# Exchange Rate Policy in Emerging Economies Facing Capital Reversals

## Should Floating Be Clean or Dirty?

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### Key Points

- In the period since the global economic and financial crisis in 2008/09, emerging economies have encountered both surges and reversals of international capital.
- Rising interest rates and economic growth in the USA may in the future lead to them facing further relatively sharp capital reversals.
- To what extent should they allow such capital reversals to affect their exchange rates; should they opt for free (clean) floating or managed (dirty) floating? They have not all opted for the same exchange rate regime.
- In an era of high international capital mobility, exchange rate policy in emerging economies becomes more complicated than it used to be, and depends on a wide range of factors upon which there is considerable uncertainty. This article provides a systematic review of the issues involved.

### Introduction

In a bygone age the design of macroeconomic policy appeared to be relatively straightforward. Back in the 1950s and 1960s the world economy was based on the Bretton Woods international monetary system. Although occasionally adjusted, for long periods exchange rates were pegged. At the same time, capital mobility was limited. According to the conventional international

macroeconomic policy trilemma that was formulated in the 1960s, this meant that countries retained some discretion to use monetary policy independently in order to help achieve domestic economic objectives. In fact, during a Keynesian era, the preference was to allocate monetary policy a secondary role and to place greater emphasis on fiscal policy as a way of manipulating domestic aggregate demand so as to achieve non-inflationary full employment. There was a 'satisficing' approach to macroeconomic policy. This set out to keep economies within a range of the Phillips curve where neither inflation nor unemployment was unacceptably high.

In today's world, the policy panorama looks very different. For advanced economies there is still little debate about the design of exchange rate policy, but, with the collapse of the Bretton Woods system in 1973, floating rates have replaced fixed ones. The areas of debate for this group of countries instead surround the efficacy of monetary policy when interest rates are close to zero, and the pros and cons of fiscal stimulation *versus* fiscal austerity. In emerging economies, however, the policy challenges are greater. These economies have been buffeted by volatile flows of international capital. They face a landscape where surges are often followed by sudden stops. Shocks to their economies therefore frequently come from sources that are outside their control, and that have their first effect on the capital account of the balance of payments rather than on the current account. How should emerging economies respond to such shocks, and how can they best insulate themselves from the destabilising effects of capital account volatility? This is a policy dilemma that they face.

In the immediate aftermath of the global economic and financial crisis (GFC) in 2008/09, and with the United States and other advanced economies pursuing expansionary monetary policy based on low interest rates and quantitative easing, the issue was how to deal with the related capital surges as foreign investors looked for higher rates of return elsewhere in the world. With the more recent economic recovery in the USA, and with the expectation that US monetary policy will continue to tighten and interest rates continue to rise, the acute question becomes how to respond to the related capital reversals.

A quick glance at the international macroeconomic trilemma seems to summarise the policy options. The first is to match the rise in US interest rates in a way that neutralises the incentive for international capital to exit. The second is to allow market forces to affect the exchange rate, with the value of the domestic currency depreciating as foreign investors sell it. In principle this would be a way of encouraging the current account to strengthen in order to offset the weakening in the capital account. The third is to introduce capital controls that directly staunch the capital outflow. And the fourth is to adopt some combination of all three of the above. However, further thought shows that things are much more complicated than this simple summary suggests.

In the space of one relatively short article it would be difficult if not impossible to fully review all the complications; this would involve analysing the economics of exchange rate policy, monetary policy and capital controls, as well as all the possible interactions between them. Instead, this article adopts a narrower focus. It concentrates on the implications of sudden, large capital outflows for the design and operation of exchange rate policy in emerging economies, placing this in the context of the evolution of their exchange rate regimes and policy. The discussion of monetary policy and capital controls is therefore largely incidental to this principal theme. In one respect the article is the latest in a sequence of articles that have appeared in *World Economics*. These have examined the status of exchange rate regime choices in emerging and developing economies at the beginning of the 2000s (Bird, 2002), the reluctance that some emerging economies have exhibited to devalue their exchange rates (Bird and Willett, 2008), the design of macroeconomic policy in the post-GFC era (Bird, 2013, 2014), the role of fiscal policy in the aftermath of the crisis (Bird, 2016) and the management of capital surges (Bird, 2012).

The layout of the article is as follows. The second section traces the evolution of theory pertaining to the choice of exchange rate regime and relates this to changes in the general approach to exchange rate policy in emerging economies. The third section provides and discusses some data relating to the choice of exchange rate regime in emerging economies. It also examines data concerning capital flows to illustrate the problem of capital

volatility. The fourth section focuses on more recent debates about the effects of exchange rate policy and the claim that, in a world of extreme capital mobility, the exchange rate has become a largely irrelevant component of the macro policy triad. The section then examines the contemporary debate over exchange rate policy in emerging economies that encounter large capital reversals. This seeks to explain why emerging economies may eschew 'clean' floating in favour of 'dirty' floating.[1] The final section offers a few, more general, concluding remarks about the current status of theory relating to the choice of exchange rate regimes and the design of exchange rate policy.

## Exchange Rate Policy: Evolution in Theory and Practice

The post-war Bretton Woods system involved exchange rate pegs that could in principle be adjusted in circumstances of 'fundamental equilibrium'. The system was designed to generate exchange rate stability and to encourage the growth of international trade. In both regards it was intended to be superior to the 'beggar thy neighbour' policies that had characterised the 1930s, where countries had used both exchange rate policy and trade policy in a relatively aggressive way to strengthen their own balances of payments. As things turned out, the adjustable peg system exhibited a number of weaknesses that eventually contributed to its collapse. Pegs were not adjusted very frequently and, as a consequence, when they were, the adjustment was both relatively large and predictable. This meant that it paid to speculate against exchange rate changes; speculators were presented with a one-way option. In turn this implied that the exchange rate regime encouraged rather than discouraged financial crises and contributed to the very instability that it was hoped the system would avoid. Moreover, it also implied that balance of payments adjustment depended on manipulating aggregate domestic demand. Where monetary policy had to be used at least in part to defend the pegged

[1] It is somewhat unfortunate that exchange rate regimes involving managed floating have been referred to as 'dirty'. The use of the term 'dirty' in common parlance implies something that is, almost by definition, inferior to something that is 'clean'. Synonyms for dirty include: 'soiled', 'unfair', 'dishonest' and 'unscrupulous'. The point of this article is to examine whether, in the case of exchange rate regimes, there may be circumstances in which dirty floating that is defined to include a degree of intervention by the relevant authorities to influence the value of a currency is actually superior to clean floating.

exchange rate, this put a great deal of pressure on fiscal policy. In practice, the adjustment mechanism incorporated in the Bretton Woods system was unable to swiftly and efficiently correct balance of payments disequilibria and this placed the Bretton Woods system in a perilous position.

After an unsuccessful attempt in the early 1970s to eliminate global disequilibria by resetting the configuration of pegged exchange rates, advanced economies abandoned pegging altogether and moved over to generalised flexible exchange rates in 1973.

However, this systemic change created problems for emerging and developing economies which they, as a group, were unenthusiastic about. They worried that the thinness of their foreign exchange markets would make the values of their currencies unstable, and that they lacked adequate access to the means of hedging against the uncertainty to which this would give rise. More generally, the reservations that emerging economies had about a flexible exchange rate regime became popularised in the claim that there was a 'fear of floating'.

In a world where the major currencies were floating against one another, the notion of pegging took on a significantly different meaning. Pegging to an anchor currency, such as the US dollar, that itself was floating against other major currencies, meant that the value of the domestic currency was in effect floating against these other major currencies. There was no guarantee that the related changes in the effective exchange rate would be appropriate to the economic circumstances of the emerging economy that had opted to peg. To some extent this so-called 'third currency phenomenon' could, in principle, have been dealt with by pegging to a basket of currencies rather than an individual one. But this then raised issues about the way in which the basket should be constructed and the weights that should be attached to the currencies comprising the basket.

In part it was the third currency phenomenon that contributed to causing the crises encountered by emerging economies during the 1990s, and most notoriously the one in East Asia in 1997/98. By the beginning of the 2000s a view had been formed that soft pegging, or indeed any form of intermediate exchange rate regime, was inherently unstable and prone to crisis. The implication was that countries would be well advised to select either of the

extremes—free floating or immutable fixity—but not something in the middle. Although popular for a time, neither the theoretical nor the empirical case for this bipolar approach was particularly compelling. Not all intermediate exchange rate regimes failed, and not all floating rate or immutably fixed rate regimes succeeded. Other contingent factors were important in determining the success of any exchange rate regime.[2] Even so, the general picture showing that as countries became more developed they also tended to exhibit a greater propensity to adopt a more flexible exchange rate regime continued to be observed.

The global economic and financial crisis in 2008/09 raised new issues concerning the design of macroeconomic policy. This included the question of exchange rate policy. Evidence shows that many emerging economies did alter their exchange rate regime in the aftermath of the crisis but the changes were not just in one direction. Some moved towards greater flexibility and others towards greater fixity. Moreover, the changes were not always permanent, with countries often reverting or 'flipping' back to their previous regime (Klein and Shambaugh, 2008; Bird and Mandilaras, 2015).

As advanced economies attempted to offset the recessionary effects of the crisis by relaxing monetary policy with low interest rates and quantitative easing, many emerging economies began to experience a surge of capital inflows. This created a further challenge for them in terms of their exchange rate policies, with a key question being the extent to which the inflows should be allowed to lead to nominal currency appreciation. The central issues in this context related to whether appreciation would drive the exchange rate significantly above its equilibrium value and damage competitiveness; whether macro/prudential policies could offset the effects of capital inflows on asset and housing markets; whether there was scope for sterilising the domestic monetary effects of intervention in the foreign exchange market; and whether there was a case for accumulating international reserves (since this would be one consequence of intervention). Also important in determining a policy response would no doubt have been

[2] Optimum currency area theory was devised initially to establish whether countries were good candidates to participate in exchange rate unions within which currency values would be fixed. But in general it also identified a number of criteria upon which the selection of an exchange rate regime could in principle be based. These included: factor mobility, openness, export concentration, macroeconomic synchronisation and financial integration.

the assessments made by governments of the political consequences of the alternative actions since different policies bring with them different distributions of winners and losers.

It is in the nature of capital volatility that surges will tend to be followed by sudden stops and reversals and during 2018 and 2019 emerging economies began to wrestle with the question of how they should respond to such reversals should they occur. Again, a central issue related to the extent to which the reversals should be allowed to have an impact on exchange rates. Should emerging economies favour freely flexible exchange rates and allow market forces to operate unencumbered, or should governments intervene to moderate the effect of capital reversals on the value of their currencies? Should the floating be clean or dirty?

## Exchange Rate Regimes and International Capital Volatility: Descriptive Statistics

Table 1 (at the end of this article) shows the *de facto* exchange rate regimes adopted by a sample of emerging market economies over the period 2005–18, as recorded by the International Monetary Fund (IMF). A number of things emerge from the table. First, there are many types of regime lying between the polar extremes of fixity (conventional pegging) and free floating. The various forms of intermediate regime may be characterised in terms of how close they are to the polar extremes, and whether intervention is motivated to limit variability around a particular value or whether it is motivated to change this value. In the nomenclature of this article, and when it comes to intervention in the foreign exchange market, there are degrees of 'dirtiness'. Thus 'floating' or 'independently floating' are relatively close to 'free floating' whereas a conventional peg or a 'stabilised arrangement' involves keeping the spot rate within a fairly narrow margin; although the peg may be expressed against an anchor currency or a basket of currencies. A complete set of definitions may be found in the IMF's *Annual Report on Exchange Rate Arrangements and Exchange Restrictions.*

Second, and unlike advanced economies that all float, not all emerging economies have adopted the same exchange rate regime.[3] From my sample of 18 countries in 2018, only 10 had a floating or freely floating exchange rate with minimal intervention in the foreign exchange market.

Third, while some countries seem to stick with one regime for lengthy periods, others do not. Thus India, Korea, Brazil, Chile, Thailand, Turkey and the Philippines have had floating rates of some form since 2009. By comparison, Cambodia, China, Indonesia, Laos, Malaysia, Singapore and Argentina have quite frequently switched between regimes, sometimes in the direction of greater flexibility and sometimes in the opposite direction.

Fourth, the data in Table 1 also confirm what other researchers have reported, namely that countries may revert or flip back to exchange regimes that they have had previously (Klein and Shambaugh, 2008; Bird and Mandilaras, 2015). A movement in the direction of greater flexibility does not therefore rule out the possibility that the direction will be reversed.

In spite of the diversity of experience in emerging economies shown in Table 1, it may also be seen that in the period since the global economic and financial crisis, no country in my sample had a 'conventional peg', although some have occasionally had a soft peg in the form of a 'stabilised arrangement'. Most countries have opted for a degree of exchange rate flexibility. The question then arises as to whether it is better to allow market forces to determine the value of the currency or to intervene in order to moderate these forces or work against them. Is it better to have clean or dirty floating?

Part of the answer to this question depends on the degree of exchange rate stability that would be created by allowing market forces to have free rein, and whether the change in the exchange rate to which market forces would lead imposes significant costs. For many emerging economies instability in the exchange rate will be related to instability in the capital account or financial account of the balance of payments.

[3] In the case of the Eurozone member countries, there is absolutely an 'immutable peg' in the sense that they share a single currency, so there is no opportunity to alter the exchange rate relative to one another. However, the euro floats against other currencies, so from this point of view member countries of the Eurozone have a floating rate.

**Figure 1: Net capital flows to emerging economies**

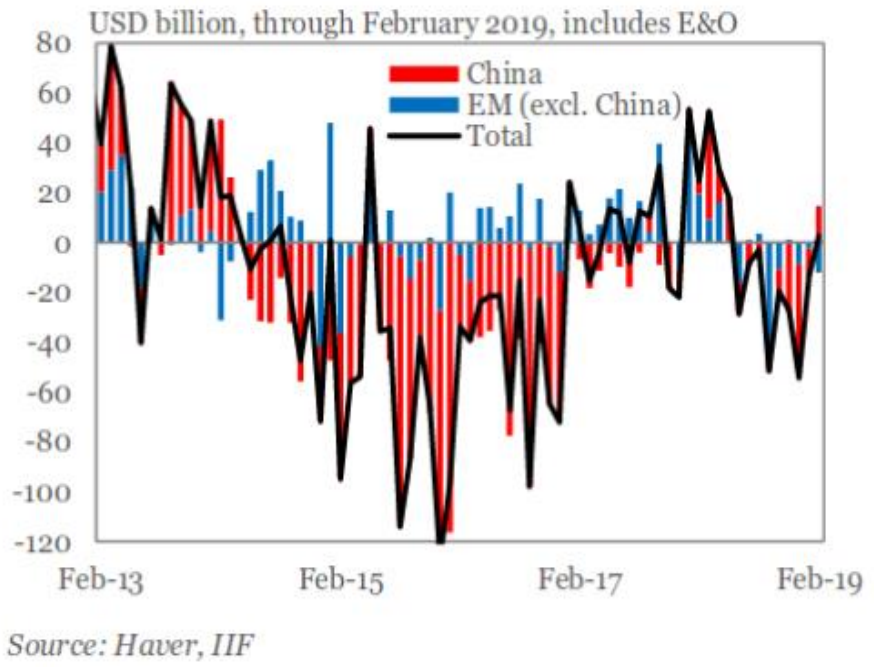


Figure 1 provides an indication of this instability in the period running from 2013 to early 2019. It shows the increase in capital inflows to emerging economies from early 2017 until early 2018. It then shows the sharp reversal from then until the beginning of 2019. In this article, I focus on how emerging economies should respond to such reversals in terms of their exchange rate policy.

## Clean or Dirty Floating in the Event of Capital Reversals?

In resolving this question much of the conventional analysis of exchange rate policy remains relevant. But in the international monetary system of the early twenty-first century this analysis needs to be augmented in important ways. Conventional analysis focused on the impact of exchange rate changes on the current account of the balance of payments. In this context, emphasis was placed on whether currency depreciation alters the structure of relative prices in such a way as to raise the domestic currency price of imports and reduce the foreign currency price of exports. The analysis then explores factors that

might get in the way of this relative price effect. These factors include inflation pass-through, with the faster inflation induced by the depreciation neutralising its impact on the real exchange rate. They also include the possibility that foreign firms will alter their home currency prices to offset the impact of depreciation on their competitiveness. Finally, they include the possibility of retaliatory action by other countries, as had been a feature of the 'beggar thy neighbour' era of the 1930s.

Assuming that currency depreciation does indeed alter the structure of relative prices, even if not to the full extent of the depreciation, the conventional analysis concentrated on the size of the response to the change in relative prices. It focused on the values of the key foreign-trade prices elasticities and whether they complied with the Marshall-Lerner condition. In short, was the sum of the import-demand and export-demand price elasticities greater than one? If so, then devaluation would be effective in strengthening the current account. In terms of the impact of currency depreciation on expenditure, the conventional view in the 1950s and 1960s was that devaluation was expansionary. This effect was associated with the additional foreign demand for exports and the switch in demand away from imports to domestically produced import substitutes. In part this explained why there were concerns that currency depreciation would have inflationary consequences, although these were also connected to the increased domestic currency price of imports. Concerns over these economic issues, combined with the politics of exchange rate depreciation, helped to explain why countries often delayed decisions to devalue (Bird and Willett, 2008).

In contrast, and in the present world economy, such analysis will only be a part of what policymakers in emerging economies will be considering, and quite possibly not the most important part. In addition to the conventional analysis they will be thinking about the effects of exchange rate depreciation on capital flows and on their domestic financial sectors. They will also be considering whether exchange rate depreciation could be recessionary rather than expansionary, as well as the time profile of the various effects. With regard to timing, it will not only be a matter of considering the time profile of the effects of currency depreciation, but also the duration of the capital reversal. In an era of capital volatility and financial instability, there can be

little doubt that the analysis of exchange rate policy has become more complicated than it used to be, and there are a larger number of things that need to be taken into account. Unfortunately this creates more uncertainty and makes it more difficult for policymakers to determine the 'best' policy or the best combination of policies. There will be dilemmas surrounding the choice of exchange rate policy and about the role of exchange rate policy within the broad suite of economic policies, incorporating monetary policy, capital flow management measures and macro-prudential policy. But what are the arguments for and against clean floating as opposed to dirty floating?

**Clean floating**

The underlying argument made for clean floating is that markets know best. Allowing market forces to operate freely will generate the equilibrium exchange rate that will induce the needed correction in the balance of payments via its effects on competitiveness. In this way the exchange rate can act as an effective and efficient shock absorber insulating the economy from the effects of external shocks. By allowing the exchange rate to move freely, international reserves are protected and the domestic authorities are able to pursue the other policies needed to achieve their domestic objectives without worrying about the balance of payments. So why would policymakers not allow exchange rates to move freely?

The answer is that there are dangers with a policy of benign neglect with respect to the exchange rate. Clean floating may have a downside. The main one is that a freely flexible exchange rate may morph into a freely falling exchange rate. In this case market forces may drive it below its long-run equilibrium value. There will be overshooting. There is little reason to believe that markets will necessarily be well informed about the long-run equilibrium rate. They will therefore be ill-informed about the relationship between the contemporary short-term rate and its long-term equivalent. Their expectations of future movements in the rate may be more strongly affected by what the recent movements have been. A falling exchange rate will then be expected to fall further. In these circumstances traders will sell the currency, thereby bringing about the fall that they anticipated. Prophecies of the future movements in the exchange rate will be self-

fulfilling. There will be an internal dynamic at work that drives the exchange rate still further below its long-run equilibrium.

Some of the negative effects associated with this have been understood for a long time. Perhaps the most common and conventional worry is that a large fall in a currency's value can lead to a significant acceleration in inflation, which then leads to a loss of competitiveness and further currency depreciation. Cycles of depreciation, inflation and further depreciation can arise. More recently, however, concern has surrounded the effects of unrestricted exchange rate depreciation on the domestic financial sector and on the capital account of the balance of payments.

Following the East Asian crisis in 1997/98 and the recession to which it led, the adverse balance sheet effects of currency depreciation came to the fore. If domestic corporations and financial institutions have their liabilities denominated in a foreign currency such as the dollar, and their assets denominated in domestic currencies, then it follows that if the domestic currency depreciates, their balance sheets expressed in domestic currencies will weaken as the domestic currency value of their liabilities increases. This appeared to be the consequence of 'original sin', where countries could not borrow internationally in their own currency.

The problem is that, even in the absence of original sin, and in circumstances where emerging economies can borrow internationally in their own currencies, unfettered exchange rate depreciation under a clean float may still have deleterious domestic financial consequences. For international lenders the rate of return expressed in their own currencies will fall. As this happens there will be less incentive for them to lend. There will be a reduction in the amount of international capital flowing into the country whose currency is depreciating. There could be a sudden stop. Under a clean-floating exchange rate regime, the related reduction in the demand for the domestic currency will result in a further fall in its value. Again, there will be an adverse internal dynamic at work, where things that get bad have a tendency to get worse. Eventually these events may lead to a full-blown currency and financial crisis, and the authorities may be forced to raise the rate of interest in an attempt to bring the crisis to an end. In short, the tighter monetary policy that clean floating was intended to avoid ends up not being

avoided. Indeed in a somewhat perverse fashion, the external financial shock which takes the form of a rise in global interest rates is transmitted to the emerging economy via the impact on its exchange rate. The free float acts as a transmission mechanism rather than an insulation device.

On top of this, a clean float may create problems in the real sector of the economy. Where the short-run exchange rate drops below its long-run equilibrium level, decisions in the real sector will be made on the basis of what, in the long run, is the 'wrong' set of prices. The production of exports and import substitutes that may seem profitable at the short-term rate may become unprofitable when the rate recovers, leaving the affected sectors with excess capacity.

In order to avoid these potential problems there may be an incentive for the authorities not to allow the currency to float freely or cleanly. They may instead be motivated to intervene in the foreign exchange market, to manage the float and moderate the decline in the currency's value. The floating will be dirty rather than clean.

**Dirty floating**

Clean floating would clearly be unappealing if the adverse consequences outlined above were certain to follow. But they are not. Similarly, dirty floating would be appealing if it was certain to avoid the adverse consequences of clean floating. But it is not. Dirty floating comes with its own problems. It does not represent a policy panacea. Dirty floating is attempting to generate the needed balance of payments adjustment via flexibility in the exchange rate, while avoiding the potential pitfalls of a free float. But trying to derive the best of both worlds is not easy.

If a policy of dirty floating is to be implemented, a number of issues have to be confronted. The first relates to the degree of dirtiness. How aggressively should the exchange rate be managed and how should the policy of intervention in the foreign exchange market be implemented? How far should the exchange rate be allowed to depreciate before the authorities intervene, and should the margins be 'soft' or 'hard'? Or should the authorities intervene from the outset? Should they merely opt to 'lean against the wind' and attempt to slow down the rate of change in the exchange rate

and stabilise it, without seeking to influence its ultimate level? Or should intervention be more aggressive and set out to alter the level of the longer-term exchange rate?

The very essence of dirty floating implies that the authorities know better than the markets what the exchange rate should be and the speed at which the movement in the exchange rate should be allowed to occur. There is plenty of systemic evidence from the Bretton Woods era and from individual cases since then that they frequently do not. Knowing the appropriate exchange rate and the extent to which the current rate should be allowed to depreciate means knowing what the effects on inflation will be, knowing how trade flows will respond, knowing how international capital markets will respond, and knowing what the effects on domestic financial markets will be. This is a lot to know. In fact the authorities will almost certainly not know what they need to know; there will a large amount of uncertainty surrounding all the relevant issues. The design of exchange rate policy will therefore become an exercise in best guessing or calculating probabilities.

As if things were not already complex enough, dirty floating and the intervention it involves brings additional complexities. The purpose of intervention in the foreign exchange markets is to oppose market forces. If foreign investors are selling the domestic currency then the authorities have to buy it. This has two consequences. Foreign exchange reserves will fall, and the domestic money supply will shrink. It may be that neither of these consequences is particularly appealing. They each bring with them their own associated problems.

The significance of losing reserves depends on their initial level. If they are well above their optimum level then it may not be of concern to see them decline, although there could still be concern about the speed of the decline if it becomes rapid. Judging the point at which reserves have reached their optimum level is not straightforward. Moreover, reserves are finite. A stage may be reached where markets perceive that reserves have become inadequate. In these circumstances speculation against the currency may increase and this may turn out to be difficult to resist. The attempt to manage the exchange rate could then end up having to be abandoned in favour of a free fall. A general point that follows from the above analysis is that the

sustainability of a policy of dirty floating depends on its credibility and the degree to which it engenders market confidence. This will affect market expectations about the future exchange rate and these will have an effect on contemporary market behaviour and thereby on the current exchange rate. A policy of foreign exchange market intervention will be more sustainable where it creates and maintains confidence.

The question of confidence leads on to a related issue: whether or not the authorities should be open and transparent about their policy of intervention and announce the margins of intervention. Should they come clean about a policy of dirty floating? This is another issue on which opinion is divided. Announcing the details of the policy in such a way that it carries credibility may be expected to generate market confidence that helps the policy to work. On the other hand, announcing a policy to which there does not appear to be firm commitment, or in circumstances where it will be difficult to implement it, will undermine its credibility. Markets will then act in a way that makes it even more difficult to implement the policy. Failure to implement the policy as announced will reduce confidence in it still further and will make it more difficult to operate the policy in the future because of reputational damage.

Another factor affecting the sustainability of dirty floating relates to sterilisation. The authorities may be keen that the policy of intervention in the forex market should not tighten domestic monetary conditions. After all, the basic appeal of floating, clean or dirty, is to allow domestic interest rates not to be determined solely by global rates and maintain some monetary independence. In these circumstances the authorities may opt to use open market policy to offset the effect of their intervention on the domestic monetary sector. They may purchase government bonds as a way of injecting more liquidity into the domestic financial sector. The problem here is that buying bonds will drive up their price, reduce the interest rate, and thereby incentivise further capital outflows. The authorities may, in effect, end up having to run faster merely to stand still. Once again, market confidence will be important. In circumstances where markets believe there is only limited scope for sterilising the macroeconomic effects of intervention in the forex market, and also believe that the authorities are unwilling to countenance

the unsterilised effects of intervention, they will also believe that the policy of dirty floating is unsustainable.

Another implication of the above analysis is that dirty floating may work better over the short run, and as a temporary measure, than as a permanent one. It will work better when reserves are perceived as being high, and when there is scope for sterilisation, than when reserves have fallen and the limits to sterilisation have been reached. With low reserves and no further scope for sterilisation, a policy of dirty floating will lose credibility and the confidence of markets; this will further reduce its sustainability. In this respect intermediate exchange rate regimes that involve managed floating may become unstable.

## Exchange Rate Policy in a World of Capital Volatility: Other Things to Consider

In this article, my focus has been on the design of exchange rate policy in emerging economies in circumstances where they face a sudden stop or reversal in capital inflows. However, this is only one part of what is likely to be a broader strategy to deal with volatile capital flows.

As identified by the international macroeconomic policy trilemma, another important part of the policy debate relates to the management of capital flows and the use of capital controls. A provocative claim made by Rey (2015) is that the fundamental choice for emerging economies is actually between monetary independence and capital controls. She argues that the exchange rate regime makes little difference and that it is not effective in insulating economies from external financial shocks. She is not alone in claiming that the choice of exchange regime is largely insignificant and that its importance has often been overstated. Rose (2015), for example, argues that there is little evidence to suggest that the exchange rate regime affects key macroeconomic variables such as inflation and economic growth.

The analysis presented in this article certainly illustrates how, even with a floating exchange rate, changes in monetary conditions in advanced economies may transmit to emerging ones. However, it also shows how a degree of flexibility may provide a degree of insulation. In the real world

things may lie somewhere between what is suggested by the trilemma—namely that flexible exchange rates allow countries to run independent monetary policy—and the 'irreconcilable dilemma' argument put forward by Rey, namely that they offer no insulation at all against external financial shocks. This more nuanced position is also consistent with much of the contemporary empirical evidence (Klein and Shambaugh, 2015; Obstfeld et al., 2017). Thus, the exchange rate choice is not just between fixed and flexible exchange rates but between various types of flexibility; in particular between clean or dirty floating.

In broadening the analysis, it is also important to consider whether the response to external financial shocks will be symmetrical. In terms of the design of exchange rate policy, a country's authorities may not respond in a mirror-image way to surges and reversals.

With clean floating, capital surges will lead to currency appreciation, a loss of competitiveness and a counter-inflationary effect. A country's response will therefore depend on its existing trade balance and output gap. Intervention to offset the appreciation will result in reserve accumulation and domestic monetary expansion. These may be deemed to be desirable outcomes where reserves are low and the economy has a significant output gap. Sterilising the effects of the intervention will involve selling government bonds and this will lead to an increase in sovereign debt. The incentive to sterilise the effects of intervention will therefore depend once again on contemporary macroeconomic performance as well as on the current levels of indebtedness.[4]

Perhaps most importantly, the groups in society which tend to benefit from currency depreciation will tend to lose from appreciation, and vice versa. A government's choice of policy may be expected to be significantly influenced by the distributional consequences, and therefore the political ramifications. It therefore follows that governments may respond to surges in a different way to the way in which they respond to reversals. Where, for

[4] It may also be noted that the reaction to capital reversals will be influenced by the extent to which they are preceded by surges and currency appreciation. Efremidze et. al. (2017) examine this and argue that estimates of the probability of reversals should influence the degree to which countries attempt, at least partially, to neutralise the effects of surges by means of sterilised intervention, macro-prudential policies or controls on capital inflows.

example, the trade sector is important and politically influential, governments may be more reluctant to allow the exchange rate to appreciate than they are to let it depreciate. On top of this, in the context of a reversal, intervention will be constrained by the level of international reserves, whereas there is no similarly binding constraint in the context of a capital surge since reserves will accumulate. It may also be the case that governments are confident that they can deal with the inflationary effects of a depreciating currency by targeting inflation. Monetary authorities can modify the so-called 'Taylor rule' to accommodate the impact of changes in the exchange rate on inflation, although this again implies that larger currency depreciations will tend to lead to larger increases in interest rates.

In selecting a combination of policies to deal with capital surges and reversals, a country's authorities will also consider whether they are better able to use capital controls and other capital flow-management measures to affect inflows or outflows. The effectiveness of capital controls may be asymmetrical, and this in turn may imply an asymmetrical response to surges and reversals in terms of exchange rate policy. If, for example, there is scope for regulating capital inflows and for offsetting their impact on asset and housing markets by using macro-prudential policies, the authorities may opt to use these approaches to minimise the effect on the exchange rate rather than directly intervening in the foreign exchange market. The bottom line is that the choice of exchange rate regime will depend not only on the effectiveness and efficiency of exchange rate policy in delivering policy goals, but also on the effectiveness and efficiency of other, alternative policy instruments. The problem facing policymakers is that they are unlikely to know what they need to know about the relative effectiveness and efficiency of alternative policies at the time when they have to make policy decisions. Given the substantial area of uncertainty, it is unsurprising that different emerging economies have exhibited different choices relating to exchange rate regimes.

## Concluding Remarks

Analysis of exchange rate regimes used to be considered relatively straightforward in a world of limited capital mobility. International economics textbooks gave a fairly precise description of the pros and cons of fixed *versus* flexible exchange rates. Fixed rates acted as a nominal anchor to help control inflation; governments in emerging economies could opt for exchange rate-based stabilisation. Under this regime adjustment had to be achieved in ways other than by altering the exchange rate. The downside was that if these alternative adjustment mechanisms did not work well, the fixed exchange rate could become misaligned and there would be pressure to abandon the peg. Flexible exchange rates, it was assumed, would encourage more orderly, efficient and symmetrical adjustment.

During the 1980s and 1990s emerging economies often opted for 'soft' pegs or managed flexibility. They selected an exchange rate regime that lay somewhere between the polar extremes. However, a series of crises called this choice into question. Intermediate regimes were seen as being particularly crisis-prone. Against this background, the bipolar approach to exchange rate policy became fashionable at the beginning of the 2000s. The claim was that exchange rate regimes should involve either free flexibility or immutable fixity; this also found expression in the idea of the 'unstable middle'. It was not necessary to move all the way to free floating in order to substantially reduce the probability of crises.

Increasing capital mobility and a high degree of volatility involving a sequence of capital surges and reversals has increased the vulnerability of emerging economies to external financial shocks. These make conventional exchange rate pegs less attractive; it is difficult to fix the price of a currency where there are large swings in the demand for it and/or the supply of it in foreign exchange markets. Increasing capital volatility has therefore encouraged a general move towards greater exchange rate flexibility amongst emerging economies. The more current policy question relates to the degree of flexibility. Should exchange rates be freely flexible or should they be managed via intervention; should floating be clean or dirty?

This article has shown the complexities that are involved in answering this question. It has identified the issues encountered in making the choice. However, it has also shown that there is frequently insufficient evidence to allow a clear and unambiguous choice to be made.

Having said this, a nuanced position with regards to the nature of exchange rate flexibility suggests that there are circumstances in which an intermediate exchange rate regime is superior to either of the polar extremes. When it comes to floating the exchange rate in a world where there is both a high degree of capital mobility and a reluctance to impose tight controls over capital movements, it may sometimes be better to be dirty than to be clean.

## References

Bird, G. (2002). Where do we stand on choosing exchange rate regimes in developing and emerging economies? *World Economics* **3**, 1, pp. 145–67.

Bird G. (2012). Managing capital surges. *World Economics* **13**, 1, pp. 173–88.

Bird, G. (2013). The collapse of consensus: the contemporary confusion over macroeconomic policy. *World Economics* **14**, 1, pp. 141–52.

Bird, G. (2014). Macroeconomic policy in open economies: why do economists disagree? *World Economics* **15**, 3, pp. 121–41.

Bird, G. (2016). Fiscal policy and the global crisis. *World Economics* **17**, 1, pp. 147–76.

Bird, G. and A. Mandilaras (2015). Transitions in exchange rate regimes in the aftermath of the global economic crisis. *Applied Economics Letters* **22**, 7, pp. 567–71.

Bird, G. and T. D. Willett (2008). Why do governments delay devaluation: the political economy of exchange rate inertia. *World Economics* **9**, 4, pp. 55–74.

Efremidze, L., S. Kim, O. Sula and T. D. Willett (2017). The relationships among capital flow surges, reversals and sudden stops. *Journal of Financial Economic Policy* **9**, 3, pp. 284–301.

Klein, M. and J. Shambaugh (2008). The dynamics of exchange rate regimes: fixes, floats and flips. *Journal of International Economics* **75**, 1, pp. 70–92.

Klein, M. and J. Shambaugh (2015). Rounding the corners of the policy trilemma; sources of monetary autonomy. *American Economic Journal: Macroeconomics* **7**, 4, pp. 33–66.

Obstfeld, M., J. D. Ostry and M. S. Qureshi (2017). A tie that binds: revisiting the trilemma in emerging market economies. *IMF Working Paper* No. 17/130 (Washington, DC: International Monetary Fund).

Rey, H. (2015). Dilemma not trilemma: the global financial cycle and monetary policy independence. *NBER Working Paper* No. 21162 (Cambridge, MA: National Bureau of Economic Research).

Rose, A. (2015). Exchange rate regimes in the modern era: fixed, floating or flaky? *Journal of Economic Literature* **49**, 3, pp. 652–72.

**Table 1: Exchange rate arrangements in emerging market economies, 2005–20**

| Country name | Cambodia | China, P.R.: Mainland | Indonesia | India | Korea, Republic of |
|---|---|---|---|---|---|
| **2005** | Managed floating | Conventional pegged arrangement | Managed floating | Managed floating | Independently floating |
| **2006** | Managed floating | Conventional pegged arrangement | Managed floating | Managed floating | Independently floating |
| **2007** | Managed floating | Crawling peg | Managed floating | Managed floating | Independently floating |
| **2008** | Managed floating | Crawling peg | Managed floating | Managed floating | Independently floating |
| **2009** | Floating | Stabilised arrangement | Floating | Floating | Free floating |
| **2010** | Stabilised arrangement | Stabilised arrangement | Floating | Floating | Floating |
| **2011** | Stabilised arrangement | Crawl-like arrangement | Floating | Floating | Floating |
| **2012** | Stabilised arrangement | Crawl-like arrangement | Floating | Floating | Floating |
| **2013** | Stabilised arrangement | Crawl-like arrangement | Crawl-like arrangement | Floating | Floating |
| **2014** | Floating | Crawl-like arrangement | Floating | Floating | Floating |
| **2015** | Stabilised arrangement | Crawl-like arrangement | Floating | Floating | Floating |
| **2016** | Other managed arrangement | Other managed arrangement | Floating | Floating | Floating |
| **2017** | Other managed arrangement | Stabilised arrangement | Floating | Floating | Floating |
| **2018** | Other managed arrangement | Crawl-like arrangement | Stabilised arrangement | Floating | Floating |

| Country name | Singapore | Thailand | Vietnam | Argentina |
|---|---|---|---|---|
| **2005** | Managed floating | Managed floating | Independently floating | Managed floating |
| **2006** | Managed floating | Managed floating | Conventional pegged arrangement | Managed floating |
| **2007** | Managed floating | Managed floating | Conventional pegged arrangement | Conventional pegged arrangement |
| **2008** | Managed floating | Managed floating | Other conventional pegged arrangement | Conventional pegged arrangement |
| **2009** | Floating | Floating | Other managed arrangement | Floating |
| **2010** | Other managed arrangement | Floating | Stabilised arrangement | Floating |
| **2011** | Other managed arrangement | Floating | Stabilised arrangement | Crawl-like arrangement |
| **2012** | Other managed arrangement | Floating | Stabilised arrangement | Crawl-like arrangement |
| **2013** | Crawl-like arrangement | Floating | Stabilised arrangement | Crawl-like arrangement |
| **2014** | Stabilised arrangement | Floating | Stabilised arrangement | Crawl-like arrangement |
| **2015** | Stabilised arrangement | Floating | Stabilised arrangement | Crawl-like arrangement |
| **2016** | Stabilised arrangement | Floating | Stabilised arrangement | Floating |
| **2017** | Stabilised arrangement | Floating | Stabilised arrangement | Floating |
| **2018** | Stabilised arrangement | Floating | Stabilised arrangement | Floating |

| Country name | Brazil | Chile | Mexico | Turkey | Pakistan |
|---|---|---|---|---|---|
| **2005** | Independently floating | Independently floating | Independently floating | Independently floating | Managed floating |
| **2006** | Independently floating | Independently floating | Independently floating | Independently floating | Managed floating |
| **2007** | Independently floating | Independently floating | Independently floating | Independently floating | Conventional pegged arrangement |
| **2008** | Independently floating | Independently floating | Independently floating | Independently floating | Managed floating |
| **2009** | Floating | Free floating | Floating | Floating | Floating |
| **2010** | Floating | Free floating | Floating | Free floating | Floating |
| **2011** | Floating | Free floating | Floating | Floating | Stabilised arrangement |
| **2012** | Floating | Free floating | Free floating | Floating | Floating |
| **2013** | Floating | Free floating | Free floating | Floating | Floating |
| **2014** | Floating | Free floating | Free floating | Floating | Other managed arrangement |
| **2015** | Floating | Free floating | Crawl-like arrangement | Floating | Other managed arrangement |
| **2016** | Floating | Free floating | Free floating | Floating | Other managed arrangement |
| **2017** | Floating | Free floating | Free floating | Floating | Stabilised arrangement |
| **2018** | Floating | Free floating | Free floating | Floating | Stabilised arrangement |

Source: IMF, *Annual Report on Exchange Arrangements and Exchange Restrictions* (2005–18)