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Introduction

During the post–World War II period, the number of independent countries more than doubled, to nearly two hundred today. Until recently, most countries had their own currencies. Hence, the expansion of the number of countries led to a proliferation of the number of currencies. More recently, however, the identification of currencies with countries has weakened, and the discussion has shifted toward one of desirable forms and sizes of currency unions.

The growing policy significance of currency unions motivated us to organize a conference at the Hoover Institution in May 2000. We brought together about two dozen economists who were experts on international monetary topics. The idea was to consider basic conceptual issues about currency unions and other monetary regimes, including flexible and fixed exchange rates. We sought also to assess the available empirical evidence on the performance of these alternative monetary systems. Finally, we hoped to reach some policy conclusions, notably on the desirability of currency unions for countries in various circumstances.

The conference included eight academic papers, many of which will likely appear in a special issue of Harvard University's *Quarterly Journal of Economics*. The present volume includes nontechnical summaries of these papers, along with the text of a dinner address that was presented at the conference by Stan Fischer, the first deputy managing director of the International Monetary Fund.

Individual currencies are sometimes valued out of national pride, although one would have expected these feelings to be more intense for language than for money. Yet many countries willingly use the language of another country, typically the one of a former colonial ruler. Given this acceptance of transplanted language, it is surprising how often people reject currency unions—which sometimes involve the use of another country's currency—simply on the grounds that important countries are supposed to have their own money.

From an economic standpoint, the strongest argument for individual money is that it allows a country to pursue its own monetary policy. In theory, if the country operates with a flexible exchange rate, the monetary authority can design a policy that responds optimally to its own economic disturbances. Typically, the desired policy will look *countercyclical*, that is, expansionary during recessions and contractionary in booms. In contrast, under a fixed exchange rate, monetary policy has to be subordinated to the maintenance of the exchange rate. Fixed exchange rate regimes include a peg to another currency—which may or may not be permanent—as well as the more serious commitment represented by a currency board or dollarization (by which we mean one country's use of another country's money).

Luis Céspedes, Roberto Chang, and Andrés Velasco make the traditional case for flexible exchange rates and countercyclical monetary policy in a modern theoretical framework that includes a detailed analysis of a country's financial structure. They argue that an independent monetary policy and a flexible exchange rate can be useful even for developing countries that have substantial foreign currency debt. Maurice Obstfeld and Kenneth Rogoff also look at the workings of monetary policy under flexible exchange rates. They argue that this type of policy can work out well even if central banks determine their actions independently, rather than coordinating with the banks of other countries.

However, as Guillermo Calvo and Carmen Reinhart argue in their paper, many central banks in supposedly flexible exchange rate systems have been unable in practice to carry out policies that look desirable, much less optimal. Empirically, the typical monetary authority has a “fear of floating” and, therefore, does not allow the exchange rate to move in a way that would permit a countercyclical monetary policy.

Two other papers in this volume reach somewhat different conclusions. Christian Broda argues empirically that countries that operate under flexible exchange rates have performed better than fixed rate countries in their responses to terms-of-trade shocks. Presumably, the better performance results from the extra freedom for monetary policy in the floating rate systems. Eduardo Borensztein and Jeromin Zettelmeyer carried out case studies for several countries and found that all monetary authorities are, to some extent, dependent on the interest rate policy set by the U.S. Federal Reserve. However, this dependence is much less for flexible rate countries than for those that commit to a fixed exchange rate by operating a currency board.

In our paper for this volume, we extend Robert Mundell’s classic and Nobel Prize–winning analysis of optimum currency areas to bring together the various elements that determine the optimal sizes of currency unions. We allow for a possible benefit from independent monetary policy, but we also argue that dollarization conveys a valuable commitment to price stability (assuming that the anchor currency, which could be the U.S. dollar or the euro, is properly managed). Under dollarization, sound monetary and exchange rate policies no longer depend on the intelligence and discipline of domestic policymakers. Their monetary policy becomes essentially the one followed by the anchor country (which could be the United States), and the exchange rate is fixed forever.

Our analysis also incorporates the benefits of a common currency in stimulating international commerce in goods and services and in financial transactions. The expansion of world trade—or globalization—has made it increasingly inconvenient for each country to use its own money. This factor and two others seem to explain why the world has been moving away from the doctrine of one country, one currency and toward multicountry currency unions. The first additional factor is the already noted dramatic increase in the number of independent countries. For the many small, independent countries that have been created since the end of World War II, the costs in terms of forgone trade of maintaining one's own currency are particularly high. The second additional consideration is that the benefit that economists and central bankers attribute to independent monetary policy has diminished as we all have learned to value price stability over active macroeconomic stabilization. In the 1960s and 1970s, there was much greater confidence that monetary expansion and inflation—either in general or in the form of countercyclical policy—would convey benefits in terms of higher economic growth and lower unemployment. Now there is widespread belief that monetary authorities should concentrate on providing a stable nominal framework and otherwise staying out of the way.

Roughly sixty small countries or territories have for some time been members of currency unions or have used a large country's money. Examples are the fifteen-member CFA franc zone in Africa, the seven-member Eastern Caribbean Currency Area, the use of the U.S. dollar by Panama and several smaller countries, the use of the Belgian franc by Luxembourg and the Swiss franc by Liechtenstein, and the use of the Israeli shekel in the West Bank and Gaza.

Andrew Rose has been studying the economic performance of these existing currency unions, and the present volume summarizes his joint papers presented at the conference—one with Charles Engel and another with Jeffrey Frankel. One major finding is that a currency union dramatically expands the volume of international trade among the members, by something like a factor of three. Moreover, heightened international trade contributes to higher long-run economic growth. Members of currency unions seem also to maintain more correlated movements of prices and outputs. However, there was not much evidence that the currency union countries carried out superior macroeconomic policies, except for the avoidance of extreme inflation.

The Rose program of empirical research on existing currency unions has sometimes been criticized for focusing on small and therefore nonrepresentative economies. Of course, this focus is dictated by the available data—in the future, when currency unions will likely be more plentiful among larger countries, the data will be much better. However, even at present, one can regard the existing unions as providing interesting experiments about the effects of alternative monetary systems. Consider, as a contrast, the plight of researchers on school choice, who eagerly examine the data for a few thousand students who are the subject of short-lived experimental programs. In the case of the small currency union economies, we are effectively receiving experimental data for hundreds of thousands of people who have submitted themselves to an economic experiment about the role of the monetary system.

The notion that currency unions will be more prevalent among large countries in the future is supported by the recently formed union of the twelve European countries that use the euro. Several other countries may sign on later—although Denmark said no, and the debate in the United Kingdom is intense. Dollarization has been contemplated by several countries in Latin America, including Argentina, Peru, and much of Central America. Argentina went part of the way toward dollarization through its adoption of a currency board linked to the U.S. dollar in 1991. Currency boards that lock local currencies to the dollar or the euro also exist in Hong Kong, Estonia, Bulgaria, and Lithuania. In November 2000, El Salvador announced its determination fully to dollarize, and, as a positive sign of the times, this decision received immediate support from the U.S. Treasury and the International Monetary Fund.

From a scientific standpoint, an exciting development is the dollarization in Ecuador. The history of this decision and an analysis of its likely consequences are provided in Stan Fischer's paper from the conference. Ecuador had experienced severe economic and political problems for some time, but the situation appeared to brighten in 1998 with the election as president of Jamil Mahuad, who had been a successful reformer as mayor of Quito. However, he was unable to gather the political support needed to solve problems of the public finances, subsidies on consumer goods, foreign debt, and the banking sector. When bank runs occurred in March 1999, he responded by freezing deposits. This action was extremely controversial and resulted in an arrest warrant after Mahuad was forced to move to the United States.

Mahuad proposed dollarization in Ecuador in early January 2000 not as part of a coherent economic plan but because he became desperate to do something dramatic when his approval rating fell below 10 percent. Although the proposal led to a rise in his popularity rating, it was not enough to save Mahuad's presidency, and he was soon ousted in a bloodless coup. However, his vice president and successor, Gustavo Noboa, recognized the potential effectiveness and popularity of dollarization and, therefore, moved aggressively to make the U.S. dollar the currency of Ecuador. The transition was nearly complete by September 2000. No doubt, the process of obtaining the U.S. dollars needed to replace the Ecuadorian sucres was aided by the high price of oil, Ecuador's main export.

There is an ongoing debate over whether major monetary reforms, such as dollarization, can be successful without preconditions, especially sound fiscal and banking practices. Ecuador is, therefore, interesting because none of these preconditions existed. In fact, these deficiencies were part of the crisis atmosphere, and the crisis generated the political consensus to do something drastic, namely, dollarization. In other words, the lack of supposed preconditions explains why dollarization occurred in Ecuador. (In contrast, El Salvador is in much better shape in overall economic policy, and the recently announced dollarization had been contemplated for many years.) The crucial question for Ecuador is whether, once in place, dollarization will help to cure other problems, such as fiscal imbalances and banking inadequacies, so that the missing preconditions become fulfilled postconditions.

One temporary problem in Ecuador—caused by the sharpness of the currency devaluation in 1999—is that inflation for 2000 was very high. This behavior reflects a onetime adjustment toward "purchasing power parity." That is, the dollar prices of goods and services in Ecuador became very low in 1999 because the currency devaluation was proportionately much greater than the rise in the domestic (sucre) price level. With the dollarization in place, Ecuador's inflation should recede.

Aside from the temporary inflation, dollarization seems to be serving in Ecuador as a foundation for the resolution of other economic problems. Progress has been made with international debtors, and some domestic reforms have been accomplished. Of course, it is too early to tell whether this grand experiment by a small, poor country will prove to be successful. One thing for sure is that we will learn not only from Ecuador but also from the move toward currency unions throughout the world.