Exchange Rate Regimes in the Modern Era

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1 Exchange Rate Regimes in the Modern Era

The dollar's exchange rate against the euro is surely the world's single most important price, with potentially much bigger economic consequences than the price of oil and computer chips, for example.

—"The not so mighty dollar," *The Economist*, December 4, 2003

The dollar–euro exchange rate, perhaps "the world's single most important price," is determined by market forces, and changes day to day, and even minute to minute. In contrast, each of the countries of the European Union that uses the euro as its national currency experiences no exchange rate changes with the other members of the eurozone because they share a common currency. Why is it that the United States allows its currency to float, while Germany, France, and the other members of the eurozone have abandoned their national currencies and, effectively, have set a fixed exchange rate across Europe? Similarly, why does the government of China fix the value of its yuan to the US dollar, while the world foreign exchange market determines the daily value of the Brazilian real? The overarching policy of the government toward the exchange rate—to allow it to float or instead to fix or peg its value to another currency—is called the exchange rate regime. What are the economic and political implications of these different exchange rate regimes for these nations?

Questions of this type are quite important today, in this modern era of exchange rate regimes. The modern era includes a wide variety of exchange rate regime experiences across countries. Furthermore, during the modern era, many countries have switched from one type of exchange rate regime to another and often have flipped back and forth another time or two.

The widespread ability of governments to choose an exchange rate regime distinguishes the modern era from earlier periods.[1] Before 1973

the choice of whether or not to manage the value of a currency was often bound up with the wider choice of participation in the international monetary and trading system. During the classical gold standard period (1880–1914) it was generally the case that access to the world capital market demanded pegging the value of a country's currency to gold, since this peg served as a country's "Good Housekeeping Seal of Approval."[2] There was also a view that participation in the gold standard benefited countries by promoting their trade with other countries that pegged their currency to gold. Some countries only slowly adopted a gold peg and a handful of countries changed their regime, but by and large, countries participating in the world financial and trade system moved toward a gold peg.[3] Decades later, during the Bretton Woods era (1945–1973), the adoption of a fixed exchange rate to the US dollar was one facet of participation in the international monetary system, with other facets including membership in the Bretton Woods institutions—the International Monetary Fund and the International Bank for Reconstruction and Development (the World Bank)—and in the General Agreement on Trade and Tariffs (the GATT). In both of these eras, pegged exchange rates were pervasive across countries and durable among the countries that pegged.

The modern era has lasted longer than both the Bretton Woods and the classic gold standard periods. It differs from these two earlier periods in important ways. Most notably, the modern era is distinguished by its wide variety of exchange rate experiences for industrial, middle income, emerging market, and developing countries.[4] This period has seen everything from the abandonment of a national currency (e.g., Ecuador's use of the US dollar, and the creation of the euro), experience with a currency board (e.g., Hong Kong, Lithuania, and Argentina), fixed exchange rates (e.g., Saudi Arabia, Mexico, and South Korea), exchange rate bands (the European Monetary System which lasted from 1979 to 1999), heavily managed floating exchange rates (Norway), occasional efforts to stem the appreciation (1985) or slide (1995) of the US dollar, and the benign neglect of a floating exchange rate (United States, 1979–1985).

The exchange rate regime experiences of the modern era provide researchers with a colorful palette, one with enough hues to make it possible to address interesting and important questions about the nature and consequences of exchange rate regime choice. In this book we will both characterize the choice of exchange rate regimes in the modern era and present empirical research that demonstrates the effects of

this choice on macroeconomic outcomes and international trade. We address some of the long-standing central issues in international finance, including the pattern of exchange rate regime behavior, the interaction between the exchange rate regime and monetary policies (which is known as the policy trilemma), the influence of exchange rate regimes on the volume and pattern of international trade, and the links between exchange rate regimes and general macroeconomic outcomes such as GDP growth and inflation.

One source of inquiry into the implications of exchange rate regime choice was prompted by the fact that exchange rate volatility at the beginning of the modern era was higher than what economists had generally expected. There had not been much actual experience with floating exchange rates among major industrial countries during the Bretton Woods era, save for the Canadian dollar's float in the 1950s. Floating currencies in the modern era are not simply episodes where countries are unable to peg but generally represent a deliberate choice to float. At the start of the modern era, the prevailing theory had suggested that floating exchange rates might not be especially volatile. The monetary approach to exchange rate suggested that the volatility of the bilateral exchange rate linking two currencies would match the volatility of the difference of the two countries' respective money supplies and outputs.[5] Milton Friedman (1953) had already argued forcefully that speculators would stabilize exchange rates. As it turned out, however, exchange rates were much more volatile than fundamentals at a short horizon, and, even at longer horizons, exchange rates of industrial countries seemed to persistently deviate from fundamental values. Partly for these reasons the exchange rate overshooting model of Dornbusch (1976), which showed how exchange rate volatility results from slowly adjusting goods' prices, captured the attention of the economics profession and became the most cited paper in international economics.[6] Analyses of the implications of the choice of a flexible exchange rate regime in the modern era that are presented in this book will reflect the volatility of floating exchange rates.

Experiences with fixed exchange rates during the modern era also led to new analyses. Countries peg to different base currencies for varying periods of time. Many of their key economic partners may not peg, may peg to a different base, or may break the peg at different intervals. The motivations to peg (controlling inflation, stimulating trade, avoiding volatility) have varied as have the reasons for leaving pegs. Overall, however, there have been a large number of spectacular

collapses of exchange rate regimes.[7] Some, such as the devaluations of the Italian lira and the British pound during the 1992 European Monetary System crisis, had relatively benign effects. Others, including the 1997 Asian crisis and the collapse of the Argentine convertibility plan in 2001, were accompanied by deep economic hardship. These varied experiences—both within and across pegged and floating regimes—provide an opportunity to explore many important topics.

In this book we focus on these questions of the overarching policy to peg or float and the impact on the economy, as opposed to the determination of the exchange rate or the general effect of the exchange rate itself on the economy. The range of topics we cover can be illustrated by a consideration of the epigraph to this chapter. One reason for the importance of the dollar–euro exchange rate is the large volume of trade between Europe and the United States. There is concern that exchange rate fluctuations, due to a floating exchange rate regime, dampen the volume of international trade (chapter 9). This has implications for exporters, import-competing firms, service providers and the producers of nontraded goods. Differential effects across groups give rise to political pressures surrounding the choice of the exchange rate regime (chapter 5). These pressures also reflect the macroeconomic implications of the exchange rate regime. A fixed exchange rate limits monetary policy independence (chapters 2 and 8). Therefore, because its currency is pegged to the dollar, the Hong Kong Monetary Authority must follow policies of the United States while the United States Federal Reserve has a free hand in determining its monetary policy. This has potential implications for inflation and economic growth in these countries. More generally, the macroeconomic implications of the exchange rate regime figure into the decisions by governments in all countries (chapters 10 and 11). This is true even though many countries have flipped back and forth from one exchange rate regime to another (chapter 4). Despite the prevalence of flipping, however, there are important differences in exchange rate behavior between fixed and flexible exchange rate regimes (chapters 6 and 7).

The results presented in this book, which draw on streams of recent research and also include original results, challenge some of the “stylized facts” that inform economists’ views on the choice and consequences of exchange rate regimes. We will discuss the theory of how the exchange rate regime is determined. We also discuss the consequences of the exchange rate regime for the broader economy. Some previous research has suggested that exchange rate regimes have a

limited impact on general economic outcomes. We will provide empirical results, however, showing the exchange rate regime often plays an important role in the economy.

In part II we discuss the nature of exchange rate regimes themselves. Chapter 2 reviews overarching frameworks on both the choice and effects of exchange rate regimes. The next chapter of that section focuses on what we mean by the term "exchange rate regime." The discussion in chapter 3 raises issues that arise when considering the classification of exchange rate regimes, and presents four different classification schemes that have been used by researchers. In chapter 4 we present characteristics of exchange rate regimes in the modern era that challenge some of the standard views presented in chapter 2 by showing that the pattern of exchange rate regimes during the past four decades is marked by pervasive "flipping," that is, going off a peg for a short period of time and then reestablishing a new peg. Of course, this means that the short duration of pegged exchange rates is matched by a short duration of periods during which a country has a floating exchange rate. This is an important result because it calls into question any study that dichotomizes the world into a set of countries that have durable pegs and a set of countries that consistently have market-determined flexible exchange rates. We also show, however, that there are important examples of long-lived fixed exchange rate regimes in the modern era, contrary to the impression one would draw from some influential research published in the 1990s that calls fixed exchange rates a "mirage."[8] Part II concludes with a chapter that analyzes the manner in which countries choose an exchange rate regime. There are both political and economic theories on this topic. Empirical results presented in chapter 5 offer support for both sets of theories in explaining countries tendencies toward one type of exchange rate regime or another.

The dichotomy between fixed and floating exchange rates is meaningful only if there is evidence that behavior under these two exchange rate regimes differs significantly. Part III of this book shows that the behavior of nominal and real exchange rates in fact depends on the exchange rate regime in place. At one level, this would seem to be a tautological point; if we define a fixed exchange rate as one that does not change by a certain amount over a specified period, then it must differ from a flexible exchange rate. There are two reasons to examine this issue more closely, however. The first is that the recent "fear of floating" result claims little actual difference in nominal bilateral

floating exchange rates from nominal bilateral fixed rates.[9] We examine this claim in chapter 6, and show that there is a significant and economically meaningful difference between fixed and floating exchange rates. Second, an exchange rate is only pegged against one other currency. A peg against a base currency does not ensure stability against other currencies, some of which may be especially important for multilateral trade or investment. We study the multilateral consequences of bilateral pegging in chapter 7.

In part IV we turn from characterizing exchange rate regimes to considering their consequences. One of the central theoretical results in international finance is the policy trilemma, whereby the government of a country can choose a pair from the triplet of exchange rate management, monetary policy autonomy, and international capital mobility. While this is a well-established theoretical result, its empirical validity has recently been called into question. We examine this central debate in empirical international finance in chapter 8, and conclude that the policy trilemma is alive and well.

Another important economic impact of exchange rate regimes is the effect on international trade. Studies dating from the 1970s based on the estimation of import and export equations have failed to find much evidence that a fixed exchange rate regime promotes bilateral trade. More recently, however, an alternative methodology using estimates of gravity equations for trade has presented compelling evidence for the statistically significant and economically meaningful effects of fixed exchange rates on trade. We discuss the evolution of this literature, and present results showing the effect of the exchange rate regime on trade in chapter 9.

Fixing the exchange rate may provide a nominal anchor for the economy by fixing the price of one particular asset to help discipline the central bank from printing too much money. This should reduce inflation. In addition a persistently pegged exchange rate should temper the expectation of inflation, which itself dampens inflation. There is a long-standing literature suggesting that this could work in theory. We review this theory in chapter 10, and also offer new evidence that shows a role for the exchange rate regime in the determination of inflation.

Ultimately, the central concern in economics is living standards. Thus we conclude in part IV with an examination of whether exchange rate regimes affect growth of real GDP. A number of studies lately (Levy-Yeyati and Sturzenegger 2003; Rogoff et al. 2006; etc.) have con-

sidered the question but with different classifications, different samples, and different econometric techniques, and consequently, different results. We use common data and techniques to compare results across classifications. We find that the impact of the exchange rate regime on long run GDP growth, controlling for other factors, is relatively weak. This stands in contrast to some influential results in the literature.

In the 2000s answers to questions about the effects of exchange rate regimes on economic performance, and the very nature of exchange rate regimes, have changed with new empirical analyses. Previous skepticism regarding the importance of the exchange rate regime for economic outcomes has been challenged. It is the nature of research that the answers to questions change, even questions that are at the core of a subject. The topics discussed in this book represent classic questions in international finance. Views on these topics have changed as the modern era has progressed, and as new experiences are incorporated into studies. We show in this book that the exchange rate regime can have significant impacts on a variety of aspects of the economy. Our goal is to contribute to our understanding of the modern era and, in so doing, to deepen our knowledge of some of the central empirical issues in international finance.