Fixed or Flexible?

Getting the Exchange Rate Right in the 1990s



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Preface

The Economic Issues series aims to make available to a broad readership of nonspecialists some of the economic research produced in the IMF on topical issues. The raw material of the series is mainly IMF Working Papers, technical papers produced by IMF staff members and visiting scholars, as well as policy-related research papers. This material is edited and partly redrafted for a general readership.

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Fixed or Flexible? Getting the Exchange Rate Right in the 1990s

A nalysts agree that "getting the exchange rate right" is essential for economic stability and growth in developing countries. Over the past two decades, many developing countries have shifted away from *fixed* exchange rates (that is, those that peg the domestic currency to one or more foreign currencies) and moved toward more *flexible* exchange rates (those that determine the external value of a currency more or less by the market supply and demand for it). During a period of rapid economic growth, driven by the twin forces of globalization and liberalization of markets and trade, this shift seems to have served a number of countries well. But as the currency market turmoil in Southeast Asia has dramatically demonstrated, globalization can amplify the costs of inappropriate policies. Moreover, the challenges facing countries may change over time, suggesting a need to adapt exchange rate policy to changing circumstances.

This paper examines the recent evolution of exchange rate policies in the developing world. It looks at why so many countries have made a transition from fixed or "pegged" exchange rates to "managed floating" or "independently floating" currencies. It discusses how economies perform under different exchange rate arrangements, issues in the choice of regime, and the challenges posed by a world of increasing capital mobility, especially when banking sectors are inadequately regulated or supervised.

The analysis suggests that exchange rate regimes cannot be unambiguously rated in terms of economic performance. But it seems clear that, whatever exchange rate regime a country pursues, long-term success depends on a commitment to sound economic fundamentals—and a strong banking sector.



From Fixed to Flexible

A Brief History

The shift from fixed to more flexible exchange rates has been gradual, dating from the breakdown of the Bretton Woods system of fixed exchange rates in the early 1970s, when the world's major currencies began to float. At first, most developing countries continued to peg their exchange rates—either to a single key currency, usually the U.S. dollar or French franc, or to a basket of currencies. By the late 1970s, they began to shift from single currency pegs to basket pegs, such as to the IMF's special drawing right (SDR). Since the early 1980s, however, developing countries have shifted away from currency pegs—toward explicitly more flexible exchange rate arrangements. (See the table of exchange rate arrangements on pages 16 and 17.) This shift has occurred in most of the world's major geographic regions.

Back in 1975, for example, 87 percent of developing countries had some type of pegged exchange rate. By 1996, this proportion had fallen to well below 50 percent. When the relative size of economies is taken into account, the shift is even more pronounced. In 1975, countries with pegged rates accounted for 70 percent of the developing world's total trade; by 1996, this figure had dropped to about 20 percent. The overall trend is clear, though it is probably less pronounced than these figures indicate because many countries that officially describe their exchange rate regimes as "managed floating" or even "independently floating" in practice often continue to set their rate unofficially or use it as a policy instrument.

Several important exceptions must be mentioned. A prime example is the CFA franc zone in sub-Saharan Africa, where some 14 countries have pegged their rate to the French franc since 1948—with one substantial devaluation in 1994. In addition, some countries have reverted, against the trend, from flexible to fixed rate regimes. These include Argentina, which adopted a type of currency-board arrangement in 1991, and Hong Kong SAR (Special Administrative Region), which has had a similar arrangement since 1983.

Nevertheless, the general shift from fixed to flexible has been broadly based worldwide. In 1976, pegged rate regimes were the norm in Africa, Asia, the Middle East, nonindustrial Europe, and the Western Hemisphere. By 1996, flexible exchange rate regimes predominated in all these regions.

Why the Shift?

The considerations that have led countries to shift toward more flexible exchange rate arrangements vary widely; also, the shift did not happen all at once. When the Bretton Woods fixed rate system broke down in 1973, many countries continued to peg to the same currency they had pegged to before, often on simple historical grounds. It was only later, when major currencies moved sharply in value, that countries started to abandon these single-currency pegs. Many countries that traditionally pegged to the U.S. dollar, for instance, adopted a basket approach during the first half of the 1980s, in large part because the dollar was appreciating rapidly.

Another key element was the rapid acceleration of inflation in many developing countries during the 1980s. Countries with inflation rates higher than their main trading partners often depreciated their currencies to prevent a severe loss of competitiveness. This led many countries in the Western Hemisphere, in particular, to adopt "crawling pegs," whereby exchange rates could be adjusted according to such pre-set criteria as relative changes in the rate of inflation. Later, some countries that suffered very high rates of inflation shifted back to a pegged exchange rate as a central element of their stabilization efforts. (These exchange-rate-based stabilization programs have typically been short-lived, with the median duration of a peg about 10 months.)

Many developing countries have also experienced a series of external shocks. In the 1980s, these included a steep rise in international interest rates, a slowdown of growth in the industrial world, and the debt crisis. Often, adjustment to these disturbances required not only discrete currency depreciations but also the adoption of more flexible exchange rate arrangements. In recent years, increased capital mobility and, in particular, waves of capital inflows and outflows have heightened the potential for shocks and increased pressures for flexibility.

The trend toward greater exchange rate flexibility has been associated with more open, outward-looking policies on trade and investment generally and increased emphasis on market-determined exchange rates and interest rates. As a practical matter, however, most developing countries are still not well-placed to allow their exchange rates to float totally freely. Many have small and relatively thin financial markets, where a few large transactions can cause extreme volatility. Thus, active management is still widely needed to help guide the market. In these circumstances, a key issue for the authorities is where and when to make policy adjustments—including the use of official intervention to help avoid substantial volatility and serious misalignments.



Macroeconomic Performance Under Different Regimes

Neither of the two main exchange regimes—fixed or flexible ranks above the other in terms of its implications for macroeconomic performance. Although in previous years inflation appeared consistently lower and less volatile in countries with pegged exchange rates, in the 1990s the difference has narrowed substantially. Output growth also does not seem to differ across exchange rate regimes. While the median growth rate in countries with flexible exchange rates has recently appeared higher than in those with pegged rates, that result reflects the inclusion of the rapidly growing Asian countries in the "flexible" category; yet many of these countries in practice have operated a tightly managed policy. When these countries are excluded, growth performance does not differ significantly between the two sets of countries.

Evidence also suggests that, contrary to conventional wisdom, misalignments and currency "crashes" are equally likely under pegged and flexible exchange rate regimes. Indeed, in 116 separate cases between 1975 and 1996—where an exchange rate fell at least 25 percent within a year—nearly half were under flexible regimes. For both types, there was a large cluster of such crashes during the period immediately following the debt crisis of 1982. In part, this may reflect the fact that relatively few developing countries have truly floating exchange rates—and that, even if they had an officially declared flexible rate policy, they were often in practice pursuing an unofficial "target" rate that was then abandoned.



Choosing a Regime

The early literature on the choice of exchange rate regime took the view that the smaller and more "open" an economy (that is, the more dependent on exports and imports), the better it is served by a fixed exchange rate. A later approach to the choice of exchange rate regime looks at the effects of various random disturbances on the domestic economy. In this framework the best regime is the one that stabilizes macroeconomic performance, that is, minimizes fluctuations in output, consumption, the domestic price level, or some other macroeconomic variable. The ranking of fixed and flexible exchange rate regimes depends on the nature and source of the shocks to the economy, policymakers' preferences (that is, the type of costs they wish to minimize), and the structural characteristics of the economy.

In an extension of this approach, economists have viewed the policymaker's decision not simply as a choice between a purely fixed and a purely floating exchange rate but as a range of choices with varying degrees of flexibility. In general, a fixed exchange rate (or a greater degree of fixity) is preferable if the disturbances impinging on the economy are predominantly monetary—such as changes in the demand for money—and thus affect the general level of prices. A flexible rate (or a greater degree of flexibility) is preferable if disturbances are predominantly real—such as changes in tastes or technology that affect the relative prices of domestic goods—or originate abroad.

Credibility Versus Flexibility

In the 1990s another strand of analysis has focused on the credibility that authorities can gain under a fixed regime. Some argue that adopting a pegged exchange rate—by providing an unambiguous objective "anchor" for economic policy—can help establish the credibility of a program to bring down inflation. The reasons for this seem intuitively obvious. In fixed regimes, monetary policy must be subordinated to the requirements of maintaining the peg. This in turn means that other key aspects of policy, including fiscal policy, must be kept consistent with the peg, effectively "tying the hands" of the authorities. A country trying to maintain a peg may not, for example, be able to increase its borrowing through the bond market because this may affect interest rates and, hence, put pressure on the exchange rate peg.

So long as the fixed rate is credible (that is, the market believes it can and will be maintained), *expectations* of inflation will be restrained—a major cause of chronic inflation. The risk is, of course, that the peg becomes unsustainable if confidence in the authorities' willingness or ability to maintain it is lost.

A flexible exchange rate provides greater room for maneuver in a variety of ways. Not least, it leaves the authorities free to allow inflation to rise—which is also a way, indirectly, to increase tax revenue. The danger here is that it will probably be harder to establish that there is a credible policy to control inflation—and expectations of higher inflation often become self-fulfilling.

But the discipline of a pegged exchange rate need not necessarily be greater. Even with a peg, the authorities still retain some flexibility, such as an ability to shift the inflationary cost of running fiscal deficits into the future. Ways to do this include allowing international reserves to diminish, or allowing external debt to accumulate until the peg can no longer be sustained. In a more flexible regime, the costs of an unsustainable policy may be revealed more quickly-through widely observed movements in exchange rates and prices. If this is the case, then a flexible regime may exert an even stronger discipline on policy. In any event, a policymaker's commitment to a peg may not be credible for long if the economy is not functioning successfully. For example, maintaining interest rates at very high levels to defend the exchange rate may over time undermine the credibility of the peg-especially if it has damaging effects on real activity or the health of the banking system.

In many cases, the apparent trade-off between credibility and flexibility may depend not only on the economy but also on political considerations. For instance, it may be more costly in political terms to adjust a pegged exchange rate than to allow a flexible rate to move gradually by a corresponding amount. Authorities must shoulder the responsibility for adjusting a peg, whereas movements in an exchange rate that is allowed, to some degree at least, to fluctuate in response to changes in the demand and supply for the currency can be attributed to market forces. When the political costs of exchange rate adjustments are high, a more flexible regime will likely be adopted.

Pegging: A Single Currency or Basket?

For those that do adopt an exchange rate anchor, a further choice is whether to peg to a single currency or to a basket of currencies. The choice hinges on both the degree of concentration of a country's trade with particular trading partners and the currencies in which its external debt is denominated. When the peg is to a single currency, fluctuations in the anchor currency against other currencies imply fluctuations in the exchange rate of the economy in question against those currencies. By pegging to a currency basket instead, a country can reduce the vulnerability of its economy to fluctuations in the values of the individual currencies in the basket. Thus, in a world of floating exchange rates among the major currencies, the case for a single-currency peg is stronger if the peg is to the currency of the dominant trading partner. However, in some cases, a significant portion of the country's debt service may be denominated in other currencies. This may complicate the choice of a currency to which to peg.



Challenges Posed by Fast Growth and Capital Inflows

The successful development of an emerging market economy should, economists often conjecture, tend to result in an appreciation of the domestic currency in real (inflation-adjusted) terms. Such an appreciation over the long term has been evident in Korea, Taiwan Province of China, Singapore, Hong Kong SAR, and—to a lesser extent—Chile.

This relationship between economic growth and real appreciation is assumed to stem from a tendency for productivity growth in the manufacture of traded goods to outpace that of goods and services that are not traded internationally. In practice, that tendency has been apparent, so far at least, only in Korea and Taiwan Province of China. In other emerging market economies, the phenomenon appears muted or absent. This may be because those economies are at a (relatively) early stage of their development or perhaps because other influences—such as shifts in the international distribution of production of traded goods and changes in trade restrictions and transportation and other costs of market penetration—have obscured it.

In these circumstances, the choice between fixed and flexible exchange rate arrangements hinges largely on the preference of policymakers between nominal exchange rate appreciation and relatively more rapid inflation. The results in terms of real exchange rate changes may be nearly the same with either approach. For example, between 1980 and 1996, while Hong Kong SAR, which has had a type of currency board arrangement since 1983, experienced relatively higher inflation than Singapore, which had a managed floating regime, their real exchange rates appreciated at roughly similar rates.

Adjusting to Capital Inflows

In many fast-growing emerging market economies, upward pressure on the exchange rate in recent years has stemmed largely from vastly increased private capital inflows. When capital inflows accelerate, if the exchange rate is prevented from rising, inflationary pressures build up and the real exchange rate will appreciate through higher domestic inflation. To avoid such consequences, central banks have usually attempted to "sterilize" the inflows—by using offsetting open market operations to try and "mop up" the inflowing liquidity.

Such operations tend to work at best only in the short term for several reasons. First, sterilization prevents domestic interest rates from falling in response to the inflows and, hence, typically results in the attraction of even greater capital inflows. Second, given the relatively small size of the domestic financial market compared with international capital flows, sterilization tends to become less effective over time. Finally, fiscal losses from intervention, arising from the differential between the interest earned on foreign reserves and that paid on debt denominated in domestic currency, will mount, so sterilization has a cost.

As capital inflows increase, tension will likely develop between the authorities' desire, on the one hand, to contain inflation and, on the other, to maintain a stable (and competitive) exchange rate. As signs of overheating appear, and investors become increasingly aware of the tension between the two policy goals, a turnaround in market sentiment may occur, triggering a sudden reversal in capital flows.

Since open market operations have only a limited impact in offsetting the monetary consequences of large capital inflows, many countries have adopted a variety of supplementary measures. In some countries the authorities have raised the amount of reserves that banks are required to maintain against deposits. In others, public sector deposits have been shifted from commercial banks into the central bank—to reduce banks' reserves. A number of countries have used prudential regulations, such as placing limits on the banking sector's foreign exchange currency exposure. Some central banks have used forward exchange swaps to create offsetting capital outflows—although there appear to be limits on how long such a policy can be used, given the likelihood, as with open market operations, that it can cause fiscal losses. In other cases the authorities have responded by widening the exchange rate bands for their currencies, thus allowing some appreciation. And a few have introduced selective capital controls.

While such instruments and policies can for a time relieve some upward pressure on a currency and ease inflationary pressure, none appears to have been able to prevent an appreciation of the real exchange rate completely.

Can exchange rate flexibility help manage the impact of volatile capital flows? As mentioned earlier, if interest rates and monetary policy are "locked in" by an exchange rate anchor, the burden of adjustment falls largely on fiscal policy-that is, government spending and tax policies. But often taxes cannot be raised or spending reduced in short order, nor can needed infrastructure investments be postponed indefinitely. (Clearly, policymakers who cannot adjust fiscal policy in the short run should not adopt a rigidly fixed exchange rate regime.) Allowing the exchange rate to appreciate gradually to accommodate upward pressures would appear to be a safer way of maintaining long-run economic stability. Furthermore, by allowing the exchange rate to adjust in response to capital inflows, policymakers can influence market expectations. In particular, policymakers can make market participants more aware that they face a "two-way" bet—exchange rate appreciations can be followed by depreciations. This heightened awareness of exchange rate risks should discourage some of the more speculative short-term capital flows, thereby reducing the need for sharp corrections.

Volatility and Banking Sector Weakness

How exchange rate changes affect an economy depends, among other things, on the health of the banking system. In many fast-growing emerging markets with large-scale capital inflows adding to liquidity, bank lending has increased markedly. In Mexico, for example, bank lending to the private sector surged to an average of 27 percent of GDP during 1989–94 from only 11 percent in the three preceding years. Such rapid credit expansion often occurs in an environment of booming optimism about the outlook for the economy more broadly, and the resulting rise in asset prices—and especially prices of real estate—often raises the value of loan collateral, stimulating yet more bank lending. If the banking sector lacks adequate prudential regulation and supervision, commercial banks may end up with portfolios excessively exposed to domestic assets with vulnerable values and to foreign currency liabilities. In the event of a sudden reversal of sentiment and currency depreciation, the large losses banks face can become a macroeconomic problem—as in some Asian economies recently.

Various mechanisms, including improved banking regulation and the establishment of deposit insurance funds, have been put in place in developing countries in recent years to guard against such banking sector problems. More often than not, however, banking sector losses have continued to end up as a burden on taxpayers—as the authorities have been forced to bail out banks to prevent a systemic "chain reaction" of defaults. The establishment and observance of a set of core regulatory, supervisory, and accounting standards—such as those recommended by the Basle Committee on Banking Supervision—would go some way toward meeting the need for stronger standards and supervision in the banking sector.



Capital Account Convertibility

In recent years, many emerging economies have gradually relaxed or removed capital controls and are now proceeding toward full capital account convertibility. Remaining restrictions are nevertheless significant, and are mostly asymmetric—placing more restrictions on capital flowing out than on capital flowing in. More liberal rules in both directions would have the advantage of increasing economic efficiency (allowing more capital to flow to where it gets the best returns). Liberalization would also provide domestic investors with more opportunities to diversify their portfolios and reduce the concentration of exposure to domestic market risks.

A movement toward full capital account convertibility, however, can succeed only in the context of sound economic fundamentals, a sound banking sector, and an exchange rate policy that allows adequate flexibility. The increasing number of developing countries adopting more flexible exchange rate regimes probably reflects, at least in part, a recognition that increased flexibility may be helpful in making the transition to full convertibility.

As developing countries become ever more integrated with global financial markets, they will likely experience more volatility in cross-border capital flows. How to manage such volatility has thus become an important issue for policymakers. One obvious way to contain volatility is to try to reduce reliance on shortterm capital flows. It would be unrealistic, however, to try to distinguish between those flows that are destabilizing and those that perform important stabilizing functions in the foreign exchange and other markets. It would also be undesirable to eliminate shortterm flows entirely—given that, among other things, they help provide liquidity to the currency market.

Greater exchange rate flexibility need not imply free floating. It may, for example, involve the adoption of wider bands around formal or informal central parities and active intervention within the band. The greater the role of fiscal policy—in helping to adjust the economy to changing conditions—the less the need for wider bands or large-scale intervention. Nevertheless, exchange rate adjustments may be needed at times. Under any regime, appropriate and transparent economic and financial policies are critical for safeguarding macroeconomic stability. They may not, however, always be sufficient to prevent exchange rate volatility.



Summary

Until recently, most evidence suggested that developing countries with pegged exchange rates enjoyed relatively lower and more stable rates of inflation. In recent years, however, many developing countries have moved toward flexible exchange rate arrangements—at the same time as inflation has come down generally across the developing world. Indeed, the average inflation rate for countries with flexible exchange rates has fallen steadily to where it is no longer significantly different from that of countries with fixed rates. The perceived need for greater flexibility has probably resulted from the increasing globalization of financial markets—which has integrated developing economies more closely into the global financial system. This in turn imposes an often strict discipline on their macroeconomic policies.

Trade-offs exist between fixed and more flexible regimes. If economic policy is based on the "anchor" of a currency peg, monetary policy must be subordinated to the needs of maintaining the peg. As a result the burden of adjustment to shocks falls largely on fiscal policy (government spending and tax policies). For a peg to last, it must be credible. In practice, this often means that fiscal policy must be flexible enough to respond to shocks. Under a more flexible arrangement, monetary policy may be more independent but inflation can be somewhat higher and more variable.

Considerations affecting the choice of regime may change over time. When inflation is very high, a pegged exchange rate may be the key to a successful short-run stabilization program. Later, perhaps in response to surging capital inflows and the risk of overheating, more flexibility is likely to be required to help relieve pressures and to signal the possible need for adjustments to contain an external imbalance. To move toward full capital account convertibility, especially in a world of volatile capital flows, flexibility may become inescapable.

Exchange Rate Arrangements as of December 31, 1997

Pegged								
	Single currency		Currency					
U.S. dollar	French franc	Other	SDR	Other				
Angola Antigua and Barbuda Argentina Bahamas, The ⁴ Barbados Belize Djibouti Dominica Grenada Iraq ⁴ Lithuania Marshall Islands ¹¹ Micronesia, Federated States of ¹¹ Nigeria4 Oman Panama ¹¹ St. Kitts and Nevis St. Lucia St. Vincent and the Grenadines	Benin Burkina Faso Cameroon Central African Rep. Chad Comoros Congo, Rep. of Côte d'Ivoire Equatorial Guinea Gabon Guinea-Bissau Mali Niger Senegal Togo	Bhutan (Indian rupee) Bosnia and Herzegovina (deutsche mark) Brunei Darussalam (Singapore dollar) Estonia (deutsche mark) Kiribati ¹¹ (Australian dollar) Lesotho (South African rand) Namibia (South African rand) San Marino ¹¹ (Italian Iira) Swaziland (South African rand)	Latvia Libyan Arab Jamahiriya ^{3, 4} Myanmar ⁴	Bangladesh Botswana ⁴ Burundi Cape Verde Cyprus ⁶ Czech Republic ⁸ Fiji Iceland ¹⁰ Jordan Kuwait Malta Morocco ¹³ Nepal Seychelles Slovak Republic ¹⁴ Solomon Islands Thailand Tonga Vanuatu Western Samoa				

¹In all countries listed in this column, the U.S. dollar was the currency against which exchange rates showed limited flexibility. ²This category consists of countries participating in the exchange rate mechanism (ERM) of the European Monetary System (EMS). In each case, the exchange rate is maintained within a margin of ±15 percent around the bilateral central rates against other participating currencies, with the exception of Germany and the Netherlands, in which case the exchange rate is maintained within a margin of ±2.25 percent. ³The exchange rate is maintained within margins of ±47 percent.

⁴Member maintained exchange arrangement involving more than one market. The arrangement shown is that maintained in the major market. For Zaïre, note that the official name was changed to Democratic Republic of the Congo on May 17, 1997.

⁵Exchange rates are determined on the basis of a fixed relationship to the SDR, within margins of up to \pm 7.25 percent. However, because of the maintenance of a relatively stable relationship with the U.S. dollar, these margins are not always observed.

⁶The exchange rate, which is pegged to the European currency unit (ECU), is maintained within margins of ±2.25 percent.

Flexibility Limited vis-à-vis a Single Currency or Group of Currencies		More Flexible				
Single Cooperative currency ¹ arrangements ²		other managed floating		Independently floating		
Bahrain ⁵ Qatar ⁵ Saudi Arabia ⁵ United Arab Emirates	Austria Belgium Denmark Finland France Germany Ireland Italy Luxembourg Netherlands Portugal Spain	Algeria Belarus Brazil ⁴ Cambodia ⁴ Chile ^{4, 7} China, People's Rep. of Colombia ⁹ Costa Rica Croatia Dominican Republic ⁴ Ecuador ^{4, 12} Egypt ⁴ El Salvador Georgia Greece Honduras ^{4, 12} Hungary ¹⁵ Indonesia Iran, Islamic Rep. of ⁴ Israel ¹⁴ Kazakhstan Kyrgyz Republic Lao P.D.R. Macedonia, former Yugoslav Rep.of Malaysia	Maldives Mauritius Nicaragua Norway Pakistan ⁴ Poland ¹⁴ Russian Federation Singapore Slovenia Sri Lanka Sudan ⁴ Suriname Tunisia Turkey Turkmenistan ⁴ Ukraine Uruguay Uzbekistan ⁴ Venezuela ⁸ Vietnam	Afghanistan, Islamic State of ⁴ Albania Armenia Australia Azerbaijan Bolivia Bulgaria Canada Eritrea Ethiopia Gambia, The Ghana Guatemala Guatemala Guinea Guyana Haiti India Jamaica Japan Kenya Republic Korea Lebanon Liberia Madagascar Malawi	Mauritania Mexico Moldova Mongolia Mozambique New Zealand Papua New Guinea Paraguay Peru Philippines Romania Rwanda São Tomé and Principe ⁴ Sierra Leone Somalia South Africa Sweden Switzerland Tajikistan, Rep. of 4 Tanzania Trinidad and Tobago Uganda United Kingdom United States Yemen, Rep. of Zaïre ⁴ Zambia ⁴ Zimbabwe	

⁷The exchange rate is maintained within margins of ±12.5 percent on either side of a weighted composite of the currencies of the main trading areas. The exchange arrangement involves more than one market.

⁸The exchange rate is maintained within margins of ±7.5 percent.

 9 The exchange rate is maintained within margins of ± 7 percent.

 $^{10}\mbox{The}$ exchange rate is maintained within margins of ± 6 percent.

¹¹Country uses peg currency as legal tender.

 $^{12}\mbox{The}$ exchange rate is maintained within margins of ± 5 percent.

 $^{13}\mbox{The}$ exchange rate is maintained within margins of ± 3 percent.

 $^{14}\mbox{The exchange rate is maintained within margins of <math display="inline">\pm7$ percent with regard to the currency basket.

¹⁵The exchange rate is maintained within margins of ±2.25 percent with regard to the currency basket.

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