ECONOMIC ISSUES 38

Moving to a Flexible Exchange Rate

How, When, and How Fast?

Rupa Duttagupta,
Gilda Fernandez,
and Cem Karacadag

INTERNATIONAL MONETARY FUND

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Series editor
Asimina Caminis
IMF External Relations Department

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Massoud Etemadi and Choon Lee
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Preface

A fixed exchange rate, which pegs the value of a currency to a strong foreign currency like the dollar or the euro, has many advantages, particularly for developing countries seeking to build confidence in their economic policies. And such pegs have been associated with lower inflation rates. However, countries with fixed exchange rates seem to be more vulnerable to currency crises, as well as to twin currency and banking crises, than those with more flexible regimes. Indeed, as economies mature and become more closely tied with international financial markets, the benefits of exchange rate flexibility appear to increase.

Although many countries still have fixed or other forms of pegged exchange rate regimes, a growing number—including Brazil, Chile, Israel, and Poland—have adopted more flexible regimes over the past decade. The trend toward greater exchange rate flexibility is likely to continue as deepening cross-border linkages increase the exposure of countries with pegged regimes to volatile capital flows because flexible regimes offer better protection against external shocks as well as greater monetary policy independence.

Regardless of whether flexible exchange rate regimes are adopted under stress or under orderly conditions, their success depends on the effective management of a number of institutional and operational issues. These issues are summarized in this Economic Issue, which was prepared by David Cheney, based on IMF Working Paper 04/126, "From Fixed to Float: Operational Aspects of Moving Toward Exchange Rate Flexibility," by Rupa Duttagupta, Gilda Fernandez, and Cem Karacadag. The working paper is available free of charge on the IMF's website, at *www.imf.org/external/pubs/ft/wp/2004/wp04126.pdf*. A subsequent paper by the same title submitted by the IMF's Monetary and Financial Systems Department to the IMF's Executive Board in November 2004 is also available

on the IMF's website, at *www.imf.org/external/np/mfd/2004/eng/111904.pdf*.

Two earlier Economic Issues on exchange rates—Economic Issue No. 2, *Does the Exchange Rate Regime Matter for Inflation and Growth?* by Atish R. Ghosh, Anne-Marie Gulde, Jonathan D. Ostry, and Holger C. Wolf (1996), and Economic Issue No. 13, *Fixed or Flexible? Getting the Exchange Rate Right in the 1990s,* by Francesco Caramazza and Jahangir Aziz (1998)—are available free of charge at *www.imf.org/pubs*.

Moving to a Flexible Exchange Rate
How, When, and How Fast?

Some countries have made the transition from fixed to flexible exchange rates gradually and smoothly, by adopting intermediate types of exchange rate regimes—soft pegs, horizontal and crawling bands, and managed floats—before allowing the currency to float freely. (See Box 1 for a list of exchange rate regimes.) Other transitions have been disorderly—that is, characterized by a sharp depreciation of the currency. A large share of the exits to flexible exchange rate regimes during 1990–2002 were disorderly (Box 2). But whether an exit from a fixed rate is orderly or not, it is always complicated.

What conditions are necessary—from an operational perspective—for a successful shift from a fixed exchange rate to one that is determined, at least in part, by market forces? How fast should the transition be? And in what sequence should the policies needed for flexibility be put in place?

Country experiences indicate that four ingredients are generally needed for a successful transition to exchange rate flexibility:

- a deep and liquid foreign exchange market;
- a coherent policy governing central bank intervention in the foreign exchange market (the practice of buying or selling the local currency to influence its price, or exchange rate);
- an appropriate alternative nominal anchor to replace the fixed exchange rate; and
- effective systems for reviewing and managing the exposure of both the public and the private sectors to exchange rate risk.

The timing and priority accorded to each of these areas naturally vary from country to country depending on initial conditions and economic structure.

Box 1. Types of exchange rate regimes

Exchange arrangements with no separate legal tender

The currency of another country circulates as the sole legal tender (formal dollarization), or the member belongs to a monetary or currency union in which the same legal tender is shared by the members of the union. Adopting such regimes implies the complete surrender of the monetary authorities' independent control over domestic monetary policy.

Currency boards

A monetary regime based on an explicit legislative commitment to exchange domestic currency for a specified foreign currency at a fixed exchange rate, combined with restrictions on the issuing authority to ensure the fulfillment of its legal obligation. This implies that domestic currency will be issued only against foreign exchange and that it remains fully backed by foreign assets, eliminating traditional central bank functions, such as monetary control and lender of last resort, and leaving little scope for discretionary monetary policy. Some flexibility may still be afforded, depending on how strict the banking rules of the currency board arrangement are.

Other conventional fixed-peg arrangements

The country (formally or de facto) pegs its currency at a fixed rate to another currency or a basket of the currencies of major trading or financial partners, weighted to reflect the geographical distribution of trade, services, or capital flows. The parity is not irrevocable. The exchange rate may fluctuate within narrow margins of less than ±1 percent around a central rate, or the maximum and minimum values of the exchange rate may remain within a narrow margin of 2 percent for at least three months. The monetary authority stands ready to maintain the fixed par-

Developing the foreign exchange market

Operating a flexible exchange rate regime requires a foreign exchange market that is liquid and efficient enough to allow the exchange rate to respond to market forces and that limits both the number and the duration of episodes of excessive volatility and

ity through direct intervention (sale/purchase of foreign exchange in the market) or indirect intervention (aggressive use of interest rate policy, imposition of foreign exchange regulations, moral suasion, or intervention by other public institutions). Independence of monetary policy, though limited, is greater than under exchange arrangements with no separate legal tender and currency boards because traditional central banking functions are still possible, and the monetary authority can adjust the level of the exchange rate, although relatively infrequently.

Pegged exchange rates within horizontal bands

The value of the currency is maintained within certain margins of fluctuation of at least ±1 percent around a fixed central rate, or the margin between the maximum and minimum values of the exchange rate exceeds 2 percent. The exchange rate mechanism (ERM) of the European Monetary System (EMS), which was replaced with ERM II on January 1, 1999, is an example of this type of peg. There is a limited degree of monetary policy discretion, depending on the band's width.

Crawling pegs

The currency is adjusted periodically in small amounts at a fixed rate or in response to changes in selective quantitative indicators, such as past inflation differentials vis-à-vis major trading partners, differentials between the inflation target and expected inflation in major trading partners, and so forth. The rate of crawl can be set to generate inflation-adjusted changes in the exchange rate (backward looking), or it can be set at a preannounced fixed rate and/or below the projected inflation differentials (forward looking). A crawling peg imposes the same kinds of constraints on monetary policy as a fixed peg.

(continued on next page)

deviations from the equilibrium exchange rate (the rate that is in line with a country's economic fundamentals) so that "price discovery" can occur.

In general, the foreign exchange market consists of a wholesale interbank market where authorized dealers (usually banks and other

Box 1. Types of exchange rate regimes *(concluded)*

Exchange rates within crawling bands

The currency is maintained within fluctuation margins of at least ±1 percent around a central rate, or the margin between the maximum and minimum values of the exchange rate exceeds 2 percent, and the central rate or margins are adjusted periodically at a fixed rate or in response to changes in selective quantitative indicators. The degree of exchange rate flexibility is a function of the width of the band. Bands are either symmetric around a crawling central parity or widen gradually with an asymmetric choice of the crawl of upper and lower bands (in the latter case, there may be no preannounced central rate). The commitment to maintaining the exchange rate within the band imposes constraints on monetary policy, with the degree of policy independence being a function of the band width.

Managed floating

The monetary authority attempts to influence the exchange rate without having a predetermined path or target for it. Indicators for managing the rate include the balance of payments position, the level of international reserves, and parallel market developments, and adjustments may not be automatic. Intervention may be direct or indirect.

Independent floating

The exchange rate is determined by the markets. Official intervention in the foreign exchange market is infrequent and discretionary and is usually aimed at moderating the rate of change of, and preventing undue fluctuations in, the exchange rate, rather than at establishing a level for it.

financial institutions) trade with each other and a retail market where authorized dealers transact with final customers like households and firms. A liquid market is one with relatively narrow bid-offer spreads; low transaction costs; enough turnover to limit the impact of individual trades on prices; trading, clearing, and settle-

Box 2. Orderly versus disorderly exits to flexible rates

Exits to flexible regimes fall into three categories: exits from all hard pegs and fixed and crawling pegs to bands and floats; exits from bands to floats; and exits from managed floats to independent floats. A total of 139 exits to flexible regimes are identified in the figures below. Exits are included only for regimes that lasted at least one year or if the country continued to increase its exchange rate flexibility during the year of the exit.

Figure 1. Number and type of exits, 1990–2002

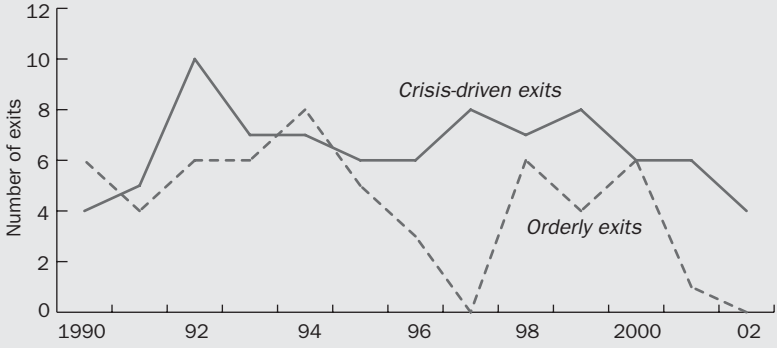
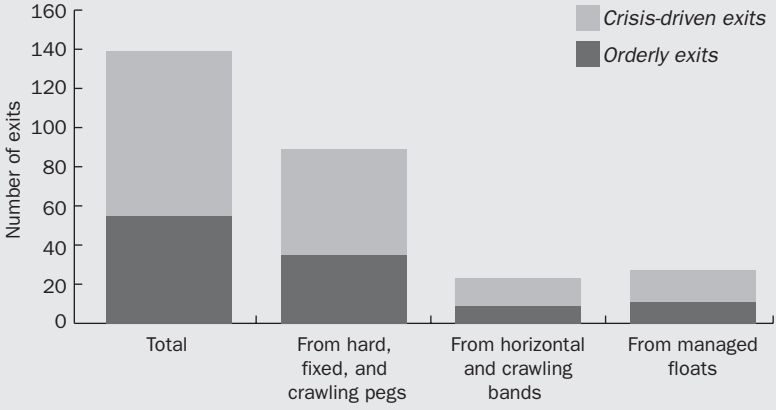


Figure 2. Exits by exchange rate regime, 1990–2002



ment systems that facilitate the swift execution of orders; and a wide range of active market participants.

The foreign exchange markets of many developing countries are shallow and inefficient, however, in part because of extensive foreign exchange regulations—such as controls on cross-border capital flows (these controls reduce market turnover), tight prudential limits on net open foreign exchange positions, and requirements to surrender foreign exchange receipts to the central bank. Interbank foreign exchange markets—where they exist—are often small relative to retail markets, limiting the scope for price discovery.

Exchange rate rigidity itself may be a factor in foreign exchange market illiquidity. A central bank operating a fixed exchange rate regime is usually active in the market by necessity, which keeps market participants from gaining experience in price formation and exchange rate risk management and constrains interbank activity. In extreme cases, the central bank may dominate the interbank foreign exchange market and act as the primary foreign exchange intermediary. With a fixed exchange rate, market participants have less incentive to form views on exchange rate trends, take positions, or trade foreign exchange, which limits foreign exchange activity in both the spot and the forward markets. In addition, to reduce the scope for speculation, forward market activity tends to be discouraged under pegged exchange rate regimes. The small size of the forward markets, in turn, limits opportunities for hedging risks.

The following steps can help a country improve the depth and efficiency of its foreign exchange market:

- Allowing some exchange rate flexibility (for example, within a band around a peg) to stimulate foreign exchange activity. Authorities should also foster a sense of *two-way risk* in the exchange rate—the risk that the currency may either appreciate or depreciate—to encourage market participants to take both short and long positions. Between 1995 and 2001, turnover increased in the foreign exchange markets of countries that adopted more flexible exchange rate regimes and declined in countries that adopted less flexible regimes.

- Reducing the central bank's market-making role by cutting back its trade with banks and its interventions to allow scope for other market makers. The central bank should not trade with nonfinancial customers.
- Increasing market information on the sources and uses of foreign exchange and on balance of payments trends to enable market participants to develop credible views on exchange rate and monetary policy and price foreign exchange efficiently. Authorities should also ensure that information systems and trading platforms provide real-time bid and offer quotations in the interbank market.
- Phasing out or eliminating regulations that stifle market activity. Important measures would include abolishing requirements to surrender foreign exchange receipts to the central bank, taxes and surcharges on foreign exchange transactions, and restrictions on interbank trading; unifying segmented foreign exchange markets; and relaxing current and some capital account restrictions to increase the sources and uses of foreign exchange in the market. Capital controls should be eased gradually, however, and only after certain macroeconomic and institutional preconditions have been met.
- Unifying and simplifying foreign exchange legislation and avoiding frequent, ad hoc changes to the law, so as to increase market transparency and reduce transaction costs.
- Improving the market's microstructure by reducing market segmentation, increasing the effectiveness of market intermediaries, and securing reliable and efficient settlement systems.

Developing and deepening the foreign exchange market is more complicated when a country is forced to abandon a peg under market pressure and has not had time to prepare for an orderly exit. The government is likely to face conflicting objectives. On the one hand, it needs to sell foreign exchange to prevent excessive depreciation. On the other, to maintain market credibility it needs to signal that it will not intervene to defend a particular exchange rate level. Under these circumstances, many countries have gradually renounced the central bank's market-making role, removed barriers

to foreign exchange market operations, and tolerated greater exchange rate volatility, while allowing interest rates to rise to counter market pressure and monitoring market transactions to determine the sources and direction of order flows.

Central bank intervention

Under currency pegs, official purchases and sales of foreign currency to bridge the gap between foreign currency supply and demand at a given price are often rules-based in that the timing and amount of intervention are predetermined. In contrast, official intervention in the foreign exchange market is optional, or discretionary, under a flexible exchange rate regime, although authorities still can and do intervene, usually to correct misalignments, calm disorderly markets, supply foreign exchange, and accumulate reserves. Thus, a government that is shifting to a flexible regime needs to formulate policies on the objectives, timing, and amounts of intervention.

Like all other markets, foreign exchange markets are imperfect. For example, "herding" (when investors buy or sell en masse) and "feedback trading" (trading driven by price movements rather than fundamentals) may result in the misalignment of a currency with a country's economic fundamentals, with serious repercussions. Among other things, an overvalued currency undermines the competitiveness of the country's exports, while an undervalued exchange rate could stoke inflation. Moreover, when a country's capital account is not fully liberalized, or its capital market is inefficient, temporary shocks may trigger exchange rate volatility in "thin" markets. Volatility can be politically costly because the exchange rate serves as a symbolic measure of a government's success in macroeconomic management. And long-lasting misalignments and erratic exchange rate movements can subject cost and income projections in the real sector to wide margins of error, making long-term planning and investment difficult.

However, misalignments are difficult to detect, and there is no consensus on a methodology for estimating the equilibrium

exchange rate. The indicators used most frequently—the nominal and real effective exchange rates, productivity and other competitiveness measures, the terms of trade, the balance of payments, interest rate differentials, and parallel market exchange rates—usually do not enable policymakers to assess the degree of misalignment accurately enough to help them determine the optimal timing and amount of intervention.

And even when policymakers detect exchange rate misalignment or destabilizing volatility, central bank intervention may not always correct the problem. The empirical evidence on the effectiveness of intervention in influencing the exchange rate is mixed, and the impact of intervention on the exchange rate level appears to be short-lived. Empirical studies have also found that intervention tends to increase, rather than decrease, exchange rate volatility. Thus, short-term exchange rate volatility may not warrant intervention, especially when it occurs in a liquid, or orderly, market. Volatility may reflect the market process of price discovery and provide useful signals to policymakers and market participants.

Central bank intervention is usually justified, however, to calm disorderly markets—that is, markets with unequal numbers of sellers and buyers of foreign exchange, resulting in illiquidity. If market illiquidity persists, it can hurt the real economy. Although volatility that is due to disorderly markets and that is likely to lead to a collapse of liquidity is also difficult to detect, acceleration in exchange rate changes, widening bid-offer spreads, and a sharp increase in interbank trades relative to customer-bank turnover are signs to watch for.

Central banks may also have to intervene in the foreign exchange market to supply foreign currency or build up their reserves. First, many central banks have a regular supply of foreign currency because of income on foreign reserves and their roles as the bankers of governments that borrow or receive aid in foreign currency. Second, they normally target a certain level of reserves, requiring the regular purchase of foreign currency to maintain core reserve coverage ratios.

A country may need to reevaluate its international-reserve-management policy when it moves to a flexible exchange rate

regime. On the one hand, the level of reserves required to maintain a flexible rate may be lower than that required to maintain a fixed one. In addition, improved supervision of private sector foreign currency exposures may reduce reserve requirements. On the other hand, the elimination of capital controls may create a need for higher reserves to maintain or boost market confidence and lower exchange rate volatility, reduce the likelihood of crises, and increase the effectiveness of intervention, while providing funds for the government to invest in longer-term assets with higher returns.

In general, central banks should be selective in their interventions and parsimonious in their use of foreign reserves. The difficulty of detecting exchange rate misalignments and disorderly markets means that decisions on the timing and amount of intervention are subjective and may be off the mark. Moreover, by entering the market infrequently, central banks can convince the markets of their commitment to exchange rate flexibility and improve the potential effectiveness of the occasional intervention. When a country introduces a band as part of a gradual move to exchange rate flexibility, intervention episodes may be more frequent than under more flexible regimes; nonetheless, central banks should minimize the number of interventions and make full use of the exchange rate flexibility allowed by the width of the band. Central banks in many advanced economies (for example, Canada, New Zealand, and the United Kingdom) seldom intervene in the foreign exchange market.

Transparency also helps build confidence in the new exchange rate regime, especially in the aftermath of a forced exit. Many countries, including the Philippines and Turkey, issued statements and policy reports affirming that they were committed to a flexible exchange rate regime and that they would not intervene in the foreign exchange market to target a certain exchange rate level. The published intervention policies of Australia and Sweden are good examples of the policies that need to be developed and communicated to the market to enhance the effectiveness of official foreign exchange operations. Disclosing information on intervention with a time lag can improve market transparency and central bank accountability. The United Kingdom discloses information on inter-

vention in a monthly press release, the European Central Bank in a monthly bulletin; the U.S. Treasury confirms interventions on the day they take place and provides additional details in quarterly reports.

Selected country experiences suggest that rules-based intervention may be useful when the exchange rate is not under a lot of pressure in a one-sided market. Such a policy may help countries supply foreign exchange or accumulate reserves without affecting the exchange rate. Eventually however, central banks will gain enough experience and credibility to intervene on a more discretionary basis. Rules-based intervention policies tend to be transitory, abandoned or modified by most countries (for example, Brazil and Canada).

Adopting an alternative nominal anchor

A country exiting a peg must replace it with another nominal anchor and redesign its monetary policy framework around the new anchor. While some central banks maintain flexible regimes without a formal nominal anchor—for example, in the euro area, Singapore, Switzerland, and the United States—these economies enjoy a high level of credibility, which may be difficult for developing countries to build quickly, especially if they relied on a rigid exchange rate anchor before the exit or had a history of high inflation.

The most important function of a country's monetary policy is control of the money supply (or liquidity). This is especially true when countries have exited a peg under market pressure, since a currency depreciation is likely to spark inflation. As a country moves to a more flexible exchange rate regime, the burden of managing liquidity shifts from intervention in the foreign exchange market to other monetary policy instruments, such as standing facilities, open market operations, and repurchase agreements. While such instruments, along with liquid money markets, are important for managing liquidity under any type of exchange rate regime, their importance rises with exchange rate flexibility.

The difficulty of developing a credible alternative nominal anchor has caused many countries to give up the exchange rate anchor slowly, for example, by adopting a crawling band as an intermediate regime while they shift to another nominal anchor, possibly over a long period. The band is usually set symmetrically around a crawling central parity and gradually widened as the tension between exchange rate and inflation objectives is eventually resolved in favor of the latter. Chile, Hungary, Israel, and Poland successfully made the transition using crawling bands that were widened over time in response to increases in capital inflows. Their experience has yielded some useful lessons:

- The narrow scope for exchange rate flexibility in the early stages of the transition can constrain the independence of monetary policy and put the burden of aggregate-demand management on fiscal and incomes policies.
- Restricting exchange rate movements within a narrower band than the one that was publicly announced can create the perception of an implicit exchange rate guarantee and reduce the sensitivity of market participants to exchange rate risk. Two-way exchange rate movements are necessary to give participants an incentive to develop hedging instruments and manage exchange rate risk.
- Governments that maintain two nominal anchors—the exchange rate and the inflation target—can bolster public confidence in their commitment to the inflation target by making it clear that price stability will be their first priority in the event of a conflict between the two anchors.

Many countries moving to flexible rate regimes have opted for inflation targeting over monetary targeting. A consensus seems to be emerging that an inflation target is a more reliable and effective nominal anchor. While monetary targeting can serve as an alternative nominal anchor after a country abandons a peg, the weak relationship between monetary aggregates and inflation limits the effectiveness of money targets. Countries that have managed orderly exits from pegs have generally adopted inflation targeting over long time horizons, in part because of the time required to put the necessary institutions and macroeconomic conditions in place, including a

central bank mandate to pursue an explicit inflation target as the overriding objective of monetary policy; central bank independence and accountability; transparency that promotes accountability in the conduct and evaluation of monetary policy; a reliable methodology for forecasting inflation; a forward-looking procedure that systematically incorporates forecasts into policy and responds to deviations from targets; a supportive fiscal policy; and a well-regulated, supervised, and managed financial sector.

Until these preconditions are established, many countries have followed various versions of the monetary-targeting approach (targeting base money, broad monetary aggregates, or bank reserves), especially after a disorderly exit. For example, several of the countries hit by the Asian crisis adopted monetary targets immediately after exiting from pegged exchange rate regimes to establish a new nominal anchor and restore policy credibility as quickly as possible. In Korea, the Philippines, and Thailand, the monetary-targeting approach laid the groundwork for a fairly rapid move to inflation targeting. Brazil has followed a similar path. In Indonesia, however, the transition from monetary targeting to inflation targeting was slower because the severity of the crisis hampered the country's efforts to move ahead.

Managing and supervising exchange rate risk

When a country floats its currency, exchange rate risk shifts from the public sector (the central bank) to the private sector, as the former no longer stands ready to intervene at fixed rates. Indeed, disorderly exits often happen because of unmanageable imbalances in the public sector's balance sheet. Thus, determining the scale and scope of exchange rate risk exposures in the financial and nonfinancial sectors is also key to achieving an orderly exit from pegs. The private sector's exposure to exchange rate risk can have an important bearing on the pace of the exit, the type of flexible exchange rate regime adopted (for example, a band versus a float), and official intervention policies.

The evaluation of exchange rate risk exposures entails detailed balance sheet analysis focusing on the currency composition, maturities, liquidity, and credit quality of assets and liabilities denominated in foreign currencies. The Asian crisis, for example, showed how unhedged foreign exchange borrowing by the corporate sector could turn into massive losses for creditor banks and a surge in demand for foreign currency. Even when banks ensure that foreign currency liabilities and assets are matched, the use of short-term foreign currency funds to finance long-term foreign currency loans to unhedged customers results in sizable credit and liquidity risks. Similarly, the corporate and the banking sectors' exposure to interest rate risk can limit the central bank's ability to use interest rates, instead of interventions in the foreign exchange market, in conducting monetary policy. It can be very difficult for corporations in developing and emerging market countries to off-load interest rate risk, in particular when their assets are not interest bearing and they have difficulty obtaining long-term fixed rates for their liabilities, as is often the case.

The management of exchange rate risk is composed of four elements:

- Information systems to monitor the various sources of exchange rate risk, including the sources and uses of foreign currency funds, and formal reporting requirements. Indirect exchange rate risk should be monitored through regular surveys of the corporate sector or by requiring borrowers to provide information on their foreign currency incomes, foreign debts, and hedging operations.
- Formulas and analytical techniques to measure exchange rate risk. Measures of risk include accounting-based measures of the overall foreign currency position and more forward-looking risk-management techniques such as value-at-risk models and stress testing.
- Internal risk policies and procedures, including, among other things, limits on concentration in foreign currency loans, specific provisions for the additional credit risks associated with foreign currency lending, requirements for foreign earnings or collateral for borrowers of foreign currency, and analysis of the potential impact of exchange rate movements on foreign cur-

rency borrowers. Also important are strong internal controls—including a written policy on foreign exchange operations, exposure limits, risk-management procedures, and a system of monitoring compliance where front and back offices are fully separate—as well as good corporate governance, including regular monitoring, review, and approval of risk policies and procedures by the board of directors to maintain appropriate checks and balances within the institution. Banks should encourage clients to hedge against exchange rate risks.

- Prudential regulation and supervision of foreign exchange risk. Prudential measures may include limits on net open positions (as a percentage of capital), foreign currency lending (as a percentage of foreign currency liabilities), and overseas borrowing and bond issuance (as a percentage of capital); limits on the range of foreign exchange operations banks are allowed to perform through licensing requirements; capital requirements against foreign exchange risk; and the issuance of regulations or guidelines on the design of banks' internal controls. Foreign currency borrowing by sectors that do not generate foreign currency revenues or that are exposed to volatile returns warrants special vigilance.

Facilitating the development of risk-hedging instruments by lifting controls on forward market activity can be a double-edged sword. In addition to improving risk management, it can contribute to the development of the foreign exchange market. However, derivatives can easily be misused—in Thailand, in 1997, for example, investors used them to take highly leveraged bets on unsustainable exchange rates. Corporations and financial institutions—and the authorities that supervise them—need to acquire considerable sophistication to ensure that such instruments are used properly. In addition, their use must be closely monitored, bank trading of derivative products must be standardized and accounting standards for fair valuation and a reliable legal system for contract enforcement must be established, and the central bank should promote market transparency and high reporting standards.

Pace and sequencing

Countries face certain trade-offs in choosing between a rapid exit from a peg and a more gradual move to a floating exchange rate regime. A rapid approach involves fewer intermediate steps, if any, between fixed and floating regimes than a gradual approach.

For a country with a strong macroeconomy and a prudent monetary policy, a rapid approach can be a more credible signal of commitment to exchange rate flexibility than a gradual approach, while allowing the country to limit its interventions in the foreign exchange market and thereby conserve its foreign exchange reserves. Countries seeking greater monetary policy independence may also be better off moving rapidly, as may those with an open capital account—it may be harder to pursue a gradual exit strategy in the presence of large and volatile capital flows. However, a gradual approach is preferable if a country lacks the appropriate institutional framework, including a deep foreign exchange market and the ability to monitor and manage exchange rate risk; such a country runs a high risk of experiencing excessive exchange rate volatility if it moves too quickly.

The absence of a full-fledged inflation-targeting framework as an alternative nominal anchor need not preclude a rapid exit strategy, if there is a robust commitment to price stability. The building blocks of inflation targeting—such as fiscal discipline, the monetary authorities' operational independence in pursuit of low inflation, credible steps to contain inflation, and transparency and accountability—are fundamental to the success of any monetary policy regime regardless of whether inflation targeting is formally adopted. South Africa exited from a fixed peg to a float in the early 1980s but did not formally adopt inflation targeting until 2000. Other countries forced to float in one step—for example, Mexico and Turkey—used monetary targeting as an interim strategy before adopting inflation targeting.

A gradual approach allows the country to move toward a free float in measured steps—for example, by shifting from a fixed peg against a single currency to a fixed or crawling peg against a basket of currencies, and then to an exchange rate band that is increased in increments. In July 2005, for example, China revalued the yuan and

replaced its peg to the dollar with a peg to a basket of currencies. Pegging to a basket of currencies has the advantage of reducing the transmission of external shocks to the domestic economy and tempering the exchange rate's exposure to the potentially erratic movements of a single currency. The basket may be composed of a weighted average of the currencies of a country's main trading partners. A shift to a crawling peg against a basket of currencies can help a country maintain its external competitiveness if its inflation rates are different from those of its trading partners. Moving to a horizontal or crawling exchange rate band can provide greater exchange rate flexibility and monetary policy independence. While these variants of pegged regimes are easier to maintain than wide exchange rate bands and floats, they constrain monetary policy and can be difficult for countries with liberalized capital accounts to sustain. In either case, whether the exit is rapid or gradual, each step forward should ensure two-way risk in exchange rate movements.

Early preparation for the move to a floating exchange rate increases the likelihood that the exit will be successful. A country should begin to lay the groundwork for the exit while it still has a peg, securing central bank independence, improving its ability to forecast inflation, making monetary policy more transparent, developing information systems on foreign exchange risk, and increasing information on balance of payments developments. Once it has laid the groundwork, it can move to a second stage, introducing some exchange rate flexibility to stimulate activity in the foreign exchange market, while it develops the other tools it will need to operate the new regime. Intervention policies can be addressed later in the transition.

Although policymakers have no control over the pace of a disorderly exit, they still need to make decisions about sequencing. Their top priority should be to stabilize the exchange rate; often, this can be done by eliminating the shortage of dollars in the market and maintaining monetary control. Policymakers should also attempt to signal a conservative monetary policy, although the design of an alternative nominal anchor will probably require more time.

Adopting a flexible exchange rate before liberalizing the capital account enables a country to absorb capital account shocks at a

lower cost to the real economy than under a fixed exchange rate. By contrast, liberalizing the capital account first can help offset temporary current account shocks, expand the range of instruments available for risk management, and deepen the foreign exchange market. Accordingly, when an exchange rate is floated before the capital account is liberalized, central bank intervention may be needed to offset temporary current account shocks and to limit excessive real exchange rate volatility.

The experiences of emerging market economies over the past decade highlight the risks of opening the capital account before adopting a flexible exchange rate. Many countries were forced off pegs after sudden reversals of capital flows under open capital accounts (for example, Mexico at the end of 1994, Thailand in July 1997, and Brazil in early 1999). Others faced heavy inflows and upward pressure on pegged rates and had to allow exchange rate flexibility to avoid overheating the economy (for example, Chile and Poland during the 1990s). Thus, even under favorable economic conditions, opening the capital account before introducing exchange rate flexibility can threaten domestic liquidity, create macroeconomic imbalances, and precipitate speculative attacks. Uganda did not liberalize its capital account until after it had completed its move to a float; New Zealand successfully moved to a float and liberalized its capital account simultaneously; and Chile's capital account liberalization moved in parallel with its transition to a floating exchange rate, but very gradually.

To float or not to float

It is no doubt better to plan an exit in a calm economic environment. But even planned exits do not necessarily last. Many countries have reversed course after adopting exchange rate flexibility. Either macroeconomic conditions or a lack of institutions or both may contribute to the reversal from a float to a fixed regime. Fiscal dominance played an important role in the reversals of both Russia (1993–95) and Venezuela (2002–03), while Egypt's reversal occurred

amid concerns about excessive depreciation (2003). Other obstacles to floating in many developing countries include the limited number of participants in the foreign exchange market, pervasive exchange controls, a weak technological infrastructure, and underdeveloped money markets.

Both fixed and floating exchange rates have distinct and different advantages. No single exchange rate regime is appropriate for all countries in all circumstances. Countries will have to weigh the costs and benefits of floating in light of both their economic and their institutional readiness.

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Gilda Fernandez is an economist in the IMF's Monetary and Financial Systems Department.

Cem Karacadag is a director in Emerging Markets Economics at Credit Suisse First Boston. He was an economist in the IMF's Monetary and Financial Systems Department when he coauthored the working paper on which this Economic Issue is based.

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