

AIUB BUSINESS AND ECONOMICS WORKING PAPER SERIES



Currency Regime Choice: A Survey of Empirical Literature

Monzur Hossain

Office of Research and Publications (ORP)
American International University-Bangladesh (AIUB)

Working Paper No. AIUB-BUS-ECON-2008-11

Citation

Monzur Hossain (2008). Currency Regime Choice: A Survey of Empirical Literature. AIUB Bus Econ Working Paper Series, No 2008-11, <http://orp.aiub.edu/WorkingPaper/WorkingPaper.aspx?year=2008>



April 2008

Copyright © 2008 American International University-Bangladesh (AIUB)

Currency Regime Choice: A Survey of Empirical Literature

Monzur Hossain¹

American International University-Bangladesh
Dhaka, Bangladesh

ABSTRACT

This paper reviews the empirical literature on the choice of exchange rate regime. Prominent issues include: (i) the choice based on fundamentals, shocks, financial structure, and political ideology; (ii) the “bipolar view” or “hollowing out hypothesis” and its validity; (iii) regime choice in emerging economies, and (iv) the discrepancy between declared and actual regime, and its consequence on the analysis of currency regime choice. Although much has been learned in each approach, this survey highlights the areas of research in which our understanding of exchange rate regime transition is still incomplete. Observed data rejects the validity of the bipolar view. Moreover, it is seen that a substantial amount of countries diverge from their de jure regime without declaration, which needs to be taken into account for drawing a valid conclusion on the choice of a regime. From the survey it may be concluded that no empirical regularities regarding the choice of a currency regime have emerged yet.

Keywords. Exchange rate regime; Bipolar view; *De facto* and *de jure* regime; Divergence

1.0 Introduction

Since the breakdown of the Bretton Woods system in the early 1970s, countries have adopted a variety of exchange rate regimes. Major global and regional events, such as the debt crisis of the 1980s, the transformation of the economies of Central and Eastern Europe in the early 1990s, the formation of the European Monetary Union in 1999 and financial and currency crises in various emerging countries in the late 1990s have influenced exchange rate regime transitions. Over the past 35 years since the break down of the Bretton Woods system, economists have developed various answers to the choices and consequences of exchange rate regimes.

¹ The author is an Assistant Professor of Economics at American International University-Bangladesh (AIUB).

In predicting exchange rate regime choice, economic theory alone has been proven to be an insufficient guide to policymakers. No single theoretical approach seems to have an overwhelming victory over another. For example, while some studies find support for the importance of the optimum currency area (OCA) approach, others do not. The same is true when using approaches from political economy theories.

However, the empirical analysis has not provided clear results either. The empirical contributions can be broadly grouped into two parts: one that seeks to identify the forces behind a particular regime choice and another that seeks to analyze the performance and consequence of alternative regimes. This paper surveys empirical contributions only regarding exchange rate regime choice.

Rather than attempting to provide the minute details of each approach, this survey focuses on highlighting the essential features of each and indicates the areas of research in which our understanding of the mechanism of exchange rate regime transition (choice) is still incomplete and the scope of further study to follow.

2.0 The Choice of Exchange Rate Regime

Traditionally, economists have tried to explain the choice of an exchange rate regime based on four factors: economic fundamentals, shocks, financial structure and political ideology. In this line of research, mainly OLS, logit and probit models are used as econometric methods. This section reviews the works that relate exchange rate regime choice with the above four factors.

2.1 Economic fundamentals

Based on Mundell's (1961) seminal work, the early literature found that the fundamentals identified by the OCA approach provide some guidance for observed regime choices

(McKinnon, 1963; Heller, 1978; Dreyer, 1978). McKinnon (1963) points to economic size and openness as important fundamentals for the choice of a regime. Recently, by analyzing the regime choice of 93 countries, Poirson (2001) shows that trade openness, the existence of a dominant trading partner, labor mobility and nominal flexibility are associated with a fixed regime, while economic development, diversification of production and exports and size of the economy are associated with a floating exchange rate regime.

On the other hand, currency crisis models suggest a large number of endogenous variables such as inflation rate, real exchange rate volatility, GDP growth rate, unemployment rate, fiscal deficit, level of reserves, growth of domestic credit etc. as some of the determinants of exchange rate regime choice. Von Hagen and Zhou (2005) find support for some of the above-mentioned variables that may have guided regime choice of a group of 25 Eastern European transition economies.

Although many studies recognize the important role of economic fundamentals on the choice of a regime, this role is not always true for the same regime in all studies. For example, Poirson (2001) finds that trade openness works for fixed regime choice, but Von Hagen and Zhou (2005) finds that its net effect works in the direction of a floating regime for CIS (Commonwealth Independent States: States of former Soviet Union) countries. We should observe similar results in the cases of small East Asian or Latin American open economies. However, a few cross-country studies show that macroeconomic fundamentals do not have significant effect on the regime choice (see Baxter and Stockman, 1989; Juhn and Mauro, 2002).

2.2 Shocks

From the mid 1980s, studies began to focus on the role of shocks in explaining the choice of a regime. Following the works of Mundell (1968) and Poole (1970), this line of research

incorporates considerations for optimal macroeconomic stabilization, adding proxies for various types of shocks (Melvin, 1985; Savvides, 1990). These authors argue that while nominal shocks raise the likelihood of a fixed regime, real shocks call for flexibility. Bayoumi and Eichengreen (1994) argue that symmetry of shocks is a factor that is necessary for forming an OCA.

Recent trends in regime transition show that shocks or crises produce only temporary transition to an alternative regime and countries often revert to the previous regime after the crisis. Some East Asian countries are notable examples of this trend (Hernandez and Montiel, 2003). However, shocks appear to occur in countries having weak financial institutions. These countries often intervene in the market to shield their fledging banking industries in the face of large exchange rate movements. This line of reasoning motivates Calvo (1996) to argue for a new theory of exchange rate regime choice incorporating the financial structure of a country rather than conventional factors, such as the “degree of price rigidity” or the “sources of stochastic shocks”.

2.3 Financial structure

While some authors have argued that financial sector development could be an important determinant of a currency regime choice, one potential difficulty is how to properly measure financial sector development. The ratio of broad money to GDP, known as *financial deepening* has been frequently used in literature as a proxy for financial sector development. Nevertheless, this is a rough indicator since financial development involves the creation of institutions, market deepening and product innovations, which are all difficult to capture in the money-to-GDP ratio. Moreover, the existing studies are handicapped by lack of cross-country data on financial sector development.

In place of the traditional financial deepening index, an index of financial liberalization that takes into account interest rate deregulations, removal of credit controls, privatizations, lifting of entry barriers, capital account liberalization etc. may better represent financial sector development. Note that financial deepening and financial liberalization are not equivalent but tend to be related. “Financial deepening affects *access* to finance, while liberalization affects the *incentives* with which credit is deployed” (Abiad, Oomes, and Ueda, 2004, p. 3). A certain degree of financial liberalization is necessary to ensure adequate competition and efficiency of the financial sector.

Financial liberalization generally modifies the domestic interest rate and alters inter-temporal decisions of firms and individuals and possibly of the public sector. With financial liberalization along with capital account liberalization, a country is expected to deploy a complementary exchange rate policy as suggested by the *impossible trinity doctrine*. This doctrine states that the choice of exchange rate regime cannot be made independently of the choices regarding the degree of international financial integration and the desired level of monetary autonomy (see Figure 1).

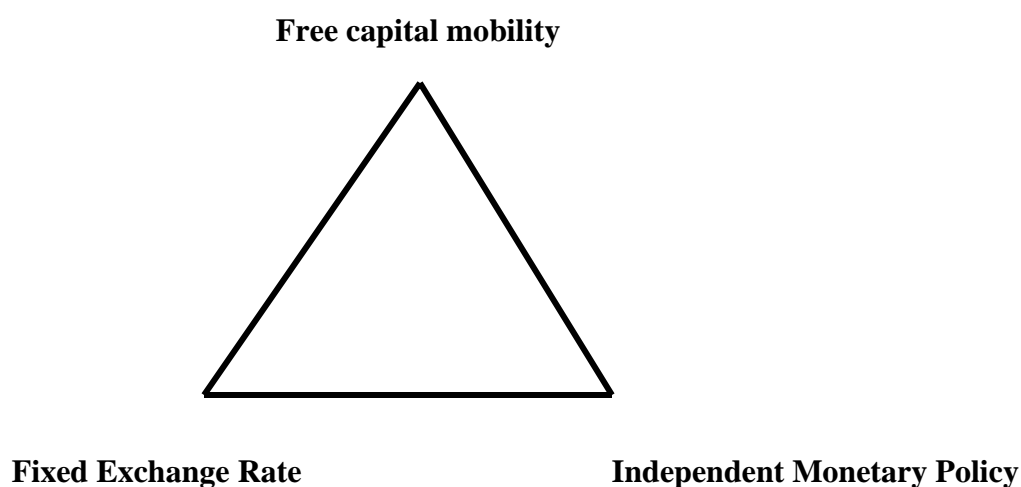


Figure 1. Impossible Trinity

With capital account liberalization and fixed exchange rate regime, monetary independence is sacrificed. If a country wants to retain monetary independence, it has to accept the flexibility of exchange rates. For countries that are imperfectly integrated into global capital markets, an intermediate regime may be possible while retaining some degree of monetary independence. But some authors argue that countries should avoid unstable combination of capital mobility and exchange rate fixity, particularly when domestic financial markets are underdeveloped (Krugman, 1979; Salant and Henderson, 1978).

Recently, several financial liberalization indices have been proposed (for example, see Bandiera et al., 2000; Edison and Warnock, 2003 and Abiad and Mody, 2005). These indices can be used to proxy financial development in the analysis of regime choice.

2.4 Political ideology

A new line of research is now focusing on various political aspects as potential determinants of regime choice. Alesina and Wagner (2003) argue that the low quality of legal and political institutions is associated with poor economic management and it affects the choice of a regime. Berger et al. (2000) and Edwards (1996) argue that political instability tends to increase the likelihood of exchange rate flexibility.

The contribution of political institutions to economic policy outcomes is an important area of research. Divided (coalition) governments or checks and balances are thought to have conflicting influences on economic development. One line of research suggests that they encourage budget deficits and delay reactions to crisis (Rubini and Sachs, 1989). Another line of research finds that they increase the predictability and restraint with which governments regulate firms and citizens (North and Weingast, 1989). However, it is not clear whether greater

competition in contests for political office increases or reduces the likelihood of adopting an alternative exchange rate regime. Faced with the prospect of more competitive elections, politicians are supposed to be more sensitive to redistributive concerns and less likely to allow exchange rate uncertainty. Hence, several variables ranging from indices of electoral competitiveness to the vote shares of parties and directly elected executives permit cross-country empirical investigations into questions whether they influence the choice of a currency regime.

This survey reflects that various factors receive considerations over time to guide regime choices. It seems that most of the existing studies suffer from omitted variable bias as the studies do not consider all these factors in the analysis of regime choice. For example, political economy studies often do not consider economic or financial factors, while international finance studies do not often take political factors into account in the analysis. Therefore, a comprehensive analysis is required for better understanding of the regime choice.

3.0 The “Bipolar View” or “Hollowing Out Hypothesis”

The hollowing out hypothesis or the bipolar view predicts a movement toward a fixed or a freely floating regime in the face of high capital mobility. This view became popular in the 1990s when many emerging countries faced crisis with an intermediate regime. Advocates of the bipolar view argue that greater exposure to global capital markets makes intermediate exchange rate regimes such as adjustable peg, crawling peg and crawling band susceptible to speculative attacks. Countries will be forced to move to the corners, either to a fixed regime such as currency union, currency board or dollarization, or to a freely floating regime (Eichengreen, 1994; Obstfeld and Rogoff, 1995; Summers, 2000). In the view of these authors, intermediate regime

will be hollowing out over time as a result of involuntary transitions². Despite its initial popularity, the bipolar view has not escaped criticism. Various case studies show that transitions occur not just away from an intermediate regime, but also toward it.

A Markov chain model that can analyze the probability of regime transitions can be applied for testing the validity of the bipolar view. Thus, using Markov chains, Masson (2001) estimates the transition probabilities between regimes and finds that over the period 1980-99, there is a non-zero probability of transition toward the intermediate regime. Based on this finding, Masson rejects the hollowing out hypothesis.

Masson and Ruge-Murcia (2005) investigate the determinants of regime transitions under a Markov chain model. They investigate the effects of inflation, output growth, trade openness and reserve on the probability of exchange rate regime transitions. They conclude that inflation, and, to a lesser extent, output growth and trade openness help explain the exchange rate regime transition dynamics, but not necessarily toward the bipolar direction.

To have a better understanding of the bipolar view, it is necessary to endogenize transition intensities with possible explicit causes of transition such as crisis and developmental stage. Moreover, if possible it can be investigated whether the intermediate regimes will be hollowing out with or without the effect of crisis. However, considering the volume of works on regime choice (static choice), the empirical studies that seek to explain dynamics of regime transition are still at the infancy stage.

² This view is variously called, “the corners hypothesis”, “the two poles view”, “hollowing out hypothesis” and “the vanishing middle”.

4.0 The Choice of Exchange Rate Regime in Emerging Economies

This section reviews some recent studies that focus on the regime choices in emerging economies, particularly in East Asia. The collapse of the exchange rate regime in emerging countries in the late 1990s has led to a surge in researches on regime choice.

In the context of crises in 1997/98, some economists recommend that adoption of a common basket with G-3 currencies (the US dollar, the Japanese yen, and the euro) would help achieve both flexibility and stability in East Asia (Kawai and Takagi, 2000; Ogawa and Ito, 2002 and others). With this point, some Japanese economists recommend to increase the weight of the yen in the basket of these countries (for example, Ogawa and Ito, 2002). However, Lincoln (2004) is not in favor of giving more weight to the Japanese yen in a basket of currencies in East Asia because he finds that Japan's trade links with East Asian economies is very weak and most Japanese trade and investment (after the crisis in 1997/98) flows are concentrated in the United States and Europe. On the other hand, Frankel (2003) argues that implementation of a basket peg is plagued by many problems. He suggests that one leader country should first move to a diversified basket, then the others will peg to the leader's currency.

McKinnon and Schnabl (2004a, 2004b) and Ohno (1999) are less enthusiastic about basket pegging. Their view is that basket pegging cannot bring more stability. McKinnon and Schnabl (2004a) see the return of some East Asian countries to dollar pegging after the crisis as rational because of the importance of dollar invoicing of much of international trade.

The possibility of adopting a currency union in East Asia is also explored. Leaders of the ASEAN agreed to study the feasibility of a common ASEAN currency system in the 1998 Hanoi meeting and included it in the agenda of the *Hanoi Action Plan* (Business Times, Singapore, December 15, 1998). Eichengreen and Bayoumi (1999a and 1999b) concluded that East Asia

may be as close to—or rather, as far away from—being an optimum currency area as Western Europe. Kawai and Motonoshi (2004) examined the feasibility of OCA in East Asia by looking at the cross-country correlations of various macroeconomic and financial indicators. They argue that the whole East Asia—the ASEAN+3 (Japan, China and Korea) and Hong Kong and Taiwan, does not qualify for an OCA. But, a subgroup of East Asian countries may qualify for an OCA. However, the issue of a monetary union should not be dismissed immediately even if the countries in a certain geographic region do not conform to the traditional OCA criteria. Rather, these countries should think about whether they are ready to stand on a financial vulnerability versus monetary independence trade off (Alexander, Melitz and Furstenberg, 2004).

Edwards (2000) provides a set of general suggestions about exchange rate regime choice in emerging economies. He suggests that countries with pegged regime should prepare an exit strategy. To maintain freely floating, Edwards extend the view that the country in question must continue its efforts to maintain fiscal balance, modernize its banking sector and accumulate a strong international reserve position.

5.0 Divergence from *De Jure* Regimes: A Big Challenge?

The empirical analysis of the choice of exchange rate regime depends on the classification of regimes. But explaining the choice of a regime appears to be difficult at the beginning since the classification of a regime is problematic. The IMF has traditionally offered a classification which is “*de jure*”, that is, it is essentially based on what the countries report to the IMF. As a result, it does not reflect the actual regime when countries diverge from their officially announced regime for certain periods of time. It is therefore a big challenge for empirical analysis to derive a valid conclusion on the regime choice with certain amount of divergence. “This divergence potentially affects the analysis of historical trends in exchange rate regimes,

their macroeconomic performance, and the answers to salient policy questions” (Rogoff et al., 2003; p.7). Therefore, a number of historical *de facto* regime classifications have been proposed based on the actual exchange rate movements (see Reinhart and Rogoff, 2004; Bubula and Ötoker Robe, 2002; Levy-Yeyati and Sturzenegger, 2002).

Using historical data and information on countries’ exchange arrangements, Bubula and Ötoker-Robe (2002) (BOR) proposed a *de facto* database going back to 1990 on 190 countries—they use both annual and monthly qualitative and quantitative information to devise the *de facto* regime classification. The Reinhart and Rogoff (2004) (RR) data set covers 153 countries from 1940. Their classification is based on a broad set of descriptive statistics and detailed country chronologies of exchange rate arrangements to group regimes. According to the authors, the RR classification is analogous to natural taxonomic schemes in biology. It is a long historical database on regime classifications, which takes dual and parallel market information into account and it is comprehensive in the sense that it reports regime classification on a monthly basis. The Levy-Yeyati and Sturzenegger (2002) data set contains annual information on 156 countries from 1974, but it suffers from many inconclusive data. Note that all *de facto* classifications classify *de facto* regimes based on the behavior of three variables: the average of absolute monthly changes in nominal exchange rate; the standard deviation of monthly percentage change in nominal exchange rate; and, the average of absolute monthly changes in international reserves (relative to monetary base). These measures are then used to assign country-years to different currency regime categories (fixed, intermediate and floating).

Recent studies seem enthusiastic about using these *de facto* classifications to analyze exchange rate regime choices or consequences. Now the question arises as to whether the results derived from earlier studies based on only *de jure* regime classification have to be renewed.

Ghosh, Gulde and Wolf (2002) argued that none of the classifications is entirely satisfactory. While *de jure* classification has certain limitations, *de facto* classifications are also not free from misclassification errors because of their backward-looking nature. In this debate, it is necessary to investigate the amount of divergence and the possibility of misclassification in *de facto* classifications. In Table 1, the amount of divergence between *de jure* and *de facto* classifications are estimated. According to BOR, around 12 percent of *de jure* floaters in fact operated intermediate regimes. But, according to the RR classification, this percentage is around 40 percent for the 1980s and 50 percent for the 1990s. In addition, these differences in estimates between RR and BOR indicate that there is a possibility of misclassification while authors' determine a *de facto* regime.

Table 1. Divergence between *de jure* and *de facto* exchange rate regime classifications

A. <i>De jure</i> vs. BOR <i>de facto</i> (1990-1999)									
Divergence from\to	<i>De jure</i>			<i>De facto</i>			Total observations		
	Fixed	Intermediate	Float	Fixed	Intermediate	Float			
Intermediate	1 (0.20%)	336 (81.20%)	77 (18.60%)					414 (100%)	
Float	1 (0.20%)	109 (12.09%)	315 (74.10%)					425 (100%)	

B. <i>De jure</i> vs. RR <i>de facto</i> (1980-1989, 1990-99)									
Divergence from\to	<i>De jure</i>		<i>De facto</i>				Total observations		
	Fixed	Float	Intermediate		Float				
	1980-89	1990-99	1980-89	1990-99	1980-89	1990-99	1980-89	1990-99	
Intermediate	0 (0.0%)	2 (0.50%)	219 (73.74%)	327 (85.20%)	78 (26.26%)	55 (14.30%)	297 (100%)	384 (100%)	
Float	0 (0.0%)	1 (0.30%)	52 (40.31%)	182 (50.30%)	77 (59.69)	174 (48.10%)	129 (100%)	357 (100%)	

Notes: 1. Estimates are based on total number of observations. Row percentages are reported. These are author's estimation. 2. Underline indicates consensus (consistent) regime.

Why do certain countries diverge from the *de jure* regime? A few studies comprising of a small literature attempt to answer this question. For example, according to the *fear of floating* literature (Calvo and Reinhart, 2002; Hausman et al., 2000), countries with high unhedged foreign currency denominated debt or high exchange rate risk exposure have an incentive to peg even if they are officially floating. Inability to hedge, in turn, usually reflects the inability of these countries to borrow abroad in their own currency, also known as the “original sin hypothesis”³ (Eichengreen and Hausman, 1999). On the other hand, some countries are in *fear of pegging*—a fear that pegging would invite speculative attacks as a result of destabilizing misalignment (Levy-Yeyati and Sturzenegger, 2002; Genberg and Swoboda, 2005).

Alesina and Wagner (2006) formally investigate the reasons of divergence. They find that countries that announce a fixed exchange rate but float *de facto* have relatively “bad” legal and policy institutions, whereas countries that fix *de facto* but float *de jure* have “good” institutions. Genberg and Swoboda (2005) have pointed out some problems of devising a correct *de facto* classification. For example, they argue that exchange rate stability in a floating regime is not always a result of intervention; it may be the result of optimally chosen monetary policies. Similarly, countries that use monetary policy instruments actively to stabilize their exchange rate may not want to announce a fixed exchange regime because of the fear of speculative attacks.

From the discussion above it may be concluded that we should not ignore *de jure* regime classification as it in principle reflects countries’ preferences for a particular regime. Rather, realizing the reasons of gap between official announcement and what countries are practicing is crucial for increasing our understanding of the determinants of regime choice. Moreover, it is

³ Although developed countries are able to borrow overseas in their domestic currencies, many developing countries are unable to do so. Any large depreciation of the domestic currency increases ‘liability dollarization’ and leads to calamitous real sector effects (so-called ‘balance sheet’ effects).

necessary to investigate whether short-term divergence has any implication for long-term trends in regime choice.

6.0 Conclusion

This study has attempted to shed new light on some areas of research in the foreign exchange regime choice by analyzing over 40 years of empirical work. Four topics that gained considerable attention in the past years, or will play an increasing role in future research, are covered.

First, we have attempted to identify determinants of static regime choice considering economic fundamentals, shocks, financial development and political ideology. It is highlighted that the role of these factors is changing over time in the choice of a regime. It is found that most of the existing studies suffer from omitted variable bias as they do not consider all these factors together to analyze the choice of a regime. Second, we analyzed the rationales behind the “bipolar view” of regime choice and how this view can be empirically tested. No consensus has emerged on this view. It can be argued from the survey that the area of research using dynamic model is still at infancy stage and more efforts and sophistication are required for testing the validity of the bipolar view. Third, we looked at the choice of currency regime in emerging countries with particular emphasis on East Asia because many East Asian countries faced crisis in the 1990s with the adoption of particular intermediate regime. Emerging countries seem to be cautious in choosing corner regimes. Fourth, we touch upon a relatively new topic in the foreign exchange literature: divergence between *de jure* and *de facto* exchange rate regime, its causes and consequences. As the divergence is likely to affect the results, it is important to investigate whether this short-term divergence has implication for long-term regime choice.

It is not clear in the literature whether the distribution of exchange rate regimes tends to converge to the polar extremes and what factors increase the likelihood of convergence. Countries, particularly emerging and less developed countries move back and forth between corner and intermediate regimes. Level of development, both economic and financial, seems important for the choice of a polar regime. Therefore, it emanates from the literature that exchange rate regime choice cannot be a once-and-for-all.

In essence, the choice of an exchange rate regime is not straightforward and to be sure, there will be continuous revisions of theories and empirical results. A dynamic analysis of regime transition with possible explicit causes taking the probability of regime misclassification into account may shed more insight into the choice of exchange rate regime.

REFERENCES:

- Abiad, Abdul and Ashoka Mody (2005). “Financial Reform: What Shakes It? What Shapes It”? *American Economic Review*, Vol. 95, 1, March.
- Abiad, Abdul, N. Oomes, and Kenichi Ueda (2004). “The Quality Effect: Does Financial Liberalization Improve the Allocation of Capital?” *IMF Working Paper*, 112.
- Alesina, Alberto and Alexander Wagner (2006). “Choosing (and Reneging on) Exchange Rate Regimes”, *Journal of the European Economic Association*, Vol. 4, 770-799.
- Alexander, V., Melitz, J. and G. von Furstenberg (2004). *Monetary Unions and Hard Pegs: Effects on Trade, Financial Development and Stability*, Oxford: Oxford University Press.

- Bandiera, O., Gerard Caprio, Patrick Honohan and Fabio Schiantarelli (2000). “Does Financial Reform Raise or Reduce Saving?” *Review of Economics and Statistics*, 82(2), pp. 239-63.
- Baxter, M. and Alan Stockman (1989). “Business Cycles and the Exchange-Rate Regime: Some International Evidence,” *Journal of Monetary Economics* 23, May, 377-400.
- Bayoumi, T. and Barry Eichengreen (1994). “One money or many? Analyzing the Prospects for Monetary Unification in Various Parts of the World”. *Studies in International Finance*, 76, Princeton University Press.
- Berger, H., Sturm, J.-E. and De Haan, J. (2000). “An Empirical Investigation into Exchange Rate Regime Choice and Exchange Rate Volatility”, *CESifo Working Paper no. 263*.
- Bubula, Andrea and Inci Ötker-Robe (2002). “The Evolution of Exchange Rate Regimes since 1990: Evidence from *De Facto* Policies”, *IMF Working Paper 02/155*.
- Calvo, G. (1996). “Comment on Sachs, Tornell and Velasco”, *Brookings Papers on Economic Activity*, No. 1.
- Calvo, Guillermo A. and Carmen M. Reinhart (2002). “Fear of Floating”, *Quarterly Journal of Economics*. Vol. CXVII, Issue 2.
- Calvo, Guillermo A. and F. Mishkin (2003). “The Mirage of Exchange Rate Regimes for Emerging Market Countries”, *The Journal of Economic Perspectives*. Vol. 17, Issue 4, pp. 99-118.
- Dreyer, J. S. (1978). “Determinants of Exchange Rate Regimes for Currencies of Developing Countries: Some Preliminary Results”, *World Development*, 6, pp. 437-445.

- Edison, Hali J. and Francis E. Warnock (2003). “A Simple Measure of the Intensity of Capital Controls,” *Journal of Empirical Finance*, 10(1-2), pp. 81-103.
- Edwards, S. (1996). “The Determinants of the Choice between Fixed and Flexible Exchange Rate Regimes”, *NBER Working Paper No. 5756*, Cambridge, MA: National Bureau of Economic Research.
- Edwards, S. (2000). “Exchange Rate Systems in Emerging Economies”, available through the web: <http://www.anderson.ucla.edu/faculty/sebastain.edwards/systems.pdf>
- Eichengreen, B. and T. Bayoumi (1999a). “Is Asia an Optimum Currency Area? Can it Become One? Regional, Global and Historical Perspectives on Asian Monetary Relations”, In S. Collignon and J. Pisani-Ferri (Eds.), *Exchange Rate Policies in Asian Emerging Countries* (London: Routledge Press).
- Eichengreen, B. and T. Bayoumi (1999b). “On Regional Monetary Arrangements for ASEAN”, Paper Presented at an International Conference on Exchange Rate Regimes in Emerging Market Economies, 17-18 December, Tokyo, Japan.
- Eichengreen, Barry (1994). “International Monetary Arrangements for the 21st Century”, *Brookings Institution*, Washington DC.
- Eichengreen, Barry and Ricardo Hausman (1999). “Exchange Rates and Financial Fragility”, *NBER Working Paper 7418*, Cambridge (Massachusetts).
- Fischer, S. (2001). “Exchange Rate Regimes: Is the Bipolar View Correct?” Distinguished Lecture on Economics in Government, *Journal of Economic Perspectives*, Vol. 15, 2, pp. 3-24.
- Frankel, Jeffrey A. (2003). “Experience of and Lessons from Exchange Rate Regimes in Emerging Countries”, NBER Working Paper 10032, October.

- Genberg, H. and Alexander K. Swoboda (2005). “Exchange Rate Regimes: Does What Countries Say Matter?” *IMF Staff Papers*, Vol. 52, 2005.
- Ghosh, Atish, Anne-Marie Gulde and Holger Wolf (2002). *Exchange Rate Regimes: Choices and Consequences*, MIT Press.
- Hausman, R., U. Panizza and E. Stein (2000). “Why do Countries Float the Way they Float?” Working Paper No. 418 (Washington D.C.: Inter-American Development Bank)
- Heller, H. R. (1978). “Determinants of Exchange Rate Practices”, *Journal of Money, Credit and Banking*, 10, pp. 308-321.
- Hernandez, Leonardo, and Peter Montiel (2003). “Post-Crisis Exchange Rate Policy in Five Asian Countries: Filling in the “Hollow Middle”?” *Journal of the Japanese and International Economies*, Vol. 17, Issue 3, pp. 336-369.
- Juhn, Grace S. and Paolo Mauro (2002). “Long-Run Determinants of Exchange Rate Regimes: A Simple Sensitivity Analysis”. *IMF Working Paper 02/104*.
- Kawai, Masahiro and Shinji Takagi (2000). “Proposed Strategy for a Regional Exchange Rate Arrangement in Post-Crisis East Asia”, Policy Research Working Paper No. WPS 2503, World Bank.
- Kawai, Masahiro and Taizo Motonishi (2004). "Is East Asia an Optimum Currency Area?" In Masahiro Kawai, Ed, *Financial Interdependence and Exchange Rate Regimes in East Asia*, Policy Research Institute, Ministry of Finance, Japan, 2004 (pp.157-203).
- Krugman, P. (1979). “A Model of Balance-of-Payment Crises”, *Journal of Money, Credit and Banking*, 11, 311-325.

- Levy Yeyati, Eduardo and Federico Sturzenegger (2002). “Classifying Exchange Rate Regimes: Deeds Versus Words”, *Universidad Torcuato di Tella*. available via the internet at: www.utdt.edu/~fsturzen.
- Lincoln, E. (2004). *East Asian Economic Regionalism*, Washington D.C.: Brookings Institution Press.
- Masson, Paul (2001). “Exchange Rate Regime Transitions”, *Journal of Development Economics*, Vol. 64, 571-586.
- Masson, Paul and Francisco J. Ruge-Murcia (2005). “Explaining the Transition between Exchange Rate Regimes”, *Scandinavian Journal of Economics*, Vol. 107, No. 2, pp. 261-278, June 2005.
- McKinnon, R. (1963). “Optimum Currency Areas”, *American Economic Review*, 53 (September), pp. 717-725.
- McKinnon, R. and Gunther Schnabl (2004a). “The Return to Soft Dollar Pegging in East Asia: Mitigating Conflicted Virtue”, *International Finance*, 7(2), pp. 169-201.
- _____ (2004b). “The East Asian Dollar Standard, Fear of Floating, and Original Sin”, *Review of Development Economics*, 8(3), 331-360.
- Melvin, M. (1985). “The Choice of An Exchange Rate System and Macroeconomic Stability”. *Journal of Money, Credit and Banking*, 17(4), pp. 467-78.
- Mundell, R. (1961). “A Theory of Optimal Currency Areas”, *American Economic Review*, 51, pp. 657-665.
- Mundell, R. (1968). *International Economics*. New York: Macmillan, 1968.

- North, Douglass C. and Barry R. Weingast (1989). “The Evolution of Institutions Governing Public Choice in 17th Century England”, *Journal of Economic History*, November, 5, pp. 172-200.
- Obstfeld, Maurice and Kenneth Rogoff (1995). “The Mirage of Fixed Exchange Rates”, *Journal of Economic Perspectives*, Vol. 9, No. 4, pp. 73-96.
- Ogawa, Eiji and Takatoshi Ito (2002). “On the Desirability of a Regional Basket Currency Arrangement,” *Journal of Japanese and International Economies* 16, pp. 317–34.
- Ohno, Kenichi (1999). “Exchange Rate Management in Developing Asia: Reassessment of the Pre-Crisis Soft Dollar Zone”. Working Paper No. 1, Asian Development Bank Institute, Tokyo.
- Poirson, H. (2001). “How do Countries Choose their Exchange Rate Regime”? *IMF Working Paper* Wp/01/46.
- Poole, W. (1970). “Optimal Choice of Monetary Policy Instruments in a Simple Stochastic Macro Model”, *Quarterly Journal of Economics*, 84 (2), pp. 197-216.
- Reinhart, Carmen M. and Kenneth Rogoff (2004). “The Modern History of Exchange Rate Arrangements: A Reinterpretation”, *Quarterly Journal of Economics*, Vol. 119, 1, February.
- Rogoff, K. S., Aasim M. Husain, Ashoka Mody, Robin Brooks, and Nienke Oomes (2003). “Evolution and Performance of Exchange Rate Regimes”, *IMF Working Paper*, Wp/03/243.

- Rubini, Nouriel and Jeffrey Sachs (1989). “Political and Economic Determinants of Budget Deficits in the Industrial Democracies”. *European Economic Review* 33, pp. 903-938.
- Salant, S. W. and Henderson, D. W. (1978). “Market Anticipations of Government Policies and Price of Gold”, *Journal of Political Economy*, 86 (4), pp. 627-648.
- Savvides, A. (1990). “Real Exchange Rate Variability and the Choice of Exchange Rate Regime by Developing Countries”, *Journal of International Money and Finance*, 9, pp. 440-454.
- Summers, Lawrence H. (2000). “International Financial Crises: Causes, Prevention and Cures”, *American Economic Review, Papers and Proceedings*, Vol. 90, No. 2, pp. 1-16.
- Von Hagen, J. and J. Zhou (2005). “The Choice of Exchange Rate Regime: An Empirical Analysis for Transition Economies”, *Economics of Transition*, Vol 13 (4), pp. 679-703.