How Important is the Choice of Exchange Rate Regime for Economic Growth in Emerging Market Economies?

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Abstract

This paper studies the influence of the exchange rate regimes on economic growth in the emerging market economies (EMEs). It provides a literature survey on how the exchange rate regime can influence the economic growth and it tries to answer the question whether a specific exchange rate regime can foster economic growth in EMEs. The paper refers to the theory of optimal currency areas to compare alternative exchange rate regimes and comes up with reasons why this classical theory may not apply well to the EMEs. The general empirical findings suggest whether a country has a fixed or flexible exchange rate can inform little about its economic growth. Thus the paper concludes by proposing that the exchange rate policy should not be the first priority of EMEs aiming for higher growth. Instead they should focus on institutional reforms targeting to improve the financial sector, and design sound fiscal and monetary policies.

I. Introduction

After the breakdown of the Bretton Woods system in 1973, many emerging market economies (EMEs) moved away from pegged currencies to more flexible exchange rate regimes. Since then, the proper choice of exchange rate regime for economic growth has been a subject of ongoing debate in international economics. Especially, for EMEs adopting mostly export-led growth strategies where trade volume and the fragile economic system can be affected by different exchange rate arrangements, this choice becomes even more crucial.

In recent years, several EMEs have experienced devastating financial crises and macroeconomic instability, including Mexico (1994-95), East Asia (1997), Russia (1998), Turkey (2000- 2001), and Argentina (2001-2002), in which unsustainable exchange rate regimes were widely perceived to have been a cause. In the subsequent post-mortems, an active debate has followed over how the choice of exchange rate regime might have contributed to economic growth and macroeconomic instability, and whether a specific exchange rate regime can foster economic growth.

A preliminary question in this discussion would be whether the nature of the exchange rate regime influences economic growth. With some exceptions such as Baxter and Stockman (1989), Flood and Rose (1995), Ghosh et. al (1997), and Husain et al. (2005) defending the neutrality of exchange rate regime in EMEs, the theory on economic growth and exchange rate regimes claims that the choice of exchange rate arrangements can exert a significant influence on economic growth.[1]

Some empirical studies have examined the relationship between the exchange rate regimes and economic growth. On the one hand, Ghosh et al. (1997) found no systematic differences in growth rates across exchange rate regimes in a sample of 136 countries over the period from 1960 to 1989 and the International Monetary Fund (IMF) (1997) confirmed this result. Moreover, Husain et al. (2005) found that flexible exchange rate systems are remarkably durable and yield somewhat higher growth for advanced economies[2] while claiming that the exchange regime does not appear to have a systematic

[1] Bailliu et al. (2002)
[2] Husain et al. (2005) claim that countries appear to benefit from having increasingly flexible exchange rate systems as they become richer and more financially developed.

effect on growth for emerging markets. Several economists, including Calvo and Reinhart (2000) and Levy-Yeyati and Sturzenegger (1999), on the other hand noted that the failure to identify a relationship between the exchange rate regime and growth could be the result of measurement error in the classification of exchange rate arrangements. Indeed, until recently empirical research employed the de jure classification, which largely reflects the self-reported regime submitted by a country's central bank to the International Monetary Fund and could differ from the actual regime.[3] As a result of such discrepancies, de jure classification has been viewed as unsatisfactory for assessing the role of exchange rate stability in economic performance and has motivated researchers to propose de facto exchange rate classifications that are based on observed properties of the foreign exchange market data. Influential contributions include the pioneering work of Levy-Yeyati and Sturzenegger (1999)[4], Bailliu et. al (2001), and Reinhart and Rogoff (2004)[5]. Bailliu et al. (2001) with an alternative classification scheme found evidence that exchange rate regimes can influence growth under certain circumstances. In their study of 25 EMEs over the period from 1973 to 1998, they noticed that only for countries that are relatively open to international capital flows and that have developed financial sectors more flexible exchange rate arrangements may lead to higher economic growth. Levy-Yeyati and Sturzenegger (2003) and similarly Huang (2004) found that no significant impact of regime type on growth in developed countries

[3] Countries that say they allow their exchange rate to float mostly do not – "Fear of Float" of Calvo and Reinhart (2002).
[4] Levy-Yeyati and Sturzenegger (1999), on the other hand, advocate the use of a k-means cluster sorting algorithm to assign countries to various exchange rate regimes.
[5] Reinhart and Rogoff (2004) argue that a natural classification of exchange rate regimes should be based on the behavior of the parallel market exchange rates on the grounds that they better reflect underlying market and monetary conditions than do the country's official exchange rates.

while they found that more flexible exchange rate regimes are associated with slightly higher growth rates in EMEs.

Most of these studies used the typical tripartite classification[6] where intermediate and flexible regimes characterize solely the exchange rate regime, whereas the pegged regime characterizes both the exchange rate regime and the monetary policy framework. Bailliu et al. (2002) suggest that this discrepancy might lead to an inaccurate conclusion when assessing the growth performance of alternative exchange rate regimes, because the intermediate and flexible categories may embrace both weak and strong monetary policy frameworks with conflicting consequences regarding economic growth. They claim that any exchange rate regime type accompanied by a monetary policy anchor can foster economic growth. Moreover, they also argue that the lack of an anchor may be detrimental for growth. All in all, it is not very surprising that the empirical literature has little consensus about the effects of alternative exchange rate regimes on economic growth taking all of these different classification and characterization schemes of exchange rate regimes. Nevertheless, the theoretical literature on exchange rate regimes and economic growth agrees more or less upon the influence of alternative exchange rate regimes on the growth performance in EMEs and upon the channels through which the regime type affects growth.

II. How does the exchange rate regime influence the economic growth?

Bailliu et al. (2002) suggest that the choice of regime can affect economic growth directly through its effects on the adjustment of the economy to economic shocks, and indirectly

[6] Bailliu et al. (2002)

through its impact on other important determinants of growth, such as international trade, investment, capital flows, financial sector and monetary institution development.

Direct Effect

Pioneered by Milton Friedman, a lot of economists have studied how exchange rate regime may influence the economic growth through its impact on the adjustment process as a response to real and nominal economic shocks. Since Friedman (1953), a number of theories have confirmed his intuition that in a world of stick prices the flexible exchange rate regimes can insulate the economy more effectively against real shocks compared to fixed regimes. Later, Broda (2002) supports Friedman's hypothesis and he claims that countries with fixed regimes experiences large declines in real GDP, while the real exchange rate depreciate slowly by means of a fall in prices in response to a negative terms-of-trade shock. Countries with more flexible regimes tend to experience small falls in real GDP and large real depreciations. However, Mundell (1968) argues that in the long run the choice of exchange rate regimes does not have a significant effect on economic growth. He claims that in the long run there are no significant differences across regimes, even though he admits that adjustment process towards the equilibrium will differ in fixed and flexible exchange rate regimes in the short run.

A more flexible exchange rate that reflects economic fundamentals and promotes smooth adjustment may foster economic growth. As David Dodge[7] (2006) argues a floating exchange rate is an important adjustment mechanism for many EMEs, given the fact that labor markets are still fairly inflexible and that wages and prices are slow to absorb

[7] Governor of Bank of Canada

shocks. A market-based exchange rate can be a useful "shock absorber", helping the economy characterized by nominal rigidities to react to external swings in demand more efficiently than a fixed exchange rate. A flexible exchange rate also allows a country to have an independent monetary policy, providing the economy with another means to accommodate domestic and foreign shocks. When the adjustment to shocks is smoother, growth would be expected to be higher. Indeed, the mitigation of business cycles has been shown to positively affect the long-run growth rate. Werner (2001) found a significant negative relationship between output variability and long-run output growth. A more flexible arrangement is also less likely to generate persistent misalignments in exchange markets, which may result in an economic crisis. Indeed, Berg et al. (1999) and Goldstein et al. (2000) found that an overvalued real exchange rate is one of the most significant indicators of an approaching currency crisis. Thus, an important reason why pegged exchange rate regimes may be harmful to growth is that they tend to be unsustainable. Moreover, a hard exchange rate peg leaves very narrow scope for domestic monetary policy, because the interest rate is determined by monetary policy in the anchor country to which the emerging market country has pegged. IMF (1997) notes that of the 116 currency crashes that took place between 1975 and 1996, close to half were under flexible regimes[8] showing the link between hard pegs and currency crises is not unambiguous. In 1990s, as mentioned earlier, many countries with fixed but adjustable exchange rate regimes were forced to abandon them because they had become unsustainable or costly crises followed. The subsequent negative impact of crises has been found to greatly exceed estimates of direct costs of misalignments under either

[8] However, this somewhat counterintuitive observation could also reflect the fact that many exchange rate regimes might have been improperly classified as flexible when they were, in fact, pegged regimes.

regime, particularly when the currency crisis is associated with a banking crisis.[9] Countries suffering from frequent economic crises are likely to experience lower growth.

The classical literature holds that the greater the volatility of real shocks relative to financial shocks a country faces, the more flexibility it should allow in its exchange rate. Aghion et al. shows that this prescription has to be modified to allow for the fact that financial market shocks are amplified in EMEs with thin and poorly developed credit markets. Thus, they argue that a flexible regime is more prone to exchange rate shocks in the case of EMEs. They claim that this additional source of shocks to the economy under a more flexible regime might exacerbate the business cycle and reduce the growth rates compared with a fixed exchange rate regime.[10] This problem could be especially severe for EMEs with underdeveloped or weak financial systems that might have problems accommodating large exchange rate movements under flexible regimes. The strongest argument in favor of a floating exchange rate regime is that it retains the flexibility to use monetary policy to focus on domestic considerations. In contrast, a hard exchange rate peg leaves very narrow scope for domestic monetary policy, because the interest rate is determined by monetary policy in the anchor country to which the emerging market country has pegged. However, in EMEs successful use of an independent monetary policy to facilitate the adjustment to shocks would be limited since they have less policy credibility compared to developed countries. Although a floating exchange rate raises the theoretical possibility for domestic monetary authorities to pursue countercyclical

[9] Bailliu et al. (2002)

[10] Mundell (2000) states during the interview with Christopher Ragan: "The exchange rate volatility is a problem due to false pricing within the world economy. When you have big changes in the exchange rates between areas that have comparative price stability, and therefore big changes in real exchange rates, this creates economic distortions and a diminution in the gain from trade."

monetary policy, the central bank may not possess this capability in practice. If the monetary authorities have little credibility in terms of their commitment to price stability, then monetary policy may be ineffective. For a central bank without inflation-fighting credibility, an expansionary monetary policy will only lead to an immediate jump in interest rates or the price level. If an emerging market country is able to develop fiscal, financial and monetary institutions that provide credibility in terms of monetary policy, then monetary policy can be used to stabilize the economy. Nonetheless, not all emerging market countries are up to this task, and so they may decide to choose a hard exchange rate peg instead.

As mentioned, exchange rate arrangements may also affect economic growth indirectly through its influence on other determinants of economic growth, such as investment, openness to international trade and capital flows, financial sector, and monetary institution developments.

Indirect Effect through Investment

Exchange rate regimes can influence economic growth through the rate of investment. Dornbusch (2001) suggests that lower inflation and less uncertainty associated with rigid exchange rate regimes would reduce the currency risk component in domestic interest rates. Investment will increase with the declining borrowing costs for both the government and the private sector. Indeed, Huizinga (1994), Bell and Campa (1997) and Werner (2001) have found negative correlations between exchange rate uncertainty and investment. Aizenman (1994) also argues that a fixed exchange rate regime will lead to

higher investment rate as a result of a reduction in policy uncertainty, exchange rate, and real interest rate volatility. Nevertheless, Schüler (1999) suggests that hard pegs or dollarization will allow domestic interest rates in emerging market countries to converge to the interest rates in the anchor countries whose currencies the domestic currency is pegged to. Frankel, Schmukler and Servén (2002) showed that for instance in Latin America all interest rates reflect changes in U.S. interest rates. Furthermore, they argue that countries which do not peg to the dollar face a change in their interest rates much higher than those that pegs their currencies to the dollar. However, the risk of government default and the related risk of confiscation of private assets denominated in both domestic and foreign currency are more likely to be the source of high interest rates in emerging market countries, which is illustrated in the experience of Ecuador. The spread between Ecuador's sovereign bonds and U.S. Treasury bonds remained at high levels in the first half of 2000, even though the government had already dollarized in January of the same year. Sound fiscal policies which make government defaults extremely unlikely are thus essential to getting interest rates to approach those in advanced countries. Indeed, Chile, with its flexible exchange rate regime, has been able to achieve lower interest rates on its sovereign debt than Panama, which is dollarized.[11] Eichengreen and Hausmann (1999) also claim that domestic interest rates are more sensitive to foreign rates under floating rather than fixed regimes, implying less, not more, monetary autonomy. Hausmann et al. (1999) argue that the floating exchange rate regime in Latin America have not permitted a more stabilizing monetary policy, tending instead to be more pro-cyclical.[12] Frankel

[11] Edwards (2001)

[12] Hausmann et al. (1999) found that when the cost of foreign borrowing rises by one percent, domestic interests rate have risen on the average 1.4 percent under Argentina's currency board but by 5.9 percent under Mexico's floating regime.

(1999) also found that domestic interest rates are more sensitive to the U.S. federal funds rate in floating rather than fixed exchange rate regime. Moreover, Ghosh et al. (1997) assert that by eliminating an important adjustment mechanism, fixed exchange rates can exacerbate protectionist pressures triggering misalignments that distort the efficient allocation of resources across sectors. Some apparent inconsistencies in the empirical literature may be explained by the basic conclusion of the simulations conducted by Goldberg (1993) and Böhm and Funke (2001) that depressing effect of exchange rate volatility upon the level of investment is negligible.

Indirect Effect through International Trade

The choice of exchange rate regime will affect the level of trade of a country with the rest of the world. The endogenous growth models such as the one of Findlay and Kierzkowski (1983), Romer (1990), Grossman and Helpman (1991), Segerstrom et al. (1990), Rivera-Batiz et al. (1991), Cartiglia (1997) and Eicher (1999) suggest that trade will lead to increasing growth rates in EMEs, because countries more open to international trade will benefit from a greater ability to absorb technological advances and can take advantage of larger markets.[13] In addition, Mankiw et al. (1992) and Jensen and Wong (1997) argue that there may be positive spillovers to the non-tradable sector. Thus, to the extent that the nature of the exchange rate regime influences the volume of international trade, this could translate into an effect on growth. The literature suggests that international trade is influenced by the type of exchange rate regime, but it does not clearly predict which regime is more likely to foster international trade.[14] It has been suggested that a hard

[13] Edwards 1993, Barro and Sala-i-Martin 1995
[14] Bailliu et. al (2002)

exchange rate peg will tend to promote openness to trade and economic integration[15] since exchange rate volatility and uncertainty will be lower, which will tend to reduce the cost of trade and, hence, increase its volume.[16] Along with gains from trade, an economy that is more open to trade may also be less susceptible to sudden stops.[17] An expansion of trade means that a greater share of businesses is involved in the tradable sector. Because the goods they produce are traded internationally, they are more likely to be priced in foreign currency, which means that their balance sheets are less exposed to negative consequences from a devaluation of the currency when their debts are denominated in foreign currency. Then, a devaluation which raises the value of their debt in terms of domestic currency is also likely to raise the value of their assets as well, thus insulating their balance sheets from the devaluation. Moreover, Calvo, Izquierdo and Talvi (2002) claim that the more open is the economy, the smaller will be the required real currency depreciation following a sudden stop. The notion that exchange rate volatility is detrimental to trade is intuitively apparent since it can increase business risks and render long-term planning more challenging. However, its effect on trade is not that obvious once firms are allowed to diversify across markets, source inputs from both home and abroad, adopt flexible invoicing arrangements, or have access to hedging instruments. However, there are various explanations the exchange rate misalignments and volatility may have severe consequences to the emerging economies. First of all, since the emerging economies rely more on export of raw materials and intermediary goods, in

[15] Rose (2000), Frankel and Rose (2002)
[16] For example, an exchange rate fixed to the U.S. dollar will likely promote trade with the United States and other countries tied to the U.S. dollar. Fixed exchange rates or even a common regional currency as in the European Monetary Union (EMU) may help regional economic integration in the context of a common currency. Thus, countries which are seeking to expand trade would naturally place a higher value on some form of a fixed exchange rate with a trading partner.
[17] Brada and Mendéz (1988)

which they have little power. As a result, emerging economies should respond to exchange rate misalignments by changing the export quantity rather than the price. Moreover, exchange rate volatility may be more damaging to the export sector in emerging markets, since in these countries the hedging possibilities are limited due to underdeveloped financial markets. The fact that emerging market economies almost exclusively trade in foreign hard currencies further strengthens this argument.[18] On the other hand, Nilsson and Nilsson (2002) showed some evidence suggesting that more flexible regimes can favor export growth, because the negative net effects of real exchange rate[19] misalignments[20] dominates the negative effect of exchange rate volatility vis-à-vis the invoicing currency of exports. Taking all the arguments into account it is not surprising that the empirical literature could not build consensus on a strong link between measured exchange rate regime and the level of openness to trade.

Indirect Effect through Capital Inflows

In the literature it is argued that the exchange rate regime can influence the economic growth through the impact on the level of capital inflows. Blomström (1988 and 1991), Borensztein et al. (1998), and Bailliu (2000) argue that international capital flows can promote growth by increasing the domestic investment rate, by leading to technological positive spillovers associated with the foreign investment, and by promoting efficiency in the domestic financial sector. The exchange rate regime affects the volume or

[18] Edwards (1988)

[19] The real exchange rate (RER) is defined as the nominal exchange rate in units of domestic currency per unit of foreign currency (E), multiplied by the world price of tradables in foreign currency (P_T^*) over the price of non-tradable goods in domestic currency (P_N). $RER = E.\frac{P_T^*}{P_N}$

[20] Exchange rate misalignments are defined deviations of the actual exchange rate from its long-run equilibrium.

composition of international capital flows. Capital inflows, however, are not an unmitigated blessing.[21] Dooley (1994) has argued that in EMEs if a fixed exchange rate regime accompanied by regulatory distortions, it may lead to a surge in speculative capital flows. However, speculative capital flows in short-term investment type are less likely to foster growth if they are channeled into unproductive investments. Besides, large capital inflows are often associated with inflationary pressures, a real exchange rate appreciation and massive capital inflows also may contribute to stock market bubbles and lead to excessive expansion in domestic credits in EMEs jeopardizing the financial system's stability. Short-term capital inflows intensify these problems as the probability of an abrupt and sudden reversal of capital and lead to the dampening of economic growth.

Indirect Effect through the Level of Development of Financial Markets

The exchange rate regime can also have an impact on growth by influencing the level of development of financial markets. Flexible exchange rate regimes associated with increased nominal exchange rate volatility may dampen the economic growth especially in EMEs where the financial sector is not sufficiently developed to absorb exchange rate shocks and provide agents with appropriate hedging instruments. Indeed, Aizenman and Hausmann (2000) argue that the gains from fixing the exchange rate may be greater for EMEs than for industrialized countries since they do not possess well-developed and deep financial markets. However, the combination of an underdeveloped financial sector and a fixed exchange rate regime can also be problematic, because it can result in a

[21] For further discussion refer to Calvo et al. (1994)

banking crisis.[22] Although having a mature financial sector is often considered a necessary condition to float, a sound and well-developed financial sector is important for economic growth, regardless of the type of exchange rate regime. Levine (1997) showed how the existing level of development of the financial system can promote growth through its effects on capital accumulation. In addition, empirical evidence supports the view that a well-functioning financial system contributes to economic growth.[23]

Several hypotheses about how exchange rate regimes may improve institutions have been suggested. Advocates of hard exchange rate pegs argue that they improve fiscal institutions and trigger sounder budgetary management, because if the central bank is focused on a fixed exchange rate, then the government no longer has access to the money printing press to finance its spending.[24] As the recent example of Argentina suggests, where the fiscal tensions between the provinces and the central government were not solved by the currency board, hard pegs may be less effective at constraining fiscal policy than was previously believed. Hard pegs may even weaken incentives for governments to improve fiscal policies, because the hard peg may make it easier for governments to borrow foreign funds, thus allowing them to delay necessary reforms to fix fiscal imbalances. On the other hand, it is not clear that in floating exchange rate systems, the conduct of monetary policy has any particular impact in promoting fiscal responsibility. However, one might argue that a floating exchange rate has the potential to promote government transparency and fiscal responsibility particularly if it involves the government in setting an inflation target. Advocates of hard pegs also suggest that

[22] Chang and Velasco (2000)
[23] Levine et al. (2000)
[24] Hanke and Schüler (1994)

dollarization promotes a healthier financial system because it avoids currency mismatches and deepens the financial system, making it less prone to crisis.[25] However, according to Eichengreen (2002) there is little evidence to support this view.

Indirect Effect through the Development of Monetary Institution

In the literature on institutions and growth some authors argue that the choice of exchange rate regime help improve monetary institutions that enable the monetary authorities to build credibility. If a fixed exchange rate regime is constructed with a full array of supporting institutions, then it would seem to offer a gain in credibility, although after the collapse of Argentina's fixed rate system, such credibility will always remain doubtful. Moreover, a floating exchange rate can be a mechanism for monetary credibility as well. Tornell and Velasco (2000) argue, because the foreign exchange market will anticipate the effects of policy inconsistency by devaluing the exchange rate, providing a clear signal for an impending crisis. Moreover, as Mishkin (1998) argues that the signal itself could help establish some discipline in government and possibly lead to a timely rectification of policy inconsistencies.[26]

III. The choice of exchange rate regime aiming growth in EMEs

Most of the discussion in the literature on the choice of exchange rate regime has focused on fixed versus flexible exchange rate regimes due to the common characterization of the exchange rate regimes and increasing popularity of the notion that in a world of

[25] Hausmann, 1999
[26] Bernanke and Mishkin (1997)

increasing international capital mobility, only polar regimes[27] are more likely to be successful in achieving higher growth rates in EMEs. This ‘‘bipolar’’ view claims that intermediate regimes are unsustainable over the long run. This proposition, known as the hollowing-out hypothesis, has been gaining popularity among economists.[28] Eichengreen (1998) argues that countries will be forced to choose between floating exchange rates and hard pegs. In addition, Summers (2000) argues that for economies with access to international capital markets the choice of appropriate exchange rate regime increasingly means a move away from the intermediate path of pegged but adjustable fixed exchange rates[29] towards the two extreme regimes. Fischer (2001) supports the bipolar view by presenting evidence that in the last decade both hard pegs and floating exchange rate regime has increased their share at the expense of intermediate exchange rate regimes. The higher the degree of capital mobility, the more difficult it is to sustain a pegged-but-adjustable exchange rate regime.[30] Moreover, intermediate exchange rate regimes lack credibility and hence are more susceptible to speculative currency attacks. Frankel et al. (2001) claim that intermediate exchange rate regimes tend to be harder for international investors to monitor than hard pegs or pure floats. Eichengreen (2000) and Glick (2000), argue that intermediate exchange rate arrangements make economies more fundamentally vulnerable to economic crises, because they provide insufficient incentives for both policy-makers and private agents to undertake actions that would make the economy more resilient to economic shocks. The hollowing-out hypothesis is far from universally

[27] Two extreme poles are the hard pegs such as currency boards and monetary unions versus pure floats
[28] Bailiu et al. (2002)
[29] Adjustable fixed exchange rate is often stabilized by the central bank, but it might sometimes shift. It is often known as a “soft peg.”
[30] For a detailed discussion refer to International Monetary Fund (1997)

held, however.[31] Indeed, Williamson (2002) claims that intermediate regimes will continue to be a viable option, especially for EMEs. He argues that a publicly announced monitoring exchange rate can provide market guidance for where exchange rates are likely to be in the longer term, which might play an important role in stabilizing market expectations and attaining sustainable growth. Moreover, it should be immune from the crises that have plagued intermediate regimes, since it would not impose an obligation on the authorities to defend a "Maginot line"[32]. Proponents of this view believe that intermediate regimes can be a useful option for countries that want to trade off credibility and flexibility in their choice of exchange rate regime, or countries in transition to a monetary union or a floating regime.

The analysis of choosing an exchange rate regime has usually taken place using the theory of optimal currency areas of Mundell (1961). Models of choosing an exchange rate regime typically evaluate such regimes by how effective they are in reducing the variance of domestic output in an economy with sticky prices. If an economy faces primarily nominal shocks, shocks that are driven by money supply or demand, then a fixed exchange rate regime seems more appealing. If a monetary shock causes inflation, it will also tend to depreciate a floating exchange rate and thus transmit a nominal shock into a real one. In this case, the fixed exchange rate provides a mechanism to accommodate a change in the money demand or supply with less output volatility. On the other hand, if the shocks are real like productivity shocks or terms of trade shocks then

[31] Bailliu et al. (2002)

[32] The Maginot line, named after French minister of defense André Maginot, was a line of concrete fortifications, tank obstacles, machine gun posts which France constructed along its borders with Germany and with Italy in the wake of World War I.

exchange rate flexibility becomes more attractive. In this case, the economy needs to respond to a change in relative equilibrium prices of tradable goods with respect to non-tradable goods.

A shift in the nominal exchange rate offers a rapid way of implementing such a change hence, curbing the detrimental impact of these shocks on output and employment.[33] On the other hand, if a depression is driven by real factors in an economy with a fixed exchange rate, the demand for domestic money falls and the central bank is forced to absorb excess money supply in exchange for foreign currency. As a result, the decrease in the demand for domestic money leads to an outflow of hard currency and a rise in interest rates[34] and thus hard peg contributes to increasing the depth of the negative shock.

This classical model of choosing an exchange rate regime offers some useful insights. However, the standard framework for choosing an exchange rate regime is based on a number of implicit assumptions that do not hold in many emerging economies.[35] The standard theory takes for granted an ability to set up institutions that will pledge a fixed exchange rate, but after the experience of Argentina with the collapse of the currency board, this assumption of an institutional guarantee seems questionable. The standard theory assumes that a time-consistent choice is made on the exchange rate regime. However, in many EMEs the exchange rate regime may frequently shift. In the standard model of exchange rate choices, the focus is on adjustments in goods and labor markets and the financial sector is thoroughly ignored. However, many macroeconomic crises in

[33] For further discussion refer to De Grauwe (1997)
[34] under perfect capital mobility
[35] Obstfeld and Rogoff (1995)

EMEs have been accompanied by a financial crisis. Finally, the standard exchange rate model does not take into consideration the transaction costs and liquidity problems that are essential to explain raison d'être of money. This issue is especially vital for emerging market economies, where the lack of contingent contracts is more severe than in advanced economies.

It is useful to identify several institutional features that are common in EMEs to illustrate the inadequacy of the standard model of choosing an exchange rate regime for EMEs, and also to highlight some of the main issues in making such a choice: thin and poorly developed fiscal, financial, and weak monetary institutions, currency substitution and liability in foreign currencies, and vulnerability to sudden stops of outside capital flows.[36]

Poorly developed fiscal, financial and monetary institutions make EMEs highly vulnerable to high inflation and currency crises. Sargent and Wallace (1981) and Woodford (1994 and 1995) argue that irresponsible fiscal policy puts pressure on the monetary authorities to monetize the debt, thereby producing rapid money growth, high inflation and downward pressure on the exchange rate. Similarly, as Demirguc-Kant and Detragiache (1998) argues that poor regulation and supervision of the financial system can result in large losses of bank that make it impossible for the monetary authorities to raise interest rates to control inflation or curb the large depreciation of the currency.[37] An underdeveloped banking system can also produce fiscal instability.[38] Weak monetary institutions in which there is little commitment to price stability or the independence of

[36] For further discussion refer to Obstfeld and Rogoff (1995)
[37] Obstfeld and Rogoff (1995)
[38] For further discussion refer to Burnside, Eichengreen and Rebelo (2001).

the central bank mean that the monetary authorities will not have the support or the tools to keep inflation under control or to prevent large depreciations of the currency. Thus in an economy where the government may run enormous fiscal deficits, banks are poorly regulated, the real value of money cannot be taken for granted.[39]

The value of the currency in EMEs may dramatically change through exchange rate and inflation. As a reaction to the threat of a dramatic change in the value of the home currency the agents start to use hard currencies for many transactions.[40] This currency substitution induces the monetary authority to allow banks to offer foreign exchange deposits[41] which encourage banks to offer loans denominated in foreign currency, leading to liability dollarization. As Mishkin (1996) argues liability dollarization leads to sharp currency devaluation. In EMEs, abrupt real currency depreciation creates a situation where those who have borrowed in foreign currencies are unable to repay. The money they are earning is denominated in local currency, but their debts are in foreign currencies. Thus the net worth of corporations and individuals falls, especially those whose earnings are primarily in local currency. It leads to many bankruptcies and loan defaults, a sharp decline in lending and an economic contraction. Liability dollarization may become a major problem for countries in EMEs where the level of borrowing in foreign currencies has been especially high and where the earnings of local firms and individuals are in local currency.[42]

[39] Obstfeld and Rogoff (1995)
[40] Calvo and Végh (1996)
[41] A firm in Argentina can deposit U.S. dollars directly in an Argentine bank without converting to local currency
[42] For further discussion refer to Calvo, Izquierdo and Talvi (2002).

Vulnerability to large negative changes in capital inflows also contributes to susceptibility to currency and financial crises. These "sudden stops" are mostly confined to EMEs and are more likely to be associated with large currency devaluations in these countries because of their weak fiscal and financial institutions.[43]

Currency depreciations and sudden stops bring about large changes in relative prices, and have a profound impact on economic growth.[44] In addition, the sudden stop is typically associated with a sharp fall in growth rates. A floating exchange rate may be the wrong prescription for this situation, since it may lead to a sharp depreciation of the currency. However, under a combination of weak institutions and sudden stops, it is not obvious whether a fixed exchange rate would be sustainable or not. Rather than focusing on the choice of exchange rate regime, the appropriate answer to this situation would seem to be an improvement in fiscal, financial, and monetary institutions.

IV. Concluding Remarks

International financial institutions like the International Monetary Fund, the World Bank and other development banks have a strong bias toward the floating exchange rate regime, no matter what type of a country they are dealing with. As Frankel (1999) alleges "there is no single currency regime which is right for all countries or at all times". Instead, an informed choice of exchange rate regime requires a deep understanding of a country's economy, institutions, and political culture.

[43] Calvo and Reinhart (2002)
[44] Calvo, Izquierdo and Talvi (2002)

Indeed, the key to macroeconomic success and sustainable economic growth in emerging market countries is not primarily their choice of exchange rate regime, but rather the strength of the countries' fundamental macroeconomic institutions, including the institutions associated with fiscal stability, financial stability and monetary stability. The interdependence between institutions and exchange rate regimes helps to explain the general empirical finding that whether a country has a fixed or flexible exchange rate can inform little about whether it has higher economic growth or not. Indeed, when you look more closely at which EMEs have successful macroeconomic performance, the exchange rate regime appears to be far less important than deeper institutional features of the economy relating to fiscal stability, financial stability and the credibility of monetary institutions that promote price stability. A focus on deeper institutional arrangements rather than on the choice of exchange rate regime may create an environment for EMEs which is less prone to the crises and more suitable for economic growth.

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