# Revised System for the Classification of Exchange Rate Arrangements

Karl Habermeier, Annamaria Kokenyne, Romain Veyrune, and Harald Anderson

#### **IMF Working Paper**

Monetary and Capital Markets Department

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## Prepared by Karl Habermeier, Annamaria Kokenyne, Romain Veyrune, and Harald Anderson

Authorized for distribution by Karl Habermeier

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#### **Abstract**

Since 1998, the staff of the International Monetary Fund has published a classification of countries' de facto exchange rate arrangements. Experience in operating this classification system has highlighted a need for changes. The present paper provides information on revisions to the system in early 2009. The changes are expected to allow for greater consistency and objectivity of classifications across countries, expedite the classification process, conserve resources, and improve transparency.

### This Working Paper should not be reported as representing the views of the IMF.

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Authors' E-Mail <u>khabermeier@imf.org, akokenyne@imf.org, rveyrune@imf.org,</u>

Addresses: <u>harald.anderson@utoronto.ca</u>

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#### I. Introduction

Since 1998, the staff of the International Monetary Fund (IMF) has published a classification of countries' de facto exchange rate arrangements. Experience in operating this classification system has highlighted several challenges, notably:

- the residual category of managed floating has become overly heterogeneous; and
- intervention practices, which are used in characterizing arrangements, have become increasingly complex, while adequate data on intervention are sometimes not available.

The existing IMF staff classification system has been modified to address these and other issues (see Appendix I for the new definitions). The revised classification will be published in the 2009 Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) and in the IMF's 2009 Annual Report. Specifically, the 2009 AREAER will include the revised classification at end-April 2009 and end-April 2008, and changes in the intervening period. The revised classification of member countries' arrangements is also being used in all Article IV staff reports issued on or after February 1, 2009. It is intended to revise the classification series backward in time. Country authorities have the opportunity to comment on changes in classifications and discuss them with IMF staff before they are published.

Key changes to the classification system include:

- replacing the current distinction between managed and independent floating with two new categories: floating and free floating, with clearer definitions;
- drawing a distinction between formal fixed and crawling pegs, and arrangements that are merely peg-like or crawl-like;
- increasing the transparency of the system by basing it on rules that can be implemented using specified information, with a more clearly circumscribed role for judgment.

These changes are expected to allow for greater consistency and objectivity of classifications across countries, expedite the classification process, conserve resources, and improve transparency, with benefits for the IMF's bilateral and multilateral surveillance.

The overall composition of arrangements using the previous and revised classification systems is shown in Table 1, below.

<sup>&</sup>lt;sup>1</sup> A chronology of the IMF's methodologies for classifying exchange rate arrangements is given in Appendix II.

Table 1. Shares of Classifications Using the 1998 and 2009 Systems, as of April 30, 2008

	1998 de facto system	I	2009 de facto system	
Hard pegs		23		23
	Arrangement with no separate legal tender	10	Exchange arrangement with no separate legal tender	10
	Currency board arrangement	13	Currency board arrangement	13
Soft pegs		81		78
	Conventional fixed peg	68	Conventional pegged arrangement	45
			Stabilized arrangement	22
of which: Inte	of which: Intermediate pegs			11
	Pegged exchange rate within horizontal bands	3	Pegged exchange rate within horizontal bands	3
	Crawling peg	8	Crawling peg	5
	Crawling band	2	Crawl-like arrangement	3
Floating arrang	gements	84		75
	Managed floating	44	Floating	39
	Independently floating	40	Free floating	36
Other managed	d arrangements (residual)	n.a.		12
Total		188		188

Source: Staff calculations. Information for end-April 2009 will be published in the 2009 Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER), forthcoming.

#### II. PRINCIPLES, OBJECTIVES, AND OPERATIONAL CONSIDERATIONS

The classification of exchange rate arrangements is based on three broad *principles*:

- capturing the outcome of actual exchange rate policies on a *de facto* basis as opposed to the announced or de jure arrangement;
- avoiding *value judgments* on the appropriateness of monetary policies or the choice of the exchange rate arrangement;
- adopting a *backward looking approach* that seeks to describe the outcome of past exchange rate policies and does not imply statements or views on future or intended policies.

Taking these principles into account, the *objectives* of the de facto classification of exchange rate arrangements are to:

- support IMF surveillance by bringing greater transparency, consistency, and evenhandedness to the description of the results of members' policy actions;<sup>2</sup>
- help IMF staff to identify institutional and operational obstacles to the achievement of the authorities' policy objectives; and
- provide a summary description that facilitates cross country analysis.

From an operational perspective, a de facto classification system should:

- reflect the wide range of exchange rate arrangements across the Fund membership with no overlap among categories;
- consistently classify countries according to transparent and verifiable rules; and
- be operationally feasible without ambiguity or unnecessary delays.

This said, no classification system can capture all aspects of a country's exchange rate arrangement. By its nature, a classification system can only reflect certain basic features, the most important of which is the extent to which the exchange rate is determined by markets rather than official action, a distinction which will often be reflected in the flexibility of the exchange rate. Thus, the classification system needs to be complemented by a more detailed description of exchange rate policies.

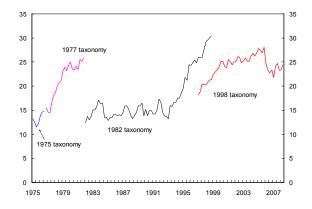
<sup>&</sup>lt;sup>2</sup> While the de facto classification supports surveillance, it is distinct from the assessment of exchange rate policies under the 2007 Decision. Surveillance must analyze members' exchange rate policies, with a view to providing (i) a clear description of these policies—supported by the de facto classification; and (ii) an assessment of the consistency of these policies with the Principles for the Guidance of Members outlined in the 2007 Decision. These two judgments must be underpinned by the same analysis and understanding of the member's policies, but ultimately consistency with the Principles will be assessed for exchange rate policies as they arise, regardless of the de facto classification assigned to the arrangement.

#### III. NEED FOR CHANGE

As noted, two key motivations for change were the overly heterogeneous nature of the residual category of managed floating (Figure 1) and more complex intervention practices.

Figure 1. Development of the Residual Category, 1975–2008 1/2/

(In percent of classified countries; quarterly data)



Source: AREAER database.

1/ For the 1975 taxonomy, "Independently floating;" for the 1977 taxonomy, "Other;" for the 1982 taxonomy, "Other managed floating;" and for the 1997 taxonomy, "Managed floating with no predetermined path for the exchange rate." 2/ End-April 2008.

As the number of countries more actively managing their exchange rate has again increased in recent years, many have resisted a reclassification as managed floats or fixed pegs. This has posed significant operational problems:

- the distinction between independent floating and managed floating under the existing classification system relied too heavily on judgment; and
- many countries have objected to a change in classification from a managed float to a
  fixed peg, arguing that they have no commitment to defending a particular level of
  the exchange rate.

As to intervention practices, a growing number of countries are now able to switch between domestic and foreign currency debt on commercial terms, while others have had income flows, in particular from oil, that may or may not be channeled through the central bank, and have been building pools of reserve-like assets in the form of oil stabilization funds or longer-term investment funds. As a result, conventional measures of intervention may understate the degree to which floating exchange rates in some countries are managed. The problems are compounded by the lack of availability of data on foreign exchange intervention.

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#### IV. THE REVISED DE FACTO CLASSIFICATION SYSTEM

The revisions do not represent a fundamental overhaul of the system, but instead seek to strengthen it while maintaining continuity. In particular, the distinction between hard pegs, soft pegs, and floats, which is widely accepted in the economics profession, has been preserved. The revised definitions of the various categories are given in Appendix I.

Whenever consistent with observed policies and outcomes, countries are classified in line with their de jure or declared exchange rate arrangements. Information on de jure arrangements is being systematically collected for the IMF membership as part of the AREAER exercise.<sup>3</sup> Where the description of the de jure arrangement can be empirically confirmed over at least the previous six months, and where the de jure arrangement is the most appropriate description of the arrangement, the country is classified in the same way on a de facto basis. It is important to note that hard pegs, such as currency boards or formal dollarization, are always and only confirmed de jure arrangements, as are conventional fixed pegs, crawling pegs, and pegged exchange rates within horizontal bands (the last is a very specific de jure and de facto arrangement found mainly in recent European Union (EU) accession countries).

In some countries, however, observed policies and outcomes will not be consistent with the de jure arrangement. In these cases, it is necessary to determine the appropriate de facto classification. In order to limit the potential for controversy that is inevitable in such cases, the definitions and underlying criteria have been simplified and clarified. The process involves three basic steps (see also Figure 2):

- A distinction is first to be drawn between de facto arrangements that are floating (market-determined) and those that are not.
- The non-floating de facto arrangements are subdivided into only two categories: *stabilized* and *crawl-like*. These categories in turn are defined in terms of more easily verifiable quantitative and qualitative criteria. For many purposes of economic analysis, stabilized arrangements can be considered as peg-like.
- The *floating* category is further refined by identifying a subset as *free floating*, with classification as a free float requiring that specific quantitative and qualitative criteria are met. This change substantially reduces or eliminates the ambiguities inherent in the current distinction between independent and managed floats.
- Any arrangement not falling into any of these categories is classified as *other managed arrangement*, which is the new residual category.

<sup>&</sup>lt;sup>3</sup> By Article IV, Section 2(a) of the IMF's Articles of Agreement, each member is required to notify the IMF of the exchange arrangements it intends to apply and to notify the IMF promptly of any changes in its exchange arrangements. Paragraph 16 of the 2007 Surveillance Decision emphasizes this requirement in the context of surveillance. In the AREAER, countries are being asked to self-describe their exchange arrangement. Countries may also assign themselves to one of the classification categories, on a voluntary basis.

The most critical decision in the modified de facto classification scheme is thus whether or not the arrangement is floating. The criterion for a float is that the exchange rate is largely market-determined. The observed behavior of the exchange rate, complemented by information on the monetary and foreign exchange policy actions taken by country authorities (notably intervention), allow for a judgment to be made in most cases as to whether the exchange rate is determined primarily by market forces or by official policy actions.<sup>4</sup>

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As noted, once a de facto exchange rate arrangement has been identified as floating, it can be further qualified as free floating if there has been no intervention over the past six months, with the exception of limited intervention to address disorderly market conditions.<sup>5</sup> If IMF staff responsible for the classification do not have sufficient information and data to verify whether this criterion has been met, the arrangement is classified as floating. Data and its availability, rather than subjective judgment, thus play the key role in assigning a country to the free floating category.

Those de facto arrangements not identified as floating will usually be some type of soft peg. As noted previously, a distinction is made in the revised classification system between those pegs that are confirmed de jure arrangements and those for which the de facto and the de jure arrangements differ. The latter are called *stabilized arrangements* or *crawl-like arrangements*, to emphasize that they do not necessarily entail a policy commitment. This terminology is intended to provide a description of the outcome of exchange rate policies looking backward (the exchange rate is not largely market determined and meets certain verifiable statistical criteria), while obviating the need for subjective interpretation of the authorities' policy intentions.

If the statistical criteria for a soft peg are met, there is a presumption that the arrangement is not floating. Experience has shown that an exchange rate meeting the statistical criteria for a soft peg usually does so as a result of official action, or because the economy has only been subject to small shocks. To make a judgment on the nature of the authorities' policy actions, IMF staff may request specific information, including on direct and indirect intervention, foreign exchange market turnover (both spot and derivatives), reserve level and currency composition, interest rates, the foreign exchange activities of public enterprises and sovereign wealth funds, debt composition and debt management policies, macroeconomic data of sufficient reliability, and any other items that may be relevant in a particular instance. Consultations with the country authorities have an important role to play. In case of doubt, the statistical classification criteria remain determinative.

<sup>4</sup> One cannot judge whether an exchange rate is market determined solely by looking at its variability.

<sup>&</sup>lt;sup>5</sup> The definition allows for 3 instances of intervention, each lasting no more than 3 business days. Normally, disorderly market conditions last for only 1 or 2 days.

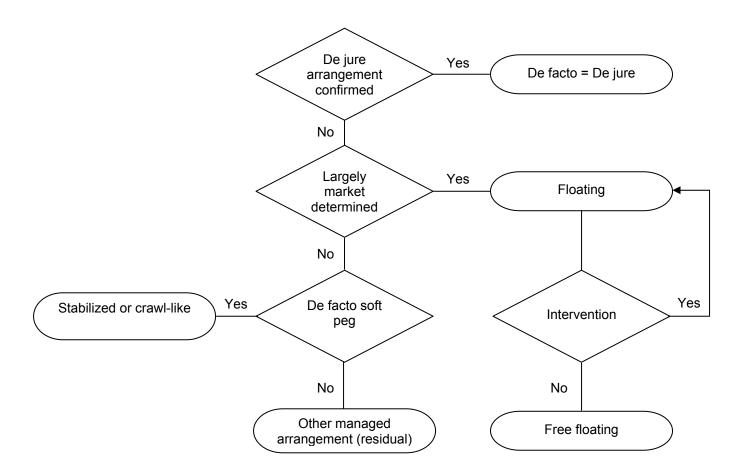


Figure 2. Decision Process for Revised Classification Methodology 1/

1/ The figure provides a stylized representation, and includes only the key decisions. The decisions in the classification process begin at the top of the figure and proceed downwards.

Any arrangement that does not fall into any of the categories described above is assigned to the category *other managed arrangements*. This is a new residual category. As indicated in Table 1, less than 10 percent of the IMF's membership fell into the residual category at end-April 2008.<sup>6</sup> In the main, this category captures countries in which the de facto and the de jure arrangement differ, which manage their exchange rates but are not floating, and which exhibit frequent or irregular changes in policies.

The de facto classification should accurately reflect policy outcomes over the relevant assessment period. However, judgment and consultation with member country authorities are being used to avoid spurious or "noisy" changes in classification in borderline cases. To this end, the usual assessment period can be lengthened by up to three months.

<sup>&</sup>lt;sup>6</sup> In particular, this category is not equivalent to the managed float category under the existing methodology.

The "crawling band" category has been dropped, as only very few countries have availed themselves of such an arrangement in the past decade.

The revised methodology also entails criteria for dealing with outliers. For a reclassification to an arrangement with less flexibility, IMF staff will continue to assess the extent and effect of intervention, and will also consider whether the lack of exchange rate variability is due to an absence of market shocks. However, there is a need to allow more explicitly for occasional spikes arising from disorderly markets or realignments of pegs, to enhance cross country comparability. In particular, it allows for one episode of spikes lasting at most five days per quarter, and one step realignment in six months. This will prevent de facto fixers from being misclassified as floaters when the exchange rate is allowed to fluctuate beyond defined ranges at infrequent intervals. Moreover, quantitative indicators are being used to help identify the presence of a minimum absolute and relative level of market pressures to warrant drawing conclusions on exchange rate policies from observed exchange rate stability.

 $<sup>^7</sup>$  Such spikes may be the result of short-term one-off exchange rate pressures or disorderly market conditions. For countries with pegged exchange rate regimes, there are very few instances where countries exceed their  $\pm 1$  percent bands. The five-day period broadly corresponds to the period of one week specified for broken cross rates under the policy on Multiple Currency Practices (Decision No. 6790-(81/43), adopted 3/20/81, as amended), but the main reason for setting it relatively wide is to allow for diverging practices across countries, in that some need more time to manage disorderly conditions than others.

<sup>&</sup>lt;sup>8</sup> Devaluations and revaluations, which tend to permanently move the median exchange rate (in contrast to the temporary effect of spikes), are common features of pegged regimes as well. The current practice is to allow for four adjustments of over 1 percent per year; this would be tightened under the revised methodology.

# Appendix I. Revised Classification System—Definitions of Categories

# Hard pegs

Exchange arrangement with no separate legal tender	Classification as an <i>exchange arrangement with no separate legal tender</i> involves the confirmation of the country authorities' de jure exchange rate arrangement. The currency of another country circulates as the sole legal tender (formal dollarization). Adopting such an arrangement implies the complete surrender of the monetary authorities' control over domestic monetary policy.
	Note: effective January 1, 2007, exchange arrangements of the countries that belong to a monetary or currency union in which the same legal tender is shared by the members of the union are classified under the arrangement governing the joint currency. The new classification is based on the behavior of the common currency, whereas the previous classification was based on the lack of a separate legal tender. The classification thus reflects only a definitional change, and is not based on a judgment that there has been a substantive change in the exchange arrangement or other policies of the currency union or its members.
Currency board arrangement	Classification as a <i>currency board arrangement</i> involves the confirmation of the country authorities' de jure exchange rate arrangement. A currency board arrangement is a monetary arrangement 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 the strictness of the banking rules of the currency board arrangement.

# Soft pegs

Conventional pegged arrangement	For classification as a <i>conventional pegged arrangement</i> , the country formally (de jure) pegs its currency at a fixed rate to another currency or a basket of currencies, where the basket is formed, for example, from the currencies of major trading or financial partners, and weights reflect the geographic distribution of trade, services, or capital flows. The anchor currency or basket weights are public or notified to the IMF. The country authorities stand ready to maintain the fixed parity through direct intervention (i.e., via sale or purchase of foreign exchange in the market) or indirect intervention (e.g., via exchange rate related use of interest rate policy, imposition of foreign exchange regulations, exercise of moral suasion that constrains foreign exchange activity, or intervention by other public institutions). There is no commitment to irrevocably keep the parity, but the formal arrangement must be confirmed empirically: the exchange rate may fluctuate within narrow margins of less than ±1% around a central rate—or the maximum and minimum value of the spot market exchange rate must remain within a narrow margin of 2%—for at least six months.
Stabilized arrangement	Classification as a <i>stabilized arrangement</i> entails a spot market exchange rate that remains within a margin of 2% for six months or more (with the exception of a specified number of outliers or step adjustments), and is not floating. The required margin of stability can be met either with respect to a single currency or a basket of currencies, where the anchor currency or the basket is ascertained or confirmed using statistical techniques. Classification as a stabilized arrangement requires that the statistical criteria are met, and that the exchange rate remains stable as a result of official action (including structural market rigidities). The classification does not imply a policy commitment on the part of the country authorities.

# **Soft pegs (continued)**

Crawling peg	Classification as a <i>crawling peg</i> involves the confirmation of the country authorities' de jure exchange rate arrangement. The currency is adjusted in small amounts at a fixed rate or in response to changes in selected quantitative indicators, such as past inflation differentials vis-à-vis major trading partners or differentials between the inflation target and expected inflation in major trading partners. The rate of crawl can be set to generate inflation-adjusted changes in the exchange rate (backward looking) or set at a predetermined fixed rate and/or below the projected inflation differentials (forward looking). The rules and parameters of the arrangement are public or notified to the IMF.
Crawl-like arrangement	For classification as a <i>crawl-like arrangement</i> , the exchange rate must remain within a narrow margin of 2% relative to a statistically identified trend for six months or more (with the exception of a specified number of outliers), and the exchange rate arrangement cannot be considered as floating. Normally, a minimum rate of change greater than allowed under a stabilized (peg-like) arrangement is required. However, an arrangement will be considered crawl-like with an annualized rate of change of at least 1%, provided that the exchange rate appreciates or depreciates in a sufficiently monotonic and continuous manner.
Pegged exchange rate within horizontal bands	Classification as a <i>pegged exchange rate within horizontal bands</i> involves the confirmation of the country authorities' de jure exchange rate arrangement. The value of the currency is maintained within certain margins of fluctuation of at least ±1% around a fixed central rate, or the margin between the maximum and minimum value of the exchange rate exceeds 2%. It includes arrangements of countries in the Exchange Rate Mechanism (ERM) of the European Monetary System (EMS), which was replaced with the ERM II on January 1, 1999, for those countries with margins of fluctuation wider than ±1%. The central rate and width of the band are public or notified to the IMF.

## Floating arrangements

Floating	A <i>floating</i> exchange rate is largely market determined, without an ascertainable or predictable path for the rate. In particular, an exchange rate that satisfies the statistical criteria for a peg-like or a crawl-like arrangement will be classified as such unless it is clear that the stability of the exchange rate is not the result of official actions. Foreign exchange market intervention may be either direct or indirect, and serves to moderate the rate of change and prevent undue fluctuations in the exchange rate, but policies targeting a specific level of the exchange rate are incompatible with floating. Indicators for managing the rate are broadly judgmental (e.g., balance of payments position, international reserves, parallel market developments). Floating arrangements may exhibit more or less exchange rate volatility, depending on the size of the shocks affecting the economy.
Free floating	A floating exchange rate can be classified as <i>free floating</i> if intervention occurs only exceptionally, aims to address disorderly market conditions, and if the authorities have provided information or data confirming that intervention has been limited to at most three instances in the previous six months, each lasting no more than three business days. If the information or data required are not available to the IMF staff, the arrangement will be classified as floating.

# Residual

Other managed arrangement	This category is a residual, and is used when the exchange rate
	arrangement does not meet the criteria for any of the other
	categories. Arrangements characterized by frequent shifts in
	policies may fall into this category.

## **Appendix II. The Evolution of the IMF's Classification Taxonomies**

## 1. Bretton Woods System (July 1944–July 1971)

**Par value.** The member maintains an exchange rate within  $\pm 1$  percent around its par value. After 1959, cross parities of up to  $\pm 2$  percent were allowed, provided that each currency maintained a  $\pm 1$  percent band vis-à-vis its par value. Par values are vis-à-vis the U.S. dollar or gold of a certain weight and fineness.

*Fluctuating.* Although not specifically allowed under the Articles of Agreement, 18 countries adopted fluctuating arrangements for various periods.

## 2. Smithsonian realignment (December 1971–January 1974)

**Par value.** The member maintains an exchange rate within  $\pm 2.25$  percent around its par value or, in the case of cross parities,  $\pm 4.5$  percent. Par values are vis-à-vis any member's currency, gold, or the SDR. After November 7, 1973, a member could maintain margins of up to  $\pm 2.25$  percent against an intervention currency regardless of whether that currency maintained proper margins or of the resulting cross-margins against other currencies.

*Fluctuating.* Although not specifically allowed in the agreement, some countries maintained flexible arrangements during this period.

## 3. 1975 Taxonomy (June 1975–September 1976)

**Pegged to a single currency.** The member maintains an exchange rate within ±2.25 percent around a central rate vis-à-vis a single currency. This was subdivided into individual groups reflecting each anchor currency.

*Pegged to a composite (including the SDR).* The member maintains an exchange rate within  $\pm 2.25$  percent around a central rate vis-à-vis a basket of currencies or the SDR.

**Floating—adjusted according to a set of indicators.** The member maintains an exchange rate within  $\pm 2.25$  percent around a central rate, and the authorities adjust the central value of the exchange rate on the basis of indicators or on a regular basis.

**Floating—common margins.** In a cooperative arrangement, several countries maintain their exchange rates within bands of at most  $\pm 2.25$  percent around a central rate vis-à-vis each-others' currencies and intervene to support both their own and the other currencies. The external value of their currencies taken together (referred to as a snake) is determined jointly by the countries involved.

**Floating—independently.** The system allows deviations from a central rate greater than  $\pm 2.25$  percent.

## 4. 1977 Taxonomy (November 1976–December 1981)

**Pegged to a single currency.** The member maintains an exchange rate within ±2.25 percent around a central rate vis-à-vis a single currency. This was subdivided into individual groups reflecting each anchor currency.

**Pegged to a composite (including the SDR).** The member maintains an exchange rate within  $\pm 2.25$  percent around a central rate vis-à-vis a basket of currencies or the SDR.

Adjusted according to a set of indicators. The authorities set the rate for a specified short time interval (usually one day or one week) and stand open to buy and sell foreign exchange within narrow bands around a rate determined on the basis of certain indicators, specific and predetermined or otherwise.

Cooperative exchange arrangements. A group of countries maintains its exchange rates within bands of at most  $\pm 2.25$  percent around a central rate vis-à-vis each-others' currencies and intervene to support both their own and the other currencies. The external value of their currencies taken together (referred to as a snake) is determined jointly by the countries involved.

## 5. 1982 Taxonomy (January 1982–October 1998)

**Pegged to a single currency.** The member maintains its exchange rate within zero or very narrow margins seldom exceeding ±1 percent around a central rate vis-à-vis a single currency. Beginning in July 1992, countries that are fully dollarized are included in this category (previously, they were classified according to the arrangement of the foreign currency giving rise to the dollarization—e.g., the U.S. dollar).

**Pegged to a composite (including the SDR).** The member maintains its exchange rate within zero or very narrow margins seldom exceeding  $\pm 1$  percent around a central rate vis-à-vis a basket of currencies or the SDR.

Flexibility limited vis-à-vis a single currency. The member maintains its exchange rate within margins of  $\pm 2.25$  percent vis-à-vis another member's currency or the SDR.

Flexibility limited vis- $\dot{a}$ -vis a cooperative arrangement. Countries maintain margins within  $\pm 2.25$  percent with respect to their cross-rates, based on a central rate expressed in terms of a single currency.

Adjusted according to a set of indicators. The authorities set the rate for a specified short time interval (usually one day or one week) and stand open to buy and sell foreign exchange at a rate determined on the basis of certain indicators, specific and predetermined or otherwise.

*Other managed floating.*<sup>9</sup> Flexible arrangements not covered by "adjusted according to a set of indicators" or "independently floating."

*Independently floating.* The authorities allow the exchange rate to move continuously over time to reflect market forces. If the authorities intervene at all, they do so through purchases and sales of foreign exchange only to influence, and not to fully neutralize, the speed of the exchange rate movement.

## 6. De facto Classification Taxonomy (November 1998-January 2009)

Exchange arrangement with no separate legal tender. The country has legislatively surrendered sole control over domestic monetary policy. Two types of arrangements fall under this category: (1) another currency as legal tender, in which the country has adopted a foreign currency as the sole legal tender (it may issue subsidiary units (coins), so long as they are at par); and (2) currency union, in which the country is a member of a currency union with banknotes being issued by and exchange rate policy determined by a multinational central bank in which the country has representation. Beginning in January 2007, countries in the second group were classified on the basis of the arrangement governing the joint currency.

**Currency board arrangement.** The country has an explicit legislative commitment to exchange domestic currency for a specified foreign currency at a specified rate, combined with restrictions on the activities of the issuing authority to ensure the fulfillment of the legal obligation, including a backing requirement and restrictions on some typical central bank activities.

**Conventional pegged arrangement.** The country fixes its exchange rate to an anchor currency or basket within margins of less than  $\pm 1$  percent. There need not be a commitment to maintain the peg irrevocably. The peg may be formal and explicit or de facto. In the latter case, the country must actively maintain the peg for at least three months. In January 2007, the observation period was lengthened to 6 months.

**Pegged exchange rate within horizontal bands.** As in the case of a conventional peg, the value of the currency is maintained within a band, but the range was at least 2 percent (or  $\pm 1$  percent around a central rate). Countries under the ERM and ERM II are included in this category unless the country explicitly maintains narrower margins.

Crawling peg. The country adjusts the exchange rate periodically or frequently in small amounts in response to changes in quantitative indicators or in order to effect a gradual devaluation or revaluation against a single currency or a basket. As in the case of a conventional peg, the exchange rate remains within margins of less than ±1 percent around a central rate. Beginning in January 2007, (1) this category also included countries whose exchange rates remained within a sliding range of

 $<sup>^9</sup>$  Under this methodology, all countries with arrangements whereby the exchange rate would fluctuate in ranges outside of  $\pm 2.25$  percent were to be considered floating arrangements.

 $\pm 1$  percent for at least six months as a result of intervention by but without an explicit commitment on the part of the monetary authorities; and (2) arrangements in which the direction of crawl could change (such as effective exchange rate rules) were classified as managed floating.

**Crawling band.** As in the case of a crawling peg, the exchange rate is adjusted in small amounts, but the rate may fluctuate in a range of  $\pm 1$  percent or more or a range of 2 percent. The extremities of the bands may be symmetric around the central rate or may be adjusted asymmetrically, gradually widening the range.

Managed floating with no preannounced path for the exchange rate (in 2005, the word preannonced was replaced with predetermined). The monetary authority attempts to influence the level of the exchange rate without having a specific exchange rate path or target, but the exchange rate is essentially market determined. Indicators for managing the rate are broadly judgmental (e.g., balance of payments position, international reserves, parallel market developments), and adjustments may not be automatic. Intervention may be direct or indirect. Beginning in January 2007, arrangements with automatic adjustment that no longer qualify as crawling arrangements were classified in this group.

*Independently floating.* The exchange rate is market-determined, with any official foreign exchange market intervention aimed at moderating the rate of change and preventing undue fluctuations in the exchange rate over short time horizons, rather than aiming at a level for it.