INTERNATIONAL MONETARY FUND

Treatment of Exchange Rate Issues in Bilateral Surveillance—A Stocktaking

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In consultation with other Departments

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I. INTRODUCTION [1]

1. **The purpose of this paper is to review the quality of the Fund staff's analysis and policy advice on exchange rate issues**. The Fund is sometimes criticized for not taking a sufficiently clear position on several exchange rate issues, ranging from the assessment of the level of exchange rates to the description of exchange rate policies, and their adequacy. Is this criticism valid, and in what respect? Answering these questions is critical as exchange rate issues are at the heart of the Fund's surveillance mandate.

2. **The Fund's medium-term strategy highlights the coverage of exchange rate issues as a cornerstone of the program for strengthening surveillance**. Specifically, it calls for more emphasis to be given to "the original goal of surveillance—i.e., assessing the consistency of exchange rate and macroeconomic policies with national and international stability."[2] Concrete initiatives include a review of the 1977 Decision on Surveillance over Exchange Rate Policies and the extension of the current work of Consultative Group of Exchange Rates Issues (CGER) to all major emerging market currencies. This paper is a part of these initiatives, and aims at taking stock of the current status of exchange rate surveillance in light of the initiatives already introduced since the 2004 Biennial Review of Surveillance (BSR) which set "a deeper treatment of exchange rate issues" as one of the "monitorable priority objectives" for the following two years.[3]

3. **The study goes beyond earlier studies in several respects.** As discussed further below, in addition to reviewing the *extent* of coverage of exchange rate issues, this study attempts to assess the *quality* and appropriate *selectivity* (focus) of the coverage. Moreover, to obtain a comprehensive picture of the staff's policy dialogue with country authorities, documents other than Article IV staff reports were included in the review.[4] The inevitable consequence of such in-depth analysis is the need to limit the country sample, which

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[1] The main author of this paper is Ketil Hviding, with input from Katerina Alexandraki, Eva Gutierrez, and Mercedes Vera Martin, under the guidance of Carlo Cottarelli. The task force set up for the assessment (see paragraphs 13-15 below) included Brian Aitken, Martin Cerisola, Natan Epstein, Domenico G. Fanizza, Eva Gutierrez, Thomas Harjes, Matthew Jones, Xiangming Li, Donal McGettigan, Mwanza Nkusu, Luca Antonio Ricci, Marianne Schulze-Ghattas, and Mercedes Vera Martin. The task force benefited from discussions with staff of the Monetary and Capital Markets Department and from its forthcoming Review of Exchange Arrangements, Restrictions and Markets (REARM).

[2] See The Managing Director's Report on Implementing the Fund's Medium-Term Strategy, April 5, 2006 (www.imf.org/external/np/pp/eng/2006/040506.pdf)

[3] See "IMF Executive Board Reviews the Fund's Surveillance," Public Information Notice No. 04/95, August 24, 2004. (www.imf.org/external/np/sec/pn/2004/pn0495.htm)

[4] See Appendix I for further details. This review was based on staff reports as they were presented to the Executive Board. For the papers reviewed, there were deletions in four documents referring to staff's exchange rate assessment, in accordance with the Fund's deletion policy. In addition, 25 percent of staff reports reviewed were not published.

remains, nevertheless, sizeable, covering 30 economies accounting for over 90 percent of global GDP (see Appendix I). Finally, the "governance" process of the assessment was different from previous staff reviews.

4. **The paper is organized as follows.** Section II reviews the key results of previous assessments. Section III presents the methodology and country coverage. Section IV reports the key results. Section V includes some concluding remarks and issues for discussion.

II. Previous Assessments: Key Results and Limitations

5. **The Fund's work on exchange rates has been subject to criticism by many observers.** Some of the most outspoken critics have blamed the Fund for "sleeping at the wheel"[5] and claimed that "all too often the Fund acts as though balance of payment policies and exchange rates are none of its business."[6] The Fund has been criticized for retreating from its role as an umpire for the international monetary system, and some have also called for the Fund to play a much more active role in addressing global imbalances by more forcefully advocating exchange rate realignments of major currencies.[7]

6. **Whether or not these criticisms are fully justified, staff analysis in the past has confirmed the need for improvements in the Fund's surveillance of exchange rate policies.** While shortcomings were noted earlier, the 2004 BSR[8] reassessed the issue, concluding that: (i) staff rarely identified the *de facto* exchange rate regime as different from the *de jure* regime; (ii) the choice of exchange rate regime was rarely discussed per se; (iii) when offered, policy advice leaned towards greater exchange rate flexibility; (iv) assessments of external competitiveness were often limited to an analysis of movements of a single real effective exchange rate indicator and the use of a broader set of indicators and/or econometric analysis was not common; and (v) real exchange rates were often found to be "about right" or in line with fundamentals.

7. **Thus, at the conclusion of the 2004 BSR, Directors endorsed a series of steps to improve the Fund's exchange rate surveillance**: (i) introduce greater candor in the description of the *de facto* exchange rate regime; (ii) more systematic use of a broad set of indicators and analytical tools to assess external competitiveness; and (iii) a thorough and balanced presentation of the policy dialogue between staff and the authorities on exchange

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[5] Goldstein, M. and M. Mussa, 2005, "The Fund Appears to Be Sleeping at the Wheel," Op-ed in the Financial Times, October 3, 2005.

[6] Bergsten, F.C. and J. Williamson (eds.), 2004, "Dollar Adjustment: How Far? Against What?" Institute for International Economics, Special Report 17.

[7] For an overview of different views see a collection of papers presented at a conference on IMF Reform, Washington D.C. September 2005: Truman, E, M. (ed.), *Reforming the IMF for the 21st Century,* Special Report no. 19, Institute for International Economics, April 2006.

[8] See Public Information Notice No. 04/95 (www.imf.org/external/np/surv/pdr/2004/082404.pdf)

rate issues, particularly when views diverge. Since then staff has been working on disseminating best practices in the area of exchange rate surveillance, upgrading desk economists' toolkit by strengthening internal training sessions, monitoring more closely the treatment of exchange rate issues in the review of country papers, and the work of the CGER will also be expanded from industrial countries to cover all major emerging-market economies.

8. **Three features distinguish this paper with respect to earlier assessments:**

- First, the focus is on a relatively limited number of countries, so as to allow a much more detailed analysis of the staff's work. The paper covers 30 large economies, representing over 90 percent of world GDP. In this way, the analysis is also more relevant to evaluate the extent to which shortcomings have arisen in the analysis of the currencies that are most important for global trends. For further details, see Appendix I.

- Second, the review pays particular attention to the most recent reports (January 2004 to May 2006,[9] although reports as far back as 2001 were also reviewed) and, where relevant, takes into account other types of documents (e.g., briefs, internal memoranda). This focus is justified by: (i) the increased staff emphasis on exchange rate issues, particularly after the 2004 BSR; and (ii) the forward looking purpose of the review: to assess which areas the Fund should concentrate its resources. For further details on document selection see Appendix I.

- Third, there are several methodological differences between this paper and earlier reviews (see next section).

III. Focus and Methodology

9. **This section details the key features of the approach followed in this paper, including**: (i) the dimensions of the exchange rate assessments; (ii) coverage and selectivity; and (iii) quality assessment and the governance of the assessment process.

Dimensions of the exchange rate assessment

10. **The assessment of exchange rate issues in this paper covers four dimensions:**

- *Description of exchange rate regimes*. As called for by Directors at the conclusion of the 2004 BSR, it is essential that staff reports provide an accurate description of the *de facto* regime. Describing correctly the exchange rate regime is a prerequisite for providing the right context for policy advice.

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[9] The exact cut-off date was May 31, 2006, with respect to the issuance of the report.

- *Evaluation of exchange rate regimes*. While the choice of exchange rate regime is the prerogative of the member country, it is the Fund's role to assess whether a country's policies "serve the objectives of continuing development of the orderly underlying conditions that are necessary for financial stability, the promotion of sustained sound economic growth, and reasonable levels of employment."[10] Thus, staff would be expected to discuss the appropriateness of an exchange rate regime to the extent that the regime may not be conducive to macroeconomic stability.

- *Evaluation of the exchange rate level.* While concerns still linger about the feasibility of accurately determining equilibrium exchange rates, Directors have called for a thorough assessment of external competitiveness (e.g., in the Summing Up of the 2004 BSR (Public Information Notice No. 04/95). The focus of the assessment is on the real effective exchange rate; such an assessment would be appropriate regardless of the exchange rate regime, as a misalignment of the real exchange rate is not necessarily limited to pegged exchange rate regimes.

- *The effect of economic policies on external stability*. The choice of exchange rate regime and the issue of exchange rate level cannot be discussed in a vacuum. Thus, it is central to assess whether the consistency between economic policies, external stability, and the exchange rate is adequately discussed.

Coverage and selectivity

11. **The current assessment acknowledges that the degree of coverage of the above four exchange rate dimensions does not need to be the same across reports**. Not every report needs to address all dimensions with the same degree of detail. In particular, it was recognized that:

- Uncontroversial issues do not need to be discussed at great length. For example, it is not regarded as necessary to have a lengthy discussion in the Euro Area or U.S. staff reports about the appropriateness of maintaining floating exchange rates.

- There is no point in repeating in every paper the same discussion: a brief treatment with appropriate cross-references may be sufficient if earlier treatments are still valid. This is one reason why the review, while essentially forward looking, also looked at older reports.

Quality assessment and governance issues

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[10] See Decision No. 5392-(77/63) April 29, 1977. (www.imf.org/external/pubs/ft/sd/index.asp)

12. **Unlike previous reviews, this study not only assesses whether certain issues were covered, but also tries to identify whether the quality of the coverage was adequate.** In achieving this, a pragmatic approach was followed. The first question was whether the treatment met some basic and well recognized principles (e.g., that to the extent possible it is important to use different indicators of competitiveness, not just one). Second, the reviews assessed whether statements in staff reports stood the test of basic economic theory. Third, the reviews were compared with the views of outside analysts, and in case of differences, whether these differences could be justified. In other words, outside analysts' views were used as a sort of "reality check" on staff assessments.

13. On the basis of the individual country reviews, **deviations from what was regarded as an adequate quality standard were expressed as "major" or "minor" remarks, so as to allow a better identification of the relative importance of the observed shortcomings.**[11] In defining the appropriate quality standard, country circumstances such as data availability were taken into account: for example, only for advanced countries—with official CGER estimates—the absence of quantitative numerical estimates of misalignment was regarded as a shortcoming. Appendix II includes a "questionnaire," used in the assessment, that provides more detailed information on the relevant quality standards.

14. **It has long been recognized by quality assessment experts that the more assessments involve a judgmental component, the more the governance process of the assessment becomes important**. Thus, the preparation of this report has involved a governance system based on broad participation (of functional and area departments), constituting a *de facto* system of checks and balances.

IV. Key Findings

15. **This section takes up in turn the four dimensions of the exchange rate assessment discussed above**. Table 1 summarizes the outcome of the assessment highlighting the number of "major" and "minor" remarks identified in the review.

A. Description of the Exchange Rate Regime

Overall assessment: *Staff's descriptions of exchange rate regimes are found to be broadly adequate. Areas of improvement include a better identification of intervention policies and the description of the nature of the float.*

[11] "Major remarks" refer to clear shortcomings relative to the agreed standard. "Minor remarks" refer to areas where the treatment could have been improved relative to best practice.

Table 1. Summary Assessment: Identified Areas of Improvement

	Description of exchange rate regime	Assessment of exchange rate regime	Assessment of exchange rate levels	Assessment of policy consistency
Major remarks	1	2	10	0
Minor remarks	1	1	7	2
Total remarks	2	3	17	2

Source: Staff estimates.

16. **In most cases, staff reports described adequately the exchange rate regime.** In only two cases, the description of the exchange regime fell short of what could have been expected, with only one of them involving a "major" shortcoming (Table 1). In comparing staff reports' description of exchange rate regimes with an update of Reinhart-Rogoff's classification, the Fund's *de facto* classification, and the country's *de jure* classification, the following conclusions were reached:

- The discussion about the exchange rate regime—when not self-evident—typically goes beyond the summary description included in the standard Appendix on Fund relations, and the regime is usually discussed within the policy section in the staff reports.

- While not always using a consistent terminology, the description in the staff reports is usually in line with the classifications reported in the Fund's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). Indeed, in several cases, staff reports went beyond the Fund staff's *de facto* classification to describe more finely the countries' actual exchange rate regimes.[12]

- In contrast, there were differences with the *de jure* classification. Five countries in our sample maintained a *de jure* arrangement different from the Fund staff's *de facto* classification. In all these cases—in which the exchange rate was regarded as more

[12] In Argentina's 2005 staff report, staff claimed that the exchange rate regime could be classified as a peg. In 2004, the Fund staff's *de facto* exchange rate classification described Argentina's exchange rate regime as a managed float with no predetermined path for the exchange rate. The 2005 staff report on Pakistan analyzed the exchange rate regime using the Reinhart-Rogoff methodology to conclude that the regime could be more adequately described as a peg since mid-2003. See Argentina, Country Report No. 05/236, and Pakistan, Country Report No.05/409 (http://www.imf.org/external/pubs/cat/shortres.cfm)

tightly managed than suggested by the *de jure* classification—staff reports described adequately the *de facto* exchange rate regime.[13]

- In a few cases, the description did not correspond to the one provided by the update of the Reinhart-Rogoff classification (RRC).[14] In all of these cases, staff reported a more flexible exchange rate regime. This probably reflects RRC's larger reliance on observed exchange rate behavior (and by implication lesser use of other information such as intervention policies, and news reports) to infer exchange rate regime.

17. **The two cases where shortcomings were found related to insufficient description of intervention policies.** In two countries, the shortcomings related to internal inconsistencies between the description of the regime—which was portrayed as characterized by limited intervention—and the information provided in the staff reports themselves, which actually pointed to sizeable interventions (remaining one-sided for prolonged periods of time).

18. **It should, however, be noted that staff reports sometimes do not explicitly consider as foreign exchange intervention the accumulation of foreign exchange reserves by the central bank in response to official public sector inflows.** Large public sector inflows, for example for privatization or oil receipts, are often used to increase reserves, at least in the short run, but, sometimes also over a longer time. This kind of intervention (conceptually a sterilized intervention operation) is not always treated as such in staff reports. In the specific cases examined, it was found that this problem did not involve significant distortions in the understanding of countries' exchange rate regime, and its interaction with other policies, and, thus, no "remarks" were identified on this account.[15] However, as a matter of principle, the decision to accumulate reserves in the context of floating exchange rates should at least be signaled in staff reports, as it involves a deviation from the working of a pure floating exchange rate regime.

19. **This broadly positive assessment does not seem to be fully consistent with the conclusions of the 2004 BSR**. Notably, the latter found that staff rarely identified the *de facto* exchange rate regime as different from the *de jure* regime. This difference reflects: (i) a different sample, more heavily biased toward larger more systematically important countries; and (ii) a larger deviation between *de jure* classification and the Fund staff's *de facto* classification as some countries have changed their *de jure* classification without a

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[13] Most, but not all, the staff reports included a bilateral exchange rate chart against the potential anchor currency. While not a requirement, this is a useful tool to determine the *de facto* exchange rate regime.

[14] The update refers to end-2003. Since then some of the currencies have shown increased flexibility.

[15] There were two borderline cases in which it was decided that this issue did not give rise to "remarks." Including these two cases would not, however, significantly change the picture summarized in Table 1.

similar change in their *de facto* exchange rate regime, or changed their *de facto* exchange rate regime without changing their *de jure* exchange rate regime.

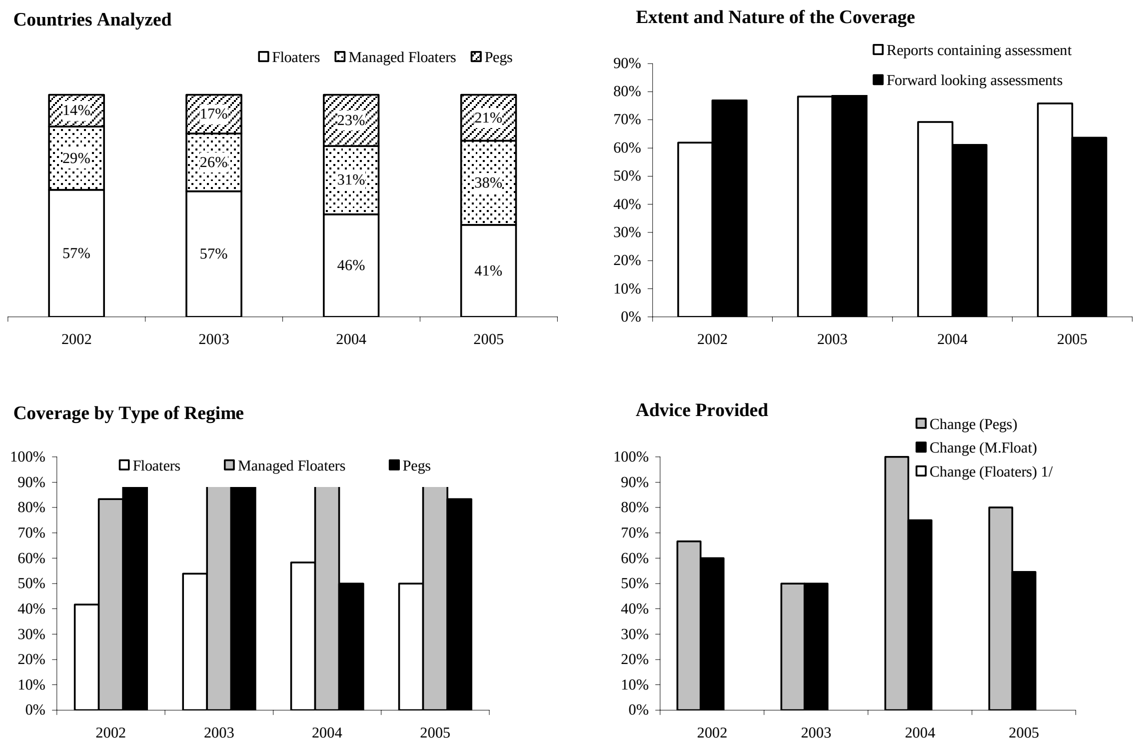
B. Assessment of Exchange Rate Regime

Overall assessment: *The overall assessment is good, with only three cases where staff reports fell short of expectations, one of them involving a "minor" remark. Despite clear encouragement towards increased exchange rate flexibility, staff has appropriately focused on the quality of supporting policies instead of following a dogmatic line on the choice of exchange rate regime.*

20. **Staff typically provides an explicit, albeit generally brief, assessment of the exchange rate regime for the majority of its members.** An explicit assessment of whether the regime was appropriate was provided in over three fourths of the 2005 staff reports in the sample, a percentage that has been rising over the last few years (Figure 1). In almost all other cases, the assessment was appropriately regarded as redundant (e.g., stating that a float is appropriate for the United States). In most cases the assessment took into account whether, not only the adopted regime had been appropriate, but also included a forward-looking evaluation of what would be the appropriate regime given future macroeconomic conditions (Figure 1, upper right panel). Note also that in several cases the assessment has not simply consisted of supporting the existing regime, but has involved recommendations for changes. Over the period reviewed, this happened in about 40 percent of the cases, and in as much as 60 percent of the countries with pegged and managed floating exchange rate regimes. In all of these cases, the recommendations involved a call for more flexibility.[16]

[16] As an example of a particularly proactive stance on exchange rate regime issues, concluding statements of the 2005 staff visit to Hungary and the 2006 Article IV advocated abandoning the exchange rate band. Both statements were published.

Figure 1. Assessment of Exchange Rate Regimes



Source: Staff reports for Article IV consultations (30 economies in the sample)
1/ Staff did not advise a change in exchange rate regime in any country with floating exchange rate regime.

21. **While the assessments were regarded as appropriate, it is clear that staff tends to challenge more pegged regimes than flexible regimes**. Staff has supported a variety of regimes, depending on specific country circumstances, and has consistently focused on the quality of supporting policies.[17] Nevertheless, it is clear that pegged regimes undergo a closer scrutiny:

- The suitability of pegged or managed exchange rate regimes is more frequently assessed than floating exchange rate regimes. In 2005, the suitability of a floating exchange rate regime was only explicitly assessed for about half of the countries, while the suitability of a peg or a managed floating exchange rate was assessed in almost all cases (Figure 1). The fact that some of the floaters are large industrialized economies—USA, Japan, and the Euro Area—for which the floating exchange rate regime is generally accepted to be

[17] For a description of the view that exchange rate regime is secondary to the quality of other economic policies, see Calvo, G. and Mishkin, F. " The Mirage of Exchange Rate Regimes for Emerging Markets" The Journal of Economic Perspectives, Volume 17, Number 4, November 2003, pp. 99-118(20).

appropriate, may in part explain this result. Staff provided an explicit assessment in all cases where large external imbalances and/or inflationary pressures raised questions regarding the suitability of the existing exchange rate regime.

- The staff generally encourages floaters to maintain exchange rate flexibility, while recommending increased flexibility to most others. This is in line with the findings of the 2004 BSR.

22. **While this peg-skepticism may be justified by developments on the international financial markets over the last decade, it certainly represents a change with respect to the old "Washington Consensus."** In the 1980s and the first part of the 1990s, faced with the need to find appropriate expectation anchors to bring down inflation, the Fund often recommended the introduction of exchange rate pegs.[18] Two developments changed this: first, the recognition that, once inflation expectations have been defeated and some "technical conditions" are met, information-based monetary frameworks (such as inflation targeting) allow a better management of monetary policy; second, the spectacular failure of a number of post-disinflation countries to support pegs in the presence of other vulnerabilities (as noted, for example, by Stanley Fischer, all major external crises in the period 1997-2000 involved peggers[19]).

23. **Against this background, it is not surprising that the arguments in favor of flexible exchange rates are sometimes stated in a rather concise way.** The most frequently advanced argument in support of increased exchange rate flexibility—as well as maintaining a floating regime—is that a flexible exchange rate would act as a shock absorber. Staff rarely goes through a complete set of pros and cons of different regimes. For example, staff only occasionally makes a distinction between real shocks (for which a flexible exchange rate is generally considered better) or monetary shocks (for which a fixed exchange rate is often considered beneficial, in particular if the capital account is somewhat closed). While a more comprehensive discussion would in some cases have been appropriate, the fact remains that, in the sample of countries examined, the calls for increased flexibility could not be regarded as inappropriate.[20]

24. **However, in some cases, staff reports opted for avoiding explicitly dealing with some particularly difficult issues**. In one case, involving the decision to participate in a currency union, staff did not enter into a debate about this issue that had acquired significant political connotations. However, this was in a context in which staff's own assessment did

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[18] For a reference to a competitive (and managed/pegged) exchange rate as being one of the 10 headings of the Washington Consensus, see: Williamson, J (1993). "Democracy and the Washington Consensus," World Development, 21 (8), pp 1329-1336.

[19] See Stanley Fischer, 2000, Presentation to the International Financial Institutions Advisory Board on www.imf.org.

[20] Note also that, in at least some cases, the call for increased flexibility may in fact reflect a call for an appreciation in the presence of a strong current account position and capital inflows.

not find a clear-cut case in favor of or against such decision. In another case, staff did not discuss the future exchange rate regime despite the potential macroeconomic implications of such a choice, although the regime change was not envisaged to be imminent. Note that in these cases, the reluctance to deal with certain issues related not so much to the potential market sensitivity, but rather, to uneasiness in dealing with issues that the authorities regarded as politically charged or not to be a legitimate topic for Fund surveillance.

C. Assessment of the Exchange Rate Level

Overall assessment: *The assessment in this area is mixed. On the positive side, staff reports now almost systematically include views on possible exchange rate misalignments and integrate their conclusions into the broader policy discussion. Staff assessments are usually in line with those of external analysts, and there does not appear to be a bias in the type of misalignments identified. Moreover, exchange rate assessments are now based on more comprehensive analysis than in the past. On the negative side, significant shortcomings were identified in about one third of cases, with minor shortcomings in another 20 percent. These shortcomings were often related to the quality of the analysis.*

25. **With only four exceptions, staff reports have included an assessment about the degree of possible exchange rate misalignment** (Table 2).[21] All of the cases where shortcomings were identified were non-advanced countries, and two of them related to oil exporting countries. One of the other reports without a “bottom line” assessment was on a country with significantly rationed official foreign exchange markets (“a multiple currency practice”), which complicates the assessment of the appropriate level of the overall exchange rate. One shortcoming was regarded as only minor, as the reports contained an extensive discussion but the conclusion was not sufficiently clear. It should be underscored that comparison between recent staff reports and those prepared in 2000-01 shows that, among the latter, the number of reports without a “bottom line” assessment was significantly higher, a sign of the increased attention paid by staff to exchange rate assessments.

Table 2. Staff Assessments of the Exchange Rate Level

	Number of countries 1/	In percent of total reviewed
In line with fundamentals	14	47
Overvalued	5	17
Undervalued	7	23
No "bottom line" assessment:	4	13

1/ Based on the 2004 or 2005 Article IV reports, whichever is the latest.

Source: Staff estimates.

[21] In about two-thirds of these cases, the assessments were reported in the staff appraisal section of the reports.

26. **The assessment provided does not seem to be biased.** In half of the countries, the exchange rate was found to be broadly in line with fundamentals, while the rest was almost evenly split between countries with overvalued and undervalued exchange rates (Table 3). This contrasts with the findings of the 2004 BSR, which saw a clear bias towards assessments of overvaluation.[22] This result may, however, stem from a difference in the sample which is more weighted towards countries with floating exchange rates, positively affected by higher oil prices, and East Asian countries with large, and increasing, current account surpluses.[23]

Table 3: Identified Misalignments Under Fixed and Flexible Exchange Rate Regimes 1/

	In line with Fundamentals	Misaligned	Total	Misaligned in percent to total
Fixed Exchange Rates	5	2	7	29%
of which, undervalued		2		
Flexible Exchange Rates 2/	13	10	23	43%
of which, undervalued		5		

1/ Based on staff reports issued from January 2004 to May 2006.
2/ Includes independent floats and managed floats

27. **While assessments are typically conclusive, staff has tended to adopt cautious language in its assessment of exchange rate misalignments.** Thus, exchange rates were often described to be "broadly appropriate" or "not significantly misaligned." This may reflect methodological uncertainties, data deficiencies and structural changes over time that prevent a robust econometric analysis but could also reflect the political sensitivity of exchange rate issues or divergent views between staff and the authorities.

28. **The case of China provides a good example.** The staff has discussed at length limitations in current methodologies used for quantitative real exchange rate assessments and raised questions regarding the robustness of these estimates, noting the wide range of estimates of the undervaluation of the Chinese currency. Owing to these difficulties, staff has refrained from providing specific quantitative estimates of real exchange rate misalignment. Nevertheless, the staff has provided qualitative assessments of the level of the exchange rate in the most recent staff reports, and these assessments have evolved over time reflecting developments.

29. **In recent years, explicit quantitative estimates have, however, been presented in a number of countries** (Table 4). While in 2005 only half of advanced country reports included numerical estimates, the ratio would increase significantly if reports after the cut-off date (end-May 2006) were also included. As to emerging market economies, more than half of the reports for cases where staff considered that the exchange rate might be misaligned

[22] In the sample, if anything, there was a slight bias toward undervaluation.

[23] For example, of the countries judged to have undervalued exchange rates, four out of seven were in Asia, while the other two were oil exporters.

presented numerical estimates, either in a chart, as a range, or as a point estimate. However, no country in the “other country” group (mainly oil exporters and developing countries) presented numerical estimates. Notably, explicit quantitative assessments have been presented also in some key emerging market cases. Turkey is a striking example: the 2004 Article IV staff report included and candidly pointed to the existence of a strong overvaluation, estimated to be about 10 percent. In this case, the staff report was published, without causing immediate market reactions.

Table 4. Selected Quantitative Estimates of Real Effective Exchange Rate Misalignments

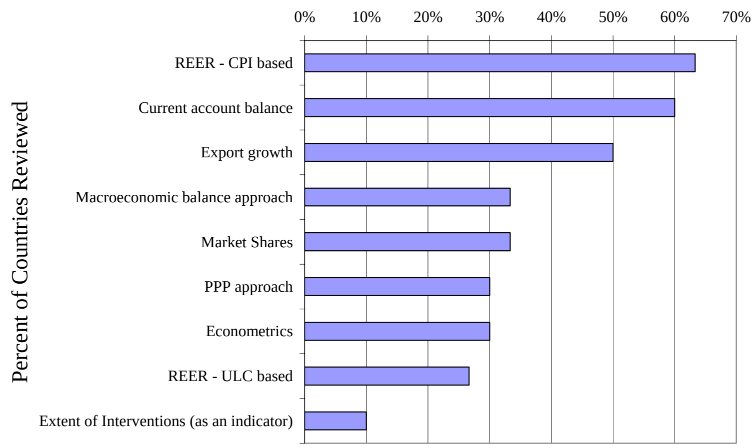
Country	Year	Staff's assessment	Numerical estimate of deviation from equilibrium
Australia 1/	2004	Overvalued	Up to 10 percent
Canada 1/	2006	Undervalued	Up to 15 percent
India	2005	Fairly valued	Graphical presentation
Indonesia	2005	Little evidence of any fundamental misalignment	Graphical presentation
Pakistan	2005	No misalignment	Graphical presentation
Turkey	2004	Overvalued	10 percent
United Kingdom 1/	2005	The numerical estimate refers to the results of the CGER exercise.	0 percent-15 percent above its medium-term equilibrium on a multilateral basis

1/ Estimates refer to CGER results.

30. **The range and quality of techniques used to make exchange-rate level assessments seems also to have improved.** In 2004-2006, country teams have tended to use on average three indicators or techniques to arrive at their assessment. While the CPI-based real effective exchange rate remains the most widely monitored indicator, other indicators are now commonly used, notably the current account balance, export growth, ULC-based real effective exchange rates index, and market shares. Econometric techniques were applied in a number of countries (Figure 2). This seems to mark a difference with respect to the 2004 BSR which observed that “use of a broad range of competitiveness indicators (e.g., market shares, comparative cost measures) or of econometric methods (e.g., estimations of a long-run relationship between the exchange rate and fundamentals) was not common.” This difference does not seem to be due simply to the different sample considered in this review: comparing older and more recent reports for the current sample shows an increase in the number of indicators and that the use of econometric analysis has become more frequent. This said, it is possible that assessments may have improved more rapidly for the larger countries included in this sample than for the rest of the membership.

31. **The assessments have generally been appropriately integrated into the overall macroeconomic analysis and related policy recommendations.** For example, undervalued exchange rates have been found to lead to inflationary pressures or undue savings-investment imbalances but also to help spur growth and stem deflation. In some countries, appreciating exchange rates are seen as a threat to competitiveness and the external balance. Overvalued exchange rates said to lead to imbalances that risk an abrupt unwinding and a concomitant negative shock to output.

Figure 2: Frequency of use



32. **The above finding of a broad coverage of misalignment issues in staff reports is based on staff reports as they are presented to the Board, not on their published version.** The fact that, as noted at the beginning, outsiders believe that staff reports refrain from expressing views about exchange rate misalignments could perhaps be explained by deletions applied for market sensitivity reasons, as allowed by the current transparency policy.

33. **While misalignment issues seem to be broadly covered in staff reports, there are marked differences across countries in the quality of coverage.** As highlighted in Table 1 above, shortcomings were identified for this dimension of the exchange rate treatment in 17 out of 30 cases, with 11 cases involving major remarks. In an overwhelming majority of the cases, the shortcomings were associated with insufficient use of indicators to support the assessments. In a couple of cases, the analysis was essentially too one-sided as it focused on the risk of overvaluation without properly investigating potential undervaluation, despite *prima facie* evidence that the currency might indeed be undervalued. One third of the countries used only up to two indicators. In some of these cases, however, data limitations played an important role in limiting the degree of sophistication that could be applied to exchange rate assessment.

D. Discussion of Policy Consistency with External Stability

Summary assessment*: The treatment of policy consistency was appropriate in this area, with only two minor shortcomings identified.*

34. **Exchange rate policies cannot be analyzed in a vacuum, as they are closely related to other policies that have implications for external stability.** This was explicitly acknowledged by the 1977 Decision on Surveillance Over Exchange Rate Policies as it stresses that assessment of exchange rate policies needs to be made in a broader context.

Thus, this section reviews how staff's assessment of exchange rate issues was made in a broader economic context to review whether staff adequately discussed the implications of economic policies for the exchange rate regime and/or the balance of payments; and examined the consistency of exchange rate policies with the authorities' overall policy framework and with external stability.

35. **Only two cases were found where staff's discussion of policy consistency could be improved, both of them giving rise to "minor remarks."** In one case, staff could have discussed in more detail the effect of economic policies on the level and volatility of the exchange rate; the other case was related to the discussion of potential alternatives to reserve accumulation.

36. **While no major shortcomings were found in this area, it is apparent that the advice provided differed across countries**, particularly regarding the response to policy shocks. While this is a welcome sign that the one-size-fits-all stereotype does not always apply, it does raise an issue of cross-country consistency of Fund advice. The rest of this section discusses this issue of consistency with respect to two types of shock affecting the balance of payments: (i) higher capital inflows; and (ii) large shifts in domestic saving-investment balances.

Policy response to higher capital inflows

37. **Dealing with the economic implications of large capital inflows was a key policy issue during the review period.** In the years reviewed, conditions in emerging markets improved and a number of countries experienced large-scale capital inflows. To what extent should countries use sterilized intervention to avoid the appreciation of the real exchange rate, despite potential fiscal costs?

38. **These policy issues became central in several countries**:

- In some countries, staff adopted a critical stance towards the authorities' use of large interventions aimed at stemming the appreciation pressures, arguing that these interventions could undermine the inflation target and the credibility of the central bank.

- In others, the staff's position on interventions was more positive, reflecting an explicit assessment of the need to accumulate reserves as well as pass-through considerations, despite the temporary deviation from the inflation target. In a few cases, staff was positive to the use of sterilized interventions to stem the appreciation of the currency while building up reserves on prudential grounds.

39. **The different position on official intervention can be explained by different country circumstances and policy constraints.** Staff's position in the different countries largely reflects different assessment of: (i) the need for reserve accumulation; and (ii) the initial level of competitiveness.

Policies to address large shifts in domestic saving-investment balances

40. **Over the last ten years or so, the world has seen large shifts in countries' savings and investment trends, resulting in large swings in current account balances.** On the deficit side, the United States and a few other countries have run increasingly large current account deficits, reflecting a combination of decreasing savings and/or an increase in investment. On the surplus side, a number of East-Asian countries experienced a sharp decline in investment, in several cases in direct response to the Asian crisis, or a rise in saving.

Deficit countries

41. **Of the countries in our sample, the United States and Australia stand out as having recorded similar increases in their current account deficits.** The origins of the large current account deficits do, however, seem to vary between the two countries: while the recent increase in the U.S. current account deficit mainly reflects lower private sector savings, the increase in the Australian current account deficit reflects higher private investment. Both countries, however, did experience large asset price booms during this period.

42. **Staff's advice differed between the two countries.** While staff called for a tighter fiscal stance in the United States to reduce domestic demand, staff was far less concerned about the need to target any policies to reduce the external deficit in Australia and recommended only marginal changes in the policy setting.

43. **This difference can be explained by a different assessment of the root causes of the current account deficits.** The current account deficit in Australia was regarded to be more benign than that in the United States as it reflected a positive productivity shock and the need for increased investment. In the United States, leaving aside the systemic implications of the rising U.S. imbalance, the external deficit has been coupled with a fiscal position that could not be regarded as appropriate in light of demographic factors (in Australia the public sector is running a balanced budget and public debt has been eliminated). Nevertheless, recent reports on Australia do acknowledge the need to monitor developments closely. This is appropriate as external disturbances have sometimes originated from private sector imbalances.

Surplus countries

44. **The emerging Asian countries in the sample have responded to the shift in savings and investment balance by conducting, to a varying degree, sustained one-sided intervention.** These interventions, together with large and increasing current account surpluses, led many observers to suggest that the exchange rates of these countries were increasingly undervalued.

45. **Staff's discussion with the authorities on these issues varied from country to country.** While in China these issues were discussed openly and candidly in recent staff reports, the discussion was less direct in Korea. Issues related to the conflicts between the potential misalignment of the exchange rate with parallel economic policy objectives were explicitly discussed in the China staff report. Staff's discussion with Korea was less direct.

To some extent the more limited discussion of foreign exchange issues reflects the much larger degree of flexibility in Korea's exchange rate relative to most other Asian countries. However, issues of misalignment could have been discussed more extensively.

46. **Staff's advice to these countries mainly was to allow for a larger degree of flexibility in their exchange rates** (see also Section IV B). It stressed the need to provide an automatic cushion against shocks and limit mounting inflationary pressures. In the case of Korea, staff advocated limiting interventions, in particular in earlier periods. In the case of China, staff advocated increased exchange rate flexibility.

V. Conclusions

47. We can draw the following conclusions from the preceding analysis:

- For the thirty large countries surveyed in this report, the recent treatment of three of the four dimensions of exchange rate surveillance (description of the regime, assessment of the regime, and consistency of policies with external stability) is regarded as adequate, with only a few exceptions.

- There are still several shortcomings regarding the assessment of exchange rate levels, where in about one third of cases weaknesses were found, with minor shortcomings in another fifth of the sample. These shortcomings mostly relate to the limited scope of the discussion: while an assessment on the exchange rate level is provided in all but a few cases, the depth of the analysis could be improved. However, even in this area the overall quality of the assessment seems to be stronger than suggested by the 2004 BSR.

- What is the reason for the more positive results in this review, with respect to earlier reviews, for all four dimensions of exchange rate surveillance? There are three possible reasons. First, the considerable amount of resources spent during the last two years in improving exchange rate surveillance has paid off. Second, the country sample is different: the focus on larger countries—for which more resources could be allocated—may explain why quality is higher. Third, the more in-depth methodology used in this review may have provided a more accurate assessment than in the past. While the relevance of the latter two reasons is hard to assess, this review has provided some evidence in favor of the first reason: the quality of the exchange rate assessment has improved within the sample of this review. Of course, this is no guarantee that this positive result extends beyond the sample of relatively larger countries.

- More is needed, however. Exchange rate surveillance is a critical issue for the Fund, and an adequate treatment should be expected for all dimensions of exchange rate surveillance. The fact that shortcomings seem to relate mostly to assessments of exchange rate levels suggests that the staff's efforts should continue to concentrate on this area. Thus, in spite of existing methodological difficulties, the goal identified in the Medium-Term Strategy of extending to a larger number of countries the in-depth analysis of exchange rate levels in the context of the CGER seems to be appropriate. In the area of exchange rate regimes, a better description of intervention policies in floating regimes could also be useful.

APPENDIX I. Country Coverage and Document Selection

Country coverage

1. This paper focuses on the largest countries in each of three categories: advanced, emerging, and other countries. The countries included in the study were selected with a view to represent a significant share of the global economy as well as a balanced representation from three types of countries or economic areas: advanced, emerging market, and other economies (including mostly developing countries and large oil exporters). It was decided to measure a country's importance in terms of its share in global U.S. dollar GDP in 2005 and to ensure a balanced representation of the three groups by varying the income threshold cut-off ratios:

- *Advanced countries* (WEO definition, except for the case of Korea, which was considered as an emerging market country). All countries with a share in global dollar GDP in excess of 1 percent were included. For the purpose of this exercise, it was decided to enter the Euro Area as one "country," reflecting the importance of the euro as a global currency. This selection criterion yielded five countries plus the Euro Area: the United States, the Euro Area, Japan, the United Kingdom, Canada, and Australia.

- *Emerging market countries* (countries considered to rely significantly on external market financing[24]). All countries with a share in global dollar GDP in excess of 0.25 percent were included. This selection criterion yielded 19 countries and economic areas: China, Korea, Brazil, Russia, Mexico, India, Turkey, Poland, Indonesia, South Africa, Argentina, Thailand, Malaysia, Venezuela, Israel, Czech Republic, Pakistan, Colombia, and Hungary.

- *Other countries.* In this case the cut off level was lowered to a share of 0.1 percent of global dollar GDP. In order to reduce the dominance of oil-exporting countries, only the largest country in the Gulf Cooperation Council was included (Saudi Arabia). The resulting list includes five countries: Saudi Arabia, the Islamic Republic of Iran, Nigeria, Bangladesh, and Vietnam.

2. The country selection reflected different needs. First, a need to keep the sample relatively small, so as to allow a more in-depth treatment of issues. Second, as this paper was stimulated by the claim that possible shortcomings in the Fund's assessment of exchange rate issues may impair its surveillance of regional or global issues,[25] it was decided to focus on large countries. As a result, the total sample covers over 90 percent of

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[24] The list of countries is the universe of staff's vulnerability assessment. Inclusion criteria include access to international capital markets as indicated by a country's inclusion in an emerging market bond or equity index or recent international bond issues. Exclusion criteria include classification as an industrial country in the IMF's International Financial Statistics, GDP of less than SDR 5 billion in 2004, and significant net foreign asset position.

[25] See, for example, Goldstein and Mussa (2005) referred to above.

global GDP. The cost of focusing on larger countries, however, is that the sample is not representative of the whole membership. In particular, the review does not cover many issues that could be relevant for small/low income countries.

Document selection

3. This review, while focused on Article IV reports, considered a larger set of documents, such as other relevant internal or published documents. While Article IV reports remain the central staff input into the surveillance process, other documents are also important as far as they inform the Board, communicate staff's view to the authorities through less sensitive channels (mission meetings, other oral communications, or letters), provides information about staff's decision on how to deal with key exchange rate issues (e.g., internal notes and memos, pre-brief meetings).[26] This approach also allows an assessment of how concerns for confidentiality or political sensitivity affected the analysis and dissemination of information.

Only staff reports issued between January 1, 2001 and May 31, 2006 were considered.

[26] Technical assistance documents were, however, not reviewed.

APPENDIX II. Questionnaire on the Treatment of Exchange Rate Issues

Description of the *de facto* exchange rate regime:

Is there a clear description of the exchange rate regime? If not, is the exchange rate regime self-evident?

Does this description correspond to the IMF *de facto* classification?

Does it correspond to the description given by other analysts (e.g., financial institutions, academics)?

If relevant, does the report adequately discuss intervention policies?

Other comments

Assessment of the exchange rate regime and policy consistency:

Is the suitability of the exchange regime explicitly assessed?

If yes, do the staff reports weigh the different pros and cons of the regime? Do they draw convincing conclusions from this analysis? How do these conclusions compare with those of other analysts, if any (e.g., financial institutions, academics) and the academic literature on exchange rate regimes?

If not, how important is a discussion of the exchange rate regime for macroeconomic stability?

Does the staff report adequately discuss the implications of economic policies for the exchange rate/regime and/or for the balance of payments?

Does the assessment correspond to the description given by other analysts (e.g., financial institutions, academics)? If not, is the view taken by staff adequately substantiated?

Other comments

Assessment of the level of the exchange rate and policies affecting the exchange rate:

Does the staff report provide an assessment of the level of the real exchange rate's consistency with its fundamental determinants?

If yes:

- How was the assessment made? Did staff use econometric techniques, different indicators of competitiveness (relative price comparisons, or market shares, assessments of the sustainability of the current account positions)?

- Has staff adequately taken into account all important factors and is the discussion internally consistent?

- How do the conclusions/analysis compare to those of other analysts, if any (e.g., financial institutions, academics)? Are staff’s conclusions adequately substantiated?

Does staff discuss whether economic policies have an impact on the sustainability of the external position and exchange rate?