A comparison of exchange rate regime choice in emerging markets with advanced and low income nations for 1999–2011

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A B S T R A C T

The recent global financial crisis has sparked a renewal of debate on the choice of exchange rate regimes. Creating a tripartite regime classification, the present study examines their determinants for 137 nations spanning the period 1999–2011. I find that trade openness, economic development, foreign-currency liabilities, and foreign exchange reserve holdings increase the likelihood of choosing a fixed-type regime in emerging markets while economic size, export concentration ratios and financial development lower such a chance. Capital controls, inflation differential with an anchor nation and land size significantly influence regime-choice in advanced and low income countries, but are largely insignificant in emerging markets.

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1. Introduction

One of the most debated and controversial topics in international finance is the choice of exchange rate regimes. The issue has been a core component of the discipline for as long as the subject exists. Regime choice has a profound influence on the efficacy of key economic policy objectives like financial stability, economic growth, low inflation, sustainable trade balance and international capital flows (see Chen, Kim, & Thompson, 2013; Giannellis & Koukouritakis, 2013; Kim & Hammoudeh, 2013; Kodongo & Ojah, 2012; Verheyen, 2012).

The recent global financial crisis (henceforth GFC) has sparked a renewal of debate on the choice exchange rate regimes (Aizenman & Hutchison, 2011). The debt crisis in Europe has shown the constraints of policymaking in common currency areas while the financial meltdown in the US has exposed the fragility of the greenbacks as the world’s leading anchor currency. As the process of restructuring the international financial architecture gains momentum, nations need to reconsider key policy issues like the extent of financial account liberalization, banking sector regulations, and for some, choice of regimes itself. The latter requires an understanding of its underlying economic determinants. The present study provides this.

The analysis contributes to the literature in several aspects. I first provide a tripartite regime classification for 137 nations spanning the period 1999–2011. This time period coincides with the introduction of the euro while several other nations changed their exchange rate regimes in the aftermath of the currency crises of the 1990s. Secondly, regimes are identified according to economic development as the influence of the underlying macroeconomic factors on regime-choice could differ across income
groups. No attempt has been made in earlier literature to examine the choice of exchange rate regimes within a framework disaggregated to the level of income of countries. For instance, advanced economies (AEs) are more prone to flexible regime while low income countries (LICs) tend to use more fixed regimes. Emerging market economies (EMs) on the other are characterized by using more varied regimes. To the best of my knowledge, this study is the first to take this comparative approach. The topic is particularly important for EMs as they were characterized by episodes of economic crises over the last two decades (Patnaik, Shah, Sethy, & Balasubramaniam, 2011). Thirdly, drawing on an estimation equation that encompasses several complementary theories on regime choice and employing different econometric models, I examine its underlying determinants for these three groups of nations.

The issue bears even more relevance as the existing literature is marked by a disconnection between the theoretical determinants of regime-choice and the corresponding empirical evidence. A survey of recent studies reveal that no result appears to be reasonably robust to changes in country coverage, sample period, estimation method, and regime classification (e.g., see Bleaney & Francisco, 2008; Daly, 2011; Juhn & Mauro, 2002; Kato & Uctum, 2008; Markiewicz, 2006; Papaioannou, 2003; Poirson, 2001). A conspicuous absence is the lack of studies for the new millennium, which provides an added incentive to revisit this issue.

Previewing the results, I find that trade openness, economic development, foreign-currency liabilities, and foreign exchange reserve holdings increase the likelihood of choosing a fixed-type regime in EMs while economic size, export concentration ratios and financial development lower such a chance. Capital controls, inflation differential with an anchor nation and land size significantly influence regime-choice in AEs and LICs, but are largely insignificant in EMs.

The remainder of the paper proceeds as follows. Section 2 succinctly synthesizes the different theories on regime choice that provide a guiding framework for the ensuing empirical analysis. Section 3 describes the data and estimation model. Section 4 discusses the results. Section 5 provides several robustness checks. Finally, Section 6 concludes.

2. Synthesis of theories on exchange rate regime choice

The theories on the determinants of regime choice are both vast and controversial. These competing theories can be broadly grouped under six categories — optimum currency area criteria, policy trilemma, crisis models, balance sheet effects, Mundell–Fleming–Dornbusch (henceforth MFD) model and geo-political features. The initial determinants of regime choice have been carefully culled in the seminal works of Kenen (1969), McKinnon (1963) and Mundell (1961) that point nations with more trade openness and greater export concentration are more likely to choose a fixed regime. On the other hand, greater economic size and economic development support choosing a flexible regime. Moreover, higher is the inflation differential of a nation with its potential anchor greater the likelihood of choosing a flexible regime.

The OCA theory was born in an era when international capital movements were relatively limited. International capital flows have been a key feature of most nations, especially in EMs over the last two decades. The policy trilemma paradigm suggests that nations with capital controls are more likely to choose a fixed regime, since this allows preserving monetary policy autonomy. A related argument is that countries with high financial development are more likely to adopt a flexible regime as nations with less developed or immature financial markets lack in short-term financial instruments to purse open market operations.

Recent literature (Bleaney & Francisco, 2008) has underscored the importance of balance sheet effects on regime choice. This claims that countries with a greater share of foreign currency denominated liabilities are more prone to a “balance sheet problem” with flexible regimes as sharp depreciations worsens their balance sheet by raising the costs of debt servicing and tightening credit constraints for domestic agents. Such nations will choose a fixed regime. Turning to the currency crises literature (Krugman, 1979), nations with high international reserves are better able to sustain a peg and thus more likely to choose a fixed regime.

Another issue that has gained recent prominence is the role of shocks. As captured in the MFD model, countries where real shocks are more dominant than nominal, would use the exchange rate as a shock absorber and therefore are less likely to fix. Conversely, countries where nominal shocks are more dominant, a fixed regime enables to reduce or even obliterate their effects on domestic output by inducing a corresponding change in the domestic money supply. So, they would lean towards choosing a fixed regime.

Finally, both bigger population and geographic size undermine the importance of international trade relative to internal trade and hence minimize the need for currency stability. Thus they are both negatively associated with the tendency to adopt a fixed regime. Additionally countries with better quality institutions are more likely to choose flexible regimes, since fixed exchange rates limit the scope for influencing the economy.

3. Data description and methodology

3.1. Data description

The full dataset encapsulates 137 countries for the entire first decade of the new millennium (1999–2011). These nations are categorized under AEs, EMs and LICs following the World Economic Outlook (2012) of the IMF. The Appendix A enlist the complete set of nations.
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