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Introduction

There has been a significant regionalization of international trade. In 1990, 37 percent of the foreign trade of Canada, Mexico, and the United States was bilateral trade between pairs of those three countries; by 2004, the figure had risen to nearly 44 percent. In 1990, 29 percent of the foreign trade of thirteen East Asian countries was bilateral trade between pairs of those same countries; by 2004, the figure had risen to 39 percent. (See Table 1.1.) Some but not all of this increase in regional trade reflects the formation of preferential trading arrangements, such as the North American Free Trade Area (NAFTA) and the Association of South East Asian Nations (ASEAN).

This book asks whether we should expect to see an analogous regionalization of the international monetary system over the next one or two decades, the form or forms that it might take, and the potential benefits and costs viewed from the standpoint of the participants. It also asks how regional monetary integration might affect outsiders, including, most important, the United States, because of the key role played by the U.S. dollar in the global monetary system.

Why do we ask these questions now? Over the past several years, a number of countries have given up their national currencies and replaced them either with a multinational monetary union or with a prominent international currency such as the U.S. dollar.

In January 1999, eleven members of the European Union (EU) formed a monetary union, replacing their national currencies with a new single currency, the euro, and creating a new institution, the European Central Bank (ECB), which formulates and implements a single monetary policy

Table 1.1. *Intraregional trade (exports plus imports) as a percentage of total trade, 1990 and 2004*

Country group	1990	2004
Western Hemisphere:		
NAFTA: Canada, Mexico, United States	36.9	43.5
MERCOSUR: Argentina, Brazil, Paraguay, Uruguay	11.0	15.5
MERCOSUR *plus* Chile	13.7	18.6
Africa:		
CAEMC (Central African Economic and Monetary Community): Cameroon, Central African Rep., Chad, Equatorial Guinea, Gabon, Rep. of the Congo	2.8	1.9
WAEMU (West African Economic and Monetary Union): Benin, Burkina Faso, Cte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, Togo	11.1	11.2
WAMU (West African Monetary Union): Gambia, Ghana, Guinea, Liberia, Nigeria, Sierra Leone	2.2	2.0
Europe:		
EU-12: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom	70.7	64.2
East Asia:		
ASEAN: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam	17.3	22.4
ASEAN *plus* Japan	21.9	25.1
ASEAN *plus* Korea	16.7	21.4
ASEAN *plus* People's Rep. of China	16.0	19.5
ASEAN+3 (ASEAN *plus* Japan, Korea, People's Rep. of China)	29.3	39.0
Memorandum:		
ASEAN *plus* People's Rep. of China *plus* Hong Kong	31.2	31.8
ASEAN+3 *plus* Hong Kong	38.2	47.5

Source: International Monetary Fund, *Direction of Trade Statistics (DOTS)*, 1997 and 2004. There is some double counting in this table. In the NAFTA case, for example, U.S. exports to Canada appear twice, as U.S. exports to Canada and Canadian imports from the United States, and the same double counting of intraregional trade occurs in the measure of each country's total trade. It could be avoided by using a different measure (e.g., intraregional exports as a percentage of total exports), but that would introduce a different bias, because the imbalance between a country's total exports and total imports can change through time, as in the U.S. case.

for the whole euro area. In 2000, Ecuador replaced its own national currency with the U.S. dollar, and El Salvador did the same thing one year later. Such decisions reduce the number of national currencies and can, as these examples illustrate, take two forms: (1) a collective decision by two or more countries to form a full-fledged monetary union, typified by the decision to create the European Monetary Union (EMU);[1] or (2) a unilateral decision by a single country to adopt another country's currency, a decision described hereafter as *de jure* dollarization or euroization, depending on the foreign currency adopted, and typified by the decisions of Ecuador and El Salvador to adopt the U.S. dollar. Both of these tight forms of monetary integration extinguish national currencies; yet, they differ importantly in several ways. The differences and their implications are examined in Chapter 2 but can be summarized succinctly.

The formation of a monetary union involves the creation of a new multinational currency, such as the euro, and its substitution for the members' own national currencies. It also involves the transfer of responsibility for monetary policy to a new supranational institution, such as the ECB.[2] It is thus an ambitious project, politically, institutionally, and

[1] Strictly speaking, the acronym EMU stands for Economic and Monetary Union, the more comprehensive project defined by the Maastricht Treaty of 1992, but it is widely used to denote the European Monetary Union, and that is how we use it here. When EMU came into being in 1999, eleven (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain) of the fifteen EU members were able to join immediately, but Greece followed soon thereafter. The three other EU countries (Denmark, Sweden, and the United Kingdom) have not joined EMU. Of the twelve countries that joined the EU in 2004, only Slovenia has qualified for membership and joined EMU at the start of 2007. There are presently 27 members of the EU: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom.

[2] It is worth noting at the outset that the formation of a monetary union is not incompatible with adopting the increasingly common combination of a flexible exchange rate and inflation targeting. It can instead be viewed as a decision to adopt that combination at the union level rather than the national level. The euro floats quite freely against outsiders' currencies, and the ECB pursues a monetary policy closely akin to inflation targeting (although purists criticize the asymmetric form of its price objective and the absence of a formal inflation-targeting regime). We will return to these matters at various points in this book.

logistically. The transition to EMU, described in Chapter 3, illustrates this vividly.

The unilateral adoption of another country's currency involves some of the same logistical problems, but it is much simpler, especially when that other currency has been widely used already by the private sector, a practice commonly called *de facto* dollarization.[3] More important, it does not require the creation of a new institution; the responsibility for monetary policy is transferred automatically to an existing central bank – in the case of dollarization, the U.S. Federal Reserve System.[4]

Although EMU is often and rightly described as an integral part of a comprehensive political project, the "ever closer union" of the EU countries, and it could not have come into being without the intimate involvement of the EU's most powerful leaders, Franois Mitterrand in France and Helmut Kohl in Germany, it is often portrayed as a way to perfect the single market of the EU. Therefore, the advent of EMU aroused a great deal of interest elsewhere, especially in countries belonging to regional trading arrangements. There was discussion in Canada and Mexico of a North American monetary union to complement NAFTA, discussion in Argentina and Brazil of a monetary union to complement MERCOSUR (the Southern Common Market), and discussion in Southeast Asia of a monetary union to complement ASEAN. Furthermore, the members of two other country groups, the Gulf Cooperation Council (GCC) and the Economic Community of West African States (ECOWAS), have committed themselves formally to monetary union, and their plans for reaching it are based on the EMU model.

The motives of a government deciding unilaterally to adopt the dollar or the euro are rather different. It is not concerned to provide a single currency for a single market. It aims instead to immunize its national economy against future currency crises and to import a better monetary policy than it has achieved on its own. If you don't have a national currency, you can't have a currency crisis, nor can you devalue your currency.[5] If you don't have a national central bank, moreover, you can't

[3] Angeloni (2004) compares multilateral currency union and unilateral dollarization.
[4] There is another way to achieve this sort of delegation: transforming a country's central bank into a currency board. This is discussed in Chapter 2.
[5] This is the core of the argument for *de jure* dollarization developed by Steil and Litan (2006).

even generate homegrown inflation, and when you banish the risk of homegrown inflation as well as the concomitant risk of a future devaluation, your country's firms and households can borrow at lower long-term interest rates.

This book will ask whether these and other projects are likely to flourish in the years ahead. We will therefore begin in Chapter 2 by reviewing and recasting the analytical framework that economists usually use to weigh the benefits and costs of the two tight forms of monetary integration that we have been describing. The traditional framework needs to be recast because it does not pay enough attention to the implications of international capital mobility, to the size and nature of the members' trade ties to the outside world, or the way in which a single monetary policy alters the impact of various shocks on the member countries of a monetary union. Thereafter, we will complement that analytical approach by tracing in Chapter 3 the way in which the EU countries moved from less rigorous forms of monetary cooperation to a full-fledged monetary union. We will, of course, identify the economic rationale for moving all the way to EMU, but we also will emphasize three unique features of the European story: the commitment to ever-closer union already mentioned; the challenges posed by the impending enlargement of the EU that followed the collapse of the Soviet Union; and the panoply of existing EU institutions that could be assigned key tasks in the creation and subsequent governance of the monetary union. The absence of comparable institutions may be a major obstacle to full-fledged monetary unions elsewhere in the world, although special-purpose bodies might perhaps discharge those duties.[6]

To round out our discussion, we take on three tasks in Chapter 4. First, we look at other monetary unions: some that are defunct, such as the Latin, Scandinavian, and Austro-Hungarian unions; some that exist today, such as the two monetary unions in francophone Africa and the one in the Eastern Caribbean; and some that are now contemplated,

[6] Eichengreen (1994) stressed this same point when assessing the likelihood that EMU would have many imitators. Cohen (2003a, 2004a) attaches more importance to the need for political cohesion; in a previous book, however, he foresees dramatic changes in the monetary system, including the spread of *de facto* and *de jure* dollarization, as well as the introduction of privately issued electronic monies that will compete increasingly with national monies, both locally and globally; see Cohen (1998).

such as those that are being designed for the GCC and ECOWAS. These comparisons highlight the problems involved in constructing a durable monetary union, as well as the various ways to solve them. Second, we ask what economists have learned about the comparative merits of fixed and flexible exchange rates. Although that comparison cannot be brought to bear directly on the likely effects of a monetary union or *de jure* dollarization, it can tell us something about the effects of various exchange-rate regimes on inflation rates and real economic growth. Finally, we offer a tentative assessment of economic performance in the EMU countries since the commencement of the monetary union.

Chapters 5 and 6 will examine proposals for monetary unions in three major trading blocs, NAFTA, MERCOSUR, and ASEAN, as well as the larger group of East Asian countries. There, we will use the analytical framework developed in Chapter 2 to weigh the potential costs and benefits of monetary unions in those regions. We will pay particular attention to the trade patterns of the likely participants, a subject that rarely receives the attention it deserves in cost-benefit assessments, and we will address the potentially difficult problem of designing arrangements to manage a monetary union for countries that have different political systems and have not begun to develop common decision-making processes and bodies comparable to those in Europe.

We will conclude that full-fledged monetary unions are not likely to develop in any of those regions in the foreseeable future. There is insufficient political support in Canada and Mexico for the formation of a North American monetary union that would necessarily be dominated by the United States, and there is even less political cohesion in South America, where there are in addition far larger differences in economic policies, as well as a much lower level of intraregional trade. We would not be surprised, however, if smaller countries in Central and South America opted for *de jure* dollarization, although they may wait until they can assess its further effects on economic performance in El Salvador and Ecuador.

We hold the same view with the regard to East Asia, although it is different in many respects from most other regions. Intraregional trade is large and growing fast. Furthermore, most countries in the region display a strong revealed preference for exchange-rate stability, even those

that are formally committed to flexible exchange rates. Finally, the East Asian countries are already engaged in loose forms of monetary and financial cooperation. They have created a network of bilateral credit arrangements, the so-called Chiang Mai Initiative, that can be activated to ward off currency crises, and they have begun to promote financial integration, including the development of local-currency bond markets, to reduce the region's reliance on foreign-currency borrowing.

The politics of Asia, however, are far different from those of Europe. Although there are numerous intergovernmental bodies, there are no supranational institutions. Even within ASEAN itself, there is a prohibition against intervention in the internal affairs of its member countries. And there are bitter memories of Japanese aggression going back before World War II. China and Japan are not France and Germany, two countries that put their past conflicts behind them when pursuing monetary integration. It is therefore hard to believe that countries that differ so markedly in their economic and political regimes could readily agree to form a full-fledged monetary union, even one that spanned a subset of the East Asian countries.

There is, nevertheless, a great deal of interest in looser forms of monetary integration by the East Asian countries – in arrangements such as those that the EU adopted two decades before the birth of the euro – and we examine the forms that they might take in the final section of Chapter 6. At that point, indeed, we depart from the stance we adopt in most of this book – assessing the likelihood of monetary integration in various parts of the world – to offer a tentative ranking of the various ways in which the East Asian countries could cooperate more closely in monetary matters.

In short, this book does not predict a rapid transformation of the international monetary landscape. That landscape is likely to change slowly, not only for the reasons already mentioned but for others as well. Very large countries such as China, India, and Brazil are unlikely to constrain their monetary autonomy by entering into monetary unions with their smaller neighbors on terms acceptable to those neighbors. Furthermore, countries that have not experienced much *de facto* dollarization are not very likely to opt for *de jure* dollarization. It is still important, however, to ask how the monetary landscape is most likely to change in the near

future, and that is the main subject of our concluding chapter, which examines the implications for the United States.

First and most important, we expect the euro to become more attractive to investors, although we do not expect it to overtake the dollar as the world's leading currency, and a more attractive euro will make it harder for the United States to finance substantial current-account deficits such as those that it has run for the last several years. For the euro to become more attractive, however, economic performance in the euro area will need to improve substantially and the internal arguments over national fiscal policies will need to be resolved. To complicate matters, the Asian countries may opt for exchange-rate arrangements that limit fluctuations in their countries' exchange rates *vis--vis* the dollar and the euro, and that could make it harder for the United States to achieve the large depreciation of the dollar that may be needed to reduce the U.S. current-account deficit. Finally, the Asian countries, as well as other country groups, will continue to challenge the preeminent role of the United States in the International Monetary Fund (IMF) and may indeed challenge the paramount role of the IMF itself by creating regional monetary funds. The Japanese sought to create an Asian Monetary Fund in 1997, soon after the start of the Asian currency crisis, but the United States blocked that initiative. Within the next decade, however, the East Asian countries are apt to try again, this time by transforming the Chiang Mai Initiative into something closely resembling a regional monetary fund, and they may go even further by offering India and other South Asian countries membership in that fund.

Let us then summarize the main finding of our book. Although we expect to see some erosion in the dollar's status and in U.S. economic and financial influence in the multilateral arena during the next several years, we do not foresee a dramatic trend toward regional monetary integration over the next two decades.

2

The Forms, Costs, and Benefits of Currency Consolidation

INTRODUCTION

The two strong forms of monetary integration discussed in the previous chapter, forming a full-fledged monetary union and adopting formally another country's currency, are often described as currency consolidation.[1] That is because they involve a reduction in the number of national currencies. The two arrangements, however, differ in their answers to a fundamental question: Who makes monetary policy? A monetary union assigns that task to a single central bank with shared decision making; *de jure* dollarization assigns it to a foreign central bank – the one that issues the currency replacing the national currency.

Early analytic work on currency consolidation did not even ask this question. It dealt with a rudimentary arrangement, a simple currency union, that bypassed the question completely. We will soon see, however, why we must answer the question when comparing a monetary union and unilateral dollarization.

This chapter, however, has a larger purpose. It surveys the potential benefits and costs of currency consolidation. Does currency consolidation stimulate trade between the two or more countries involved? Does it reduce its members' vulnerability to financial crises? Does it raise or reduce the economic costs of adjusting to various shocks, including both domestic and external shocks?

[1] See, e.g., Rogoff (2001).

These are important questions. They can help us assess the strength of the case for EMU, discussed in the next chapter, as well as the actual economic performance of its member countries. They also can help us to decide whether other groups of countries should form monetary unions, and whether certain countries should perhaps opt instead for unilateral dollarization.

We begin, however, by looking back at the early work on the economics of a simple currency union, because it raised a basic issue that must be addressed before we can examine the potential benefits and costs of currency consolidation.

THE ANALYTICS OF A SIMPLE CURRENCY UNION

Suppose that two countries decide to form a simple currency union – an arrangement in which they fix the exchange rate between their countries' currencies without altering the responsibilities or powers of their countries' central banks. When can we say that those countries comprise an *optimum currency area*, in that the constraints imposed by a fixed exchange rate are not injurious to their economies? This question was posed by Robert Mundell more than four decades ago,[2] in a paper that helped earn him the Nobel Prize in Economics, and his answer was used three decades later when economists sought to weigh the benefits and costs of EMU.

Mundell considered two countries, East and West, each with its own central bank, that form a simple currency union by fixing the exchange rate between their currencies rather than changing it from time to time or leaving it to market forces. He also assumed that both countries begin at full employment, that their bilateral trade is balanced, and that there are no capital movements between them.[3] He then introduced a permanent disturbance, a switch in demand between Eastern and Western goods, which we will discuss shortly.

[2] See Mundell (1961).

[3] Writing four decades ago, Mundell was chiefly concerned with stabilizing output and employment. Today, central banks are largely concerned with price stability and, to a lesser degree, overall financial stability. They still monitor output and employment, however, as the size of the "output gap" (the difference between actual and potential output) affects the inflation rate.