anthony Ody, Mads Zacho, Nicolai Kristensen, Torsten Sløk, and the LCR Publications Committee. Special thanks is due to Eliana Cardoso. Her continued advice and support made this study possible.
INTRODUCTION

THE INTRODUCTION OF THE EURO and the establishment of stage three of the European Economic and Monetary Union (EMU) will produce important changes in exchange and financial markets and affect economic activities around the world. Recent analyses have focused on participating European countries and their neighbors and Africa. This report is a first attempt to consider the impact of the euro on Latin America and the Caribbean (LAC).

On January 1, 1999, a new era of the EMU began when 11 of the 15-member countries of the European Union (EU) irrevocably fixed their exchange rates and replaced their national currencies with a single currency, the euro. The EMU will produce important changes in exchange and financial markets, affect economic activity around the world, and should help in underpinning European integration and increased efficiency and growth.

Different effects are taking place in the EU as a result of the introduction of the new currency and its development toward the EMU. The European Commission suggests that important micro- and macroeconomic effects of the monetary union include efficiency gains and stability effects. The microeconomic efficiency gains emerge from the elimination of transaction costs and exchange rate uncertainty within the euro area. This should stimulate trade and increase output within the region.

The macroeconomic stability effects emerge from greater discipline in economic policies that may lower risk premia in interest rates and enhance investment. Furthermore, the EU economies have been converging over the past decades; hence, a higher degree of synchronization of the business cycles has occurred, and even higher degrees of synchronization are expected in the future. These findings are ascribed to two elements: increased interdependence emerging from expanded trade and capital flows among the EU economies, and increased coordination and convergence in economic policy.

For developing countries, the EU is an important trading partner, a counterpart in economic cooperation, and a significant donor of development aid. Therefore, over time the impact on developing countries may be substantial. The extent to which each country will benefit varies from country to country and depends on factors
such as the trade intensity and financial relations with the euro area as well as on the conducted exchange rate policy in the third country.

Latin American and Caribbean countries are largely heterogeneous despite similarities on various fronts. They remain quite closed in real terms, but for the most part they are open financially and, therefore, vulnerable to changes in the direction of international capital flows. Some questions raised in this paper are the following: What are the risks and opportunities facing the LAC region from the introduction of the euro? Will the replacement of the European currency basket by the euro have real economic effects, or will it be little more than an accounting phenomenon? The principal message of this paper is that the euro carries implications for Latin America's financial markets and debt management, but it will have only a marginal impact on Latin America's trade with Europe.

The first part of this paper covers the current economic situation, including trade flows between Europe and Latin America. The second part presents financial flows together with foreign direct investment and portfolio allocations. The paper then provides a short description of the value and volatility of the euro, followed by an analysis of the financial implications of the euro, including the banking system and foreign debt and reserve management. It then addresses whether the euro can be seen as a blueprint for LAC and whether active dollarization is a solution for LAC. The last part summarizes the paper's conclusions. There are limitations to this study's analysis, and it does not take into account all the possible spillover effects. Nor does it address all the effects that feed back to the EU. The report does, however, give a broad picture of the impact that the euro may have on the LAC region.
ECONOMIC RELATIONS BETWEEN
THE EU AND LATIN AMERICA

KEY ECONOMIC INDICATORS CAN SKETCH THE IMPORTANCE of global economic areas and their relationship to one another. This section considers the market, globalization, and trade in goods and services between the euro area and Latin America. The size of the region’s underlying economy and the extent of its external trade may determine the global role of a currency.

THE MARKET

The significance of a market can be assessed by looking at the number of potential consumers and their purchasing power. The 11-country euro region’s population of 290 million exceeds the population of the United States by about 22 million. As the poorer euro-area countries catch up and expand to include countries such as Great Britain, Scandinavia, Greece, and the Central and Eastern European countries, the euro area could easily become far larger than the U.S. dollar area. This compares with a population of 487 million in the 41 countries of Latin America and the Caribbean. At present, the LAC region accounts for 8.4 percent of the world’s population, while the EU accounts for 5.1 percent (see economic indicators for EU and LAC in the appendix).

Another market size variable is a country’s Gross Domestic Product (GDP). The EU countries produce $7,386 billion of output (22 percent of world output) compared to $2,972 billion in the LAC region. The large income disparity between the EU and LAC becomes apparent when considering the average per capita income; in the EU it amounts to 20,554 international dollars, compared with 5,347 international dollars in Latin America.

TRADE

The scale of trade openness of each individual EU country is far higher than in any Latin American country. The average of merchandise exports and imports as a share of GDP was 63 percent in the EU and 28 percent in the LAC region in 1996 (see Figures 1, 2, and 3). Since the beginning of the 1990s, however, the latter increased by 76 percent, while the former increased by only 10 percent. If we consider the euro area as one economy and deduct the intra-euro area trade, the openness figure drops considerably, to 23 percent, which is only
Figure 1
Trade Openness: the EU, the U.S., and Latin America, 1997 (percent)

Source: Author's calculations using World Bank data.

a few percentage points higher than the figure for the United States.

Trade between the EU and developing countries is important. Approximately 22 percent of the EU's exports go to developing countries, while 20 percent of the EU's imports originate in those countries. More specifically, trade between Latin America and the EU has ballooned 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 in the other direction expanded even more: since 1977, exports from Europe to Latin America have quadrupled, and they continue to rise: between 1990 and 1997, EU exports to LAC increased from an annual US$27 billion to US$54 billion. The EU’s exports exceed LAC’s exports by 30–40 percent.

The degree of trade integration between the EU and LAC countries reflects decades of trade and financial cooperation. The increase in trade flows over the past decade has been facilitated by the international financial integration on the part of the various countries and the availability of financing to cover current account deficits.

External factors helped raise the import capacity in the LAC region, including debt relief, increased extraregional capital flows, and decline in world interest rates. Additionally, real currency appreciation in some countries facilitated enhanced imports.

The intraregional trade became more important in the EU and LAC in the 1990s than in earlier decades. In Latin America a larger share of the individual countries’ exports remain within the region (21 percent). The same holds for the EU countries where the share of interregional trade represents 60 percent of the EU’s total trade. Trade at subregional levels also expanded, and interregional import growth is higher than import growth from outside the region in most subregions in LAC. The intra-Andean trade increased by an average of 29 percent annually between 1990 and 1995, but only accounted for 11 percent of the subregion’s total exports.

Total exports from the Mercosur countries increased by more than 60 percent in the 1990s.
Furthermore, inter-Mercosur trade increased threefold, to 21 percent of exports. Fifty percent of Mercosur's trade was with countries outside the Americas; therefore, Mercosur is the least dependent on U.S. markets in Latin America. Figure 4 shows that the EU is the most important export market for the Mercosur countries.

As mentioned in Levy-Yeyati and Sturzenegger (1999a), the export shares from the six biggest Latin American economies to EMU members declined in all cases in the 1990s. In Argentina, this coefficient decreased from 31.2 percent to 13.5 percent in only seven years. A similar decline took place in Chile and Mexico (from 27.6 to 17.0 percent, and from 7.2 to 2.9 percent, respectively), with a minor drop in Brazil (from 27.6 to 23.9 percent). However, the shares of Latin America's imports from EMU remained stable. The same can be said of the trend in the composition of trade flows with the United States, which, with the exception of Mexico, also shows declining export shares and relatively stable import shares.

Latin American countries still encounter restrictions on foreign trade. The debt crisis caused a sharp decline in imports in LAC and a partial reversal in the opening up of trade as tariffs increased and trade restrictions were reimposed, due mainly to a lack of external financing. But since the beginning of the 1990s, many protectionist policies have been removed. Today, the trade and investment regimes in Latin American countries are more liberal than in East Asia.

How will the introduction of the euro affect trade between the EU and LAC? One clear if relatively minor advantage is that Latin Americans will be able to take advantage of invoicing in a single
currency when trading with different European partners. On a larger scale, if European economic growth does indeed pick up as a consequence of increased efficiency and competition in Europe, and as a consequence of less uncertainty, then increased import demand in the euro area will increase exports from LAC.7 But, as Levy-Yeyati and Sturzenegger (1999b) show, the elasticities are relatively small.

The euro is already making Italy, Spain, and even France safer for investors and compressing risk premia. 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. It should thus help the development of a broader, deeper capital market in Europe (more similar to U.S. capital markets), contributing to improved corporate governance and improving the performance of European companies. But the euro’s direct contribution to European growth and employment will probably not be very significant in scale because the gains in competition and efficiency are likely to be relatively small. As such, the consequent positive impact on trade from Latin America is also unlikely to be large.

On the other side of the ledger, it is theoretically possible that the improvement in euro-area competitiveness could take place in part at the expense of exporters from other regions, including LAC. As 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 reduced import flows from third countries. Thus we have the possibility of an offsetting effect, whereby LAC exports could be negatively affected by trade diversion (though this would apply only to the restricted range of products where European and Latin American producers are in competition with each other). To summarize, we expect both the expansionary influence from possibly faster European growth, and any dampening impact from trade diversion, to be relatively marginal.
Figure 4
Mercosur Exports in 1997 (in US millions $)

Source: Author's calculation using International Monetary Fund data.
THE FINANCIAL RELATIONS BETWEEN EU AND LATIN AMERICA

THE MOVEMENT TOWARDS FINANCIAL LIBERALIZATION in the Latin American and Caribbean region during the 1990s increased its dependence on international capital flows and deepened the process of integration of local capital markets with major financial centers. On average, the region has been a net recipient of international capital flows and, therefore, highly sensitive to fluctuations in global market conditions. This subsection considers foreign direct investment (FDI) and the role that international investors played in financing private investment in LAC countries. Portfolio management issues are also considered.

With a successful introduction of the euro, related financial developments could have a greater international impact than the trade consequences of the euro. But the financial linkages between the EU domestic financial markets and the rest of the world are difficult to measure and evaluate. Currently, the European domestic financial linkages with the rest of the world rank a distant second vis-à-vis the United States as measured by the relative sizes of domestic financial markets and the magnitude of gross international portfolio flows, gross international banking flows, and gross international financial and banking claims.

The financial systems in the EU are different from country to country and are far from deregulated and competitive as in, for example, the United States. With the introduction of the euro, we should expect accompanying deregulation and increased competition within the euro area. The concrete actions expected are the following: (1) larger firms will move towards raising funds on the euro bank market and away from commercial bank financing. They may even move their banking activities from the local banks to banks across borders, (2) households will not only borrow in the local consumer credit market but also in the euro credit market, favoring the more cost-efficient of the two. Furthermore, households and firms will find themselves obtaining real estate loans in a euro-securitized market. Finally, depositors will diversify deposits between bank deposits and
money market fund deposits, and (3) banks will face increased competition and, consequently, more mergers are expected across borders in Europe. The implications for the bank customers will depend on the strength of the banks. In the short term, the customer in a strong bank may experience cheaper credit, while the customer in a weak bank may face credit rationing. Eventually, the weak bank will tend to disappear.

Some economists, for example, in Morgan Stanley, predict that between now and 2010, US$13 trillion will flow to European equity markets, tripling the size. This inflow is considerable, as today's total capitalization of the world's stock markets is around US$20 trillion. A boom is expected in every area of investment banking: mergers and acquisitions, share and bond issues, securities trading, and fund management. This may happen at the expense of European commercial banking.

International bond issues by LAC countries amounted to US$46 billion in 1996, and euro-denominated bonds accounted for 44 percent of all international issuance, which is just the same as dollar-denominated bonds. Hence, the bond markets are already operating in a dual-currency world. The pace of European bond market activity is surprising considering the euro's weakness against the dollar since its launch. This has discouraged U.S. and Japanese investors from putting money into the euro-denominated bond markets for fear that any rise in the price of the securities they hold would be offset by the depreciation in the currency. Thus, mainly domestic European investors, such as pension and insurance funds, have driven the growth in the market.

**Foreign Direct Investment**

In LAC, the majority of capital controls and capital account restrictions from the 1980s were eliminated during the 1990s. Hence, in the 1990s, foreign direct investment and portfolio investment increased dramatically.

Although most private investment continues to be financed by domestic savings, access to foreign sources of capital is playing an increasingly important role for the private sector in Latin America. Indeed, in the 1990s the LAC region has been the largest recipient of FDI among developing countries, accounting in 1997 for nearly 40 percent of all FDI flows to developing countries (US$45 billion out of a total US$120 billion).

The new regionalism in LAC (see below) has proceeded together with unilateral trade liberalization and the opening to FDI (Burki and Perry, 1997). Private sector activity has been helped by structural reforms, which have promoted investment and trade, and a good share of gross domestic investments have been financed by FDI. Furthermore, FDI partly promotes exports and provides access to international markets. But FDI has often been undertaken to avoid tariffs, and a large share of FDI in LAC went to nontradables.

European FDI in the LAC region increased dramatically over the last decade, and this effect is considered to be highly beneficial. This is 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 LAC countries. The main elements behind the rise in FDI include increased privatization, notably in Brazil; improved economic performance; and continued progress on liberalization.

The net inflow of foreign direct investment to LAC amounted to US$38 billion in 1997, amounting to 32 percent of total global FDI, with the large countries in LAC receiving the largest share (see Figure 5). The EU's FDI in Latin America amounts to US$13 billion. Furthermore, Europeans travel to LAC countries, which earned the region US$26 billion in tourism income.

**Portfolio flows, diversification, and reallocation**

The EMU is likely to influence portfolio flows. Although compiled information on the origin of total portfolio flows is unavailable, the point can be illustrated by data on international bank lending compiled by the Bank for International Settlements (BIS). Levy-Yeyati and Sturzenegger (1999a) write: "Whereas the share or bank flows originated in EMU jumped from 37 percent in 1994 to 46 percent in 1997, the share corresponding to banks in
the U.S., Japan and Canada declined from 39 percent to 32 percent. On the other hand, flows to Latin America have represented an important but relatively stable share of total European bank outflows. On average, EMU banks have directed nearly one-fourth of their total foreign lending to Latin American markets, or 40 percent of their lending to developing countries, during 1994–97. The authors further state that “net foreign lending flows of European banks in recent years have more than doubled those of Canada, the U.S. and Japan combined. Thus, the growing significance of Europe as a source of foreign funds is not specific to Latin America but rather a general trend towards international portfolio diversification common to most European banks. Reasons underlying this trend could be found in the relatively low interest rates in Europe, and the reduction in the scope for diversification within European markets as a result of the convergence in interest rates and the increasing correlation of intra-EMU returns.”

With the introduction of the euro, LAC may experience an enhanced inflow of investment from Europe, partly 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 LAC 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, once investment within the euro area is no longer classified as “foreign” investment in terms of risk classifications. Thus, the EMU is likely to soften the constraints imposed by currency-exposure requirements.

Another positive consequence could occur as a result of companies feeling squeezed competitively in the euro area, causing them to search for new places to expand, either through mergers and takeovers or new investments.

Private portfolio holdings may be greatly affected by the launching of the euro. It will create a new and one of the largest single-currency financial markets in the world. The EU bonds, equities, and bank loans in European capital markets totaled more than $27 trillion in 1995, compared to the U.S. capital market’s $23 trillion and Japan’s $16 trillion (see Peter Bekz, 1998).
It is difficult to assess the potential scope of a reallocation of international portfolios following the introduction of the euro. European currencies’ share of world private portfolios increased nearly threefold in 15 years, reaching 37 percent in 1995. The dollar’s share declined 7 percentage points over the same period, to around 40 percent. The European currency share in the international bond portfolios accounts for 37 percent of the international bond portfolios. At present, banks assume an important role in continental Europe, and the capital markets play only a marginal role.

Table 1 shows that the U.S. dollar is dominant in all areas of currency shares in global finance. But the currency composition of reserves, loans, bonds, and other assets is likely to change in the future. Some economists believe that the launch of the EMU will result in an important reallocation of financial portfolios away from U.S. dollars and towards the euro. If that happens, other economists expect that it will do so progressively. The private asset holding is anticipated to move more rapidly and by larger shares than the official reserves. Levy-Yeyati and Sturzenegger (1999b) mention that the EMU banks have directed nearly 25 percent of their foreign lending to Latin American markets, or 40 percent of their lending to developing countries during 1994-97.

The recent process of financial liberalization makes the large countries in LAC sensitive to changes in the determinants of international capital flows. The increased convergence in European interest rates and stock market activity limits the scope for diversification within Europe. Diversification opportunities are thus sought outside the EMU. Since Latin American financial returns are large compared with EMU returns, LAC becomes an attractive region.

**Interest Rate Sensitivity of Short-Run Capital Flows**

Levy-Yeyati and Sturzenegger (1999a) have studied the sensitivity of Latin American capital flows to variations in EMU interest rates. Their analysis shows that capital flows to Latin America are highly sensitive to fluctuations in foreign interest rates. In the 1990s the short-term inflows to Latin American countries demonstrated a common behavior intimately linked to the behavior of U.S. interest rates (Calvo et al., 1993). Calvo and others conclude that since a large part of the capital account surpluses obeys to temporarily low interest rates abroad, a reversal of these flows is to be expected as soon as foreign interest rates pick up. The remainder of this section draws on the paper of Levy-Yeyati and Sturzenegger. Besides diversification effects, the convergence of long-term interest rates in southern European countries like Spain or Portugal towards the low levels prevailing in Germany may prompt investors to rebalance their portfolios towards markets, searching for the moderate yield/risk profiles formerly offered by these countries. An important determinant of the extent to which those factors may result in a stronger demand for Latin American assets is the level of country risk assigned by international rating agencies. These ratings influence not only the degree of substitution of investment assets in Europe and in the Latin American region, but also how the region fares relative to competing emerging economies. The risk levels assigned to Latin American economies generally

<table>
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<tr>
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<th>All EU</th>
<th>USD</th>
<th>DEM</th>
<th>JPY</th>
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<tr>
<td>LAC foreign debt</td>
<td>8.7a</td>
<td>66.6</td>
<td>5.8</td>
<td>6.3</td>
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<td>Official foreign exchange reserves</td>
<td>26.9a</td>
<td>67.3</td>
<td>15.1</td>
<td>5.8</td>
</tr>
<tr>
<td>of which developing</td>
<td>19.0</td>
<td>66.9</td>
<td>11.2</td>
<td>5.2</td>
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<tr>
<td>countries</td>
<td></td>
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<tr>
<td>Foreign holdings of</td>
<td>39.6</td>
<td>50.8</td>
<td>14.8</td>
<td>5.5</td>
</tr>
<tr>
<td>bank deposits</td>
<td></td>
<td></td>
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<tr>
<td>Intl. debt security</td>
<td>38.2</td>
<td>41.1</td>
<td>16.4</td>
<td></td>
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<tr>
<td>issues (1992-97)</td>
<td></td>
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<tr>
<td>Foreign exchange market</td>
<td>35.0</td>
<td>41.5</td>
<td>18.5</td>
<td>12.0</td>
</tr>
<tr>
<td>turnover (96)</td>
<td></td>
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a. FRF, DEM, and GBP only.
b. FRF, DEM, GBP, NLG, and ECU.
exceed those of other emerging markets. In 1998, for example, according to Moody’s, Latin American countries received, on average, a Ba2 rating, or two levels below investment grade, while the average rating for the rest of the emerging markets was Ba1. Similarly, the average rating assigned by Standard and Poor’s to Latin America (BB+) is one notch below that for other emerging economies (BBB-). The sovereign risk of Latin American countries has not witnessed important improvements recently. Argentina, Colombia, Ecuador, Uruguay, and Venezuela all have the same ratings as they had in 1994. Mexico went down two levels as a result of the 1994 crisis, improving one notch in 1998. On the other hand, Brazil, Chile, and Peru advanced one level. As of 1998, the only Latin American countries that had investment grade were Chile, Colombia, and Uruguay. Moreover, with the current macroeconomic context in the region, Levy-Yeyati and Sturzenegger conclude that it is difficult to foresee any of the remaining countries reaching investment grade any time soon.

As the process of European integration strengthens, European interest rates are likely to move increasingly closer to each other, and hence capital flows from and to the euro area will display stronger co-movement and sensitivity to changes in EMU-wide interest rates than they did to changes in interest rates in individual countries. Since EMU countries have supplied an increasingly important portion of foreign investment flows to the region, one would expect sensitivity of Latin American capital flows to European interest rates in the latest years. Levy-Yeyati and Sturzenegger test the previous intuition by regressing international reserves and the real effective exchange rate for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela on U.S. and DM three-month T-bill rates. The results indicate that while the U.S. rate is in most cases significant and was the main influence in the evolution of reserves in the early 1990s, the DM rate becomes the main explanatory factor in the recent period. In particular, with the exception of Colombia, the DM interest rate has p-values below 10 percent, and their coefficients display the correct sign. Moreover, they are associated with lower probability values than the U.S. rate. The only exception is Mexico, which, as expected, continues to display a strong negative link with the cycle in the United States. The authors’ conclusion from this preliminary exploration is that the future evolution of capital flows to Latin America may reflect the evolution of the euro interest rate more closely than is usually believed. The launch of the euro can only amplify this effect and hence Latin American prospects may be significantly linked to the European business cycle.
VALUE AND VOLATILITY OF THE EURO

THE FINANCIAL CHALLENGES FACING THE EMU ARE REAL. Exchange rate volatility could lead to portfolio shifts both into and out of the euro area. Table 2 indicates that in the past two decades exchange rates have been quite stable. Furthermore, the real exchange rate of the euro has less variability than the bilateral rates, for example, the DM/$ rate. In the 1990s the euro has just half the variability of the 1980s (see Table 2 and Figure 6).

Economists' views on the effect of the EMU on long-term exchange rate volatility vary considerably. Since its introduction, the strength of the euro has been reduced by 5 percent on a trade-weighted basis and by 10 percent against, for example, the dollar. Hence, the prediction by some economists that the euro would appreciate against the dollar from the initial value in the short term did not materialize in the first four months of the euro's existence. The argument was that national savings in Europe would increase and lead to a current account surplus. Furthermore, in the first months the euro has not been more volatile than former EU currencies in the preceding period.

On the other hand, four months after the launch, the euro is no weaker than the European currencies it subsumed a year ago. What it gave up were only the gains notched up in the fall of 1998. The depreciation has given a welcome boost to hard-pressed European exporters struggling to recoup business losses after a slowdown induced by the crisis in Asia and Russia. The euro weakened mainly because of its economic performance when compared to the boom in the United States, and the EU’s proximity to the conflict in Kosovo.

| Table 2 |
|-----------------|-----------------|-----------------|
| **Exchange Rate Variability** | **1976-79** | **1980-89** | **1990-99** |
| Yen/$ | 0.16 | 0.25 | 0.08 |
| DM/$ | 0.22 | 0.21 | 0.12 |
| Real Euro | 0.08 | 0.09 | 0.04 |

Source: Dornbusch (1999). Variability is measured by the coefficient of variation.
Clearly, the policies and credibility of the European Central Bank (ECB) and the strength of its determination to pursue price stability have an important influence on the euro’s international value. Uncertainty about the ECB and European politics weakened the euro in the early days of the EMU. A less strong euro would probably spur demand for labor in a region where high unemployment levels have been a source of grave concern for more than a decade.

In the future the relative strengths of the dollar and the euro will, in addition to the credibility of the ECB, depend on market sentiments, growth prospects, and the mix of fiscal and monetary policy on both sides of the Atlantic Ocean.
INCREASED FINANCIAL COMPETITION IN THE EURO REGION is expected to accelerate the trend towards banking consolidation and concentration. This effect is already reflected in the ongoing process of internationalization of financial intermediation in the LAC region. This sector considers the financial implications of the introduction of the euro currency in the banking system, foreign debt, and reserve management.

**Banking System**

The introduction of the euro will work as a catalyst to the development of integrated money and bond markets in Europe. It will increase competition among banks and between banks and other sources of funds. Furthermore, the implied greater competition between banks and financial systems in general should lead to efficiency gains in terms of resource allocation, which will ultimately stimulate investment and job creation.

Foreign exchange trading, corporate banking, and government-bond trading together account for over half the profit of a typical large commercial bank. It is expected that European bank reserves will be reduced by 20 percent over the next decade in these three business areas. Corporate banking is another sector with difficulties ahead. As the creation of a single and liquid market in euro-dominated corporate bonds takes place, the introduction of the euro will make it even harder to lend money profitably to bigger firms. The deposit and money market business will also encounter difficulty, since corporate customers will no longer need accounts in various European currencies, reducing the volumes. Banks will likewise lose profits from the money market as interest-rate differentials between euro-area currencies are eliminated.

The above-mentioned areas are examples of where business is anticipated to be eliminated or reduced. But the EMU should create profitable new business as well; for example, the market for euro-denominated bonds and banks' profit from bond and equity trade could increase.

How will these developments in banking systems in Europe affect Latin America? It seems pos-
sible that the short- and long-term effects may go in opposite directions. Recent years have seen a substantial expansion in the involvement of European banks in Latin America. The share of bank assets intermediated through foreign-owned banks ballooned in the past couple of years. In the immediate future, the euro may encourage a moderation in this trend, as nationally based banks in Germany and elsewhere have traditionally attached top priority to expanding their base across the EMU. In the longer term, however, as the competitive situation within Europe heats up, and margins are competed down, a renewed expansion into more profitable non-European markets may again look more appealing.

Levy-Yeyati and Sturzenegger have considered the pros and cons of internationalization in the banking sector. Their discussion suggests that foreign penetration can be considered as the natural outcome of the opening of formerly protected sectors to more efficient institutions, as well as the response of increasingly vulnerable domestic banking systems that cannot compete equally with better capitalized and more widely diversified institutions backed by more reliable lender-of-last-resort facilities in parent countries. In addition, economies of scale in supervision technologies motivate the willingness of monetary authorities in small open economies to import supervision services by transferring the responsibility to the parent countries. Finally, risk pooling considerations make it relatively less costly for central banks in these economies to provide emergency assistance to internationally diversified financial institutions. But, the cost of this strategy should not be underestimated. First, it is not obvious the extent to which the parent institution would be willing to incur the costs of effectively insuring their foreign operations. There is certainly a limit beyond which the financial costs of bailing out foreign affiliates exceed the reputation cost of letting them fail. More important, however, are the short-run costs of financial opening in a context of weak domestic banks and inefficient supervision. As in any other industry, foreign competition, by negatively affecting overall bank profitability, may amplify existing fragility. In addition, bank competition may create incentives to engage in excessive risk taking as a way of “gambling for resurrection.” Therefore, inasmuch as the opening of banking sectors in the region appears to be an unavoidable consequence of the removal of capital account restrictions, it is crucial that it be accompanied by the necessary prudential safeguards, possibly including an active intervention of the supervisory authority to prevent disruptive competition during the transition.

(Levy-Yeyati and Sturzenegger, 1999b)

DEBT MANAGEMENT

An economy has to decide how much public foreign debt to hold and how to diversify among currency denominations and optimal structure of maturity. The stock of external debt amounted to US$618 billion in Latin America in 1997. Brazil and Mexico alone account for more than half of this figure (see Figure 7). Comparing the debt to GDP ratio shows large variations across countries; for example, the ratio is 19 percent, 29 percent, 17 percent, and 23 percent for Brazil, Argentina, Chile, and Mexico, respectively.

The share of EU currencies in Latin America’s outstanding external debt is only 8 percent. The debt in Deutschmark and franc français amounts to 6 percent and 2 percent, respectively (see Figure 8). The U.S. dollar share is by far the largest and accounts for 67 percent. As long as Latin American external debt continues to be largely denominated in dollars, debt payments are hardly affected by euro interest rates and exchange rate developments.

LAC countries could offset adverse effects of economic shocks by changing their debt-management policies, which the new euro currency facilitates. The currency composition of foreign debt should be related to the composition of earnings from foreign trade. The share of euro debt may well increase, since the share of total foreign trade
Figure 7
LAC Countries' Foreign Debt in 1997 (in US millions $)

Source: Author's calculation using World Bank data.

Figure 8
LAC Countries' Foreign Debt Share in Different Currencies in 1997 (percent)

Source: Author's calculation using World Bank data.
with Europe is increasing. Hence, hedging strategies may need to be reassessed.

In the longer term, a shift in euro interest rates will have an effect on the foreign debt service of countries in Latin America and the Caribbean because part of their debt will be denominated in euros. In the near term, however, the impact would be minor because the current share of the 11 euro-area countries' national currencies in Latin American debt is small (around 8 percent). For the same reason, the debt payments are not expected to be particularly affected by interest rate developments in the EU. Levy-Yeyati and Sturzenegger (1999a) calculate that a percentage point increase in euro interest rates would imply additional debt payments for Latin American countries that range from around 0.11 percent to 0.17 percent of total export earnings (or 0.02 to 0.03 percent of GDP). Although not negligible, these numbers do not represent a significant increment in debt service costs, mainly because of the relatively small share of external debt that is currently denominated in euros.

Furthermore, countries in the LAC region could offset the adverse effects of economic shocks by changing their debt-management policies. This will be easier to do with a single European currency. But the emergence of the euro and a major European capital market is not creating important new prospects in the near term for access to capital for the LAC region.

**Reserve Management**

The EU intends for the euro to become a major reserve currency, competitive with the U.S. dollar, and there has been considerable controversy among observers as to how far this effect could go and its implications. Will Latin American countries substantially diversify their reserve holdings? This is both an economic and in part a political question. If Europe succeeds in making the euro competitive, it could cut into the seignorage currently accruing to the United States (this gain would, however, have to be balanced against the domestic policy considerations—employment, etc.—mentioned above). The forces of inertia (and uncertainty about the new currency) will at first continue to favor the dollar. Latin Americans are familiar with the U.S. currency, and many in both the private and public sectors may be influenced by established personal, cultural, business, and political links to the United States. A process of hemispheric economic integration is, albeit haltingly, now under way. On the other hand, if the euro can acquire a reputation for stability, some in Latin America may see reasons, such as a hedge against terms-of-trade changes, for portfolio diversification to increase their euro holdings. Nor should one ignore the ambivalence of some Latin American feelings towards the United States or the motivations of some Latin American leaders to look to closer links to a stronger Europe, partly as a countervailing measure to offset the traditional hemispheric dominance of the United States.

The reserves held in Latin America amount to about US$170 billion, and the average reserve holding in months of imports is around US$4.2 billion. As with the foreign debt, the majority of the reserve holdings are in dollars (apart from reflecting the trade role of the United States, the dollar held a proxy role), but the trend has been downward in the past decade. The shares increased in Deutschemark and yen due to the United States' falling share of global GDP.

Rudiger Dornbusch has explained why countries hold reserves and the complications that result:

Countries that peg exchange rates or wish to limit the extent of fluctuations of rates hold reserves to provide a cushion in case net external cash flow, on current and capital account, turns negative. Reserves are a substitute for adjustment when shocks are temporary and hence justify financing rather than adjustment. They also, in the case of persistent disturbances, help bridge until the appropriate adjustment can be accomplished. In a world where there is only a single outside currency, say the dollar, the only relevant issue is to determine the appropriate level of reserves. The determinants are likely to be, in addition to the scale of the economy, the volatility of net cash flows as well as the opportunity cost of holding
reserves as measured by the differential between the return on reserves and the cost of capital. The cost of disruptive adjustment or unwanted exchange rate movements certainly enters the optimal level of reserves.

(Dornbusch, 1999)

But, of course, the world is not structured on a single outside currency, so the question of how reserves are to be held is also a critical part of the discussion. Not surprisingly, the first pass at this question is to hold a diversified portfolio of reserves in various currencies in which the portfolio shares represent the shares of the respective countries in the trade pattern. There is, accordingly, a sort of indexing in which reserve holdings mirror trade patterns.

Furthermore, Dornbusch states that in practice the extensive indexation is too cumbersome. Currencies of small-partner countries or the currencies of countries with retarded or unstable capital markets are likely to have high transaction costs associated with the holding and management of a reserve position and are therefore replaced by a proxy currency.

The advent of the euro will eventually create a deep and liquid capital market in Europe. The very size of the market will attract competition and reduce spreads and, hence, offer holders of euro assets higher returns and better transaction potential. As a result, the euro achieves equality with the U.S. dollar as a reserve asset. In other words, reserve management enjoys the opportunity to come closer to target, gain higher returns, and, for a more diversified portfolio (in terms of risk exposure), still have a more liquid position than was previously possible. All of this is achieved because of the emergence of a European single capital market. That is surely the central effect, and it implies that, over time, as the capital market develops and becomes attractive, reserve holdings will shift from dollars (and yen as Japan's public finance goes bankrupt and Japan can no longer offer a hard currency and relatively risk-free asset) to the euro.
REGIONAL INTEGRATION WAS REVIVED IN THE EARLY 1990s as governments in LAC decided to liberalize their economies. Some positive benefits of regional integration in Latin America are expected: (1) reduction in average level of protection, (2) expansion of the market size, which would promote specialization and industrialization through economies of scale, (3) political credibility and trust building across countries, and (4) preparation for increased unilateral liberalization. The question is whether expected benefits outweigh expected costs. The costs encountered could be in the form of: (1) delayed interest in unilateral trade liberalization and (2) trade directed away from more efficient production in countries outside the trade block.

The experience from the Mercosur region is that trade has been created, but not much trade diversion has taken place. Furthermore, tariffs have been reduced. Economic policies are not coordinated in the trade zones, and this may prevent the full gains from trade from being realized. The main causes are excess exchange rate and relative-price volatility. These disincentives may cause producers to allocate resources along the lines of comparative advantages and, in the worst case, lobby for protection. Feasible policy coordination is likely to be guided towards harmonizing guidelines and policy rules.

The limited macroeconomic harmonization between the large countries in Mercosur has led to strains within the trade block. Exchange-rate-based stabilization and sharp exchange-rate movements associated with loss of monetary or fiscal control have created political fears of free trade within the region.

In the short term, policy measures to regulate international capital flows will improve governments' ability to stabilize exchange rates in the Mercosur region. In the longer term, there will be a need for macroeconomic policy coordina-
tion. Possible coordination of policy is likely to initiate with exchange rate policy, including a single currency, common currency board peg, or harmonization of the rules and regulations that guide the policy formulation.

**IS THE EURO A BLUEPRINT FOR THE LATIN AMERICAN REGION?**

Does it make sense for Mercosur to think of a monetary union similar to that implemented in Europe? According to Levy-Yeyati and Sturzenegger (1999b), Mercosur does not, at this point, qualify under the conditions identified by the optimal currency theory (OCT) for establishing an independent monetary area with a common currency for the member countries (see Table 3). When considering the degree of integration in the real sector, interdependence is very low in LAC in comparison to that of the EU. When the first stage towards monetary union was completed, the average exports to partner countries accounted for 14 percent of GDP in the EU, but, in the case of Mercosur, this figure reached only 4.1 percent in 1997. Although it is true that the integration process of Mercosur is not completed, the view is not optimistic when it comes to forecasting an increasing level of integration in the near future because of the structure of the economies. Moreover, labor markets are not integrated, and large differences in income levels between the countries prevail. As a result, in the short term free mobility of labor is not going to be welcomed by all countries (especially Argentina). This reduces the scope of the labor market to absorb asymmetric shocks, which also seem to be likely (and larger) in Mercosur than in the NAFTA or EMU regions. The banking sector has become increasingly international, but financial sectors remain segmented, and prudential regulation is still very different. This would lead to moral hazards—in the case where there was a common central bank—both at the level of individual banks and between countries, if they were to engage in regulatory competition. Macroeconomic shocks appear to be correlated in the short run, and capital flows associated with currency instability are related not to the change in regional parities, but to changes in the exchange rates with countries outside the region. Both factors reduce the potential gains in terms of financial sector integration and reduced volatility of capital flows, which were decisive in stimulating the European integration process.

On the fiscal side, Mercosur economies have not yet discussed the need for fiscal policy coordination, which is not surprising given that they still have not solved the fiscal federalism problems at the national level. Mercosur not only lacks targets that coordinate fiscal policies but also supranational institutions that can centralize transfers to those areas affected by adverse economic shocks.

The benefits that could arise from the elimination of speculative attacks will depend upon the credibility that the common central bank can sustain. However, the associated benefits are seriously limited by the fact that Mercosur does not have currencies with a lasting stable tradition or a country that can bolster the other members in case of speculative attacks during the transition process.

On this basis, it is reasonable to believe that European experience suggests, if anything, the convenience of a monetary union with the United States, as opposed to one that only involves the countries within the region. Although an analysis of the preconditions identified by the OCT theory could lead to an even less optimistic result for a monetary union with the United States than with Mercosur countries, the great advantage of this integration would stem from gains in terms of credibility in the conduit of monetary policy and some reduction in currency speculation, which could reduce significantly the volatility in capital flows to which the region would be exposed.

It should be noted that the democratic system in the integrating countries within Mercosur is still in the building stage. Therefore, fostering economic relations between the member countries can help consolidate democratic institutions in the those countries, thereby constituting a significant positive factor for regional integration.
Table 3
Evaluation of Monetary Union

<table>
<thead>
<tr>
<th>Factors</th>
<th>What does the theory say?</th>
<th>Where is Europe?</th>
<th>Where is Mercosur?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Integration</td>
<td>The larger, the higher the benefits of monetary union</td>
<td>High degree of integration.</td>
<td>Low degree of integration.</td>
</tr>
<tr>
<td></td>
<td>Exports to partners were 14% of GDP at the signing of Maastricht</td>
<td>Exports to partners were 3.8% of GDP in 1996.</td>
<td></td>
</tr>
<tr>
<td>Productive Labor Factors</td>
<td>The larger the degree of factor market integration, less is the need to use the exchange rate as an adjustment instrument and, therefore, the larger the benefits of monetary union.</td>
<td>Low integration relative to the U.S.</td>
<td>No integration.</td>
</tr>
<tr>
<td>Market</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Banking Sector</td>
<td></td>
<td>Integrated.</td>
<td>Highly internationalized but with important differences in regulation.</td>
</tr>
<tr>
<td>Capital Markets</td>
<td></td>
<td>Integrated.</td>
<td>Unilaterally open (each country has opened the capital account, though some maintain restrictions).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exchange rates between countries are not very relevant (what is relevant are the parities with the dollar, the euro, or the yen); thus currencies will continue to experience speculative attacks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shock symmetry</td>
<td>The more symmetric are shocks, the lower the need to change the exchange rate and the bigger the benefits of monetary union.</td>
<td>Symmetric shocks.</td>
<td>Large and asymmetric shocks.</td>
</tr>
<tr>
<td>Fiscal Policy</td>
<td>Monetary union imposes restrictions upon the consistency of fiscal policy among members.</td>
<td>Maastricht achieved</td>
<td>Strong divergence in fiscal balances persists.</td>
</tr>
<tr>
<td>Fiscal Transfers</td>
<td>The larger the transfers the larger the possibility of smoothing regional shocks and the larger the benefits of monetary union.</td>
<td>Exist.</td>
<td>Do not exist.</td>
</tr>
<tr>
<td>among member countries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td>Monetary union may generate benefits in terms of increased credibility.</td>
<td>There is a gain in credibility because the ECB emulated the Bundesbank.</td>
<td>Credibility gains are unlikely due to the strong disparity in the use of monetary policy and the lack of tradition in keeping inflation in check.</td>
</tr>
<tr>
<td>Political Integration</td>
<td>Monetary union arises as the result of a common political project.</td>
<td>This process is under way.</td>
<td>The process is just starting.</td>
</tr>
</tbody>
</table>


The monetary union seems unrealistic in the short run, as it requires a political commitment that is not present in Mercosur today. The same is true for the common currency board. The benefit of pegging the currencies to another currency, say the U.S. dollar, is that there would be no fluctuations of the respective currencies vis-à-vis one another. But the cost is high for the individual countries of a currency board; it implies a reduction of the tools in the policymaking tool kit, which is desired, since it is what contributes to credibility. Furthermore, it limits
the capacity of the authorities to act as lenders of last resort.

If a Latin American country and the United States shared a currency, they would have to be exposed to the same kinds of shock, and their business cycles would need to be in line and their economic structures alike. If asymmetric shocks arrive, the countries must be able to adjust, for example, wages and prices or transfers of income. Pan America does not remotely resemble an optimum currency area, as asymmetric shocks are frequent, and more are expected.

**Dollarization**

The recent episodes of financial instability have put dollarization back on the agenda in Latin American countries. Two types of dollarization are at play: passive and active. The active dollarization policy originates from policymakers, and passive dollarization is a result of decisions taken by economic agents as an answer to inflation.

Latin American countries display a significant level of passive dollarization, both financial and real dollarization. Financial dollarization is in the form of financial assets such as CDs and bank loans. This is normally combined with real dollarization in which the dollar becomes a unit of account and a store of value parallel with the national currency. Dollarization has taken place in Latin America; countries have experienced long periods of high inflation in which agents shifted toward the use of the dollar as a reference currency. Governments have implemented de-dollarizing policies with only partial success. Levy-Yeyati and Sturzenegger (1999b) mention three ways of de-dollarizing: (1) maintaining artificially high domestic currency returns, (2) introducing an artificial wedge in dollar returns, and (3) putting legal restrictions on the use of the dollar for financial transactions and, in the limit, outright prohibition of dollar-denominated financial assets.

The lack of success of de-dollarization has led some Latin American countries to debate dollarization as an active policy as, for example, in the case of Argentina in which a currency board agreement was implemented by legitimizing and deepening the dollarization process, generating the credibility that previous efforts had lacked. Many economists do not believe giving up the monetary policy tool is the proper solution. One economist that does is Dornbusch. Dornbusch (1999) suggests that Latin America should follow the Argentine example of a currency board on the dollar or outright dollarization. Calvo (1999) argues that full dollarization is advantageous for countries with large dollar debts and criticisms by these economies against full dollarization are largely unwarranted. These countries are likely to face lower interest rates because the devaluation risk is eliminated. Furthermore, they are better shielded from contagion, and as a result might enjoy higher and more stable economic growth. Calvo also notes that dollarization cannot stand alone: it must be supported by policies that ensure the solidity of the domestic financial sector and a long maturity structure for the public sector.
THE PRINCIPAL CONCLUSION OF THIS PAPER is that the euro is not likely to cause any single major change in Latin America. There will, however, be a lot of small effects—in different directions—in the short and long run.

A large part of the impact of the euro in Latin America is expected to be of secondary importance, as no structural trade change is expected. For example, increased competition and efficiency should increase economic growth in the EU, which in turn should increase imports from the LAC region, given that the trade diversion effect is not likely to be very important. At least in the short run, Latin America and the Caribbean are highly dollarized, and we do not expect a major change immediately with the launching of the euro (though the longer term effect is much harder to predict).

Latin America and the Caribbean countries are very heterogeneous. The impact of the EMU and the euro is therefore likely to impact countries differently. Countries and regions with strong links—culturally and geographically—to the United States (such as Mexico and Central America) are likely to be affected less than countries with weaker links.

For LAC countries, the main impact of the unified European market and the single currency is likely to come through financial linkages. It is difficult to provide definitive answers or to quantify the possible impacts, but we argue that the introduction of the euro is likely to have a positive, although limited, effect on the LAC region. The main findings are the following:

- Increased financial deepening in Europe could have some positive effect on growth in Europe, and could lead to a small increase in exports for LAC. It could also lead to increased financial flows between the regions.

- LAC debt is mainly denominated in U.S. dollars. No significant appreciation of the euro is expected. Thus, the immediate impact of the introduction of the euro on debt value and debt service is expected to be small. The euro will, however, create the opportunity to realign the currency composition of foreign exchange reserves, in light of trade flows, other transactions, and possibly—in the longer term—portfolio diversification and political considerations.
• LAC countries may become more attractive as destinations for European investors seeking diversified portfolios, including higher return components, and as intra-European investments show converging returns.

• LAC and Mercosur cannot be seen as optimal currency areas at this time, therefore, at this stage the euro does not serve as a blueprint for Latin America.

A prosperous EMU is expected to contribute to greater trade and financial flows between LAC and the EU. Currency certainty, low inflation, increased trade, and more efficient markets—all promise large benefits for the EU as well as some benefits for Latin America. Furthermore, a prosperous EMU requires sound financial structural policies, including reforms of both labor markets and public spending. Over the long term, this should also benefit other countries, including those in the LAC region.
REFERENCES


IMF. *Direction of Trade Statistics*, various issues, International Monetary Fund.


NOTES

1. Argentina, Brazil, Paraguay, and Uruguay.
2. See Daniel Cohen, Nicolai Kristensen, and Dorte Verner (1999).
3. Excluding 18 countries with less than one million inhabitants, the total is 483 million in the LAC-23 region. The LAC-23 countries are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Trinidad and Tobago, Uruguay, and Venezuela.
4. Bolivia, Colombia, Ecuador, Peru, and Venezuela.
5. Argentina, Brazil, Chile, Colombia, Mexico, and Peru.
6. The average mean tariff in East Asia is 16 percent, while in Latin America it is 12 percent.
7. It is hard to disentangle the different sources of European growth, since the economy grows due to both euro- and non-euro-related factors.
8. The latter normally bear a higher return than the former.
10. Brazil received the largest share—35 percent of the total; Argentina 18 percent; Chile and Venezuela 12 percent; Colombia 10 percent; and Mexico 9 percent.
11. These numbers, however, mask deep differences in Latin American exposures of EMU partners. For 1997, while the share is only 14 percent in the case of Belgium, it reaches 88 percent for Spain, and 55 percent for Italy in 1997.
12. Although this conclusion was largely confirmed by the process leading up to the 1994 Mexican crisis, recent crises in Asia, in a context of flat or declining interest rates, run counter to this argument (see Levy-Yeyati and Sturzenegger, 1999a).
### APPENDIX

#### Table A1
**EU-11, 1996**

<table>
<thead>
<tr>
<th>Population (mill.)</th>
<th>GDP PPP (mill.)</th>
<th>GDP growth (annual %)</th>
<th>GDP PPP per capita</th>
<th>Inflation, consumer prices (annual %)</th>
<th>Trade (% of GDP) 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>174,888</td>
<td>1.1</td>
<td>21,701</td>
<td>1.8</td>
<td>78.22</td>
</tr>
<tr>
<td>Belgium</td>
<td>225,428</td>
<td>1.4</td>
<td>22,190</td>
<td>2.1</td>
<td>140.39</td>
</tr>
<tr>
<td>Finland</td>
<td>96,540</td>
<td>3.3</td>
<td>16,837</td>
<td>0.6</td>
<td>66.20</td>
</tr>
<tr>
<td>France</td>
<td>1,260,031</td>
<td>1.3</td>
<td>21,585</td>
<td>2.0</td>
<td>44.57</td>
</tr>
<tr>
<td>Germany</td>
<td>1,737,521</td>
<td>1.3</td>
<td>21,212</td>
<td>1.5</td>
<td>46.43</td>
</tr>
<tr>
<td>Ireland</td>
<td>67,747</td>
<td>7.3</td>
<td>16,664</td>
<td>1.7</td>
<td>134.08</td>
</tr>
<tr>
<td>Italy</td>
<td>1,155,551</td>
<td>0.6</td>
<td>20,139</td>
<td>4.0</td>
<td>50.94</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>13,385</td>
<td>3.9</td>
<td>32,211</td>
<td>1.4</td>
<td>172.32</td>
</tr>
<tr>
<td>Netherlands</td>
<td>318,140</td>
<td>2.7</td>
<td>20,503</td>
<td>2.1</td>
<td>100.16</td>
</tr>
<tr>
<td>Portugal</td>
<td>134,399</td>
<td>3.0</td>
<td>13,535</td>
<td>3.1</td>
<td>73.86</td>
</tr>
<tr>
<td>Spain</td>
<td>606,498</td>
<td>2.2</td>
<td>15,499</td>
<td>3.6</td>
<td>46.94</td>
</tr>
<tr>
<td><strong>EU-11</strong></td>
<td><strong>5,792,129</strong></td>
<td><strong>2.7</strong></td>
<td><strong>20,564</strong></td>
<td><strong>2.2</strong></td>
<td><strong>87</strong></td>
</tr>
</tbody>
</table>

Source: Author’s calculation based on World Bank data.

#### Table A2
**EU-15, 1996**

<table>
<thead>
<tr>
<th>Population (mill.)</th>
<th>GDP PPP (mill.)</th>
<th>GDP growth (annual %)</th>
<th>GDP PPP per capita</th>
<th>Inflation, consumer prices (annual %)</th>
<th>Trade (% of GDP) 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>174,888</td>
<td>1.1</td>
<td>21,701</td>
<td>1.8</td>
<td>78.2</td>
</tr>
<tr>
<td>Belgium</td>
<td>225,428</td>
<td>1.4</td>
<td>22,190</td>
<td>2.1</td>
<td>140.4</td>
</tr>
<tr>
<td>Denmark</td>
<td>119,422</td>
<td>2.5</td>
<td>22,695</td>
<td>2.1</td>
<td>64.2</td>
</tr>
<tr>
<td>Finland</td>
<td>96,540</td>
<td>3.3</td>
<td>18,837</td>
<td>0.6</td>
<td>68.2</td>
</tr>
<tr>
<td>France</td>
<td>1,260,031</td>
<td>1.3</td>
<td>21,585</td>
<td>2.0</td>
<td>44.6</td>
</tr>
<tr>
<td>Germany</td>
<td>1,737,521</td>
<td>1.3</td>
<td>21,212</td>
<td>1.5</td>
<td>46.4</td>
</tr>
<tr>
<td>Greece</td>
<td>130,691</td>
<td>2.6</td>
<td>12,476</td>
<td>8.2</td>
<td>43.4</td>
</tr>
<tr>
<td>Ireland</td>
<td>67,747</td>
<td>7.3</td>
<td>16,884</td>
<td>1.7</td>
<td>134.1</td>
</tr>
<tr>
<td>Italy</td>
<td>1,155,551</td>
<td>0.8</td>
<td>20,139</td>
<td>4.0</td>
<td>51.0</td>
</tr>
<tr>
<td>Luxembourg</td>
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<td><strong>Total EU-15</strong></td>
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<td><strong>20,051</strong></td>
<td><strong>2.5</strong></td>
<td><strong>79.8</strong></td>
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</table>

Source: Author’s calculation based on World Bank data.
### Table A3

**LAC countries, 1996**

<table>
<thead>
<tr>
<th>Population (mill.)</th>
<th>GDP PPP (mill.)</th>
<th>GDP growth (annual %), 1996</th>
<th>GDP per capita, PPP 1995</th>
<th>Inflation, consumer prices (annual %)</th>
<th>Trade (% of GDP, PPP), 1996</th>
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<tbody>
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Source: Author's calculation based on World Bank data.