Review of *Exchange Rate Regimes in the Modern Era*

by Klein and Shambaugh

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March 29, 2010

What's International about International Finance?

The exchange rate is an important asset price, perhaps the most important asset price. It's also a distinctive asset price. The price of Exxon stock or the 10-year Treasury bond rate fluctuates over time in a reasonably consistent manner. By way of contrast, the exchange rate has distinct, well-defined regimes maintained by policy authorities. No entity essentially ever attempts to peg the price of a stock or bond around a central parity with narrow fluctuation bands. However, some economies do fix their exchange rates (e.g., Denmark, and Hong Kong), while others do not (e.g., Canada and New Zealand). A number of countries have changed their minds on the topic (e.g., the UK in September 1992 or Mexico in December 1994). One would then like to understand both the causes and the consequences of these decisions. Such is the compelling motivation for *Exchange Rate Regimes in the Modern Era*, a book which summarizes work in the field. The focus is on the "modern era" since the Bretton Woods system collapsed in 1973. The authors provide a simple theoretical framework for their analysis by way of an informal introduction to two of Mundell's greatest hits; his trilemma (which states that open capital markets, fixed exchange rates and monetary sovereignty are mutually incompatible), and his theory of optimum currency areas. But they really seek to summarize and extend the empirical work in the area of exchange rate regimes, much of which is their own.

The book is limited, but the book is good. It is pitched at a moderate technical level, easily accessible to masters' students, advanced undergraduates, and many policy-makers. The prose is clear and accessible. Most of the chapters are self-contained pieces focusing on a well-defined topic, each with elementary theory, a literature review, and new empirics. The coverage is both comprehensive and balanced. All this is very much to the good. This slim volume is a valuable contribution to the literature.

The book is good, but the book is limited. It does not present a new theory, data set, or methodology. Much of it is based on Mundell's celebrated 1968 textbook, and uses conventional reduced-form regressions on easily accessible data sets. This is by design and enhances the accessibility of the book, while also limiting its research potential upside.

White Bread

[1] I thank Michael Klein and Jay Shambaugh for comments.

One comes to a book with certain preconceptions, and it's comforting (if not invigorating) to find out that many of these are confirmed. Indeed, much of the book essentially confirms (carefully, with all appropriate caveats and cautions) conventional wisdom. The authors begin their study by reviewing the different classifications of exchange rate regimes that have appeared recently in the literature. During the last decade, three of these have been developed, each of which relies on *de facto* behavior. This is by way of contrast with the *de jure* official statements concerning the exchange rate regime which were collected by the IMF and used widely in the late twentieth century (until we learned better). Indeed the authors seem almost obsessed with undermining the "Fear of Floating" critique which states that *de jure* floaters often heavily manage their exchange rates in practice. After describing the alternative *de facto* systems, the authors slip into a warm bath in exploring the reasons that these alternative classifications do not overlap well. As is common in economics, the authors conclude that the different measures of *de facto* exchange rate regimes are simply measuring different things, and are thus useful in different contexts. Reassuringly, all the classifications work at least tolerably in the sense that countries that are classified as having fixed exchange rates do in fact have lower exchange rate volatility than countries that float.

However, when you move much beyond the simple linkage between exchange rate regimes and exchange rate behavior, you enter unknown (often enemy) territory. Perhaps the greatest disappointment is in the causes of exchange rate regimes; theories of the determination of exchange rate regime simply work terribly in practice. Former colonies tend to stay fixed to their colonizers and … it's impossible to say much more with confidence. This is especially true of the time-series dimension; while often countries switch their exchange rate regimes, the profession has made little progress in understanding why e.g., Thailand floated the baht in July 1997 instead of January 1997 or, for that matter, July 1999. The authors find some positive duration dependence in exchange rate pegs; those that have survived a few years are likely to continue on. But a strong linkage between the collapse of fixes and interesting economic fundamentals – if it exists – has eluded the profession over the last twenty years despite its best efforts. This state of affairs is not the fault of the authors, but it is still depressing.

When it comes to the consequences of exchange rate regimes instead of their causes, the authors have somewhat more success. Mundell's trilemma works, but not as tightly in practice as it does in theory; a non-trivial amount of monetary autonomy seems to remain even for fixers with open capital markets. For instance, the authors estimate that when an anchor country raises interest rates, peggers take almost eight months to adjust their own interest rates even half-way. This seems like more monetary sovereignty than most fixers experience in practice.[2] More intuitively, countries that tightly link their currencies experience substantially more trade as a result; what reasonable person could dispute that?[3] Peggers also have somewhat less inflation than non-peggers, though the effect is small and uncertain. And the authors find no compelling linkage between the exchange rate regime and

[2] When Wim Duisenberg was the governor of the Dutch central bank he earned the nickname "Mr. Fifteen Minutes" because he quickly followed any interest rate changes made by the Germans.
[3] Gotcha!

economic growth, consistent with monetary neutrality. All eminently reasonable and defensible positions (indeed, infuriatingly so for a reviewer); Klein and Shambaugh are to be commended.

Several of the strengths of the book are worth highlighting. As already mentioned, lots of the problems examined in this area have proven too thorny for economists; the area is filled with negative results. This tends to deter publication, and could have resulted in considerable "publication bias" (since journals tend to be uninterested in negative results). The authors are to be commended for avoiding this selection problem in their literature reviews; one notices an admirably large number of unpublished working papers in the references. Also, the authors do extensive sensitivity analysis to ensure that their results are robust with respect to (for instance) using different classifications of exchange rate regimes, handling simultaneity, cutting the sample by stage of development, and so forth.

That said, the choice to use Shambaugh's exchange rate regime classification scheme as the default is natural for the authors, but still seems questionable to this reviewer. This scheme classifies a country as pegged if the official exchange rate has varied by less than +-2% over the last two years; otherwise it is non-pegged. It seems odd to distrust a country's *de jure* exchange rate regime data, but simultaneously trust its *de jure* exchange rate data. Consider the case of Bolivia. From October 1972 through November 1979, the official exchange rate was fixed at 20.0 Bolivianos per dollar; this then rose to 24.5 through February 1982. During the same period of time though there were multiple exchange rates, a fact that seems unsurprising since cumulative inflation during that period of time was approximately 600%. It was just such reasons that lead Reinhart and Rogoff to use black market exchange rates in their "natural" exchange rate regime classification; they classify Bolivia as "freely falling" for much of the same period. But Shambaugh's classification has it as fixed (aside from the 1979 devaluation). I'd also prefer a measure of exchange rate regimes to control explicitly for the shocks that hit the economy during the time (as do e.g., Levy-Yeyati and Sturzenegger). I dropped a draft of this review on the ground outside today and it didn't move. Shambaugh would classify it as pegged; I'd say that there was no wind to move it. This isn't to say that Shambaugh's classification isn't the best one available, and best is what counts in economics. But best may not be very good.

Three Beefs

A fixed exchange rate policy is well-understood by bankers, practitioners, and academics around the world; one knows what the central bank does. But what's the alternative? Floating is not a well-defined monetary policy. If the central bank doesn't fix the exchange rate, it has to do something else … but what? I feel that the profession should move away from considering "Exchange Rate Regimes" and instead classify countries by "Monetary Policy Regimes". Some of the countries that float stick to a clear policy of having an independent central bank target inflation (New Zealand, Poland, Chile …). But not all; some countries target money growth (e.g., Nigeria), and others have what can be charitably referred to as opaque monetary policy (what objective function is the Bank of Japan maximizing?). Is it reasonable to lump all non-fixers together? Perhaps one reason that the authors find only weak results when comparing peggers with floaters is that the latter group is a heterogeneous mess. Even if not, the profession might advance if fixed exchange rate regimes were compared with clearly defined alternatives monetary strategies.

A second gripe is that transitions between exchange rate regimes are essentially ignored by the authors. The one thing we know with confidence is that most fixed exchange rate regimes do not remain so forever. When a fixer switches to a float, it typically does so during a dramatic currency crisis. Indeed, it is fair to describe the profession as being obsessed by such events, which have been much studied over the last few decades (starting with the seminal work of Salant, Henderson, Krugman, Flood, and Garber). The book does cover some of this ground by using statistical hazard models to estimate probabilities that fixers will float and vice versa, but the analysis is mechanical and almost devoid of economics. Can one really compare the characteristics of exchange rate regimes while avoiding this issue?

An empirically-oriented book on exchange rate regimes aimed at this audience should really provide more institutional detail, so that the reader can learn (at least superficially) how fixed exchange rate regimes work. More importantly, there should be more examples of the evolving international monetary system. The "modern era" of exchange rate regimes includes a large number of striking exchange rate regimes which go unmentioned by the authors:

1. The Latin pegs that were a key part of disinflation programs of Argentina, Brazil, Chile, and others.
2. The implicit Asian pegs of the 1990s that existed during the run-up to the crisis of 1997-98, especially those of Thailand, Korea, Indonesia, and Russia.
3. The enduring pegs which continue to define the exchange rate regimes of central-, Western- and Southern-Africa and the Mid-East.
4. The fixes in Europe during the run-up to EMU. Even now, one can compare similar small open economies that are part of the EU but have strikingly different exchange rate regimes. Sweden floats against the euro where Denmark is fixed; Bulgaria and the Baltics have rigid fixes, where Romania, Czech Republic, Poland, and Hungary float.
5. Finally, many of the current floats are stunningly "clean" with a large number of countries targeting inflation and abstaining from foreign exchange intervention almost obsessively (e.g., New Zealand, Canada, and the UK). Further, these are highly persistent regimes; no country has ever burst out of an Inflation Targeting regime in crisis (though Finland and Spain left IT voluntarily to join EMU). Why don't the authors compare inflation targeters to comparable fixers?

With such interesting material at hand, the authors really should have provided a way for the typical reader to link an abstract observation entering a table of regression results to a tangible feature of a relevant country.

The Author's Trilemma

Any book that seeks to conduct a scholarly review and extension of a broad topic, as this one does, faces a trilemma: it can be comprehensive, balanced, or interesting, but not all three. If it is balanced and compelling, providing a single coherent and interesting viewpoint in a fair-minded way, then it simply cannot be a comprehensive review of all the relevant territory (since discordant notes will

have been omitted). If it is comprehensive and interesting, it cannot be impartial; evidence must be unfairly discounted to ensure that everything fits into a single mindset. This book instead chooses the first two desirable characteristics, and is both impartial and complete. Sadly, this comes at the cost of excitement and clarity; the weak results and caveats tend to leave the reader with mush. To me, most seriously fixed exchange rates (such as those of Denmark, Hong Kong, or Latvia) seem too constraining to be worthwhile; why not go all the way to currency union? On the other hand, floating exchange rates seem far more volatile than any reasonable model would indicate. How should one choose between them? Such questions are not clearly answered in this book.

Exchange Rate Regimes in the Modern Era is a wide-ranging and fair-minded but bland book. Did the authors make the right choice in the trilemma? I think that the answer is probably yes; the book fits a clear gap in the literature. So I think the authors have done a service to the profession by providing us with this book. Still, the balance and scope of the endeavor comes at the cost of presenting a single gripping viewpoint; the authors tend to eschew black and white when grey will suffice. Two Cheers!