IINTERNATIONAL MONETARY FUND

2011 Triennial Surveillance Review—Staff Background Studies

Prepared by the Strategy, Policy, and Review Department

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Contents Page

Acronyms

AEs	-	Advanced Economies
AFR	-	African Department
AMRO	-	ASEAN +3 Microeconomic Research Office
APD	-	Asian and Pacific Department
CAs	-	Country Authorities
CSOs	-	Civil Society Organizations
CGER	-	Consultative Group on Exchange Rate Issues
ECCU	-	Eastern Caribbean Currency Union
EDs	-	Executive Directors
EMs	-	Emerging Markets
ERER	-	Equilibrium Real Exchange Rate
ES	-	External Stability
EUR	-	European Department
EWE	-	Early Warning Exercise
FM	-	Fiscal Monitor
FMPs	-	Financial Market Participants
FSAPs	-	Financial Sector Assessment Program
FSB	-	Financial Stability Board
FSS	-	Financial Sector Surveillance
FSSGN	-	Financial Sector Surveillance Guidance Note
G-20 MAP	-	G-20 Mutual Assessment Process
GFSR	-	Global Financial Stability Report
GPM	-	Global Projection Model
GIMF	-	Global Integrated Monetary and Fiscal Model
IEO	-	Independent Evaluation Office
IMS	-	International Monetary System
LCFIs	-	Large and Complex Financial Institution
LIC	-	Low-Income Countries
MB	-	Macroeconomic Balance
MCD	-	Middle East and Central Asia Department
MCM	-	Monetary Capital Markets Department
MCs	-	Mission Chiefs
NBFI	-	Non-Bank Financial Institution
NFA	-	Net Foreign Assets
RAMs	-	Risk Assessment Matrix
REO	-	Regional Economic Outlook
RES	-	Research Department
REER	-	Real Effective Exchange Rates
SIBs	-	Systemically Important Banks
SIFIs	-	Systemically Important Financial Institution

SSP	-	Statement of Surveillance Priorities
SPR	-	Strategy, Policy and Review Department
TA	-	Technical Assistance
TSR	-	Triennial Surveillance Review
VEA	-	Vulnerability Exercise for Advanced Countries
VEE	-	Vulnerability Exercise for Emerging Market Countries
VE-LIC	-	Vulnerability Exercise for Low Income Countries
WEO	-	World Economic Outlook
WHD	-	Western Hemisphere Department

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CHAPTER I. EXCHANGE RATE AND EXTERNAL STABILITY ASSESSMENTS[1]

Main Findings

- **Focus**: Country authorities express dissatisfaction with the current treatment of external stability and exchange rate issues. While the development of parallel (G-20) processes suggests an unmet demand to address global imbalances, there are complaints both about an excessive, as well as an insufficient, focus on exchange rates.
- **Value added**: While views are not uniform, country authorities overall indicate that exchange rate assessments provide less insight than other areas of IMF surveillance.
- **Consistency**: Most Article IV reports contain an assessment of exchange rates and since 2008 have more consistently used standard methods.
- **Process**: Similar to the 2008 TSR, Mission Chiefs expressed dissatisfaction with the accuracy and applicability of methods.
- **Evenhandedness**: There is a tension between ensuring consistency and accounting for country characteristics. Deviations from standard methods are not always explicit and different approaches by different country teams may result in inconsistencies.
- **Global perspective**: Access to the results of the multilateral CGER exercise is restricted, limiting their use in multilateral surveillance.

Key Recommendations

- Renew attention to global imbalances.
- Ensure that external stability assessments include an examination of risks from the capital and financial accounts (e.g. external balance sheets, capital flows, and reserve adequacy) in addition to current account and real exchange rate assessments.
- Better integrate external stability assessments and overall policy recommendations. Support these efforts through changes to the legal framework for surveillance.
- Increase the transparency of exchange rate assessments.

Bilateral Assessments:

- Increase the presumption that staff will: (i) explain adjustments to standard methods, (ii) relate differences in bottom line assessments to economic fundamentals, (iii) compare estimates across time.
- Endorse best practice adjustments to CGER methods (particularly for non-CGER members). Establish a central repository to improve the consistency of policy advice and facilitate cross-country comparisons.

Multilateral Assessments:

- Regularly publish an analysis of external balances, including the results of the multilateral CGER exercise. Seek to include more countries in the CGER exercise.
- Reinforce consistency between multilateral and bilateral assessments by integrating country-specific adjustments, as warranted, into the multilateral CGER exercise.

[1] Prepared by Lawrence Dwight, Nicolas Million, and Bert van Selm (all SPR), Irineu de Carvalho Filho (RES), and Jacques Miniane (EUR).

1. **This paper evaluates the IMF's exchange rate analysis since the 2008 TSR**. It focuses on the evolution of methods, the quality of the IMF's multilateral and bilateral exchange rate analysis, the evenhandedness and transparency of this analysis, and the need to improve the coverage and integration of external stability assessments.

A. Previous Reviews and Implementation of the 2007 Decision

2. **During the 2008 TSR, IMF staff and the Executive Board found that exchange rate analysis had strengthened significantly since 2006 but that problems remained**. Specifically, it found that the clarity and coverage of exchange rate analysis had improved, but raised concerns about: (i) the consistency of treatment across countries, (ii) the soundness of assessment methods, (iii) the candor of assessments, and (iv) the way exchange rate assessments were integrated into the broader assessment of external stability and overall macroeconomic policies (Box 1).[2]

3. **The IEO's 2011 evaluation of the IMF's pre-2008 surveillance found adequate attention to global imbalances but expressed concern about an excessive focus on exchange rate levels**.[3] The IEO found that the IMF did focus on the risk that global imbalances could trigger a decline in the dollar and a global recession. However, it did not provide clear warnings regarding risks in the financial system, vulnerabilities in advanced markets, and the possibility of contagion to emerging markets and LICs.

4. **Full implementation of the 2007 Decision on Bilateral Surveillance proved challenging**.[4] In particular, the 2007 Decision and related operational guidance required staff to use the term "fundamental misalignment" if: (i) the real effective exchange rate was not at a level that would generate an equilibrium current account and (ii) the misalignment was significant.[5] However, the lack of precision in assessment methods and concerns about cross-country consistency led to a "fear of labeling" that may have weakened the candor of assessments in some cases. Moreover, problems in implementing the Decision resulted in extensive delays in Article IV consultations with some members. Reflecting these concerns, IMF management issued revised operational guidance for the 2007 Decision in June 2009.[6] The revised guidance eliminated the requirement to use specific terms such as "fundamental misalignment." It emphasized that assessments should examine whether exchange rate policies promote external stability and contain a clear bottom line, while recognizing the

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[2] See *2008 Triennial Surveillance Review—Overview Paper*, September 2, 2008; *Review of the 1977 Decision—Proposal for a New Decision*, May 22, 2007; and *Exchange Rate Analysis*, *2008 Triennial Surveillance Review—Thematic Paper*, September 2, 2008, pp. 21–37.

[3] Independent Evaluation Office. *The IMF's Performance in the Run-Up to the Financial and Economic Crisis*, January 10, 2011.

[4] Although the 2007 Decision was endorsed in June 2007, prior to the 2008 TSR, the IMF Executive Board agreed more time was required for a full evaluation of the Decision. The evaluation was left to the 2011 TSR.

[5] See *Review of the 1977 Decision—Proposal for a New Decision—Companion Paper*. May 22, 2007, p. 4 and *Implementing the 2007 Surveillance Decision—Interim Guidance Note*, June 28, 2007, p. 2.

[6] See *The 2007 Surveillance Decision: Revised Operational Guidance*, June 22, 2009.

uncertainties inherent in such analysis. These lessons are reflected in the revised Bilateral Surveillance Guidance Note.[7]

Box 1. Previous Findings and Recommendations

Triennial Surveillance Review (2008):

- The 2008 TSR found noticeable improvement in the clarity and coverage of exchange rate issues. Nearly all staff reports contained a clear assessment of the exchange rate level based, in most cases, on reasoned and transparent analysis including through the use of basic indicators, PPP approaches, and econometric techniques. The description of the *de facto* exchange regime was adequate and advice was generally well supported.
- However, the TSR noted complaints about the emphasis on exchange rate levels and Executive Directors were dissatisfied with policy advice and the quality of exchange rate assessment methods. Mission chiefs expressed frustration at the lack of guidance and analytical tools.
- The review called for better integration of exchange rate analysis with the overall macroeconomic assessment, greater transparency regarding the work underlying exchange rate assessments, and improved candor in some cases. The 2008 TSR also recommended continued improvements in assessment methods, consistent implementation of guidance, and more work to improve analysis in challenging cases. It recommended that the 2008–11 statement of surveillance priorities include exchange rate and external stability assessments.

IEO Report on IMF Performance in the Run up to the Financial and Economic Crisis (2011):

- The IEO found that in its pre-2008 surveillance, the IMF appropriately focused on global external imbalances and the risk of an exchange rate crisis, but did not look at how imbalances were linked to systemic risks in financial systems.
- The IEO also concluded that the 2007 Decision on Bilateral Surveillance led to a greater emphasis on exchange rate levels and currency misalignments. This resulted in less attention to external stability more broadly and in some cases triggered tensions between the IMF and country authorities.

B. Developments in Exchange Rate Analysis: Methods

5. **The methods developed by the Consultative Group on Exchange Rates (CGER) have continued to evolve** since 2008 (Box 2 and Appendix II).[8, 9] These methods have been standardized and disseminated by the Research Department to the mission teams that conduct

[7] See *Bilateral Surveillance Guidance Note*, (12/22/10).

[8] The CGER is an interdepartmental working group that began assessing exchange rates of the G-7 countries in 1997. Coverage expanded to six more advanced countries (Australia, Denmark, New Zealand, Norway, Sweden, and Switzerland) in 1998. In 2006, additional advanced and emerging market countries created the current grouping. CGER exchange rate assessment methods are described in Box 2.

[9] Somewhat confusingly, CGER can refer to either: (i) the multilateral CGER exercise or (ii) the standard CGER methods used to evaluate exchange rates in both the multilateral exercise and bilateral assessments. For clarity, ***multilateral CGER exercise*** and ***CGER methods*** are used to distinguish these concepts.

assessments. Adjustments have also evolved to address technical issues (e.g. data sources), account for the impact of the global economic and financial crisis (e.g. unsustainable fiscal deficits), and address country-specific issues (e.g. oil exports and remittances).

Box 2. External Stability Assessments and Exchange Rate Analysis

Overview: The goal of an **external stability assessment** is to provide a clear analysis of: (i) a member's current account and exchange rate level, and (ii) risks that could arise from the capital and financial accounts.[1]

To carry out its analysis, and recognizing inherent uncertainties, relevant guidance calls on staff to draw on all pertinent information, including CGER analysis and indicators of risks to the financial account (such as capital flows, external balance sheet vulnerabilities and reserve adequacy). For countries with data limitations, the assessment can be largely qualitative. Reports are expected to have clear bottom line assessments and to be transparent regarding assumptions and techniques. Methods to analyze the level of the **exchange rate** include:

CGER methods: These are the Macroeconomic Balance (MB) approach, the Equilibrium Real Exchange Rate (ERER) approach, and the External Sustainability (ES) approach.[2] CGER methods are used in the multilateral CGER exercise and for many bilateral assessments.

Adjusted CGER methods: As outlined in Appendix II, staff has adjusted CGER methods to address technical issues and to account for country circumstances. For example, if specific data is not available, mission teams may use substitutes. Similarly, oil related considerations have been used to determine the sustainability of the current accounts of oil exporters and remittances and aid flows have been used in assessments of low income countries.

Alternatives: Country teams have used other methods, including: (i) the evolution of real effective exchange rates (REER), (ii) purchasing power parity (PPP), (iii) unit labor cost based REERs, (iv) export market shares, and (v) "structural competitiveness" measures (e.g. *Doing Business Indicators*).

[1] See *Bilateral Surveillance Guidance Note*, pp. 14–19.
[2] See Lee, Jaewoo; Milesi-Ferretti, Gian Maria; Ostry, Jonathan David; Prati, Alessandro; Ricci, Luca Antonio. *Exchange Rate Assessments: CGER Methodologies*. Occasional Paper No. 261. April 7, 2008.

6. **Substantial analytical work and guidance materials have been developed to support staff analysis and the use of CGER and adjusted CGER methods** (Box 3). The Bilateral Surveillance Guidance Note; SPR, Research and Area Department websites, with key background materials on exchange rate analysis and CGER methods; and a joint training program on exchange rate assessment methods, have all strengthened dissemination of methods for exchange rate analysis. In addition, staff has suggested adjustments/extensions to CGER methods and area departments have examined ways to implement exchange rate assessments consistently across the regions they cover.

Box 3. Implementing Exchange Rate Assessments

Training: Each year INS, RES, and SPR conduct a three-day, joint course on exchange rate assessment in IMF surveillance. The course trains staff to perform these assessments by reviewing the principles and approaches and giving staff hands on practice with assessment methods. The Research Department has also produced a guidance note on applying CGER methods to non-CGER countries.

Websites: Research, area departments and SPR maintain internal websites on various aspects of exchange rate analysis. SPR's website on Exchange Rate and External Stability Assessment contains operational guidance, good practice examples, and relevant literature on exchange rate assessments, CGER methods, and implementation for natural resource producers and low income countries. The Research Department has a website on CGER methods and on exchange rate assessments in low income countries. The former contains slides and essential background material on CGER analysis, historical datasets for the macroeconomic balance and equilibrium real exchange rate methods, a guide for desk economists on applying CGER methods to non-CGER countries, and information on extending CGER methods to exporters of non-renewable natural resources and for precautionary savings motives. The latter gives information on a research project on applying CGER methods to LICs. For ease of reference, area departments generally have websites that collect guidance on exchange rate assessments and good practice examples from their own regions.

Staff Research: IMF staff has published several IMF Working Papers describing and extending CGER methods. Some extend exchange rate methods for countries with particular features (e.g. remittances, oil exports, or low incomes) or to particular regions. In addition, SPR has developed a set of quantitative tools (including a panel data set and econometric programs) to implement the standard CGER methods for 182 countries. Similarly, working groups in the African and Middle East and Central Asia Departments have extended CGER methods to countries in their regions, producing region specific coefficients and standardized results. This work serves as a starting point for country teams, promotes comparability across countries, and helps address data deficiencies.

Multilateral Approaches: The Research Department conducts a semiannual multilateral CGER exercise (described in more detail in the next section).

C. The Multilateral CGER Exercise

7. **The multilateral exchange rate assessment exercise conducted by the Research Department (the multilateral CGER exercise) covers 55 economies—using methods developed by the Consultative Group on Exchange Rates**. With common data sets and methods, the exercise provides multilaterally consistent exchange rate assessments for members representing 90 percent of global GDP. It is conducted twice a year and is used as an input into the IMF's Early Warning Exercise (EWE), Vulnerability Exercises for Advanced and Emerging Markets (VEA and VEE), the G-20 Mutual Assessment Process (G-20 MAP), and the World Economic Outlook (WEO). Estimates from the multilateral CGER exercise are also incorporated into the indicators the G-20 uses to identify persistently large current account imbalances that require policy action.

8. **Access to the results of the multilateral CGER exercise is restricted**. The global economic and financial crisis focused attention on financial issues and reduced global current

account imbalances. But global imbalances have rebounded in many countries and remain a concern. They are receiving renewed attention, including in the context of the G-20 MAP agenda. At the same time, the detailed results of the multilateral CGER exercise are strictly confidential. While relevant country teams have access, the results are not circulated to most Fund staff or other stakeholders. Some country specific results from the multilateral CGER results are disseminated on a piece meal basis, as part of Article IV reports.

9. **The IMF should increase the transparency of its analyses of external balances by publishing and/or providing wider distribution of the results of the multilateral CGER exercise**. While private institutions publish their analyses of equilibrium exchange rates on a regular basis, lack of publication of the multilateral CGER results hampers their use in the Fund's multilateral surveillance and in a consolidated analysis of external stability and spillovers. Furthermore, there is a demand from academics and market economists. As publication by the Fund of its equilibrium exchange rate assessments may have a bigger impact than privately produced estimates, it should be undertaken with a number of caveats (including fully disclosing the methods used and discussing their precision). But publication of the analysis and results of the multilateral CGER exercise would support greater accountability, candor, and evenhandedness.

10. **The Fund should continue to make improvements to exchange rate assessment methods to remain on the cutting edge of analysis**. In this regard, the Research Department is planning to enhance the quantitative analysis, presentation, and explanation of the results of the multilateral CGER exercise. The proposed revamp has three main goals. One is to emphasize the analysis and assessment of current account balances (the current CGER focuses almost entirely on the exchange rate, with analysis of the current account treated mainly as an input to exchange rate assessment). In so doing the new CGER will offer a broader, more multidimensional view of external stability, including a more explicit analysis of current account sustainability. A second goal is to go beyond assessing whether the real exchange rate and current account diverge from what would be typical given a country´s structural characteristics, giving attention also to policy and cyclical factors that may drive divergences. By taking into account monetary policy, the business cycle, and global capital market factors, the multilateral CGER exercise will be more informative and interconnected with other Fund surveillance. Finally, whereas the current CGER report is terse and focuses on presenting numerical results, the new, self-contained report should clarify the derivation and interpretation of the CGER estimates, thereby boosting the credibility and value added of the multilateral CGER exercise in the eyes of diverse audiences. While the new report should seek more precise estimates, it will be essential for credibility to be more forthcoming about remaining uncertainties.

11. **The multilateral CGER exercise could also be extended over time to a broader group of countries**. The current multilateral exercise includes 55 economies. Although the exercise already includes some small advanced and emerging market countries, others have data of sufficient quality to be included in the CGER exercise. An extension of CGER to

these countries would help ensure consistency across countries and a state of the art approach to estimates of exchange rate levels.

D. Bilateral Exchange Rate Analysis

12. **Bilateral exchange rate analysis is undertaken for all Fund members**. For countries included in the multilateral CGER exercise, mission teams may simply report these results and/or present adjusted results (that reflect country-specific circumstances not captured in the multilateral exercise). For countries not covered by the multilateral CGER exercise (non-CGER countries), mission teams make their own estimates, generally incorporating CGER methods. Here again, a mission team may make adjustments to CGER methods to capture specific country circumstances.

13. **The multilateral CGER exercise has boosted the consistency of bilateral exchange rate assessments for relevant countries**. For 2010, out of the 27 currencies covered, multilateral CGER estimates were reported directly in 15 Article IV reports. In another seven, country teams updated estimates using more recent exchange rate data and economic forecasts, (often using a template supplied by the Research Department). In three cases, teams made adjustments to CGER methods for country-specific circumstances. For example, the South Africa team updated CGER estimates based on information obtained on mission and the Switzerland team adjusted its estimate of the underlying current account balance due to the accounting treatment of reinvested earnings and capital gains, that tend to inflate the Swiss current account given the structure of the net external position. In one case, no exchange rate estimates were included in the report and in the final case there was no 2010 Article IV consultation. In cases where the country team's estimates differ from those of the multilateral CGER exercise, best practice would be for Article IV reports to present both results, briefly explaining the reasons for differences.

14. **Exchange rate analyses for non-CGER countries face separate challenges**. These include insufficient or poor quality data, short time series, different definitions for economic concepts, difficulty in estimating trade elasticities, and/or assumptions in standard models that are not appropriate for the particular country (Appendix I). Other challenges relate to ensuring consistent implementation of methods across countries. Thus, in many cases, results should be considered with some modesty, and staff should clearly state underlying methods and assumptions. This is particularly the case for low income countries (as discussed further in the LIC study). In such cases, it is essential to conduct a comprehensive evaluation of the exchange rate, including through other economic tools and robustness checks, and staff should be candid about the limitations of the analysis and margins of uncertainty.

E. Article IV Review and Survey Results

15. **A review of Article IV reports suggests improvement in the consistency and underpinnings of the IMF's exchange rate analysis**.[1] Compared with 2008, the review of 50 Article IV reports found near universal coverage of exchange rate issues, more comprehensive use of CGER methods, and more robust exchange rate analysis (Figure 1). In this context, the review found that the vast majority of adjustments for country circumstances have sound economic justifications.

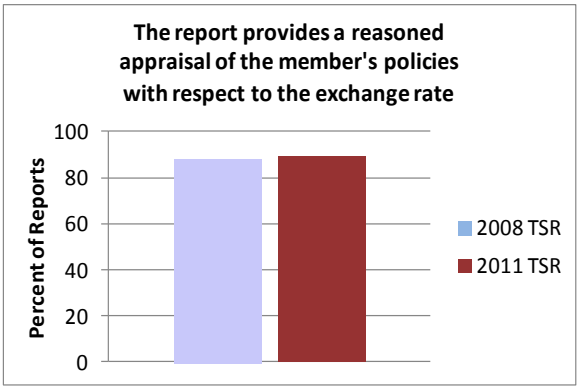
16. **Nonetheless, mission chiefs saw areas in which exchange rate analysis could improve** (Figure 2). More than half saw the applicability of CGER methods, the consistency of CGER results, and data limitations as hampering exchange rate assessments to some extent. The *applicability and consistency of CGER methods* was seen as presenting little problem in advanced markets but presenting some problems for emerging market and low income countries. Applicability was seen as a particular problem for members in Africa and the Middle East. As might be expected, *data limitations and resource constraints* were seen as more relevant for low income than for advanced economies. With regard to *publication*, only a quarter of mission chiefs saw this as a problem, slightly less than in 2008. *Preserving relations* with the authorities was also seen as a problem in about a quarter of cases, a slight increase from one fifth in 2008. Both publication and preserving relations with authorities were seen as a greater problem for emerging markets than for advanced and low income countries.

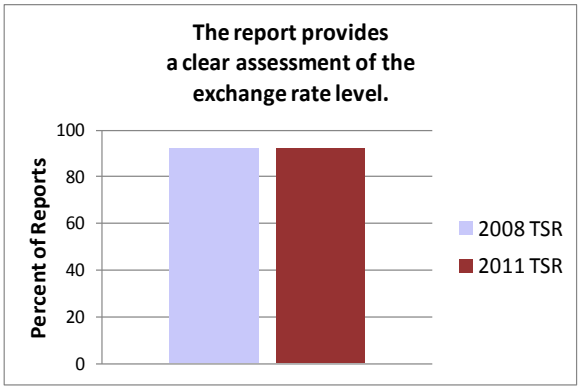
17. **Surveys indicate mixed views among stakeholders**.

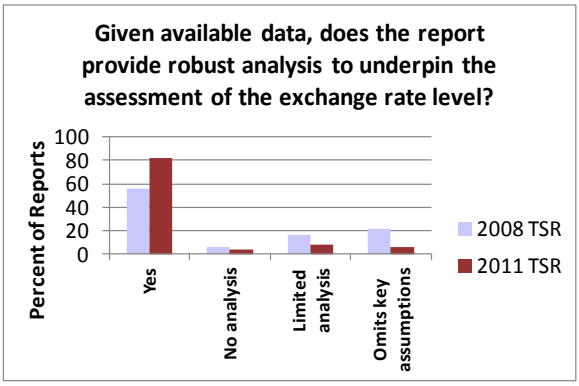
- ***Countries authorities*** ranked exchange rate analysis lower than most other areas of surveillance (Figure 3). With regard to *contribution or insight*, ratings were very low for authorities in advanced countries and Europe. This may be due in part to the presence of a common currency for Euro Area members. Though exchange rate policy has little relevance for individual members, competitiveness is still of crucial importance in a currency area. Country authorities in low income countries and Africa and the Middle East were relatively positive, with half saying analysis of exchange rate issues contributed to understanding or insight. However, even these respondents ranked the Fund's analysis as lower than other areas of surveillance. Overall, out of eleven areas, the analysis of exchange rate levels and competitiveness and the exchange rate regime and policy ranked only 7th and 8th, respectively.

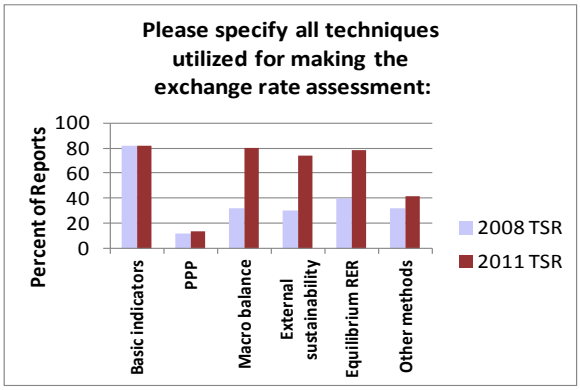
[1] More details can be found in the 2011 TSR *Health Check of Fund Surveillance and Statistical Information*.

Figure 1. Staff's Assessment of Article IV Reports: Progress on exchange rate assessments









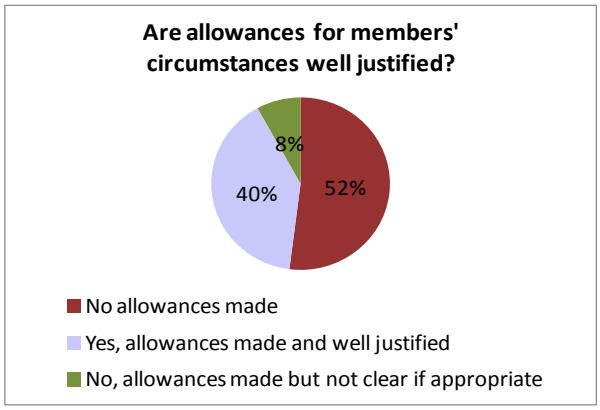
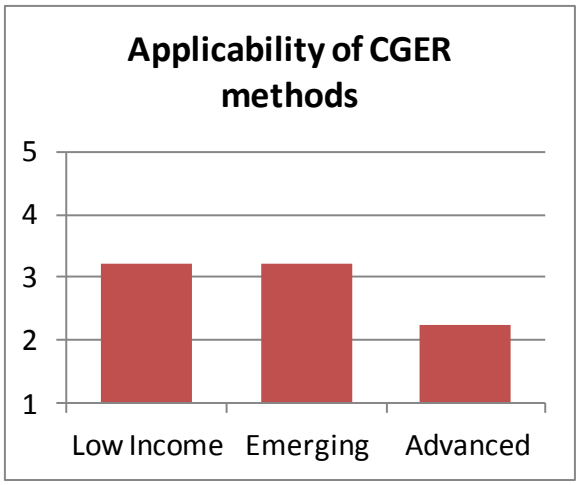
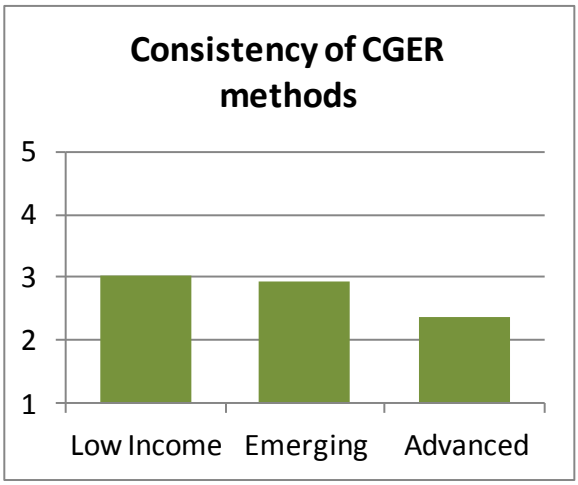
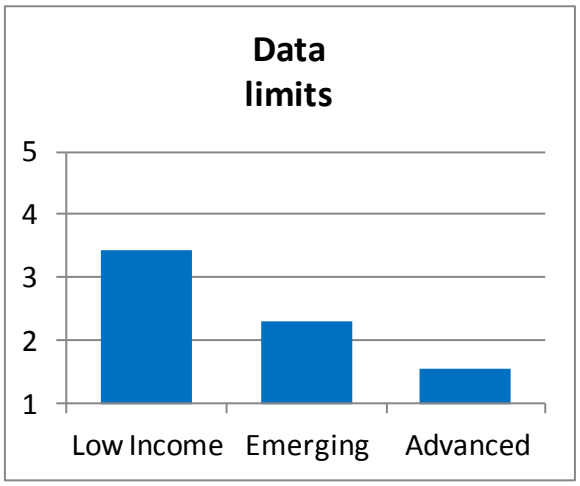


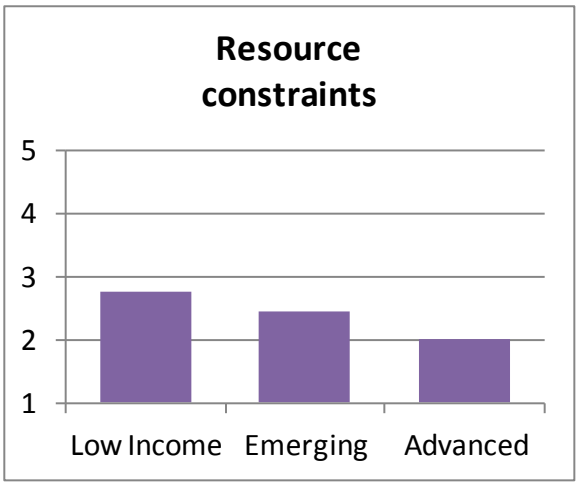
Figure 2. Mission Chiefs:
Extent to which the following factors posed a challenge for the full treatment of exchange rate issues in your latest staff report:

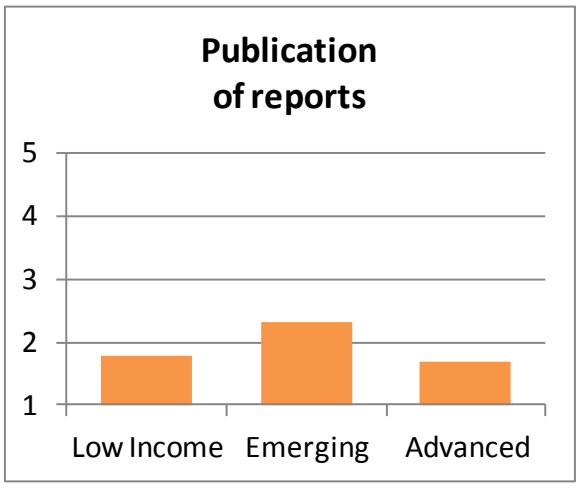
(Average of: 1 = not at all, 2 = a little, 3 = some, 4 = a large extent, 5 = a very large extent)











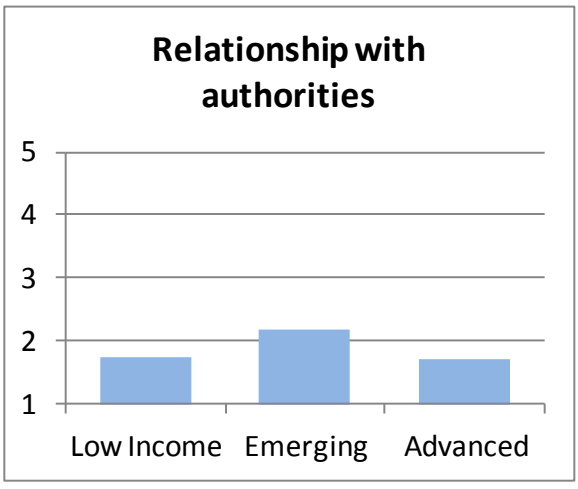


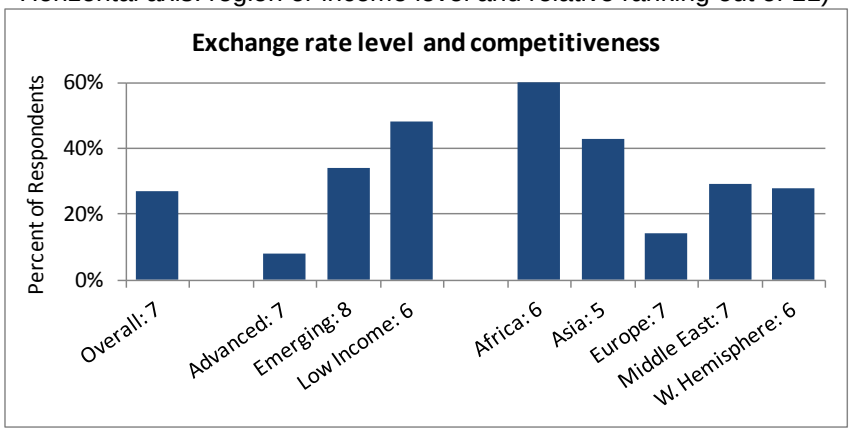
Figure 3. Perceptions of Quality - *Country Authorities*

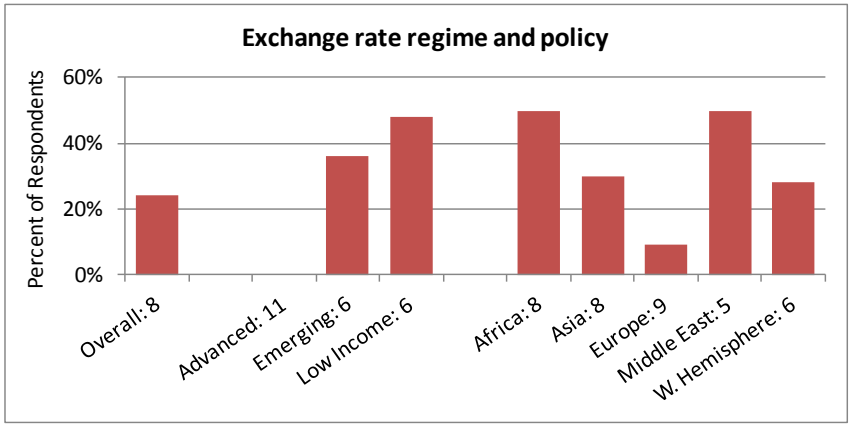
Areas that contributed most to understanding or provided new insights (check all that apply):

	Surveillance Area	Percent of Respondents
1	Fiscal developments and policy issues	62%
2	Financial sector vulnerabilities	49%
3	Potential macroeconomic/external stability implications of financial sector developments	42%
4	Regulatory and supervisory issues	40%
4	Lessons from experience in other countries	40%
6	Monetary developments and policy issues	38%
7	Exchange rate level and competitiveness	27%
8	Exchange rate regime and exchange rate policy	24%
9	Impact on economy of developments elsewhere (i.e., inward spillovers)	21%
10	Impact of domestic developments on other economies (i.e., outward spillovers)	6%
11	Other areas	3%

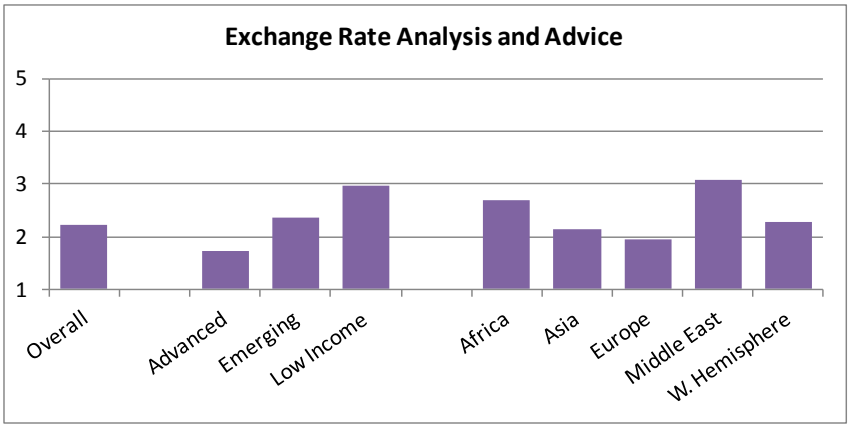
By Income and Region

(Vertical axis: percent of respondents saying this area contributed to understanding or insight, Horizontal axis: region or income level and relative ranking out of 11)





Extent of improvement in the quality of exchange rate analysis and advice:
(Average of: 1 = not at all, 2 = a little, 3 = some, 4 = a large extent, 5 = a very large extent)



- On average, country authorities saw a little *improvement* in exchange rate analysis. But views differed by income group, with low income countries seeing more improvement. Country authorities in Africa and the Middle East were also more positive than those Asia and Europe.

- ***Executive Directors*** felt that the *quality* of analysis of exchange rate levels or exchange rate regime met their expectations in only some cases. The perceived quality declined with increases in country income (Figure 4). On average, Executive Directors saw a little to some *improvement* in the quality of exchange rate analysis, but this was lower than the other areas surveyed.

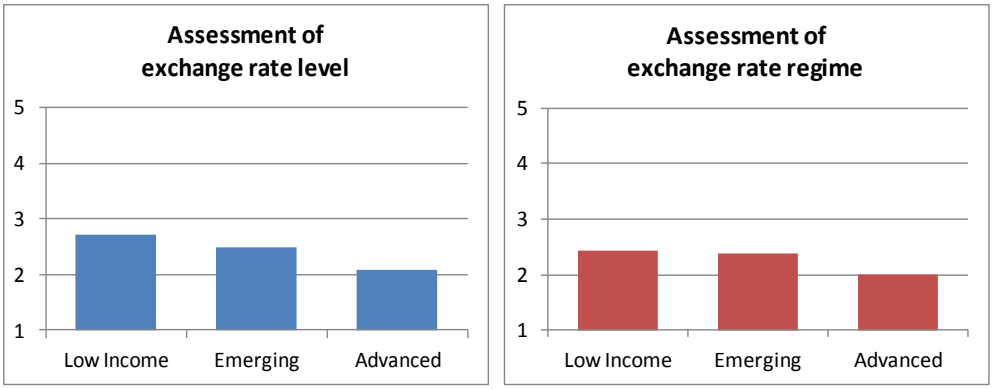
- ***Financial market participants*** rated the quality of Fund analysis of exchange rate issues very highly (Figure 5), with more than 40 percent saying the quality of Fund analysis is better than other sources (although this is down somewhat from 52 percent in the 2008 TSR). The results were even more favorable for analysis of external stability/vulnerabilities, with more than 80 percent of financial market participants saying the quality of Fund analysis is better than other sources (up from 65 percent in the 2008 TSR).

18. **Differences in perception likely reflect a number of factors**. Evidence was gathered from interviews with country authorities and comments on the surveys.

- ***Interviews with country authorities:*** While the use of consistent methods to assess equilibrium exchange rates (CGER) has clearly improved, in interviews some country authorities argued that Fund advice was too generic and was not sufficiently focused on policy implementation. Some expressed dissatisfaction with the initial implementation of the 2007 Decision, noting it put too much focus on exchange rates at the expense of the broader range of issues relevant to external stability. Regarding multilateral surveillance, views were split as some authorities noted that exchange

Figure 4. Perceptions of Quality
Executive Directors

In how many reports has the quality of the analysis met your expectations?
(Average of: 1 = none, 2 = a few, 3 = some, 4 = many, 5 = all)



Compared with pre-global crisis Article IV consultations, have you noticed an improvement in the quality of the analysis and advice on:
(Average of: 1 = not at all, 2 = a little, 3 = some, 4 = great, 5 = very great)

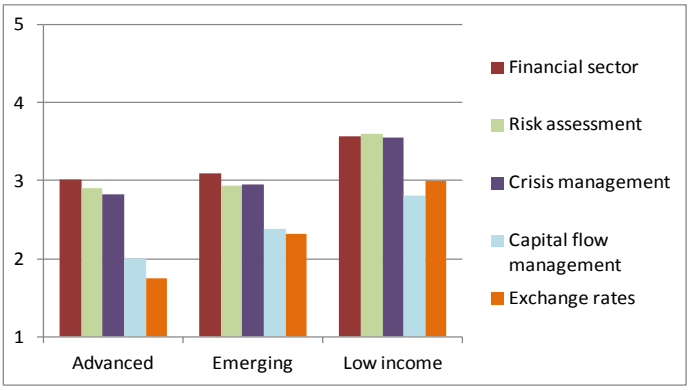
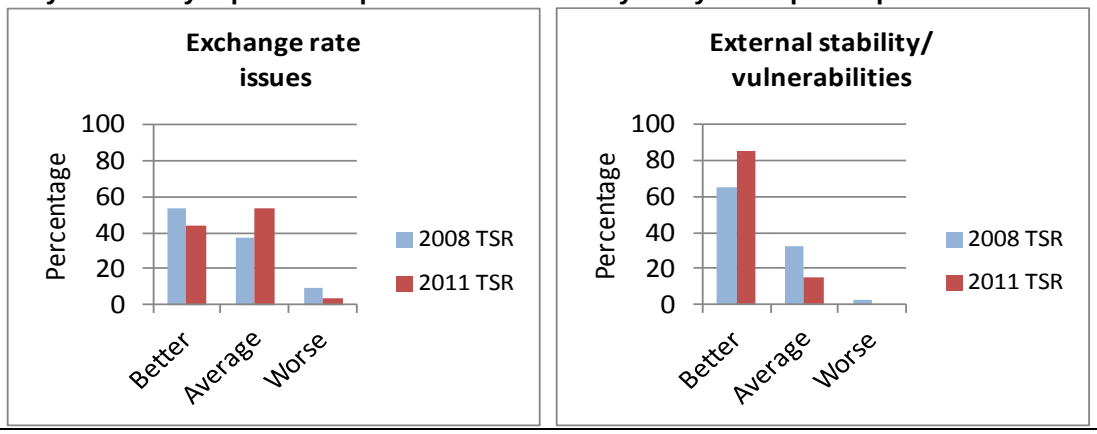


Figure 5. Perceptions of Quality
Financial Market Participants

Quality of country reports compared to similar analysis by other public/private institutions:



rate policies were only one source of global imbalances and felt that the IMF's focus on exchange rate misalignments distracted attention from risks in the global financial system. Others expressed a contrary concern about the impact of exchange rate spillovers and believed the IMF should keep up its pressure and public comment in this area in both its bilateral and multilateral surveillance.

- ***Survey comments:*** Nine comments on exchange rate analysis were received on the surveys from country authorities and Executive Directors. Comments stated that assessments did not sufficiently: 1) account for country circumstances (e.g. membership in a monetary union or the features of a small open economy); 2) address broader stability issues (e.g. reserve accumulation, reserve adequacy, capital flows, reducing imbalances); and 3) promote evenhandedness (by standardizing assessments and taking a harder line with large members).

F. Candor and Evenhandedness

19. **Executive Directors have recognized potential tensions between consistency of exchange rate assessments and flexibility to address country-specific factors**. In the 2007 Decision, Directors called for "... evenhandedness across members, affording similar treatment to members in similar relevant circumstances…." and stated the Fund's "assessment of a member's policies and its advice on these policies will pay due regard to the circumstances of the member."[2] Similarly, in the 2008 TSR Executive Directors stressed the need for "greater consistency across countries in terms of the choice of methods and the presentation of the results..."

Consistency across Countries

20. **Staff analysis of bilateral exchange rate assessments in all 2010 Article IV reports found that bottom line assessments were broadly consistent with quantitative estimates in most but not all cases** (Figures 6 and 7). For example, most countries assessed as "overvalued" had estimated exchange rate ranges above zero, most countries assessed as "in equilibrium" had ranges close to zero, and most countries assessed as "undervalued" had ranges below zero. The degree or number of countries assessed as over or undervalued did not significantly differ by exchange rate regime (Figure 8).

21. **In a few cases, bottom line assessments were inconsistent with the corresponding quantitative estimates and staff provided no justification**. This was the case for the two countries at either end of the equilibrium category in Figure 7. Bilateral exchange rate estimates pointed to a 2–28 percent overvaluation in the first case and a 15–23 percent undervaluation in the second. In both cases staff judged the exchange rate to be "broadly in line with fundamentals" but did not provide an explanation of the discrepancy.

[2] See *Review of the 1977 Decision—Proposal for a New Decision*, May 22, 2007, p. 9.

Figure 6. Exchange Rate Assessments in 2010

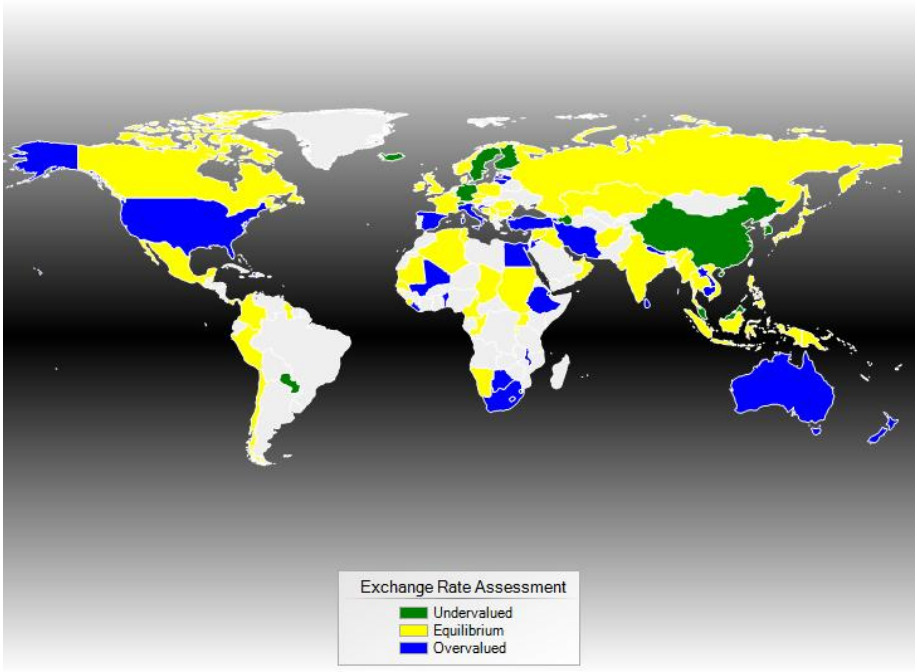


Figure 7. Estimated Over-/Under-Valuation and Bottom Line Assessments: All Countries

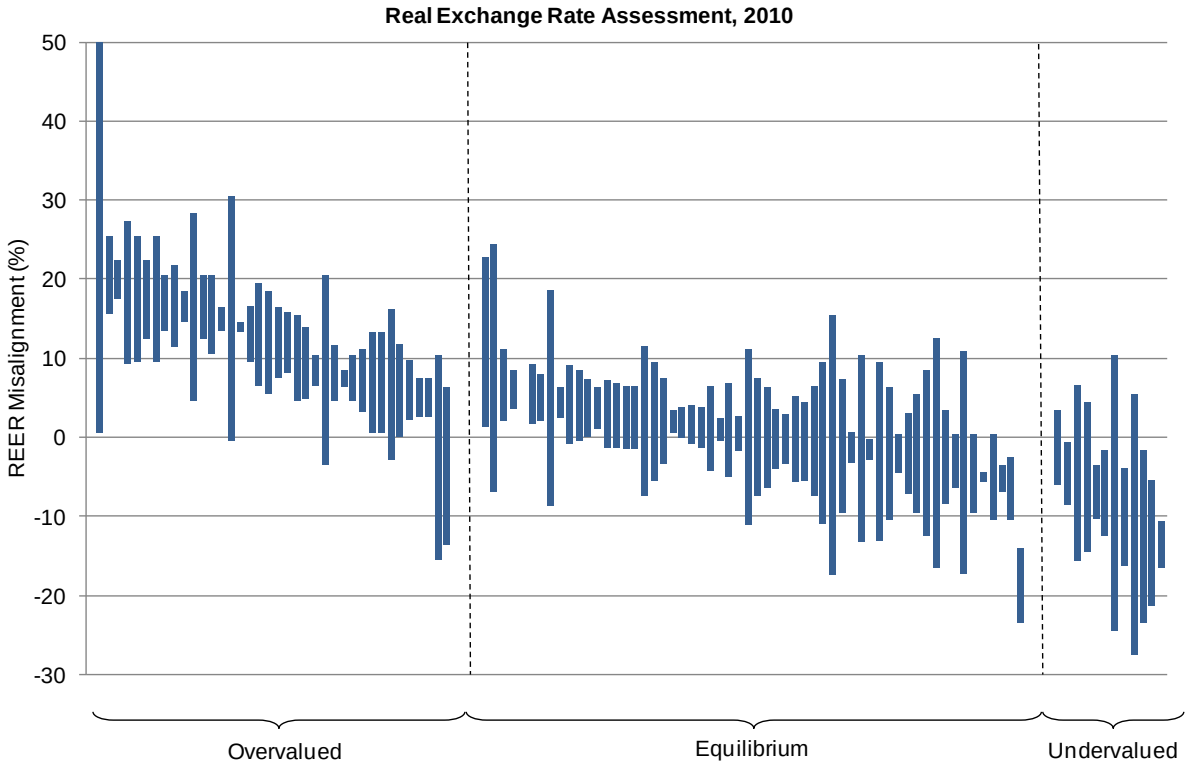
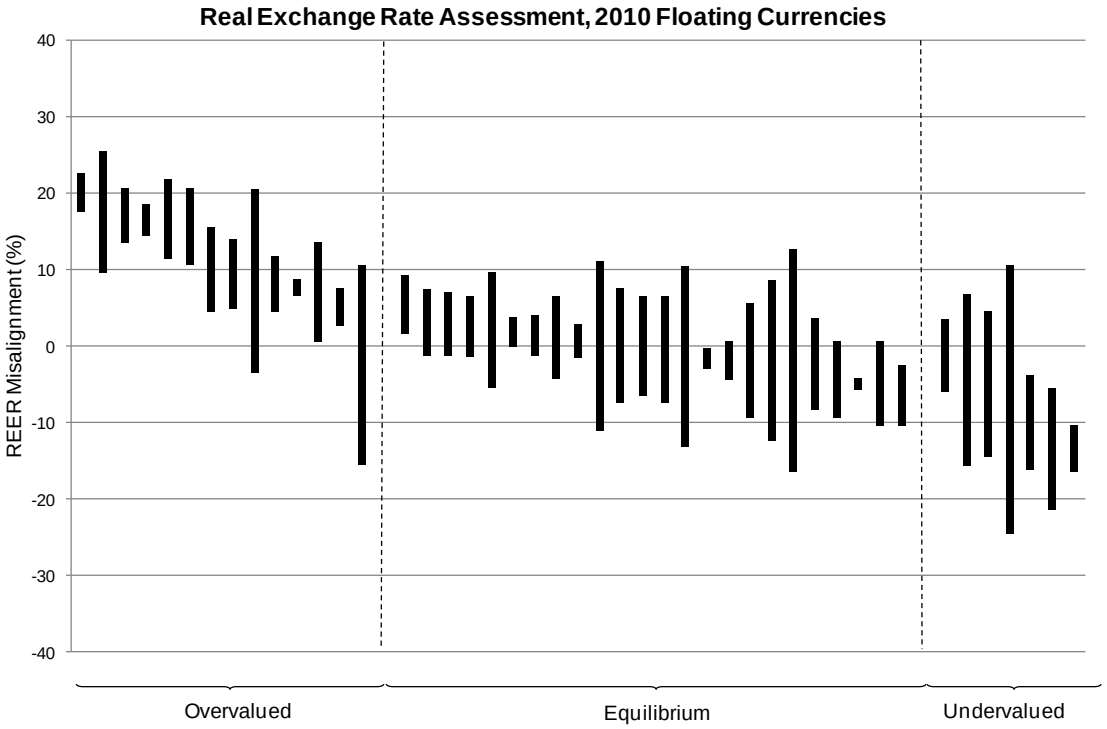
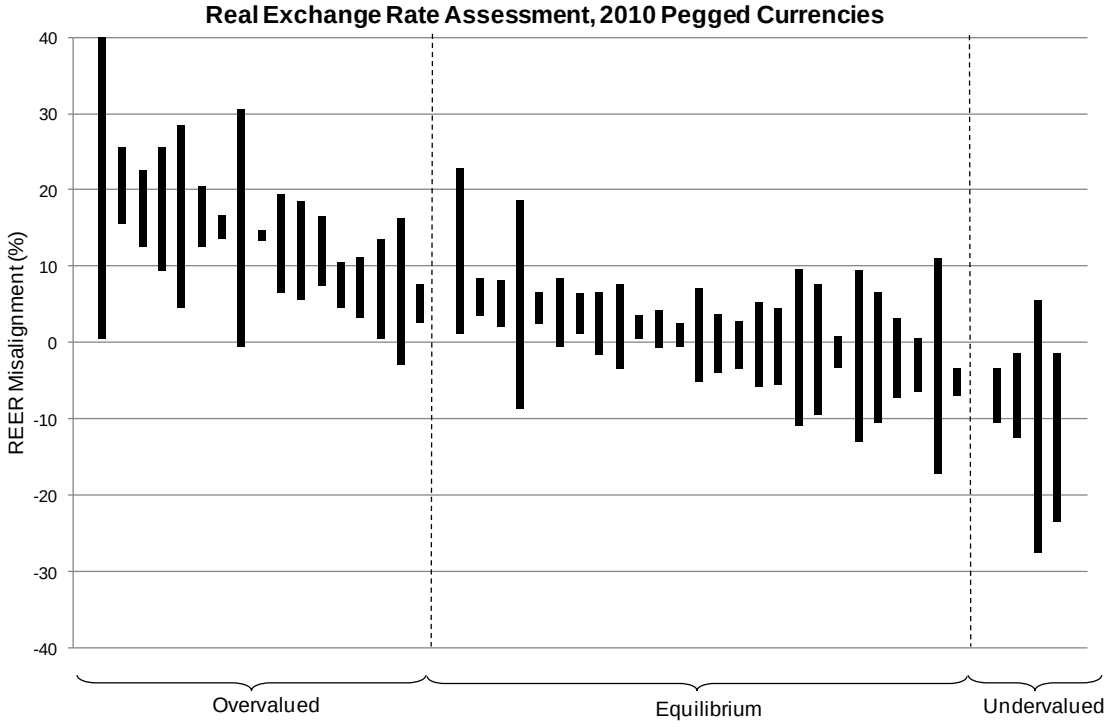


Figure 8. Estimated Over-/Under-Valuation and Bottom Line Assessments: Floats and Pegs[1]





[1] Countries in the Euro Area are classified as floaters even though it could be argued that small country members are similar to countries pegged to the Euro. Changing this classification did not affect the result.

22. **However, adjustments are often made to the standard CGER methods**. The review of 50 Article IV reports found that 24 reports had adjustments to CGER methods. While most reports (20 of these 24) were judged by staff to provide adequate justification, this points to a tension between the need to allow staff to exercise judgment and the need to ensure consistency and evenhandedness across members.

23. **A case study of the Baltic republics and Bulgaria highlights the complexities of ensuring consistency while giving due regard to country-specific circumstances** (Box 4). Differences in data sources and econometric specification were within the range of accepted practice at the IMF, reflecting different judgments regarding best practices, and were underpinned by solid justification in all cases. However, the exclusion of the ERER method for one of the countries (due to data limitations) contributed to differences in the bottom-line assessments.

24. **In addition to ensuring a robust review process, several steps could improve consistency while retaining the ability to take account of country circumstances**. First, as is generally the case now, any adjustments in the multilateral CGER exercise should be transparently presented. Second, the Research Department, in collaboration with area departments, should endorse best practice adjustments to CGER methods in bilateral assessments to account for country circumstances and increase the likelihood that countries in similar circumstances receive similar treatment. Third, on this basis the Fund should establish a central repository of endorsed exchange rate analyses to provide a one stop shop to disseminate up to date assessment methods and best practice examples. This would allow easier cross-country comparison of similar countries, enhance evenhandedness, and help spread new approaches.

Box 4. Case Study of Bulgaria and the Baltic Republics: Consistency of Exchange Rate Analyses Across Countries

While the technical underpinnings for exchange rate analyses in these countries were based on standard CGER methods, two different sources of differences can be noted in the treatment of these countries:

First, the exclusion of one method for Bulgaria's 2010 Article IV report—the equilibrium real exchange rate approach (ERER)—was relevant to a difference in the bottom line results compared with Estonia, Latvia and Lithuania. The Bulgaria team argued that the sample was too short and the variation in the real exchange rate too limited to justify use of the ERER approach.[1] In the Baltic cases (where disequilibrium was also a factor) the ERER approach was utilized, showing the largest overvaluation and affecting the overall results.

Second, the two CGER methods used in all of these countries were applied differently, reflecting different judgments by country teams, consistent with discretion that is provided under operational guidance to take into account country-specific factors. For example:

- *Different estimates of underlying current account balances.* While the Bulgaria and Lithuania teams used the medium term WEO forecast, the Estonia and Latvia teams used the latest current account balance adjusted for the cyclical position and past changes in exchange rates. These approaches reflected different judgments, given uncertainty about the size of the output gap and the future path of the economy.
- *Different techniques to estimate current account norms.* The Estonia and Bulgaria teams used the hybrid pooled estimation method, while the Latvia and Lithuania teams used the pooled estimation method. Both are considered acceptable econometric approaches.

In all cases, teams performed robustness tests using different specifications for the current account norm, underlying current account, cyclical position, and target for net foreign assets. But in only one case did teams share alternative specifications with the authorities and the Board.

In terms of transparency, the reports on Estonia and Latvia provided estimates of the underlying current account and current account norm, while the Latvia report also provided details on the econometrics behind the estimates.

In terms of breadth of the discussion of external stability, the Bulgaria and Latvia staff reports linked changes in the REER to fundamentals such as capital flows, consumption, and the output gap. And the selected issues papers for Bulgaria and Lithuania conducted deeper analysis of the impact of productivity changes and capital flows on each country's REER and discussed how it differed across countries. However, the staff reports for different countries had different coverage of these issues.

1/ The previous Bulgaria staff report had excluded the ERER method as well on the same grounds.

Taking into account the time dimension

25. **There is relatively little change in the way country exchange rates are classified**.

- From 2008 to 2010, just over half of members had exchange rates classified as "in equilibrium" (Table 1). This did not change significantly over the period. But the percentage of countries classified as undervalued fell by half, reflecting declines in current account surpluses in the wake of the economic crisis.

Table 1. Frequency of Exchange Rate Assessments 2008–10
(Percent of Countries Classified in Each Category)

	2008	2009	2010
Overvalued	28	38	33
Equilibrium	52	53	57
Undervalued	20	10	9

- Individual countries also were relatively stable over time (Table 2). In 2010, most countries remained in the same category they occupied in 2009. For example, a country rated overvalued in 2009 had a 62% chance of being rated overvalued in 2010.

Table 2. Comparison of Assessments: 2009 to 2010

		2010		
		Overvalued	Equilibrium	Undervalued
2009	Overvalued	0.62	0.38	0.00
	Equilibrium	0.24	0.70	0.05
	Undervalued	0.10	0.40	0.50

- There are good reasons why a country could change categories—most importantly, an evolution in its real effective exchange rate. However, a country should not change classification due to a change of methodology which is not justified or explained (Box 5). While staff generally uses the same methods from year-to-year, any changes should be presented in a transparent way.

Box 5. Consistency of Exchange Rate Assessments over Time: Case Studies

To examine the consistency of assessments, four cases were studied in detail. The goal was to determine if changes in assessments resulted from changes in economic fundamentals, methods, or for other reasons. A nonrandom sample was chosen of countries with the biggest and smallest changes in exchange rate estimates from 2009 to 2010 and having sufficient information to make an evaluation.

Algeria

Staff reports were produced in 2008, 2009, and 2010. Over this period, bottom line assessments (broadly in equilibrium) did not change even though adjusted CGER estimates fell from around zero in 2008 to an undervaluation of 10–34 percent in 2009 and 15–23 percent in 2010. In all three years, staff used the MB and ERER approaches and appropriately indicated that they had used CGER coefficients adjusted for oil producers. However, among the explanatory variables for the ERER approach, staff switched from oil prices in 2008 to the terms of trade in 2009, as the terms of trade generated a better statistical fit. While staff noted the change, they neither explained whether this caused exchange rate estimates to fall significantly, nor why the exchange rate was judged in equilibrium even though the quantitative estimates suggested undervaluation in 2009 and 2010.

Ireland

For Ireland assessments appeared to be consistent with changes in fundamentals over time although more information could have been provided. Article IV consultations for 2009 and 2010 used all three CGER methods. During this period, the underlying current account deficit shrank while the current account norm went into greater deficit. As a result, the exchange rate assessment shifted from overvalued to equilibrium. Import compression due to the global economic crisis explains the improvement in the current account, but staff did not explain what caused the change in the current account norm. While the assessment methods appear consistent over time, staff could have provided more information about the economic fundamentals driving them.

Laos

For Laos, the methods, estimates, and bottom line assessments changed significantly over time but the reasons for the changes were not fully explained. For the 2008 Article IV consultation, staff used the ERER approach, while for the 2009 consultation staff used the MB approach. For the 2010 consultation, staff used all three CGER methods. The difference between the exchange rate and equilibrium estimates jumped from close to zero in 2009 to significantly overvalued in the 2010. Staff stated that the overvaluation was driven by high FDI-financed imports but the current account was already significantly in deficit in 2009 when it was assessed as broadly in equilibrium. Thus, the methods and estimates do not appear to be consistent over time.

Singapore

For Singapore, the methods, estimates, and bottom line assessments were consistent over time. In each Article IV consultation, staff estimated over/undervaluation using all three CGER methods. The changes in the estimates from each approach were consistent with each other and also with changes in economic fundamentals (particularly productivity growth, fiscal surpluses, and the terms of trade). The economic fundamentals driving the results were reported in the text. Staff also used a common NFA target so that the ES approach would give consistent results over time. The pattern of exchange rate assessments was consistent with the gaps between the current account estimate and norm.

G. Transparency

26. **Exchange analyses are mixed in their degree of transparency**. While teams generally had good economic reasons for making adjustments, these were often not reported. For example, the staff reports for Bulgaria and the Baltic republics did not explain the reasons for adjustments to CGER methods nor why certain methods were not used. Explanations of how estimates arose from economic fundamentals and why these differed from those of peers were included in some but not all the reports. More generally, many staff reports simply state the CGER estimates. As a result, exchange rate estimates often appear to come from a black box and readers have difficulty judging whether the estimates are reliable and adjustments justified. To address this issue, it is recommended that staff routinely explain: 1) what changes in economic fundamentals drive changes in exchange rate assessments, 2) what adjustments have been made to the standard assessments methods, and 3) why estimates have changed over time. Best practice would also explain why estimates differ from comparator countries in similar circumstances—something which could be more easily done after a repository is in place (see above). Explanations could be brief (several sentences and/or tables) and are not meant to prevent staff from using best judgment.

27. **Exchange rate assessments have a mixed publication record**. In 2010, 95 of 135 Article IV staff reports were published with both (i) bottom line assessments of the exchange rate level and (ii) quantitative exchange rate estimates. In 20 reports staff included a bottom line assessment but no quantitative estimates, while in six reports staff included neither a bottom line assessment nor quantitative estimate. Of the remaining 14 reports, in accordance with the Fund's transparency policy, ten countries decided not to publish their reports and four requested deletion of exchange rate estimates on the basis of market sensitivity. Of the latter, two countries had stabilized arrangements, one a peg, and one a floating exchange rate.

H. External Stability and Integration with Policy Advice

28. **The analysis of risks to external stability in many staff reports still focuses primarily on exchange rate levels and insufficiently on risks arising from the capital and financial account**. Even when the underlying current account is in equilibrium, the capital and financial account may be a source of instability due to balance sheet vulnerabilities, spillovers, or financing constraints. Thus, the coverage of external stability assessments should go beyond assessments of the current account and real exchange rate levels and assess risks arising from the capital and financial account, including the size and composition of capital flows and external assets, access to international capital markets, and reserve adequacy (Box 2 highlights indicators that should be considered).[3]

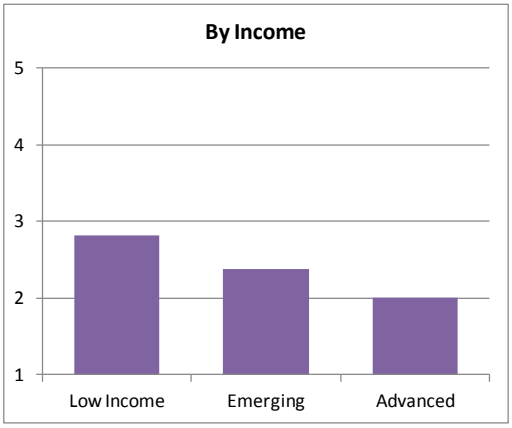
[3] For recent work on reserve adequacy see IMF, *Assessing Reserve Adequacy*. Feb. 14, 2011.

Figure 9. External Stability Issues

Country Authorities

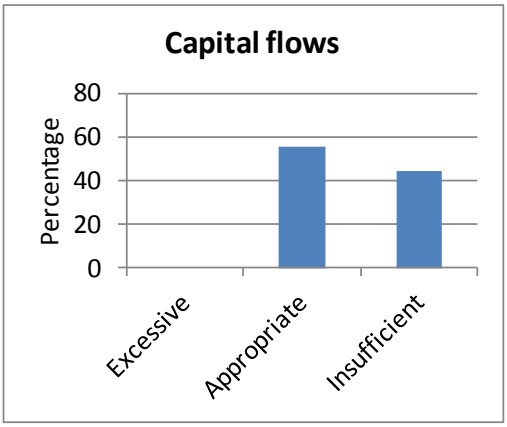
Improvement in the quality of the analysis of capital flows:

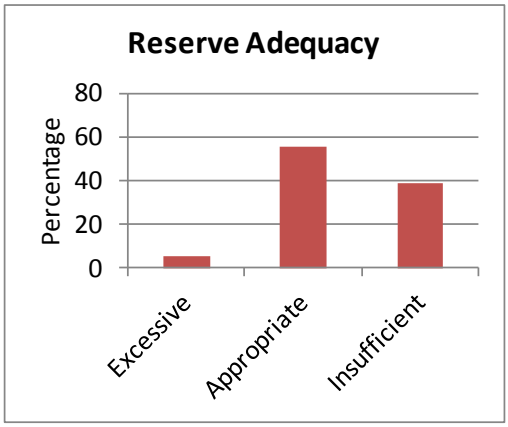
(Average of 1 = none, 2 = a few, 3 = some, 4 = many, 5 = all)



Executive Directors

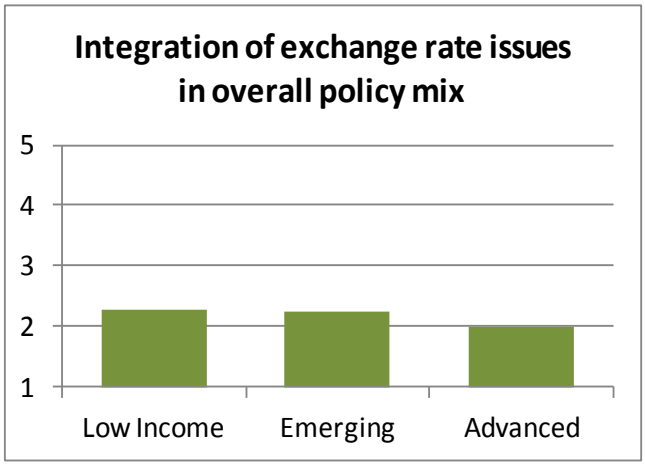
Rate the coverage of:





Executive Directors' views on the number of reports whose quality met expectations:

(Average of: 1 = a few, 2 = some, 3 = many, 4 = most, 5 = all)



The review of 50 Article IV reports found that use of CGER methods had increased from 30–40 percent of reports in 2007 to 70–80 percent in 2010. But as of 2010, other potential sources or indicators of external vulnerability were discussed less frequently.

29. **Country authorities and Executive Directors were quite negative about coverage of the broader issues relevant to external stability**. For example, country authorities saw little improvement in the analysis of capital flows (Figure 9). Similarly, nearly two-fifths of Executive Directors felt a significant share of staff reports had insufficient coverage of capital flows and reserve adequacy. The results were driven primarily by authorities in advanced countries, with authorities in emerging markets less dissatisfied.

30. **Ironically, these results may partly reflect improved implementation of CGER techniques**. In interviews, staff noted that adjusted CGER analyses were time-intensive and diverted resources from other areas. Moreover they were complex to explain—in some cases, diverting attention from the discussion of other issues with policy makers. In addition, in cases where exchange rate levels were sensitive, a finding of over- or undervaluation had become a key focus of the consultation. These concerns were echoed in interviews with country authorities, particularly those with fixed or heavily managed exchange rates.

31. **Integration of external stability assessments with the overall policy discussion remains insufficient**. The assessments of risks to external stability should include a discussion of the contributing factors to the vulnerabilities. It should trace out, in particular, the role of the overall policy mix—including both external and domestic policies to inform overall policy recommendations. For example, vulnerabilities stemming from an over or undervalued real exchange rate could be addressed via changes in the exchange rate, changes in fiscal, monetary, or structural policies, or a combination. To date, the evidence on integration is mixed. Executive Directors are generally dissatisfied with the quality of integration. On average, staff reports met their expectations for integration in only a few cases.

32. **To improve integration, members could consider revising the 2007 Decision or Articles of Agreement to recognize that other policies, aside from exchange rate policies, can create external instability**. As discussed more fully in the paper on the review of the legal framework for surveillance, the 2007 Decision and Articles of Agreement have an exchange rate bias and create an artificial distinction between domestic and external policies.[4] In addition, some members have expressed dissatisfaction with the limits of the current framework. This is not conducive to the integration of bilateral and multilateral surveillance or policy areas.

[4] For details see the companion paper, *Review of the 2007 Surveillance Decision and the Broader Legal Framework for Surveillance*.

APPENDIX I. TECHNICAL CHALLENGES FOR EXCHANGE RATE ANALYSIS OF NON-CGER COUNTRIES

A number of technical challenges arise in the application of CGER methods. Most of these (e.g. consistent data sources, common treatment across countries) are primarily issues for bilateral assessments of non-CGER countries as they have been addressed in the multilateral CGER exercise. But a few (e.g. omitted variables and the choice of the benchmark level for NFA as a share of GDP) remain issues for the multilateral CGER exercise as well.

Challenges

Data: For some countries, particularly LICs, obtaining the data for exchange rate analysis is challenging. For example, CGER methods require information on productivity, terms of trade, net foreign assets, and trade elasticities. These depend upon inputs such as sectoral (tradable and non-tradable) value added and labor inputs, trade weights, trade restrictions, and the international investment position that are not available for some countries. In addition, countries may have structural breaks in their data that affect the quality of estimates.

Definitions: Even when economic data is available, their definitions may vary across countries. For example, fiscal deficits can be defined with respect to the central or general government. Relative productivity is usually defined as the relative productivity of the tradable to non-tradable sectors. But if this is not available, GDP per capita has been used as a proxy. Similarly, trade weights may include or exclude services. Such differences introduce variation across countries and make exchange rate estimates less consistent.

Use of standard coefficients: In some countries, available time series are too short to calculate statistically significant trade elasticities. In such cases, standard elasticities are applied. Similarly, the coefficients used to calculate the current account norm in the macroeconomic balance approach rely on panel regressions. There is a tradeoff between using country specific coefficient estimates and using standard coefficients from pooled regressions. While estimating the CGER models on a large panel improves the efficiency of the resulting estimates, it increases the potential for bias in estimated parameters due to actual heterogeneity across countries (since these are only partially accounted for by dummy variables). Finally, as non-CGER countries are not included in the panel regression generating the standard coefficients, the use of standard coefficients for non-CGER countries may imply some error.

Omitted Variables: CGER methods attempt to correct for variables that are important in some countries but not others. For example, the macroeconomic balance approach includes a dummy for financial centers. However, there are other variables that could plausibly be significant for some members that have not yet been incorporated. (See Appendix II for steps that are being taken to address this issue).

Consistency of adjustments across countries: For the reasons noted above, country teams make adjustments to account for country circumstances. However, since adjustments are made by individual country teams, and while efforts have been made to increase consistency (e.g. by assessing Caribbean countries together or comparing estimates across some countries), a systematic process across all departments to reinforce consistency of approach across countries facing similar circumstances does not yet exist.

Judgment in application: CGER methods allow some judgment in their implementation. For example, alternative methods may be used to calculate the underlying current account (the current account stripped of temporary factors). Similarly, the external sustainability approach uses the latest NFA position to calculate the current account norm. However, the latest NFA position, if it contains large external liabilities, may not be sustainable, and teams are given discretion to choose lower, more sustainable NFA targets.

CGER assumptions: Some CGER assumptions are not appropriate for all countries. For example, the macroeconomic balance and external sustainability methods assume that countries have access to financing. However, in some LICs external financing is scarce and imports are financed primarily through remittances and/or grants. In these countries, the current account will be close to balance by definition. However, given their development needs they would be expected to import capital, implying the current account norm would be a deficit. As a consequence, unadjusted application of the macroeconomic balance and external sustainability approaches could mistakenly suggest their exchange rates are undervalued.

Multilateral consistency: The multilateral CGER exercise imposes the requirement that the changes in real effective exchange rates required to close exchange rate misalignments are multilaterally feasible (e.g. depreciation by all countries is not feasible). This is achieved by adding or subtracting an adjustment, specific to each exchange rate assessment method, to the required exchange rate changes of all CGER countries. When CGER methods are applied to non-CGER countries, the same adjustment should be applied. But, as bilateral assessments are done individually, this is not the case and there is no guarantee of multilateral consistency.

Uncertainties: The Research Department estimates that in the multilateral CGER exercise the forecast standard error for the current account norm in the macroeconomic balance approach is 2–3½ percentage points of GDP while the forecast standard error for the equilibrium REER is about 10 percent. Standard errors for non-CGER countries are likely to be larger. This means that point estimates for non-CGER countries have greater uncertainty and the estimate of the deviation from equilibrium must be larger before a team can conclude that the member's exchange rate is over or undervalued. Readers who are not familiar with these considerations may impute more precision to exchange rate estimates than is warranted.

APPENDIX II. DEVELOPMENTS IN CGER METHODS

A. Evolution of the Multilateral CGER Exercise in Response to the Great Recession

The 2008 financial crisis complicated the application of CGER methods, leading to three key adjustments:

- **Fiscal balances**: With the financial crisis, projections for the fiscal balance for some countries became unsustainable, even in the medium-term. As a result, MB current account norms for those countries would indicate higher than sustainable deficits. Since spring 2010, the multilateral CGER exercise has based MB current account norms on sustainable medium-term fiscal balances. These are defined as fiscal balances which, if maintained, would stabilize the public debt to GDP ratio at 60 percent (80 percent for Japan).

- **Consumption ratios**: The crisis led to the emergence of large output gaps that confound interpretation of government consumption to GDP ratios (countries with large output gaps in general saw large increases in their ratios). This would imply an equilibrium real exchange rate appreciation and therefore a more undervalued exchange rate assessment in the ERER approach. To address this issue, the multilateral CGER exercise uses potential GDP as the denominator for this ratio.

- **Net Foreign Asset (NFA) targets**: The crisis brought a retrenchment of capital flows and a deterioration in markets' perception of the sustainability of large net foreign liabilities. The ES approach uses the historical NFA to GDP ratio to derive the current account norm. For countries with high external liabilities, using the historical ratio would indicate a norm that stabilizes the NFA to GDP ratio at an unsustainable level. To compensate, the multilateral CGER exercise has proposed using current account norms that reduce net external liabilities as a share of GDP to a sustainable level.

While these adjustments are being made in the multilateral CGER exercise, in principle they also be apply to bilateral exchange rate assessments. But at present there is no method to ensure they are implemented.

B. Other Modifications to CGER Methods

Other modifications to CGER methods are designed to take account of factors that are important in specific countries.

For the multilateral CGER exercise

- **Oil exports**: The Research Department has adjusted CGER methods to account for the special characteristics of oil exporters in the multilateral CGER exercise. Because oil is an exhaustible resource, intergenerational equity implies that some portion of oil export revenues should be saved for the future. This implies a higher current account balance than otherwise would be the case. There may also be situations in which capital-scarce and credit-constrained countries find it optimal to front-load the use of oil export revenues to finance public investments. This would generally imply a lower current account balance. The Africa, Research, and Strategy Departments are currently developing methods to estimate the implications of this possibility for specific countries.

For country assessments

- **Workers' remittances:** That is a component of the current account whose behavior resembles an exhaustible resource, as the passage of time erodes the emigrants' earning capacity and links to their home country. Therefore intertemporal savings considerations would warrant a stronger current account balance for countries receiving large but temporary workers' remittances flows.

- **FDI flows:** Unlike debt, FDI flows generate a contingent liability and some risk sharing, thus providing a more stable source of external financing, which would make current account deficits and levels of net foreign liabilities more sustainable than would otherwise be the case. Those considerations are relevant for the determination of the sustainable NFA level in the ES approach.

- **Foreign aid:** Aid flows are important in many LICs. Depending on their composition and expected duration, they present issues that are similar to those of remittances or natural resources. Insofar as aid flows are recorded "above the line" as grants, they should be partially offset by higher imports and not cause major errors in equilibrium current account estimates. Insofar as aid flows come as subsidized lending and are recorded "below the line", current account deficits may be higher than for countries without aid inflows. This could erroneously suggest overvaluation.

CHAPTER II. FINANCIAL SECTOR ANALYSIS IN BILATERAL SURVEILLANCE[1]

Key Findings

- Stakeholders have seen an improvement in the Fund's financial/macro-financial surveillance over the past three years.
- But the Fund's contribution could be strengthened further, in particular on cross-border linkages, while at the same time ensuring that country-level vulnerabilities are detected early and acted upon.
- There is also scope for greater specificity and follow up on policy recommendations.
- Country Authorities and Mission Chiefs find financial stability assessments (FSAPs) useful when recent. But FSAPs are infrequent, are not being incorporated into Article IV reports systematically, and questions have been raised on how to guarantee the quality of financial stability analysis in bilateral surveillance.
- Data limitations and a lack of sufficient support impede strengthened financial sector surveillance in Article IV consultations.

Recommendations

Adopt a more risk based approach to surveillance and enhance understanding of interconnections:

- *Adopt the role of a global systemic risk advisor and set a strategic plan to address systemic real/financial risks.* Elaborate and disseminate a policy doctrine on key issues. Ensure work on financial networks and systemically important financial institutions is disseminated/used in Article IV consultations.
- *Bridge better between financial stability assessments and surveillance work.* Consider more frequent FSAP-like stability assessments in Article IVs, especially for countries with systemically important financial sectors. Increase the capacity of area departments to undertake financial stability analysis, including through training.
- *Systematize a risk based approach in Article IVs.* Standardize the analytical toolkit: make vetted tools (including those developed for the Vulnerabilities and Early Warning Exercises (EWE)) available to country teams to encourage their use in Article IVs consultations. Encourage authorities to share stress test results and share the Fund's scenario analysis to foster collaboration on thinking through risk scenarios.
- *Help make connections.* Use the Financial Surveillance Group and "colleges" of mission chiefs/MCM experts for countries with strong financial linkages to support greater cross-pollination/consistency/cooperation across country teams facing similar circumstances/risks.
- *Work to eliminate data gaps*. Article IVs should cover data issues pertinent to financial stability, signaling gaps and weaknesses. Bring the review of data provision for surveillance forward to 2012.
- *Leverage work of other bodies* (e.g. the FSB, emerging risk boards) for the Fund's surveillance.

[1] Prepared by a staff team comprising: Ritu Basu, Lawrence Dwight, Olessia Korbut, Nicolas Million, and Alison Stuart (all SPR), Elena Loukoianova (MCM), and Hui Tong (RES).

I. INTRODUCTION

1. **The 2008 TSR identified the need to strengthen macro-financial surveillance**. Three key recommendations were made to promote further progress: (i) develop a clearer organizing framework for macro-financial surveillance; (ii) continuously update quantitative modeling and other methodological work for financial stability assessments, macro-financial linkages and cross-border spillovers, and improve analysis of the financial channels of risk; and (iii) further build macro-financial expertise and use it strategically.

2. **Steps have been taken in each of these areas**. Financial sector expertise has been stepped up, the analytical toolkit has been expanded, and the organizing principles for surveillance were set out in the Financial Sector Surveillance Guidance Note (FSSGN). Box 1 describes the reforms that have been implemented or set in progress. Nevertheless, in spite of steps taken, there is no clear organizing framework for macro-financial surveillance. And for the Fund to operate effectively as a key adviser on systemic risks at national and global levels, further progress is needed.

3. **The crisis has underscored that financial shocks escalate rapidly across sectors and countries**. It has highlighted the need to focus on risks and transmission channels, both at country-level and globally. Country-level surveillance is key—as the crisis originated from country-level vulnerabilities: excessive indebtedness of agents and asset (housing) bubbles, compounded by lax credit practices and excessive risk taking by financial institutions, in a context of insufficient capital and liquidity buffers. The ability to manage a crisis also largely depends on country-level characteristics—including the strength of the public sector balance sheet. At the same time, the crisis has made clear the increasingly borderless nature of finance. Shocks to asset prices, asset quality and funding in core jurisdictions were rapidly transmitted across borders through the interconnected balance sheets of large financial players. While this study focuses on financial sector analysis in bilateral surveillance, it also sketches an encompassing vision for our role on financial stability. In particular, understanding cross-border links is essential to the quality of the analysis at both the bilateral and global level. Recent work has thus focused on the need for IMF surveillance to have a better grasp of critical sector and cross-border linkages. Work on risk identification has also been strengthened through the establishment of the Early Warning Exercise (EWE)/Vulnerabilities Exercises for Advanced Economies (VEA).

4. **An External Consultant's study focuses on the Fund's global financial stability role looking in particular at multilateral surveillance products**. It concludes that the Fund has an umbrella role as a global systemic risk advisor—drawing macro-financial risks to the attention of the FSB, regional systemic risk bodies, standard setters and country authorities, and contributing to the formulation of macroprudential policies (see *TSR External Study—IMF and Global Financial Stability*, John Palmer and Yoke Wang Tok).

Box 1. Progress over the Past Three Years

- **Scaled up expertise and resources**. Expertise and resources have been increased and emphasis placed on improving the coverage and depth of financial sector surveillance. Resources devoted to financial sector surveillance are estimated to have increased from $21.5 million in FY 2007 to $22.6 million in FY2010 and to $25.5 million in 2011, 14 percent of total surveillance spending in FY 2011. In 2010 the Fund hired 39 staff with financial sector experience or debt policy skills, doubling the number of hires with specialist skills in recent years. Training provision has also increased.
- **Improved guidance** (FSSGN, 2009) provided advice on approaches and analytical tools relevant for bilateral surveillance.
- **The analytical toolkit has expanded** over the past three years (see Section IV) and dissemination has been stepped up. The FSSGN includes a description of the tools available and MCM has catalogued its tools on the intranet.
- **FSAPs were made more flexible (2009) and mandatory FSAPs were introduced for economies with systemically important financial sectors (2010)**. Modular FSAPs were established in 2009, so that the scope of an FSAP update can be specifically focused on stability (or developmental) aspects, as warranted, providing scope for greater leveraging of resources.
- **Strengthened risk assessment** The introduction of the twice-yearly exercise—the Early Warning Exercise (EWE) and vulnerability exercise for advanced economies (VEA) since 2009 —to identify key risks—including in the financial sector—across economies should enable a better prioritization of risks—through identification of tail risks in particular and the elaboration of transmission of risks which can be entrenched further in bilateral surveillance.
- **The integration of financial sector surveillance into Article IV** was reviewed (2009) and efforts were stepped up to build bridges between multilateral and bilateral surveillance vehicles including through the introduction of a Financial Surveillance Group—an interdepartmental forum for sharing information, experiences and best practice, and for helping to identify cross-cutting issues. The paper also recommended a strengthening of the analytical framework for transmission mechanisms and greater implementation of balance-sheet based tools.

In progress

Most recently, increased attention has been paid to:

- **Interconnectedness and systemic issues**. A conceptual study—*Understanding Financial Interconnectedness*—demonstrated the importance of networks and analyzed the critical global financial nodes and inter-linked networks (with far greater reach); and underscored the need for surveillance to have a better grasp on these linkages. Work is also underway to regularly monitor the activities of systemically important financial institutions (bank and non bank).
- **Macroprudential** work addressed the question of an overarching policy framework to address the stability of the financial system. A recent Board paper—*Macroprudential Policy: An Organizing Framework*—offered preliminary views on key aspects of macroprudential policy-making including how to diagnose and tackle systemic financial risk, choice of instruments, and institutional design.
- **Filling Information Gaps** which remain a key hindrance. Progress is being made on the G20 Data Gaps Initiative and STA is developing a Special Data Dissemination System plus for systemically important economies for discussion in the Eighth Review of the Data Standards Initiative scheduled for early 2012.

5. **This paper takes stock of the progress made in *bilateral surveillance* and identifies areas for further improvement**, including additional steps that might be needed for the Fund to effectively fill the role as a global systemic risk advisor. Section II sketches a role for the Fund on financial stability issues; Section III looks at progress and remaining gaps, including through a review of stakeholder surveys and country authority interviews; Section IV reviews the scope for a greater global focus and deepening surveillance of the financial sector and macro-financial linkages, drawing on the results of case studies and a review of 50 Article IVs; Section V considers the Fund's analytical toolkit for financial sector surveillance; Section VI considers data limitations; Section VII covers resource issues.

II. Fund Work on Financial Stability

6. **To promote the stability of the international monetary system, the Fund's financial stability role needs to stretch from detailed work at the bilateral level, to strategy at the global level**. The External Consultants' report on the *IMF and Global Financial Stability* argues that the Fund with its universal membership, unique set of macro-financial skills, and mandate for stability of the international monetary system, should act as a global systemic risk advisor. Academic work also supports this view—for example Truman and Schinasi (2010) note that, although not alone in the macroeconomic sphere, the IMF has the macroeconomic and financial expertise and universal membership to fulfill this role. They argue that the financial stability roles of the IMF and the FSB need to be enhanced, with the IMF focusing on macroeconomic and macro-financial stability, the linkages between them, and the implications of macroeconomic policies for the stability of the global financial system. At the same time it is equally important to continue to focus attention on financial issues at the bilateral level and on cross-border issues.

7. **The two roles at the bilateral and global level are complementary**:

- In depth knowledge of a country's financial institutions, macroeconomic and supervisory framework, are needed to track vulnerabilities in the domestic economy and to spot risks before they escalate.
- Furthermore, given possible spillovers, good knowledge of financial interconnections is necessary to inform country level work.
- Policy principles developed at the multilateral level on systemic institutions, instruments, markets should be used consistently in bilateral surveillance.

8. **This study focuses on Fund surveillance at the bilateral level and does not dwell on the necessary conditions for the global systemic risk advisor role**. The latter is broadly covered in the External Study—*The IMF and Global Financial Stability*. However, a few steps would seem particularly useful to support such a role:

- The adoption of a clear strategic agenda for the Fund for financial stability, endorsed by the Board/IMFC, which would assess emerging vulnerabilities, prioritize potential risks, and set a work program for developing possible policy responses.
- A strengthened focus on risks to financial stability, including at bilateral level (which is explored further in this study).
- A process within the Fund to identify emerging risks—for example through the use of "colleges" of mission chiefs/financial sector experts for countries with extensive financial links (see Section V. C).
- Progress on the understanding of transmission channels and filling data gaps.
- Establishing an external risk committee comprising senior officials from systemic institutions and Fund management to meet regularly to discuss risks that are of macroeconomic or financial origin.

III. The State of Financial Sector Surveillance: Progress and Remaining Gaps

9. **While there is evidence of progress, most stakeholders saw scope for further improvement**. As noted in the *TSR—Health Check and Statistical Information* surveys with country authorities (CAs), financial market participants (FMPs), and Executive Directors (EDs) and interviews with CAs point to an improvement in financial sector surveillance over the past three years (Figure 1).

- **Progress: the quality of financial sector analysis and advice has improved at least to some extent compared to the pre-crisis period** and financial sector analysis and advice are rated more favorably than for other issues (such as exchange rate issues,) by CAs and EDs. But, as in previous surveillance reviews, improvements in financial sector analysis and advice were noted more by Emerging Markets (EMs) and Low Income Countries (LICs) than by Advanced Economies (AEs). Opinion also varies widely across regions with progress on quality viewed less positively in Asia than elsewhere (Table 1).

Table 1: Compared to pre-crisis have you noticed an improvement in the quality of:
Weighted average of the following responses: not at all=1, to a little extent=2, to some extent=3, to a great extent =4, to a very great extent=5

	MCD	AFR	EUR	WHD	APD
Financial sector analysis/advice	3.64	3.30	3.36	3.00	2.38
Financial sector banking crisis prevention/ management	3.55	3.40	3.22	2.67	2.29

- **Contribution: though lagging fiscal policy, financial sector surveillance ranked second in terms of its contibution to CAs' understanding of issues**. Roughly half of EM and LIC respondents thought that Fund surveillance had contributed most to their understanding of issues in the following areas: understanding of financial sector vulnerabilities, the potential macroeconomic

implications of financial sector developments, and to a lesser extent regulatory and supervisory issues. Fewer AEs viewed the Fund's contribution positively—but this pattern is not unique to financial sector issues.

- **There is scope to strengthen the coverage of risks**. While a large majority of CAs think that in general the discussion of risks (both macroeconomic and financial) was appropriate for their own country they think that risks are signaled too infrequently for others (Figure 2). FMPs and EDs see scope for more discussion of tail risks and in particular discussion of transmission channels.
- **And there is scope to improve coverage of two-way macro-financial transmission channels of risks**, i.e., both the impact of the financial sector (directly or through cross-border linkages) on domestic/external stability and the effect of macroeconomic developments on the financial sector. In-depth interviews with CAs revealed that they would like greater attention to be devoted to analyzing macro-financial linkages, and to advising country policy-makers on macroprudential policies (well tailored to their specific circumstances).
- **More attention could also be focused on finance to finance and cross-border linkages**. Financial linkages between institutions and across markets and borders were a key propagation mechanism of the 2008 global financial crisis. FMPs rated the quality of the IMF's analysis of cross border risk transmission as just above average but lower than the quality of a number of other types of financial surveillance activities and second lowest out of six policy areas (analysis of external stability and vulnerability, analysis of financial sector risk and vulnerability, two-way analysis of risk transmission, cross-country analysis, and analysis of exchange rate issues).
- **The key challenge to conducting this type of work is a lack of data for multi-country financial institutions** according to the Mission Chief survey (see Box 2).

Box 2. Mission Chiefs' Comments on the Most Challenging Financial Sector Surveillance Issue

Quotes relating to cross-border linkages:

- Many issues pertain to cross-border financial institutions and policies and these should be developed in a broader context than bilateral surveillance.
- The situation in Europe—where most cross-border issues for my country come from—is very fluid and complex.
- Lack of relevant data on cross-border exposures.
- Poor quality of financial sector data. Lack of data on cross-border financial flows.
- Assessing cross-border risks was hard because of a lack of information on the operations of multi-country financial institutions.

- **CAs still seek better integration of Financial Stability Assessment Programs (FSAP) into Article IV surveillance**. While this is a review of surveillance not of the FSAP, the findings of FSAPs, particularly the stability assessments, need to be properly incorporated into bilateral surveillance and recommendations followed up (Appendix I describes the FSAP process). Interviews with country officials suggested that FSAPs are viewed favorably while survey results were more mixed. FSAPs were viewed as helpful in sharpening views in bilateral surveillance by just over half of country authorities, but again were less positively received by AEs (43 percent) than EMs or LICs (51 and 65 percent respectively). Interviews with country officials suggested that FSAPs were viewed favorably. But, many wanted to see a better integration of the work of the FSAP teams (and, more broadly, providers of technical assistance) with that of the area departments. This view was shared by the *TSR External Study—An Evaluation of IMF Surveillance of the Euro Area* TSR External Study which called for full integration of financial dimensions in Article IVs.

- **While MCs are relatively sanguine about the challenges posed by financial sector work, there is recognition that more macro-financial analysis is needed** in particular among EMs and LIC MCs (Figure 3). Furthermore, a significant proportion of MCs representing AEs and in EUR, MCD, and WHD saw scope for further work on cross-border linkages and the policy implications—with some commenting that the links are fluid and complex and need to be covered in a broader context than bilateral surveillance.

- **Current impediments to doing more financial sector analysis are seen as data limitations/lack of access to information and limited mission support from functional departments.** Extra support from these departments, and a recent FSAP or FSAP update, were seen as most helpful in strengthening Article IV discussions of these issues. This suggests that more assistance for Area Departments could pay dividends. However, given tight resource constraints, the key challenge is how best to further develop core competencies for financial sector surveillance within Area Departments and how to leverage expertise in MCM for the benefit of the membership as a whole. Section VI discusses options. Together with a streamlined analytical toolkit (see Section IV), this could help address concerns that increased attention to systemic cases would have negative implications for coverage of the broader membership.

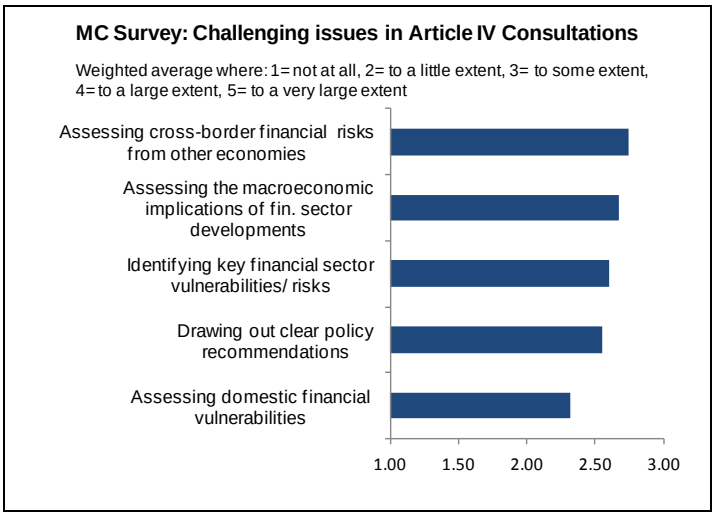
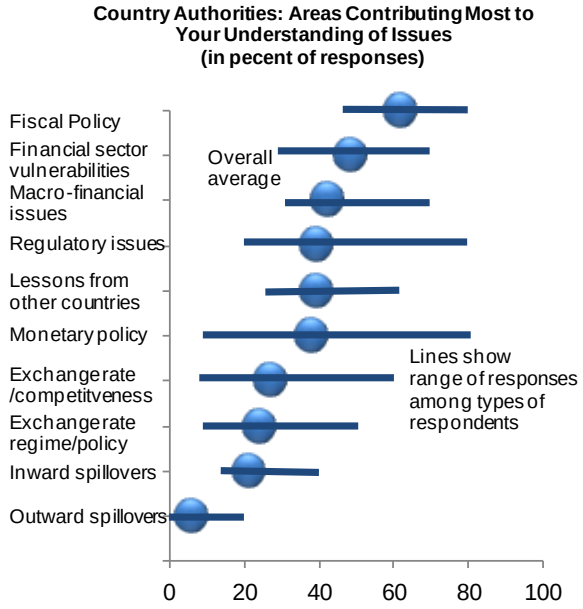
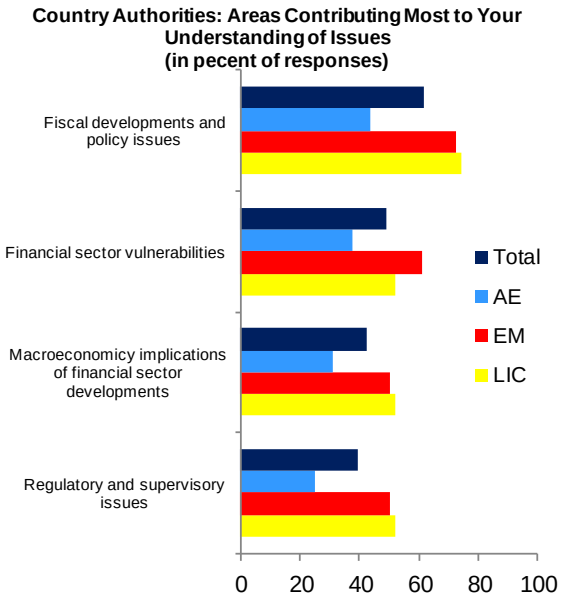


Figure 1. Financial Sector Surveillance: Contribution and Progress

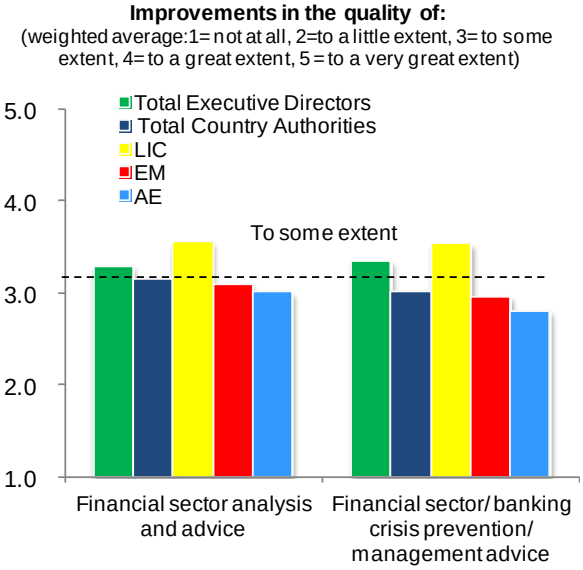
Fiscal policy remains the strongest contributor, financial sector second



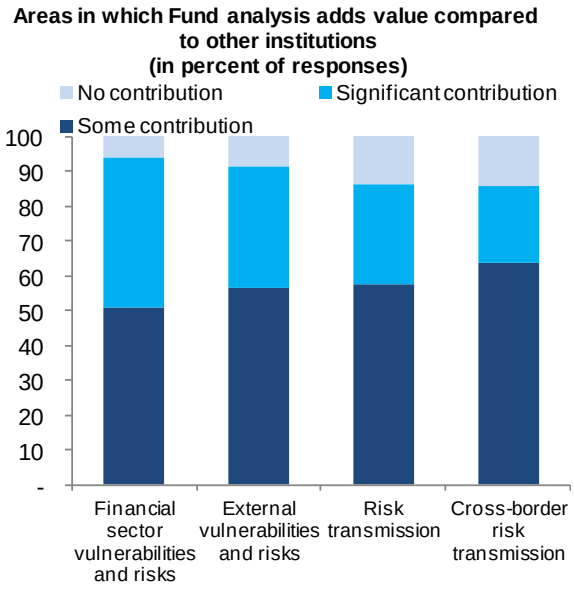
More positive responses from EMs and LICs than AEs



EDs and country authorities think financial sector surveillance has improved--AEs least positive



Most financial market participants do see some value added compared to others in the coverage of vulnerabilities and risks

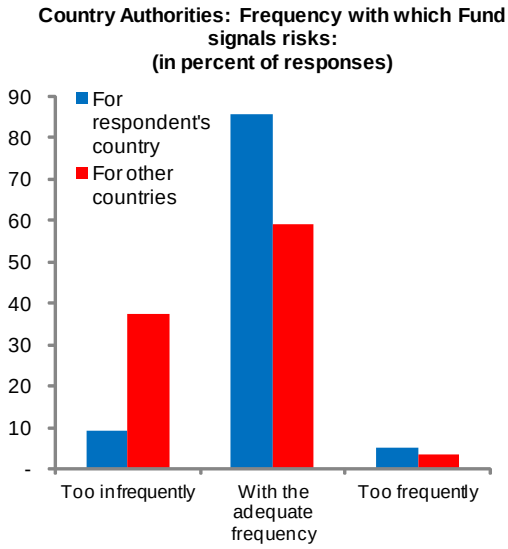


Source: 2011 Triennial Surveillance Review: *Health Check of Fund Surveillance and Statistical Information*: Surveys of Country Authorities, EDs and Financial Market Participants

Figure 2. Risk Identification and Analysis of Transmission

Coverage of Risks

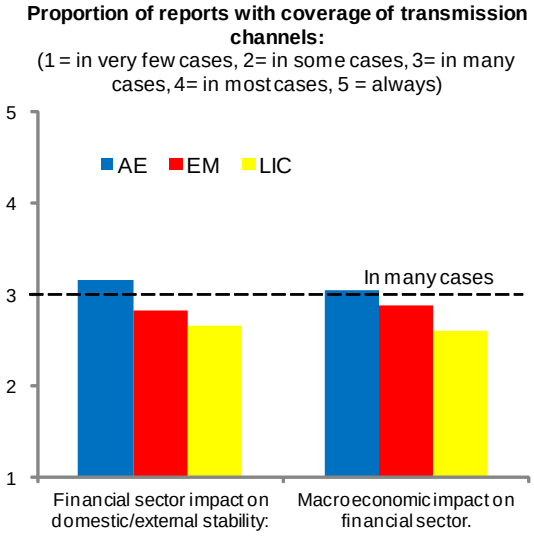
Countries find general risk coverage appropriate for themselves...but want more on others



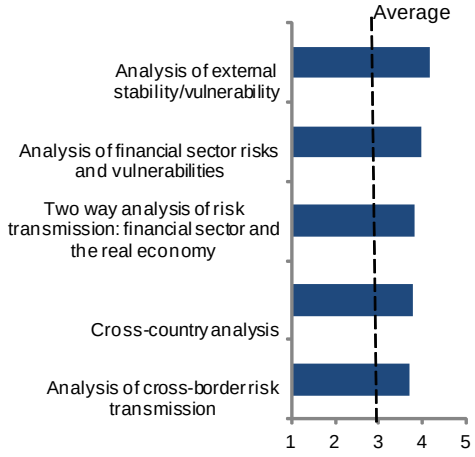
Executive Directors see scope for more on tail risks and transmission channels--Financial Market Participants hold the same view.

Two-Way Transmission Channels of Risk

Executive Directors think many reports cover two-way risk channels--especially AEs



Financial Market participants see analysis of cross-border risk transmission as weakest area

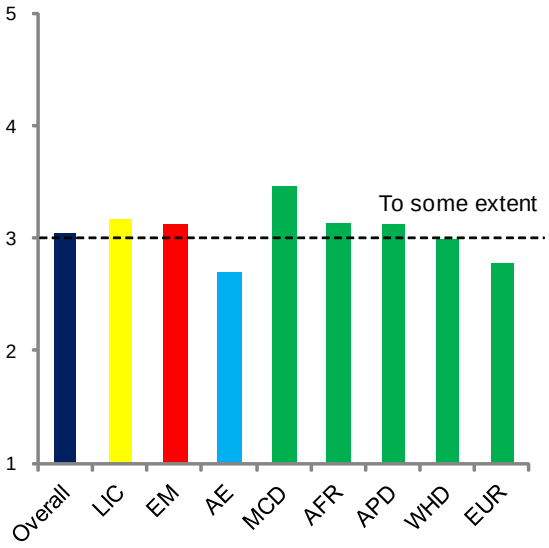


Source: 2011 Triennial Surveillance Review: *Health Check of Fund Surveillance and Statistical Information*: Surveys of Country Authorities, EDs and Financial Market Participants

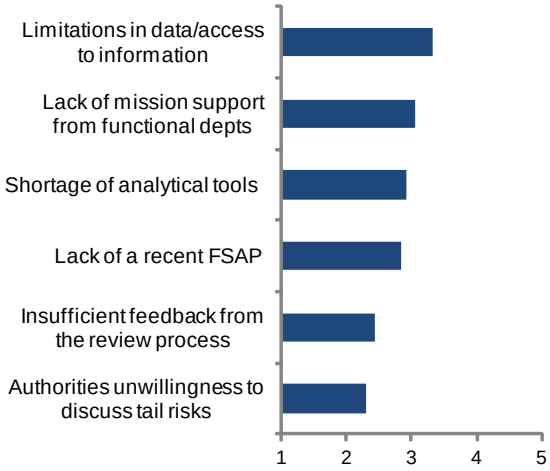
Figure 3. The Mission Chiefs' Survey Points to Areas for Improvement

Mission Chiefs are sanguine about the challenges faced when covering financial sector issues....but they see scope to do more analysis....and see data and mission support from financial experts as important

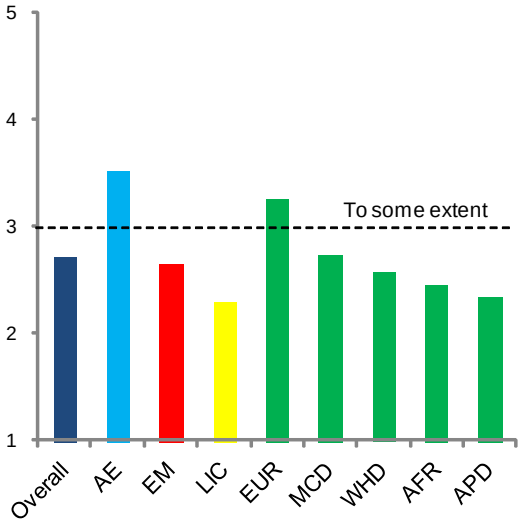
Scope for more attention to financial sector analysis
(1 = not at all , 2= to a little extent, 3= to some extent, 4= to a large extent, to 5 = to a very large extent)



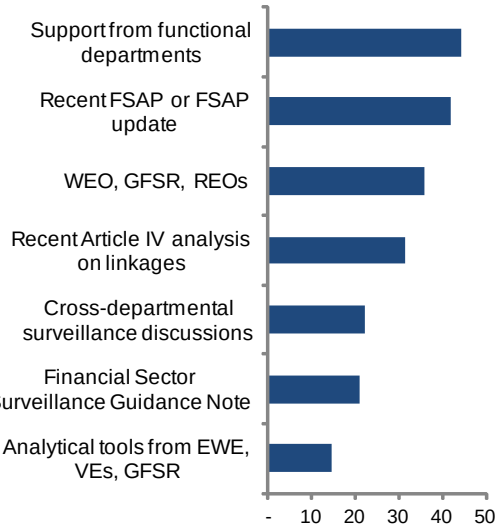
Impediments to financial sector analysis
(1 = not at all to 5 = to a very large extent)



Scope for more analysis on cross-border financial linkages in Article IV
(1 = not at all to 5 = to a very large extent)



Most helpful in strengthening Article IV discussions
(in percent of responses)



Source: 2011 Triennial Surveillance Review: *Health Check of Fund Surveillance and Statistical Information*: Surveys of Country Authorities, EDs and Financial Market Participants

IV. Deepening Analysis and Greater Global Focus

10. **Two case studies (Box 3 and Appendix II) and the broader review of fifty Article IVs illustrate room to deepen and strengthen financial sector surveillance**. As discussed in more detail below, these studies illustrate progress in covering risk identification, but also further scope to strengthen financial-sector related *risk assessments*, specifically by assessing *two-way risk transmission* in more depth and by looking more closely at *cross-border risks*. At the same time, *policy recommendations* need to be made more specific and followed up more rigorously.

Box 3. Case Studies

Two case studies looked at financial sector surveillance from different angles:

- ***FSS Case study: Breadth and Depth of Financial Sector Surveillance****:* a 17-country case study of Article IV reports for 2010 (Botswana, Brazil, Cameroon, Iceland, India, Kazakhstan, Korea, Lebanon, Pakistan, Peru, Philippines, Romania, Russia, Spain, Switzerland, United Kingdom, and the United States). This study looked at the breadth of coverage of financial sector surveillance issues, the analytical tools used, discussion of the two way transmission of risks, whether a discussion of tail risk and risk assessments was included, and the specificity of policy recommendations and their follow up. The study was not an ex-post analysis—it looked at whether issues were *covered* rather than seeking to identify whether the *correct* vulnerabilities, risks and transmission channels were spotted ex ante. Such an ex post study would be difficult since it is likely to be hard to disentangle the risks which were correctly identified and averted by policy actions (and so appear as Type II errors) from risks which were simply the wrong ones to call. The sample was chosen to include countries across income levels and regions with sizeable or interconnected financial sectors, some of which have significant financial sector vulnerabilities, and it included countries previously identified by staff as cases where financial sector surveillance was viewed as good practice. A heat-map showing the results is attached as Appendix II Figure A1.

- ***FSAP Case study: FSAP coverage*** a six-country case study covering three consecutive Article IV consultations over 2008–10 (Canada, Switzerland, Honduras, Thailand, Botswana, and Cameroon). The cases were chosen to cover different regions and income levels for members where FSAPs had been completed in 2007/2008. The case study considered whether FSAP findings were integrated in Article IVs in the years following an FSAP (also see Appendix II Figure A2).

A. Coverage

11. **The coverage of financial sector surveillance issues is variable**. Both the broad Article IV review and the FSS case study demonstrated that most Article IV reports contained information on the banking sector and issues related to regulation and supervision; and reports were also typically informative about recent financial sector developments. A large proportion of reports for AEs also mentioned the non-bank financial institutions (NBFIs) and markets (often limited to discussions of spreads and risk premia) but coverage tails off for EMs and LICs (NBFIs 52 percent and 28 percent; and markets 52 percent and 11 percent respectively). For AEs discussion of NBFIs was typically limited to a general discussion of the insurance sector or pension funds. A broader discussion of the impact of less-formal and/or "shadow" entities was virtually non-existent in Article IV reports.

12. **Lack of coverage of NBFIs and markets for LICs may be appropriate if it reflects nonexistent/underdeveloped markets which do not give rise to domestic or cross-border risks**. However, LIC financial sectors can be a source of risks and proper functioning financial sector is important to support growth. For example, over the past few years there have been severe problems in a number of LIC financial institutions. For many LICs, shallow markets limit the scope for undertaking countercyclical policies and thin markets limit hedging possibilities, leaving financial institutions open to risk. For frontier markets (aspiring to access markets) the focus on financial sector issues should be increasing—whereas the Article IV review suggests that reports for these types of countries focused solely on the banking sector (see also Chapter IV: *Selected Issues in IMF Surveillance in LICs* which describes the types of issues faced).

13. **Looking in more depth, the FSS case study found variable coverage of issues across five key aspects of financial sector surveillance in AIV reports**: regulation and supervisory framework, cross-sector linkages and inward spillovers, outward spillovers, crisis prevention policies and crisis management policies (while crisis management may not be applicable to all countries it is relevant where there are vulnerabilities or inadequate frameworks). There was almost universal coverage of regulation/supervisory issues and most reports covered of inward spillovers among the 17 FSS cases (although the depth of discussion varied). This contrasts somewhat with the broader Article IV review which found only passing reference or no reference to inward spillovers in almost two thirds of reports. The difference reflects the narrower sample of the FSS study, the concentration of European economies (the region with the highest coverage of inward spillovers in the broader AIV review) and EMs where the issue of capital inflows was prominent. Coverage of crisis prevention and management policies was more patchy (in 11 and 9 reports respectively out of 17); and there was very limited coverage of outward spillovers.

B. Risk Identification and Transmission Channels

14. **There has been an improvement in the identification of risks over time**. In 2010 most reports in the FSS case study included at least some discussion of risks and vulnerabilities to the short-term outlook arising from financial sector and macro-financial factors. As might be expected given the crisis, a comparison with reports from 2007 demonstrates progress—with the 2010 reports identifying a wider range of more specific risks (Box 4).

Box 4. Progress in Risk Identification 2007–10

The FSS Case Study compared Article IV reports for 2007 and 2010. In 13 out of 17 cases the discussion of risks and their potential implications was more extensive in 2010 than in 2007—the exceptions were India, Korea, Peru, and Botswana where there was a similarly detailed discussion of risks in each report, although the focus changed. Examples where the coverage was found to be more extensive are:

- ***Cameroon*** The 2007 report emphasized that bold measures were needed to improve financial intermediation but there was little discussion of the attendant risks. By contrast, and reflecting a severe deterioration in conditions, the 2010 report discussed the risks posed by excessive concentration of bank exposures and by inadequate supervisory standards. Remedial policy actions were recommended.
- ***Philippines*** The 2007 report focused solely on NPLs and the need for banks to raise capital. By contrast the 2010 report pointed to interest rate and concentration risk in the financial sector, the need for a more risk-based approach to capital requirements, as well as the challenge of managing capital inflows, and the potential risks if an asset price bubble developed.
- ***Spain*** The 2007 report noted that the financial sector had recorded another strong year but the Bank of Spain's continued vigilance was well placed. The main risks related to rapid credit growth and concentration in the real estate sector. The 2010 report included a more extensive discussion of risks and potential spillovers from the Spanish banking system to Europe.
- ***Switzerland*** The 2007 report highlighted the increased complexity of bank operations and noted that the main downside risk was complacency, which could create vulnerability to increased volatility or shocks. The 2010 report was more specific highlighting the reliance on wholesale funding of two large banks, the potential impact of the change in the definition of Core Tier 1 capital and of potentially stricter ring fencing of capital and liquidity for large banks subsidiaries in third countries. The report also discussed cross border exposures to Emerging Markets and Europe, the risks of turbulence in the Euro Area for Swiss banks and the economy, and noted risks in the insurance sector and pension fund industry.

15. **While risk identification has improved, the coverage of discussion of transmission channels of risk from the financial sector to the real economy is still patchy**. The broad Article IV review indicated better coverage of the threats the macro-economy poses to the financial sector than the possibility that financial sector risks could amplify and transmit to the real economy, with only 40 percent of cases reporting on the latter.

16. **Looking at the breadth of analysis, the FSS case study also demonstrated that coverage of financial sector risks to the real economy is uneven**. While the possible consequences and policy implications of a financial shock are multi-faceted—the impact on fiscal costs, debt levels, growth, employment; the response of interest rates, the exchange rate, prudential policies; and the risk of contagion—the discussion was typically limited to one or two areas in almost half of the 17 cases. By contrast, where capital inflows were a key issue in emerging markets, the attendant risks were picked up more consistently (Box 5 reviews good examples of coverage that could be used to inform future surveillance work). In six cases where reports did not permit a conclusion about whether the financial sector was a potential source of macroeconomic or external instability, this typically reflected insufficient analysis of risk transmission, and in some instances lack of discussion of the impact on the macro-economy. Discussions surrounding potential contingent fiscal costs arising from financial sector developments and growth or employment implications were covered in only four cases. This indicates that analysis of financial-fiscal linkages and the impact on fiscal costs could be improved in Article IV reports. At the same time, there is substantial scope for strengthened coverage of cross-border linkages, as discussed in the next section.

Box 5. Good Practice Coverage of Financial Sector Risks That Affect the Macroeconomy

While the coverage of financial sector risks and transmission to the real economy was variable across the 17 FSS study cases, there are some good practice examples from 2010 Article IV Reports for Iceland (a program case), Korea, and Peru where these risks were discussed—often the reports with better coverage have evident financial sector vulnerabilities (e.g. Iceland) but not exclusively.

- **Iceland** The report thoroughly reviewed recent developments in the financial sector and progress on private debt restructuring. It highlighted three key medium-term challenges: i) the need to generate conditions to grow out of the large post crisis debt, ii) adjustment measures to stabilize public debt (with due consideration for their growth impact), and iii) the need to overhaul the policy framework to ensure that pre-crisis policy mistakes are not repeated, and policies are robust to shocks. A Selected Issues Paper looked in greater detail at external debt sustainability and the nature of interest rate and exchange rate risks, focusing on the structure of corporate debt and sovereign risk. A contingent claims approach examined how three risk scenarios—variations in the fiscal consolidation path, Icesave outcomes, and contingent liabilities from public enterprises—might affect sovereign spreads.
- **Korea** The report discussed how the intensification of pressures in Greece had led to an increase in risk-premia for Korea-related exposures. Indirect risks to Korean banks, which are heavily reliant on wholesale funding, were noted and the potential knock on effects on the corporate sector, given potentially large dollar-denominated rollover needs. The report also discussed the possibility of amending the inflation targeting framework to explicitly account for asset prices.
- **Peru** The report discussed the challenges associated with easy external financing and renewed capital inflows and focused on the sequencing of policy normalization and complementary tools to prevent credit and asset booms. A Selected Issues Paper looked at cross-country experiences with sustained large capital inflows and policy responses. The experience with dynamic provisioning was reviewed. A reform agenda to reduce dollarization was also discussed.

The key factors enabling good coverage of financial sector issues. In each case Mission Chiefs indicated that they determined at a very early stage that financial sector issues would be a key topic and prioritized them. They developed an integrated agenda focused on drawing macro-financial linkages and devoted resources to research the topic. In two of the three cases MCM economists joined the mission team, and in one of these cases this included both a former head of bank supervision, with extensive experience, and extensive mission support from Legal Department on private debt restructuring and bank resolution. One team was exclusively composed of Area Department team members and relied on cultivated in-house expertise. In two cases non-MCM team members were involved and they developed the necessary skills to cover financial sector issues through the ongoing work program. The focus of the Area Departments on macro-financial issues, the availability of cross-country work, and active interest of country authorities, also helped. In another case the existence of a Fund program enabled access to resources from other Departments that would not have been available otherwise. In two cases the fact that the report was part of a pilot, for the new format Article IVs, allowed a more flexible presentation along thematic lines. In one case, presenting the staff's view clearly differentiated from that of the authorities contributed to the candor of the report.

C. Cross-Border Linkages

17. **Further progress could be made in assessing cross-border linkages and spillovers**.

- **Cross border linkages**. The broad review of Article IV reports showed that contagion risks and cross-border spillovers were mentioned at least to some degree in three quarters of AE reports, but just over half the reports for EMs and around a quarter of LICs reports. In the FSS case study, the risk and impact of contagion across domestic sectors or cross-border, mainly inward spillovers, was mentioned in ten out of the seventeen cases. But the depth of discussion was uneven, with many cases including only a passing mention of these linkages.
- **Spillovers:** The broad Article IV review pointed to a lack of systematic discussion of inward spillovers and, even for systemic cases, inward spillovers were covered in 39 out of 50 reports, but in 22 reports there was only a passing reference. In the FSS case study, outward spillovers were covered in only two cases (Spain and Russia). Inward spillovers were somewhat better covered. The recently completed Spillover Reports documented outward spillovers in five systemic economies in 2011. The issue of next steps for such analysis is discussed in the *2011 TSR Overview Paper*.

D. Recommendations to Support a Risk-Based Approach

18. **Several mechanisms could be considered to support risk-based coverage in AIVs:**

- **Greater use of the vulnerability exercises (VEs) in bilateral surveillance as a complement to desk risk assessments**. A recommendation of the policy paper *Integration of Financial surveillance in Article IV* (2009) was to consistently integrate the findings from the VEs into bilateral surveillance.[2] Although increasing, thus far the use of the analysis of the VEs has been limited in Article IVs (see also: *TSR External Study—IMF Surveillance: Coverage, Consistency and Coherence* and *TSR External Study—IMF and Global Financial Stability*). Box 6 looks at how the VEs might be used to enhance risk assessment in Article IVs. Dissemination of the tools already used in the VEs and EWE should be stepped up to increase ownership in Area Departments (where views are mixed on the value of the VEs) and broaden their use. Greater use could also be made of the micro-financial/regulatory insights from the FSB in the context of the EWE.
- **The risk analyses used in multilateral surveillance could also be used more widely as an input into stress testing**. The different downside risk scenarios developed for the GFSR and WEO, and the country specific risks identified in VEs, could be used more

[2] *Financial Sector and Bilateral Surveillance—Toward Further Integration*.

Box 6. Using the Vulnerabilities Exercises (VEs) and LCFI analysis to Strengthen Financial Sector Surveillance

Current Practice: (i) Each of the VEs includes a specific ***financial sector*** *rating* (one part of the overall VE rating) to track financial sector vulnerabilities by country, comparable across peers, providing a consistent assessment of financial fragilities over time.[1/] The ***external sector*** rating is helpful in pointing to external debt vulnerabilities. (ii) **VEA models** (mainly for advanced economies) have been developed (including by MCM for the GFSR and by RES) to analyze finance-to-finance risks, cross border exposures, banking crises, and macro-financial linkages. The following tools underpin the analysis:

- **Analysis of Large and Complex Financial Institutions** (LCFIs): Recently developed but already used in the EWE, VEA and GFSR, this work is based on the analysis of banks' financial reports, market-based indicators, systemic risk, and distress spillovers among LCFIs, and between LCFIs and other sectors.
- **Spillover and Contagion Tools**: These are being used in the spillover reports for the five systemic economies. But until now they have been applied sparingly—good case examples are the 2010 AIV reports for Germany, Finland and Spain, which analyzed spillovers and foreign exposure of banks.
- **Asset prices, market valuation, and bubble identification** (also available for some EMs): Various indicators/models are used to assess real estate bubbles and equity market valuations and to look at feedback loops between NPLs and macroeconomic performance.

Rolling out the use of these tools: While there is already good integration of these tools in the VE exercises and the GFSR, and the VEs are used to help prioritize the timetable for FSAPs, VEs have not been used widely in other surveillance products. At the same time, country teams express the need to have at their disposal a vetted toolkit as "reinventing the wheel" is inefficient and resource intensive. This suggests that beyond the outreach for VEs, there is scope to encourage greater ownership and use of these tools in bilateral and multilateral surveillance, including to support cross-country analysis (while safeguarding confidentiality):

- **Formalize more systematic use of the financial sector ratings** as an input to prioritize discussion with country authorities, to illustrate financial vulnerabilities and to track vulnerabilities over time and in comparison to other countries (while preserving the confidentiality of *other countries results).* While the internal review process already uses the ratings to some extent, these could be shared earlier in the process and systematically with country teams to ensure greater discussion of financial sector issues in AIVs.
- **Greater use of the VEA models** could be encouraged in bilateral surveillance in particular to help explore tail risks to a fuller extent. This would be facilitated by greater internal dissemination of these models/results, and further testing/vetting to determine their usefulness for different purposes/sets of countries.
- **Integrating the VEs** The introduction of risk assessment matrices into Article IV surveillance also needs to be accompanied by greater Area Department involvement and buy-in to the VE exercises.
- **The various downside scenarios constructed for the EWE could be more widely disseminated** to staff and, through country teams, to country authorities so that they could be used in stress testing and scenario analysis in bilateral surveillance.
- The External Consultants who have reviewed the coverage, consistency and coherence of surveillance and financial sector surveillance, respectively, have suggested greater use of the EWE/VEs in surveillance.

1/ For EMs and LICs the rating is based on banks' capital adequacy ratios, 3-year cumulative credit growth, return on assets, foreign liabilities (relative to domestic credit), and the loan to deposit ratio. The final rating also takes into account the judgment of Area Departments on factors not captured by the indicators. For AMs, the financial indicator is models-based it comprises an empirical financial crisis model, financial stability at risk, an NPL model, interbank spreads, distress from LCFIs, and a duration of crisis model.

routinely in bilateral surveillance—for example, as the basis for both the staff's stress tests and as an input which the authorities could use to conduct their own stress tests. These should also be incorporated as downside and/or tail risk scenarios of risk-assessment matrices of FSAPs. Country authorities could also be encouraged to share their stress test results.

- **More attention to country-level macro-relevant risks**. The development of a matrix with macro-relevant risks (RAM) in the Article IV report should help think through macroeconomic risks and their implications. Of particular relevance are risks related to economic agents' balance sheets and to asset bubbles. Similarly, regular attention to supervisory institutions and to the regulatory framework—including as FSAPs are now mandatory for systemic economies—should help detect risks.
- **Strengthened recognition of financial interconnectedness**. The global nature of finance also implies the need to better take into account interconnections and their consequences for financial sector analysis at the country level. Further work on financial interconnections, as well as the development of doctrines on financial stability relevant developments (e.g. on new financial instruments) should be helpful. Box 7 sets out early examples of good practice in this regard in both bilateral and multilateral surveillance.
- **Increase interdepartmental coordination**. Fora for interdepartmental discussion and dissemination of analysis have been developed in the last few years, in particular weekly Surveillance Group meetings, led by the FDMD, as well as monthly meetings of the Financial Surveillance Group, which considers financial sector issues affecting all types of economies including LICs. There is also collaboration on LIC specific issues through the Fund-Bank LIC Financial Group. Consideration could be given to forming "colleges"/groupings of staff for countries with strong financial sector linkages (e.g. Euro Area/Swiss/HK/Singapore/UK/US; Bahrain/GCC with funding-relevant Western European countries; Caribbean with Canada), with support from relevant functional departments. These groups could set a program of work on issues of common interest to enable deeper analysis of risks and transmission channels and to inform policy recommendations in individual cases. Over time this would help to pool expertise in the Fund. Another possible use of these groups would be to develop peer advice/reviews early in the Article IV process. Backed by sufficient data (see below), this would help to ensure a regular focus on key financial channels and earlier awareness of developments in one jurisdiction that could give rise to risks in others.

Box 7. Good Practice—Financial Interconnectedness Applications

The *network approach*—which captures the extent of cross-border inter-linkages—has been used in a handful of Article IV reports to good effect and is increasingly being used in policy work/multilateral surveillance:

- ***Bahrain*** (2010 AIV) used a network approach to study cross-border exposures and risks to the GCC countries and those emanating from Western Europe.
- ***The Netherlands*** (2009 AIV) simulated the impact of a shock in one (or more) of countries to which it had significant financial linkages and the associated "domino effects", It found that losses for Dutch banks could be potentially large (up to 25 percent of GDP) and that contagion from a shock in the Netherlands would be largely contained to Europe. A similar approach was used in the Germany, Finland, and Sweden 2010 Article IVs.
- ***Luxembourg*** (2011 FSSA), cross-border financial implications are also being explored in the context of FSSA. The Spillover Reports for the five systemic economies are also experimenting with this approach.
- ***Policy papers***, such as the mandatory FSAP paper, identified 25 systemic financial jurisdictions using the financial network and interconnectivity method. Follow up work, extending financial interconnectedness to explore the implications for financial and real linkages, was completed.

Improvements: Further methodological improvements are underway. An early warning system for systemically important banks' (SIBs) has been developed and will be extended to other SIFIs over time. The measurement of cross-border exposure for SIBs is being improved. The FSB has on its agenda further work on non-bank systemically important financial institutions (SIFIs) and has also set up a task force looking at monitoring and regulatory frameworks for the shadow banking sector.

E. Follow-up on Policy Recommendations

19. **The specificity of financial sector policy recommendations in Article IV reports could be improved**. Only around half of the reports in the FSS study included a sufficient rationale for the financial sector policy recommendations. By contrast, where there was a recent FSAP (or Fund program), the policy recommendations were suitably specific, as would be expected.

20. **More systematic follow up on policy recommendations is also needed**. The FSAP case study confirmed that, though policy recommendations were well integrated into Article IVs in the year that the FSAP is conducted, follow up on FSAP recommendations was uneven. Out of 6 cases, in three coverage of recommendations dropped off in the year following the FSAP. In one case it dropped off two years later (see Appendix II Figure A2). In some cases the drop off in coverage may be because the recommendations have become less relevant, but in others it may reflect the mission chief's decision to focus on different issues. A similar conclusion arises from the FSS case study. Out of 17 cases, only 5 mentioned previous FSAP policy recommendations. The description of the composition of reforms, magnitude, and timing was much more specific in program/vulnerable cases (e.g., Kazakhstan and Iceland).

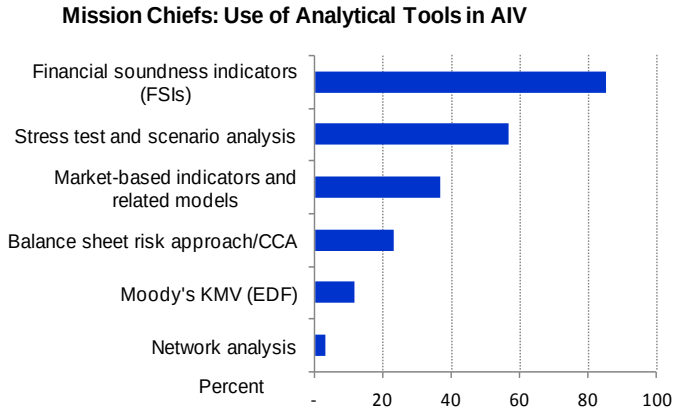
21. **The introduction of the mandatory FSAP is expected to strengthen the quality of financial sector surveillance for the 25 jurisdictions with systemic financial systems**. But, as illustrated during the crisis, financial stability assessments can evolve rapidly and can quickly become out of date. A number of steps could be taken to ensure stability assessments remain current and policy recommendations are sufficiently specific, including: increasing the frequency of stability assessments, having missions focused on one aspect of stability, or by rebalancing resources between FSAPs and Article IVs (see Section VI).

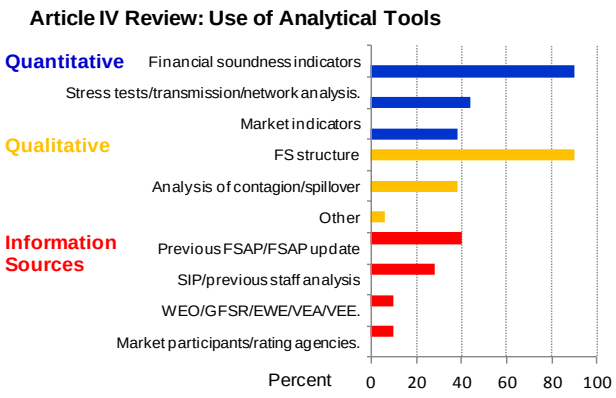
22. **FSAP Integration with Article IVs and VEs**. The Risk Assessment Matrix (RAM) has become a compulsory diagnostics tool in FSAPs. A typical RAM consists of a list of key risks to the financial stability of an individual country, providing a qualitative assessment of likelihood of each risk and it impact on the financial sector and the overall economy. The risks and the impact are classified as low, medium and high, based on the judgment of the FSAP team, and provide a basis for stress-testing exercises. The RAM should cross reference risks highlighted in the VEs—a step that would ensure consistency. A RAM-like framework focusing both on macroeconomic and financial stability risks would also be useful for Article IV consultations to help ensure follow up on previously identified risks and policy recommendations and promote regular discussion with country authorities.

V. THE ANALYTICAL TOOLKIT

23. **The analytical toolkit has expanded in recent years, but further efforts are needed to support broader use**. Over the last three years, staff has strengthened the analytical toolkit for financial surveillance (Box 8). Efforts are continuing to improve the dissemination of best practices, including through the compilation of tools on MCM's website and training. But the use of these tools in surveillance work seems to be filtering through very slowly.

- Mission Chiefs report that Financial Soundness Indicator (FSI) tables are by far the most commonly used of the tools. About a half of respondent mission chiefs reported using stress tests and scenario analysis, while market-based indicators were used by only a third of the mission chiefs that responded.
- These results were confirmed by the review of 50 Article IV reports and the case studies. These pointed to the inclusion of FSI tables and to qualitative descriptions of FS structures in most reports but significantly less use of stress tests or analysis of contagion or spillovers.





Box 8. Analytical Financial Sector Tools for Surveillance [1]

Financial Soundness Indicators (FSIs): FSIs typically show how various risks build up over time. These indicators may potentially demonstrate the stage in a business and financial cycle and allow for comparisons vis-à-vis historical or peer country group averages, and complement higher frequency and more forward looking indicators.

Market-based Indicators: Where available, prices of various financial assets and instruments are a key source of information for financial sector surveillance. Depending on the degree of sophistication of capital markets, market-based indicators may include equity prices, credit spreads, credit ratings and other indicators. These indicators can be used to extract detailed information on market perceptions, risks, and expectations on a wide range of potential vulnerabilities.

Stress Testing (Model-based Approach and Tools): Stress tests are commonly used to gauge the impact of shocks on the financial system and the interaction between financial and macroeconomic stability (i.e., macro-financial linkages). Stress tests (e.g., under FSAPs) are tailored to country-specific circumstances, both in terms of the potential vulnerabilities to be assessed and of the exact nature, scope, and size of the shocks to be applied to risk factors.

The Balance Sheet Approach for the Corporate and Banking Sectors: These tools are designed to assess different types of risk exposures in an individual country.

Broader Institutional and Policy Analysis. Analysis of the institutional and policy framework complements quantitative indicators. Staff could build on existing assessments of a country's compliance with various standards and codes and other guidelines that provide broad principles and benchmarks. Detailed guidelines are available to assess risks related to sovereign liability management, restructuring operations, debt market issues, as well as the management of foreign currency reserves and other sovereign assets (e.g., Sovereign Wealth Funds), and coordination between asset and liability management. Scenario analysis can also be conducted using two global macroeconomic models.

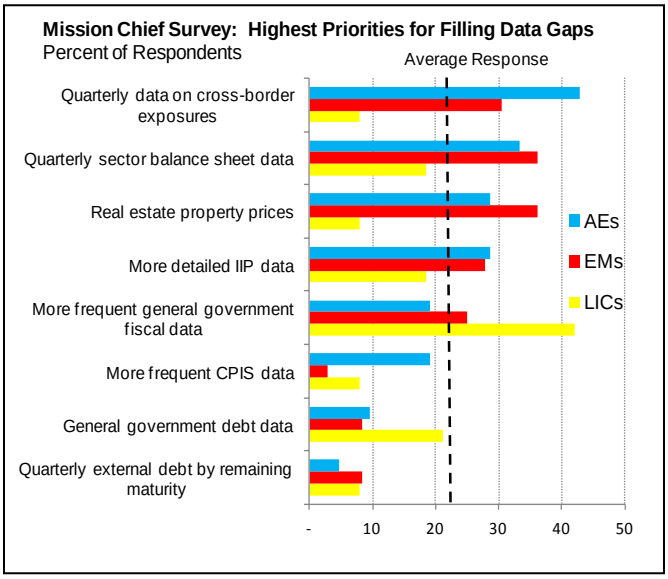
[1] A more detailed description of analytical tools can be found in the Appendix 3, in the Financial Surveillance Guidance Note, on the MCM knowledge bank, and on the RES website. The tools were developed by MCM and RES.

24. **Improving the accessibility of the analytical toolkit and better dissemination could contribute to greater use**. Mission Chiefs suggest that in addition to better data (see next section), better dissemination and more accessible analytical tools; greater availability of cross-country macro-financial linkage studies; and more backstopping from financial sector experts would all be helpful to strengthen financial sector surveillance. Mission Chiefs for LICs also expressed their interest in tools to help assess governance of firms and regulators. The review of the toolkit suggests that the following steps could help:

- **Consolidate and vet tools.** The mushrooming of analytical tools (often with very similar purposes) makes it difficult for country teams to decide which tools are the best match for their financial sector assessment. There is also scope for greater vetting of the quality of tools and out of sample testing to discriminate among them and to guide usage.
- **Easy to use tools**. Steps could be taken to improve the ease of use of tools, through the introduction of standardized templates—e.g., a balance-sheet based standardized template could be developed to be added to a country's macro framework; incorporation of contingent claims in more traditional macro-economic tools such as the DSA (as was done recently in Nepal and Iceland); in the same vein cross-border tools such as the bank contagion module could be used more widely for systemic countries.
- **Stress testing** methodologies could be developed for use in a broad range of countries. Dissemination of the tools already used in the VEs and EWE has already been stepped up following the spring 2011 round. Training on the basics of the financial sector could be established as compulsory for entry level staff (similar to the financial programming course).

VI. DATA LIMITATIONS

25. **As noted in paragraph 9, data limitations are seen as the most important inhibitor of better financial sector surveillance**. The MC survey asked respondents which data areas they saw as being the highest priority for improvement. Survey respondents were asked to pick up to 3 data areas for improvement. While specific needs for data may vary across teams, including reflecting the level of development of the financial sector of different countries, Mission Chiefs overall see data on cross-border exposures and sectoral



balance sheets as particularly problematic and their comments call for a cross-country approach to address them. A strategic approach to data management/access is essential to ensure that budgetary constraints do not compromise the availability of critical data.

26. **Financial sector data shortcomings should be identified in the statistical issues appendix to the Article IV**. The 2008 review of data provision to the Fund suggested that the statistical issues appendix should be properly focused on data shortcomings that have significant implications for surveillance and that it should be expanded to cover financial sector data issues when warranted, and where applicable, information from FSAPs should be used.[3]

27. **Nonetheless, it is rare for Article IV reports to explicitly highlight financial sector data limitations**—only 5 reports out of 50 made any comment about whether financial sector data were adequate for surveillance—in three of these cases financial sector data was assessed to be particularly weak; in one case (with generally strong data sets) staff and the authorities agreed that expanded data was needed on financial conglomerates; and in the final case (a financial center) a general statement was made about the quality of financial sector data. The fact that few Article IV appendices explicitly cover data required to assess financial stability suggests that more guidance is needed.

28. **Further efforts are therefore needed to identify key statistical issues in Article IV**. The development of a modernized template for the appendix to ensure better coverage of financial sector issues would be a useful step. Using the information in a revamped statistical issues appendix, Article IV reports should also make clear when there is insufficient information to make a good determination of financial sector stability. To sustain momentum on filling data gaps the review of data provision for surveillance should be brought forward to 2012.

29. **Work is advancing to fill key data gaps, including related to Global Systemically Important Financial Institutions** (G-SIFIs)[4]. Recent progress includes: agreement in fall 2010 to make the Coordinated Portfolio Investment Survey a semi-annual survey; release in December 2010 of the first results from the Coordinated Direct Investment Survey; and proposals to enhance the BIS International Banking Statistics. In February 2011, the IMF (STA) and the OECD co-hosted a sectoral accounts conference that agreed on a minimum set of internationally comparable sectoral accounts. Importantly, in April 2011 the FSB Plenary agreed that the work on the common templates related to G-SIFIs proposed by the FSB Working Group should progress and a consultation process started. The intention is to have a final decision on the data templates in the fall of 2011. That said, G-SIFIs data access raises

[3] See: *Review of Data Provision to the Fund for Surveillance Purposes*

[4] See: *Monitoring Financial Interconnectedness, Including the Data Template for Global Systemically Important Financial Institutions (G-SIFIs)*, and *The Financial Crisis and Information Gaps—Implementation Progress Report* which report on the Fund's progress on these initiatives.

sensitive legal and administrative issues that the FSB Plenary requested be further investigated. Depending on the decisions in 2012, the IMF may gain access to the G-SIFIs individual financial institution to aggregate country data (the so called I-A data) in 2014. The data will have restricted access and strong mechanisms will be developed to ensure that confidentiality is maintained while ensuring that the key messages from this information are used effectively in bilateral and multilateral surveillance. IMF access to data is important—the effectiveness of surveillance hinges on accurate policy advice which in turn can be undermined by inadequate data. A lack of access to relevant financial data would limit the Fund's ability to assess the risks of systemic institutions in our member countries, reducing the relevance of our policy advice.

30. **But other data inadequacies remain**. Data on NBFIs such as insurance, mutual funds and pension funds is either out of date or not easily available even for some of the twenty five economies identified to have systemically important financial sectors. NBFI information on other economies is sparse. As these institutions are growing in importance in some countries and the balance of systemic risks is shifting between banks and NBFIs it is important to have timely information on their activities. The June 2011 Progress Report for the G-20 Data Gaps Initiative highlights efforts to improve availability of data on the activities of NBFIs and to make this a priority over the next twelve months.[5]

31. **Finally, continuing challenges remain in tackling the shadow financial sector**. The global funds industry (a proxy for the shadow financial sector) is nearly as large as the international banking system. Total assets of the funds industry were about $25½ trillion at end-June 2010 down from $29¼ trillion at end 2007 (measured as the assets under management of domiciled funds—a fund is domiciled in a country if it is legally incorporated and subject to the regulatory oversight and supervision of that country) and getting a handle on this sector remains critical.[6] The FSB has a work agenda for non-bank SIFIs and has set up a task force to look at oversight, monitoring and regulatory frameworks of the shadow banking sector.

32. **Bringing forward the review of data provision for surveillance will help the Fund to get a more comprehensive view of data needs and ways to satisfy them**.

[5] http://www.imf.org/external/np/g20/pdf/063011.pdf
[6] IMF, *Understanding Financial Interconnectedness*.

VII. RESOURCES

33. **Financial sector and legal expert support for bilateral surveillance is in one of four forms**: (i) participation in area department missions,; (ii) HQ-based back up support/cross-country analysis (e.g. EUR/ MCM collaboration on stress testing), (iii) MCM led missions to conduct mandatory FSAPs, and (iv) other: technical assistance feeding indirectly into surveillance. In addition, training is provided on financial sector issues by both MCM and INS. Such training was stepped up significantly in 2008 (to over 1500 days from 1200 in 2007) and it has remained at this level since, accounting for around 40% of training days for INS in 2010.

34. **Expenditures on financial sector surveillance dipped during the downsizing but have increased since**. Financial sector surveillance expenditures rose from $21.5 million in FY2007 to $22.5 million in FY2010.[7] As a share of expenditures on surveillance, financial surveillance has remained relatively stable hovering at around 15 percent range since FY 2007. The share of financial surveillance delivered via the FSAP has increased during this period while it has declined for Article IV missions. Time devoted by MCM to Article IV fell by 15% between 2009 and 2010 from 42,000 hours to 36,000 hours, whereas the time devoted to FSAPs increased by 13% from 49,000 hours to 56,000 hours. While more than half the spending on financial sector surveillance has gone to EMs, since the financial crisis, there has been an increase in the amount of resources going to AEs and a decrease in resources for LICs.[8]

35. **Looking ahead, further thought could be given to how financial sector resources are deployed**. While there have been significant efforts over a number of years to better integrate financial sector analysis into bilateral surveillance (for example the Taskforce Report (2007) and the initiatives since the crisis), the Fund was still slow to spot the urgency of problems in some Euro Area economies (see: *TSR External Study—An Evaluation of IMF Surveillance of the Euro Area*). Further changes may be needed to make financial stability a core aspect of regular surveillance work.

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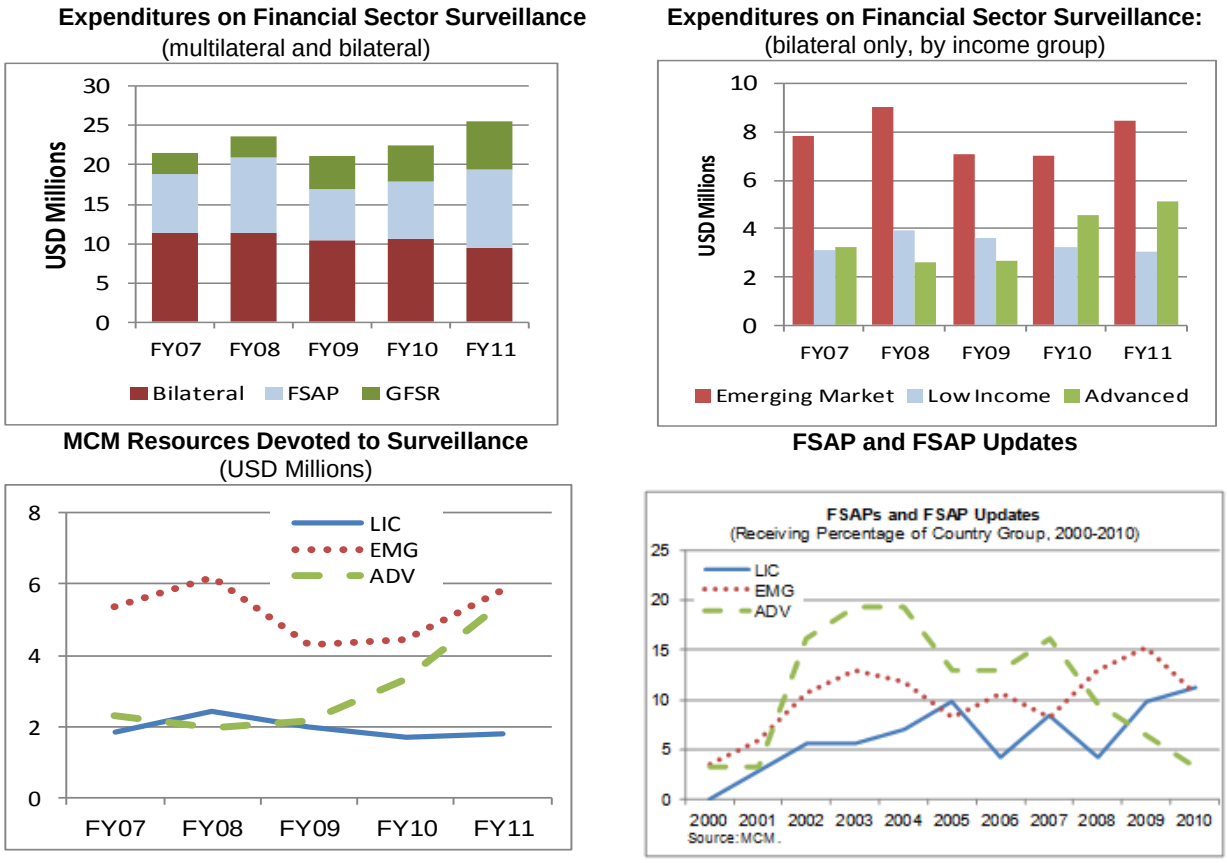
[7] All data were provided by the IMF's Office of Budget and Planning. Financial surveillance includes direct expenditures and travel costs for the GFSR, FSAPs, and bilateral financial surveillance. The latter is assumed to be 10 percent of expenditures on bilateral surveillance. MCM resources devoted to surveillance include multilateral, bilateral, or regional surveillance. Travel costs are estimated. There is a structural break in budget data between FY2010 and FY2011 with the introduction of a new time reporting system which could distort the direct comparison of 2010 and 2011 data. Figures on a different basis suggest spending of $26mn in FY 2011.

[8] There is a structural break which could distort direct comparison of FY2010 and FY 2011numbers (hours spent in FY2011on the FSAP were 80,000 and on Article IV 34,000). TA resources are not included in the expenditure estimates for financial sector surveillance although indirectly, TA can help effect policy change and contribute to strengthened surveillance. Since TA is concentrated in EMs and LICs the totality of financial sector work contributing surveillance in these cases is likely to be underestimated.

Figure 4. Resources Devoted to Financial Sector Surveillance



36. **The introduction of the mandatory FSAP for 25 systemically important financial sectors every five years fills a gap that needed to be addressed but it is likely to be insufficient to guarantee that emerging risks are spotted in time**. To ensure assessments are up to date, the frequency of FSAPs for these economies could be increased, as argued earlier by staff. Increasing the frequency of FSAPs for these economies from five to three years would entail resource costs of around $2.8 million a year.[9] Alternatively it might be possible to find lighter ways to ensure financial stability assessments—focused solely on critical issues for the country concerned—are made routinely in Article IV surveillance, while at minimum ensuring the continuous participation of a financial sector expert in country teams with systemically important financial sectors.

[9] See Page 22 *Integrating Stability Assessments Under the Financial Sector Assessment Program into Article IV Surveillance*. Assumes that countries with systemically important financial sectors have stability assessments every 3 years, and all other countries have FSAP updates at the current frequency of every 6–7 years. The cost of each mandatory stability assessment is set at the average of a G-20 FSAP update cost.

37. **More radical approaches to entrench financial stability analysis in Article IV surveillance could be considered**. Regardless of the choice made on FSAPs and their frequency, an objective should be to better integrate stability analyses into Article IV reports, and strengthen the link between macro and financial surveillance. While suggesting a particular organization is beyond the scope of this paper, possible options could be:

- *Ensuring regular support by a financial sector expert at least in systemic cases*. In 2010 MCM participated in 17 out of 25 Article IV surveillance missions to these economies, which suggests that making this standard for all would impose some additional resource costs.
- *Mainstreaming financial stability analysis*. One option would be to develop further capability for (non specialist) Fund staff to undertake financial stability analysis—that would alleviate the tension between resources devoted to systemic and non systemic cases. Streamlining the analytical toolkit and stepping up training would help. This could include introducing mandatory financial sector training for new staff; or developing a new immersion course (similar to financial programming) specifically aimed at IMF staff focused on the basics and including stress testing. Promoting greater mobility for staff with specialist skills between functional and area departments (and vice versa—non-specialists from area to functional departments) would help to break down silos and spread knowledge across the institution.
- *Reconfiguring resources*. Financial sector expert resources could alternatively be reconfigured to significantly build financial analysis capability in Area Departments. It would also increase the flexibility to allocate resources where they are needed from the prospective of risks stability of members' economies or the system as a whole.
- *Specialist resources would need to be retained*. While financial sector capacity is being built in departments, Mission Chiefs may need to draw on the technical expertise of MCM. Complex issues would continue to require support from specialists with extensive experience in a specific field.
- *More radical change*. All bilateral surveillance resources could be attached to Area Departments with MCM refocusing on global systemic risk advisor issues and on its coordinating role with other bodies. The responsibility of financial experts in Area Departments would then be to liaise effectively with MCM, and colleges of mission chiefs, and ensure that the Area Departments keep up-to-date on global financial stability issues.

APPENDIX I. THE FSAP

1. The FSAP, established in 1999, is a comprehensive and in-depth analysis of a country's financial sector. FSAP assessments are the joint responsibility of the IMF and World Bank in developing and emerging market countries and of the Fund alone in advanced economies.

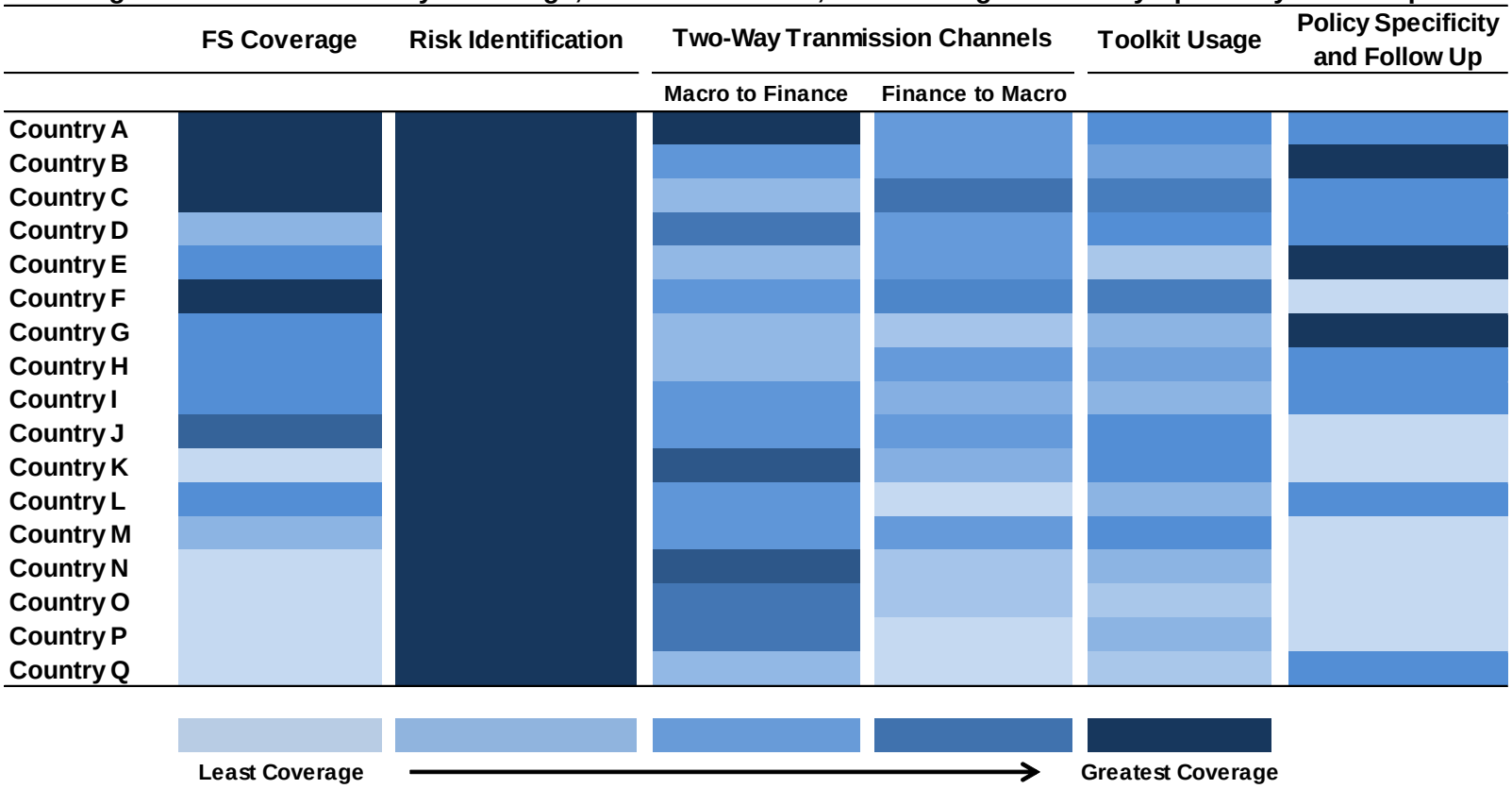
2. Since 2009 FSAPs have included two major components: a ***financial stability assessment***, which is the responsibility of the Fund and, in developing and emerging market countries, a ***financial development assessment,*** the responsibility of the World Bank. The option of conducting a modular assessment was also introduced so that either a stability assessment or a development assessment could be completed separately.

3. ***Financial Stability Assessment***: FSAP teams evaluate the source, probability, and potential impact of the main risks to macro-financial stability in the near-term and examine the soundness of the banking and other financial sectors through both quantitative and qualitative analysis. A country's financial stability policy framework is assessed by looking at the effectiveness and the quality of bank, insurance and financial market supervision against accepted international standards. The authorities' capacity to manage and resolve a financial crisis (should the risks materialize) is evaluated by assessing the ability of supervisors, policymakers, and the capacity of financial safety nets to respond effectively in case of systemic stress. Stability assessments in individual cases could cover additional areas, if needed, and could also be accompanied by detailed assessments of compliance with Standards and Codes. A Risk Assessment Matrix has been added as part of the stability assessment which provides for a strengthened assessment of risk identification and financial linkages, better risk-based targeting of standards assessments, and for more flexible modular assessments, tailored to country needs.

4. ***Financial Development Assessment*** examines the quality of the legal framework and financial infrastructure, such as the payments and settlements system, to identify obstacles to the competitiveness and efficiency of the sector, and examine its contribution to economic growth and development. Issues related to access to banking services and the development of domestic capital markets are particularly important in low-income countries.

APPENDIX II. THE FSS CASE STUDY FOR 17 ECONOMIES

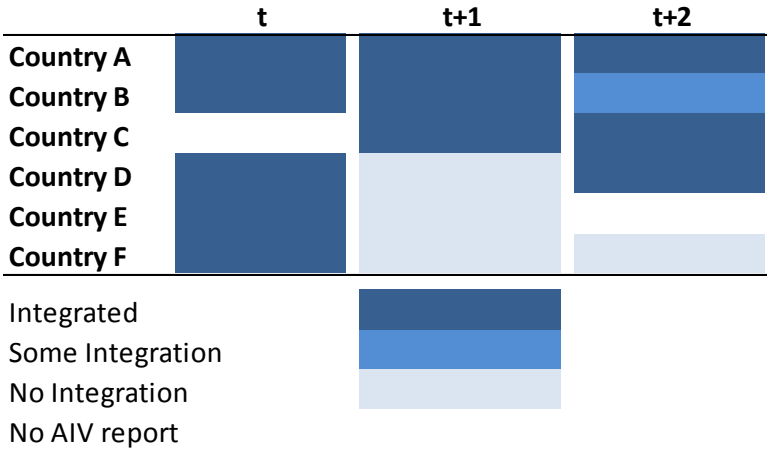
Figure A1: FSS Case Study: Coverage, Risk Identification, Toolkit Usage and Policy Specificity/Follow Up



How the Heat Map is constructed*:* ***FS coverage***: i) sectors covered (banks, non-bank financial institutions and markets); ii) an assessment of whether the coverage of recent economic developments/policies is sufficiently informative about financial stability; iii) core financial surveillance issues covered (regulation/supervision, crisis prevention, crisis management, contagion, outward spillovers); and (iv) financial sector development issues. ***Risk identification***: whether reports identify risks and identify whether buffers are available to cope with shocks. ***Two-way transmission channels***: the breadth of discussion of the potential impact of financial sector developments on the macro-economy (impact on fiscal costs, debt levels, growth/employment, interest rate, exchange rate, prudential policies and contagion) and vice versa the potential impact of macro-economic developments on financial sector balance sheets. ***Toolkit usage***: tools covered out of 9 categories (financial soundness indicators, market indicators, balance-sheet analysis (BSA or CCA), stress tests, scenario analysis, transmission channels/feedback loops, cross-border analysis, network analysis, other). ***Policy specificity and follow up***: whether reports include a sufficient rationale for financial sector policy recommendations, timing and pace of reform.

The FSAP Case Study for 6 Economies

Figure A2: Integration of FSAP findings in Article IV Reports 1/



1/ t corresponds to the year of publication of FSAP and Article IV. For Country A, t = 2007. For Country B, and D t = 2008. For Country C there was no Article IV consultation in 2008. For Country E, t = 2009. For Country F , t = 2007.

APPENDIX III. LIST OF ANALYTICAL FINANCIAL SECTOR TOOLS FOR SURVEILLANCE

The analytical tools here are split into broad categories followed by the Financial Sector Surveillance Guidance Note (FSSGN), with a short description of each tool, including its purpose.

I. Financial Soundness Indicators (FSIs)

Financial soundness indicators (FSIs): FSIs are indicators of solvency, liquidity, market and other risks. The core set of FSIs focuses on banks' exposure to risks and their capacity to handle shocks that affect their solvency and liquidity. The encouraged set of FSIs covers the banking system as well as key non-bank institutions and non-financial sectors (e.g., corporates, households, and real estate) that are potentially relevant to financial stability.

II. Market-Based Indicators

Contingent Claims Analysis – Distance to Default Tool: CCA can be applied to measure and use distance to default, a market-based indicator of financial distress. The framework is in Excel and also uses a RATS program computing distance to default. The program allows its users to calculate basic distance-to-default indicators for individual banks, portfolios of banks, and various sectors (banks, insurance, financials, non-financials, total market) in developed and emerging markets.

Real Estate Vulnerability: This tool assesses vulnerabilities in both residential and commercial real estate market segments separately, given different characteristics of demand and supply conditions determining property valuation and financing options in each market. The tool summarizes vulnerabilities in advanced economy residential real estate markets by an index that comprises estimates of price misalignment, potential impact on economic activity, household balance sheets, and mortgage market characteristics. Although somewhat hampered by data availability, similar indicators are also used to assess vulnerabilities in emerging markets. The Real Estate Vulnerability Index for Commercial Real Estate includes changes in rents and vacancy rates, as well as construction activity.

III. Stress Testing (Model-Based Approach and Tools)

Stress tests are commonly used to gauge the impact of shocks on the financial system and the interaction between financial and macroeconomic stability (i.e., macro-financial linkages).

- Stress tests can be in the form of (i) sensitivity tests addressing separately the impact of shocks to single risk factors, or (ii) scenarios in which multiple risk factors change in a fashion that is intended to be internally consistent.

- Stress tests can be either bottom up (i.e., run by individual financial institutions) or top down (i.e., run by an organization (such as the central bank, financial supervisor, or IMF either on the aggregated level of the entire banking sector or using bank-by-bank data) with a focus on systemic stability.

- Similarly, notwithstanding their ultimate focus on systemic issues, stress tests can be either bank-by-bank (i.e., applied to the portfolios of individual financial institutions), or at the aggregate level (i.e., based on an aggregate system-wide model).

Balance-Sheet Risk Approach (BSRA): The BSRA approach (also using CCA) combines balance sheet with market data in order to construct marked-to-market values of assets and liabilities for key economic sectors. It provides a forward-looking measure of credit quality (probability of default).

Macro-Financial Stress Testing – A Non-Parametric Approach: This tool uses the conditional probability of default (CoPoD) and the consistent information multivariate density optimizing (CIMDO) methodologies for stress testing purposes. CoPoD incorporates the effects of macroeconomic shocks into credit risk, recovering robust estimators when only short time series of loans exist. CIMDO recovers portfolio multivariate distributions (on which portfolio credit risk measurement relies) with improved specifications, when only partial information about borrowers is available.

Fundamentals-Based Credit Risk Modeling – Parametric Approach: The main difference of the fundamentals-based approach primarily from the market-based approach is that it assumes default to be an exogenous event, and it estimates default probabilities (PDs). The estimated PDs can then be mapped into credit losses.

Credit Risk +: The CR+ can be used to estimate a distribution of portfolio losses and derive important features such as expected losses, unexpected losses and value-at-risk at different confidence intervals. In turn, these could be used to assess the adequacy of provisions and capital—following present capital adequacy rules. By estimating a distribution of losses, it makes a contribution over models that only allow one to estimate average bank default probabilities.

IV. Balance Sheet Approach for the Corporate and Banking Sectors

The Balance Sheet Approach (BSA): The BSA presents a matrix of key indicators of the depository corporation sectors that has been widely applied by the Fund to assess different types of risk: currency mismatches, and capital structure mismatches.

Moody's-KMV/CCA Risk Tools: These models are designed to assess how much bank capital is needed to target specific ratings/default probabilities, estimating expected losses and government contingent liabilities to the financial sector. The models allow one to assess bank capital for individual institutions, groups, sectors, or regions.

Corporate Sector Vulnerability Utility: The utility provides two broad sets of indicators: (i) Basic balance sheet information (e.g., Leverage, liquidity, and profitability): A deterioration in financing conditions or a growth shock are more likely to have an adverse impact in countries where the corporate sector is more leveraged, has lower liquidity on hand, or is less profitable. (ii) Combined information based on the balance sheet and market data (e.g., Stock valuation, default probability, and investment efficiency): High levels of stock valuation may indicate overheating or an asset bubble, especially if accompanied by lower investment efficiency and an increasing default probability. A main measure for default probabilities is computed using information embedded in stock prices.

Cross-border Banking Contagion Model: First, this tool provides measures of vulnerabilities caused by creditor countries' exposures to main borrowers (downstream risk measure) and borrowers countries' exposures to main creditors (upstream risk measure). These measures capture risks originating from direct cross-border lending, off-balance sheet accounts, affiliates' claims, and affiliates' organizational structure (e.g., legally, unlike branches, subsidiaries' losses are capped by the equity incorporated in the subsidiary plus parent banks' non-equity claims). Second, it relies on scenario analysis to assess the propagation of financial sector shocks across borders. The simulations illustrate the impact of shocks originating in advanced and emerging economies that have been identified as vulnerable on international banks' balance sheets. Responding to the resulting losses, the banks deleverage and contract their international balance sheets. If the shocks are large enough to make some banks insolvent, or cause interbank funding difficulties and fire sales, the deleveraging could be amplified. The possibility of recapitalization allows a simulation of how policy reactions could mitigate this deleveraging process.

V. Broader Institutional and Policy Analysis

Risk Measures for Public Debt: Tools developed in MCM (AL) can measure key risk exposures of the debt portfolio. These tools are capable of estimating risk metrics for both the legacy government debt portfolio, as well as simulating the impact of debt management strategies in mitigating these vulnerabilities. Metrics are estimated to assess exchange rate and interest rate risk, including the exposure to refinancing risk.

Crisis Risk Models – Estimating the Likelihood of a Crisis: The models estimate the vulnerability to different types of crises. For emerging market economies, the focus is on capital account crises. In the case of advanced economies, where crises have been more heterogeneous in nature, three types of crises are considered: financial crises, sharp growth slowdown, and sharp fiscal consolidation. For each indicator, a threshold is identified above or below which crises are more prevalent. The information from the different indicators is then used to construct a (weighted) average of how often a country was on the risky side of the threshold, which is used to assess vulnerability.

Scenario Analysis using GPM and GIMF: The Global Projection Model (GPM) is a monetary business cycle model that captures the dynamics of GDP, inflation, short-term interest rates, exchange rates, unemployment, and bank lending. The Global Integrated Monetary and Fiscal Model (GIMF) is a rich, multisectoral, multiregional model (with up to six regions), with nominal and real rigidities, that incorporates policy rules used by monetary and fiscal authorities. GIMF allows for simulations of a large assortment of shocks across various sectors and regions and helps analyze the domestic impact of policies as well as spillovers. For instance, the rich representation of the fiscal sector helps design fiscal packages to reduce overall tax distortions and increase output over the medium term during fiscal consolidations.

CHAPTER III. FUND ADVICE ON STIMULUS AND EXIT POLICIES[1]

Main Findings

- Fund advice at the onset of the crisis was bold, in particular on stimulus, and overall seen by the Membership as timely and adapting to changes in circumstances. There was broad consistency between various surveillance products.
- Messages on stimulus were very clear and the size of the advised stimulus was broadly informed by sustainability considerations based on available information at the time. However the link with implicit liabilities due to financial sector assistance could have been made more explicit in some cases.
- Advice on exit was more nuanced, partly reflecting greater complexities in outlooks and divergence in the speed of recovery across countries. Recommendations on exit had to balance the need to support the recovery and sustainability considerations.
- While there were some divergences between Fund advice and authorities' views, the overall policy stance was broadly in line with Fund advice.
- Multilateral surveillance products had explicit spillover analyses. However, the coverage of spillovers and cross-country analysis in bilateral surveillance was uneven, including for systemically-important countries.

Key Lessons

- Strong impact, both externally and internally, of a clear multilateral message to the membership.
- Importance of thinking through risk scenarios and taking into account macro-financial linkages, e.g. possible impact of financial sector developments on fiscal balances.
- Need to better integrate spillover analysis into Article IV consultations.

I. INTRODUCTION

1. **This background study assesses the Fund's multilateral and bilateral policy advice on macroeconomic stimulus/exit related to the global crisis**. The study covers the period from January 2008 to April 2011 and uses a range of sources to inform the findings (Box 1). This study looks at the perceived timeliness of policy advice in these areas, assesses whether a consistent approach has been taken, ensuring that policy advice was informed by country circumstances and risks; what consideration was given to spillovers analysis and whether policy advice could differ at times from the authorities' intentions (candor).

[1] Prepared by Gilda Fernandez, Toshiyuki Miyoshi, Kingsley Obiora, Hitoshi Sasaki, and Bert van Selm.

2. **It is however too early to assess the adequacy of Fund advice**. As mentioned in the TSR concept note, it is beyond the scope of this study to look into the adequacy of the Fund's policy advice, which could be addressed in future reviews. While the stimulus was probably key to avoid a worse recession, the jury on the adequacy of Fund advice on stimulus and exit, and on the implemented policies, is largely still out. While the direct contribution of fiscal stimulus to the worsening of fiscal balances was limited (cf. April 2010 WEO), substantial uncertainty remains on how various countries will bring their fiscal policies back on a more sustainable path. Similarly, medium term consequences of loose monetary policies in the most developed economies remain to be fully assessed.

Box 1. Sources

In addition to the broader TSR assessment methodologies (review of 50 Article IVs; interviews; surveys), this study draws upon the following:[1]

- A review of the Fund's multilateral surveillance and related products for 2008–11, as well as press statements related to stimulus and exit policy advice.
- A review of Board papers, Staff Position Papers, and Policy Review Notes on stimulus and exits.
- An empirical assessment of key macroeconomic policy variables in 46 advanced and emerging countries and their relationship with fundamentals.[2]
- A review of Article IV reports of China, Euro Area, Japan, the U.S., and the U.K. (economies covered by Spillover Reports).
- A 12-country case study, including a review of Article IVs for the period 2008 to 2010, concluding statements, and back-to-office reports. The countries were selected to form a representative sample based on : i) income level: all income groups are represented in the sample and ii) the degree of fiscal vulnerabilities: at least two countries at different levels of fiscal vulnerabilities (with the level of maturing debt, the fiscal deficit, and total financing needs as indicators of fiscal vulnerabilities). Countries in the sample included: Angola, Australia, Canada, China, Ghana, India, Ireland, Spain, Turkey, the United Kingdom, the United States, and Vietnam.

[1] See 2011 TSR *Health Check of Fund Surveillance and Statistical Information*.
[2] For this review, the cyclically-adjusted primary balance ratio is defined as: (cyclically-adjusted overall balance + interest expenditure – interest revenue) / nominal potential GDP. A sample of 46 advanced and emerging economies for which potential GDP data are available (April 2011 WEO) was used.

II. Overview of Fund's Messages on Stimulus and Exit

3. **The Fund was one of the first institutions to make a strong call for global macroeconomic stimulus in response to the global economic downturn**. During the World Economic Forum's annual meeting in Davos in January 2008, the then Managing Director (MD) called for fiscal stimulus to complement monetary policy in addressing the global crisis (Figure 1). He repeated this message in a Financial Times interview in April 2008. Although initially generating some internal debate among staff, the external message was clear, but also nuanced, from the start. In particular, an unequivocal call for global stimulus in both press statements and multilateral products was linked to a more tailored message regarding the role of individual members tied to country-specific fundamentals, including the

availability of fiscal space, countries' cyclical positions, inflationary pressures, and debt levels.

4. **Initially, the stimulus message was mainly targeted at advanced countries**. In the April 2008 WEO staff supported the deep interest rate cuts by the U.S. Federal Reserve and indicated that the Euro Area could afford some easing of monetary policy in the context of an increasingly negative economic outlook. In the fall 2008 WEO, in the light of moderating inflationary pressures and deteriorating growth prospects, the Fund advised monetary easing for the Euro Area and the United Kingdom where interest rates remained high and called for a halt to the monetary policy tightening cycle in countries where second-round effects on inflation of commodity prices had been limited. As the balance of risks shifted to slowing activity, the message turned to easing where the outlook continued to deteriorate. This was followed through in bilateral policy advice in 2008–09. In 2009, the Fund supported unconventional monetary easing measures in the United Kingdom, the United States, and the Euro Area in view of already very low interest rates and the impaired monetary transmission and credit markets. The Fund also advised advanced countries to use fiscal policy to stabilize output in the event of a downturn in economic activity, while recognizing that room for stimulus was limited by public debt levels and efforts at medium-term consolidation, including pre-crisis initiatives. Multilateral advice on stimulus and exits had both a quantitative and a more qualitative dimension, including in particular the composition of the fiscal stimulus. Along with short-term policy advice, the Fund also emphasized long-term fiscal challenges, including the impact of entitlement spending and highlighted the need to maintain fiscal consolidation efforts in future years.

5. **As the crisis deepened, the call for stimulus broadened**. Until mid-2008, many emerging markets and developing economies were still facing inflationary pressures from the global increase in food and fuel prices—these countries were not included in the Fund's initial call for stimulus. Following the collapse of Lehman Brothers in September 2008, the Fund called for global stimulus—including in emerging economies and low-income countries (LICs) with adequate policy space. As the economic slowdown became more widespread, the MD called for a coordinated action plan to achieve a global fiscal stimulus equivalent to 2 percent of GDP during the G-20 leader's summit in November 2008.

6. **In 2009, the Fund called for countries to start preparing exit strategies from the extraordinary stimulus measures**. In the spring of 2009, the Fiscal Monitor called on policy makers to develop a post-crisis exit strategy involving measures that would reduce and sustain debt ratios at moderate levels. In the fall of 2009, it called on countries to announce credible fiscal exit strategies, while recognizing that it was still premature to exit from stimulus. The fall 2009 WEO warned against risks from implementing premature exits but also called on policymakers to begin preparing for an orderly unwinding of extraordinary levels of public intervention. In the spring of 2010, the WEO urged countries suffering from large increases in risk premia to begin fiscal consolidation, while most advanced countries were encouraged to consolidate in 2011. On the monetary front, the fall 2009 WEO stressed

that the pace with which central bank balance sheets should be unwound depended on progress in normalizing market conditions and the types of interventions in place.

7. **Reflecting greater complexities in the outlook and divergence in the speed of recovery by countries, the Fund's message on short term exit policies was more differentiated**. While a simple top-down message was straightforward to formulate and timely at the outset of the crisis when the world's economies were simultaneously hit by the same financial and real shocks, the length of the recession differed across economies, which made a unified message more difficult. Fund's calls to prepare for the withdrawal of stimulus measures came early, in 2009, but messages on the timing of exit had to balance considerations about the still fragile recovery with sustainability concerns on a case by case basis.

III. From Multilateral to Bilateral Advice

8. **Multilateral policy advice on stimulus and exit policies provided a basis for bilateral policy advice, including through ad hoc papers**. Staff prepared detailed analysis to translate multilateral messages into more operational and country-specific terms that would assist country teams in Article IV consultations. This was done through Board papers, Policy Review Notes, and Staff Position Notes[2] on stimulus and exits (Box 2). These papers provided an analytical framework with which to guide bilateral policy advice on stimulus and exits. There was little evidence of inconsistencies between multilateral and bilateral policy advice on stimulus and exit policies.

IV. Clarity and Timeliness

9. **Bilateral policy advice on stimulus and exit policies was found to be clear and substantiated across countries.** In particular, the case study and Article IV review found that fiscal and monetary policy advice in most countries was clearly articulated, sufficiently detailed, placed in a medium-term context, and included a discussion of the impact of these policies on the economy. The magnitude, timing, and composition of proposed fiscal changes were also well-articulated and justified. For countries where staff recommended exit strategies, these were generally elaborated with some detail, including the timing of proposed measures. The Article IV review results showed that in countries where fiscal and monetary policy loosening had been implemented, staff reports have elaborated on exit strategies, including the timing, in most of the cases (70 percent).

[2] Also referred to as Staff Discussion Notes.

Box 2. Staff Papers on the Provision of Advice on Stimulus and Exit Policies

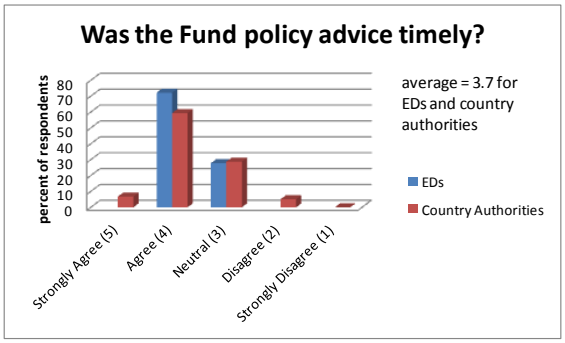
Staff prepared a number of analytical papers to guide policy advice on stimulus and exit. This included both published documents (Board papers, Staff Position Notes, and Technical Guidance Notes) and internal documents (Policy Review Notes). Board papers are either discussed at or circulated to the Board for information. Staff Position Notes present the latest policy-related analysis and research by individual IMF staff to elicit comment and to further debate. Technical Guidance Notes are meant to guide staff on technical aspects of certain issues. Policy Review Notes are intended to provide country teams with background analysis and references that may be useful for upcoming Article IV consultations.

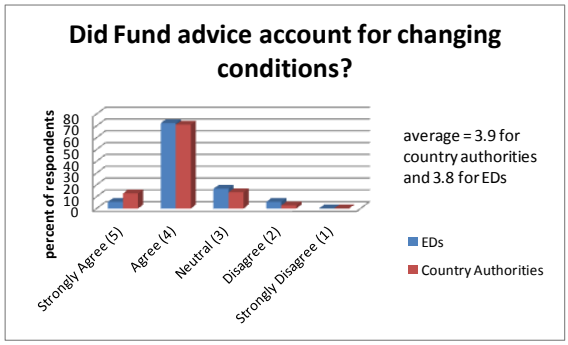
Stimulus papers. The Board paper *Fiscal Policy for the Crisis* in December 2008 focused on the general features that fiscal stimulus should have. It also noted that not all countries had sufficient fiscal space to implement stimulus due to constraints on sustainability of fiscal finances, volatile capital flows, high public and foreign indebtedness, and large risk premia. The Staff Position Note *The Case for Global Fiscal Stimulus* (March 2009) presented evidence that a well-executed global fiscal stimulus could provide a boost to the global economy and urged countries to provide additional stimulus, while advising those with limited fiscal space to focus on actions that will have the largest impact on demand such as government investment and targeted transfers. The Staff Position Note (November 2009) *Unconventional Choices for Unconventional Times: Credit and Quantitative Easing in Advanced Countries* discussed options for unconventional monetary policy.

Exit papers. The Board paper, *The State of Public Finances—Outlook and Medium-Term Policies After the 2008 Crisis* (March 2009) highlighted elements to consider in formulating exit strategies. *Exiting from Crisis Intervention Policies* (a January 2010 Board paper) presented broad principles for devising exit strategies from crisis-related intervention policies in the areas of fiscal, monetary, and financial policies. It had two companion Board papers—*Strategies for Fiscal Consolidation in the Post-Crisis World* (February 2010) discussed elements of a fiscal exit strategy and institutions and arrangements that would support fiscal consolidation, while "Exiting from Monetary Crisis Intervention Measures—Background Paper" provided a detailed technical discussion of issues on how to exit from crisis intervention measures, including the unwinding of large amounts of long-term securities on central banks' balance sheets. The Board paper *From Stimulus to Consolidation—Revenue and Expenditure Policies in Advanced and Emerging Economies* (April 2010) identified policy tools to support fiscal consolidation in these countries. The Policy Review Note *Practical Guide to Fiscal Consolidation* (June 2010) drew upon these and related work to provide country teams with analysis and references for Article IV consultations, while the Policy Review Note *Exiting from Extraordinary Monetary and Financial Support* (June 2010), focusing mainly on exit strategies for advanced economies, highlighted principles for unwinding extraordinary conventional and unconventional support measures. The Technical Guidance Note, *A Practical Guide to Debt Dynamics, Fiscal Sustainability, and Cyclical Adjustment of Budgetary Aggregates* (January 2010) provides technical guidance on assessing medium-term fiscal sustainability.

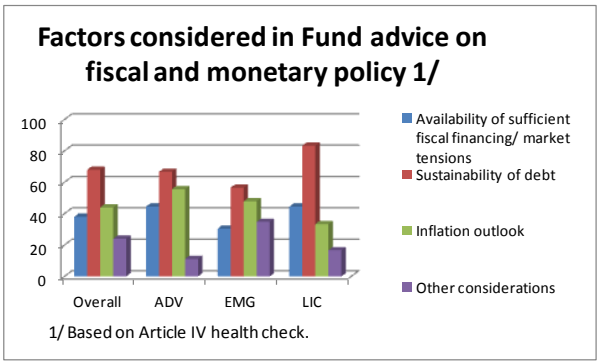
10. **The Fund's advice during the crisis has generally been perceived to be timely and adding value**. Country authorities and Executive Directors (EDs) generally found that Fund policy advice during the aftermath of the 2008 global crisis was timely (both 3.7 for country authorities and EDs on a scale of 1 to 5) and that it took into account changing conditions in the domestic and global economy (3.9 and 3.8, respectively, on a scale of 1 to 5). Country authorities rated the discussion of fiscal developments and policy during this period highest in terms of contributing to their understanding and insight (62 percent), a result similar to the 2008 TSR. Results were lower for monetary policy (38 percent) and

somewhat less positive than in the 2008 TSR. This likely reflects the fact that this area is covered at the Euro Area level rather than in bilateral Article IV discussions.





V. Attention to Country-Specific Circumstances and Risks



11. **Individual circumstances were mostly taken into account in framing the advice**. Both country case studies and surveys found that policy advice in most countries took into account the country's debt levels and inflation outlook, but to a lesser extent financing constraints and financial sector vulnerabilities. This was also the case for the Euro Area as a whole. However, while assessing that the Fund's monetary policy advice was appropriate and contributed to the policy debate in the Euro Area, and that aggregate fiscal policy advice was appropriate and timely, the report by external consultants on IMF surveillance in the Euro Area notes that the advice on fiscal stimulus was not sufficiently differentiated across countries.[3]

12. **The need to preserve employment and to target fiscal measures, often made in multilateral stimulus advice, was less emphasized in bilateral surveillance**. Multilateral surveillance products, as well as ad hoc papers, made the case for supportive macroeconomic policies to limit the downturn in employment, as well as for targeted measures aimed at addressing unemployment and protecting the most vulnerable[4]. For many countries in the case study, however, staff did not raise concerns pertaining to redistributive effects and the need to protect vulnerable groups in their policy advice, including for LICs. While one could argue that concerns about unemployment were implicit behind the policy advice for stimulus, explicit mentions in Article IV reports were also rare. For example, in the 2009 Article IV

[3] *TSR External Study—An Evaluation of IMF Surveillance of the Euro Area*.
[4] April 2008 and April 2010 WEO, Staff Position Note *The Case for Global Fiscal Stimulus* (March 2009).

consultations with Australia and China, staff advised that income transfers should support low-income households and the recently unemployed. In the 2010 consultations with the U.S. and the U.K., staff suggested that in the case of a significant downturn, tax cuts should be targeted to support low-income households and promote employment creation. Regarding fiscal consolidation, the Article IV review indicated that the impact on employment of exit policies was only discussed in 10 percent of the countries covered.

13. **Bilateral policy advice on stimulus was informed by possible contingent liabilities arising from financial sector vulnerabilities, in particular in the post-Lehman period** (Box 3). A review of Article IV reports for selected countries (Ireland, Spain, the U.K., and the U.S.—selected on the basis of their relatively large financial sectors) indicates that where relevant, government contingent liabilities from weaknesses in the financial sector were noted.

14. **However, the link could have been made more explicit in some cases – and risks are of an evolving nature**. From its inception in July 2009, the IMF's Fiscal Monitor quantified direct and indirect government support of the financial sector on a country-by-country basis, and took these fiscal costs and risks into account in the discussion of the appropriate fiscal policy stance. For the country cases discussed below, the April 2011 Fiscal Monitor put the net deficit increasing direct cost (cumulative since the beginning of the crisis) at 29 percent of (2010) GDP for Ireland, with the cost for Spain (2.0 percent), the U.K. (6.0 percent) and the U.S. (3.4 percent) much lower. In all these cases, however, the net cost is only a small fraction of government guarantees and other financial sector support measures—which in some cases remain substantial.

15. **Policy advice on exit balanced the strength of the recovery with possible sovereign risks**. For instance, the Fund supported the United Kingdom's plans to frontload fiscal consolidation in 2010, while it advised the United States to maintain stimulus throughout 2010 and withdraw support in 2011 given differences in the assessment of the strength of the recovery and potential sovereign risks (Box 4). Risks are, however, of an evolving nature.

Box 3. Did the Fund's Advice on Stimulus Take Into Account Financial Sector Vulnerabilities?

This box looks at four countries where substantial implicit liabilities were created by the financial crisis and considers whether the fiscal advice has taken this threat into account. The evidence is that in the post-Lehman period, contingent fiscal sector liabilities were clearly flagged, though in a number of cases not explicitly gauged against the recommendation to engage in fiscal stimulus.

Article IV reports prepared prior to the onset of the crisis in August 2007 were sanguine about the risks that the financial sector could pose for fiscal sustainability. For example, the August 2007 Article IV report for *Ireland* noted that 'banks have large exposures to the property market, but stress tests suggest that cushions are adequate to cover a range of shocks'.

Staff reports prepared between the onset of the crisis in August 2007 and the collapse of Lehman Brothers in September 2008 were rather cautious. In the July 2008 *U.S.* report, staff advised to 'avoid repeated generalized fiscal stimulus, and let the stimulus package work, with any further actions targeted at root problems in housing and banking'. It took note of the exposure taken by the Fed as part of the Bear Stearns rescue operation, and advised that any further emergency asset operation should be made by the Treasury. The July 2008 *U.K.* report called for fiscal consolidation, not stimulus—at a minimum cumulative structural adjustment of 1 percent of GDP in 2009 and 2010. In the period between August 2007 and September 2008, no Article IV reports were prepared for *Ireland* or *Spain*, with delays likely reflecting the Fund's downsizing and departmental priorities combined with a sudden increase in workload.

The (post-Lehman) 2009 staff reports show a clear awareness of contingent fiscal liabilities stemming from the financial sector, though the link with fiscal policy advice was somewhat uneven.

In the *Irish* case, the May 2009 report noted that fiscal consolidation had begun, and that it would require a sustained effort. Public debt to be incurred to support the financial system, while uncertain, was estimated at around 12–15 percent of GDP. Staff supported the consolidation effort, while advising the authorities to guard against the risk that the taxpayer would bear a disproportionate burden of the costs of cleaning up the banks. In 2010, contingent financial sector liabilities turned into government capital transfers amounting to 25 percent of GDP, pushing the overall 2010 government deficit to 32 percent of GDP.

In the case of *Spain*, in a February 2009 report, staff's overall assessment was that a prolonged period of 'slow growth /high-unemployment equilibrium, from which lowering public debt would be difficult' was to be avoided. Staff 'agreed that while allowing automatic stabilizers to operate fully, fiscal policy needed to remain cautious given that some fiscal powder also should be kept dry, as a contingency, to assist banks with capital, if needed'. The report noted that the debt implications of fiscal measures, credit lines and guarantees were large; the fiscal recommendation in the appraisal does not emphasize financial sector liabilities. ('Further fiscal impulse—only if necessary, and in cooperation with EU partners, or to assist banks—should be linked to structural reforms, to minimize their social costs').

The 2009 *U.K.* report welcomed unprecedented macroeconomic policies to support economic activity, while also noting that contingent liabilities from the financial sector were a major vulnerability—the report estimated the government's exposure to the financial sector (via various support measures) at 63 percent of GDP.

Finally, the July 2009 *U.S.* report welcomed the large post-Lehman monetary and fiscal stimulus and wide range of measures to restore financial stability, and noted that additional fiscal stimulus could be used. The financial rescue operations (including those accrued by the Fed) were flagged as a key fiscal risk.

Box 4. The Fund's Advice on Exits from Fiscal Stimulus: U.K. versus U.S.

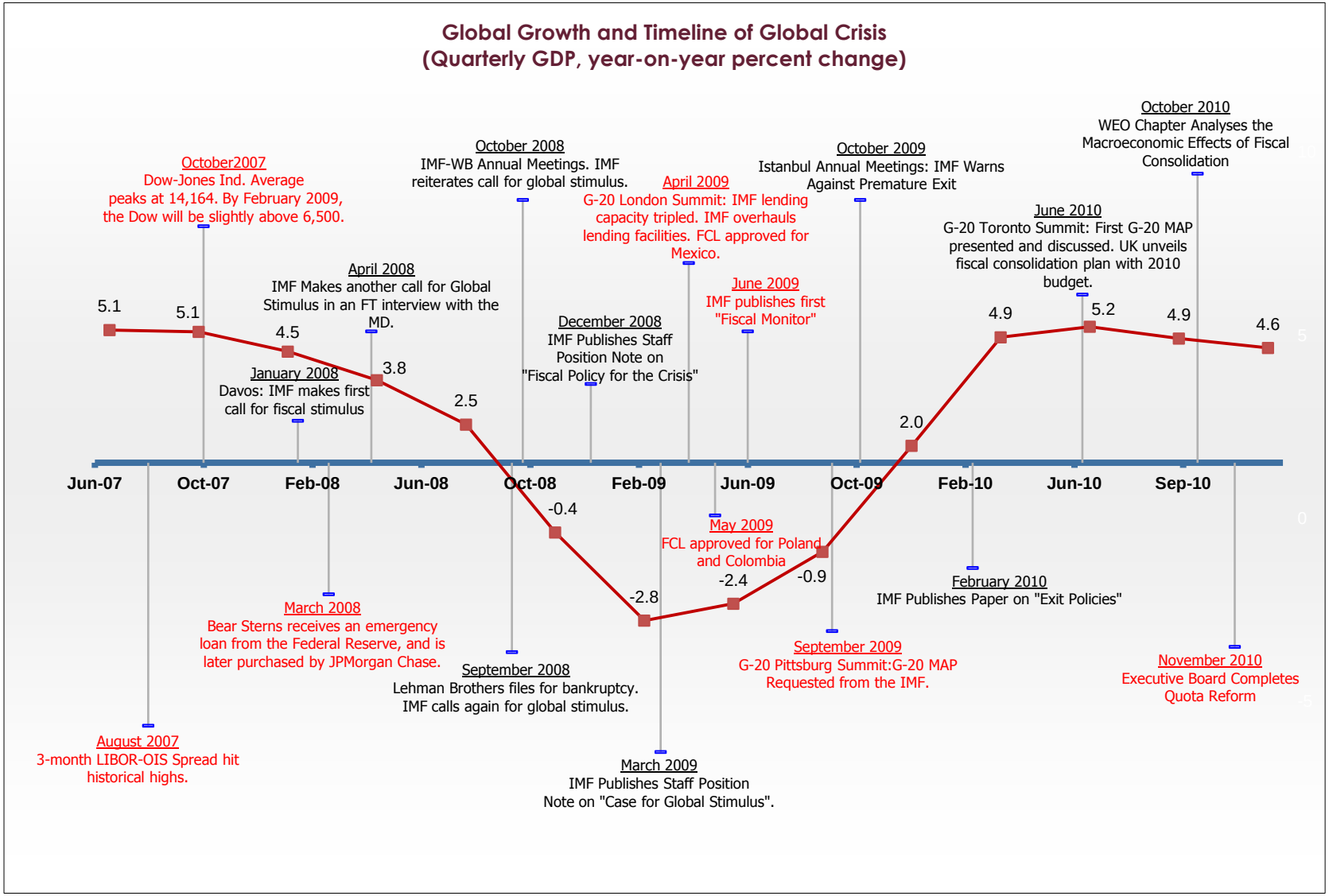
Fund staff advocated substantial medium-term fiscal adjustments for both the United Kingdom and the United States. However, the Fund's advice on the timing of near-term fiscal exits in these countries diverged which likely resulted from differences in the assessment of: (i) tail risks associated with a loss of confidence in the sovereign; (ii) the degree of slack in the economy—the output gap in the U.K. was projected to be smaller than in the U.S. in the 2010 U.K. and the U.S. Article IV reports; and (iii) debt tolerance level—considerations that the U.S. is an issuer of the world's reserve currency and differences in the scale of possible contingent liabilities emanating from the banking sector.

In the 2010 U.K. Article IV report, Fund staff supported the government's frontloaded fiscal consolidation plans set out in the 2010 Budget to reduce the risk of a costly loss of confidence in public finances. Staff also concluded in the 2011 Article IV consultation that strong fiscal consolidation that is underway would be appropriate, taking into account that the deviations from the economic trajectory that had been forecasted were largely temporary. In the 2010 U.S. Article IV report, staff agreed with the U.S. authorities that stimulus should be maintained in 2010 while the then envisioned withdrawal in 2011 was appropriate. In December 2010, however, the US adopted a new stimulus package, the impact of which was considered small relative to its fiscal cost (January 2011 WEO Update), resulting in a change in the stance of fiscal policy, where the structural deficit in 2011 is now projected to widen rather than contract (April 2011 WEO). Staff advised the authorities in the 2011 Article IV consultation to start fiscal adjustment in FY2012 to guard against the risk of a disruptive loss in fiscal credibility and adopt a medium-term consolidation plan to stabilize the debt ratio by the middle of the decade and gradually reduce it afterwards.

During the 2010 Article IV consultation, the U.K. government emphasized the importance of ensuring debt sustainability to regain fiscal space to cope with future adverse shocks and demographic-related spending pressures, recognizing that most of the recent deterioration in fiscal deficits was structural. Staff supported the government's fiscal consolidation plans to balance the cyclically-adjusted current budget over a five-year rolling horizon—by 2015/16. Staff assessed in the 2010 Article IV report that "fiscal tightening will dampen but not stop growth as other sectors of the economy emerge as drivers of recovery, supported by continued monetary stimulus." In its policy advice, staff also suggested key safeguards against uncertainty surrounding the cyclical outlook, including the free operation of automatic fiscal stabilizers in both directions, and temporary targeted tax cuts in the unexpected but possible case of a significant and prolonged downturn. Since then, although the country experienced unexpected weak economic growth and a rise in inflation, staff assessed that the deviations were largely temporary, concluding in the 2011 Article IV consultation that strong fiscal consolidation would remain essential to achieve a more sustainable budgetary position, thus reducing fiscal risks, while the current scale of monetary stimulus should be appropriate given fiscal adjustment and subdued wage growth. Staff again concurred in the 2011 Article IV consultation that the authorities' planned medium-term fiscal consolidation was appropriate. This amounted to a structural adjustment of about 8.0 percentage points of GDP over a 5-year horizon.

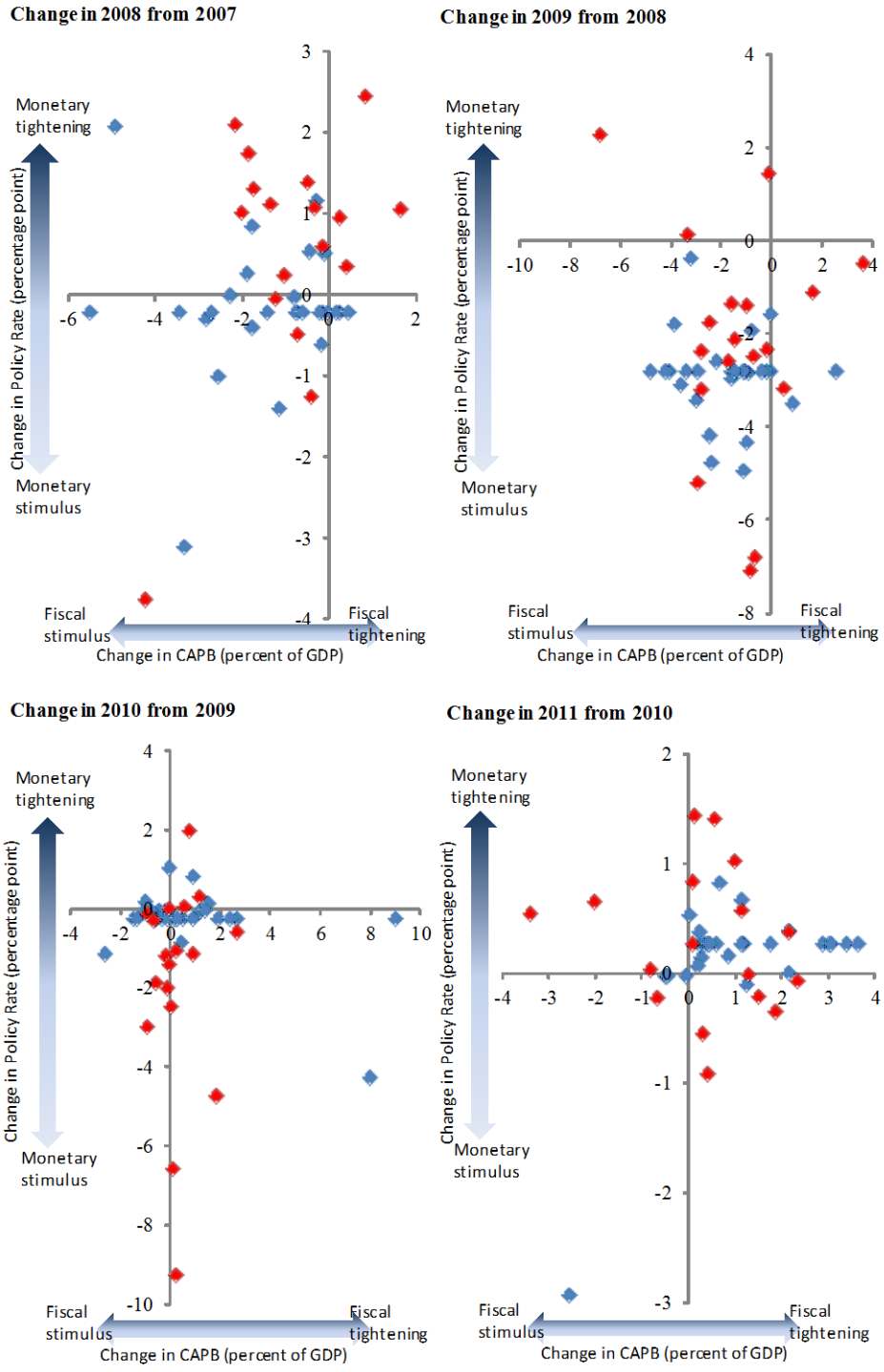
In the case of the U.S., in July 2010, staff recommended maintaining fiscal stimulus in 2010 as planned given the remaining weakness in demand, stubbornly high unemployment, and lingering financial strains, and in 2011 to make the then planned down payment (about 2 percent of GDP) on fiscal consolidation with flexibility on the size of adjustment if risks materialize. No immediate concerns for possible loss of confidence in public finances were raised in the 2010 U.S. Article IV report from the authorities, owing to brisk demand for treasuries and low yields. Market concerns, however, have risen about the U.S. fiscal path since April 2011 given little evident progress in breaking the political stalemate over how to carry out needed fiscal consolidation. In the concluding statement of the 2011 Article IV mission in June 2011, staff warned about possible unfavorable fiscal outcomes that could take the form of a sudden increase in interest rates and/or a sovereign downgrade if an agreement on fiscal consolidation did not materialize or the debt ceiling was not raised soon enough. Staff recommended a broadly uniform reduction of the federal structural primary deficit over the next five years within a fully-specified and politically-backed consolidation plan. The total recommended reduction was 7½ percentage points of GDP or about 1½ percentage points per year.

Figure 1. Timeline of Global Crisis



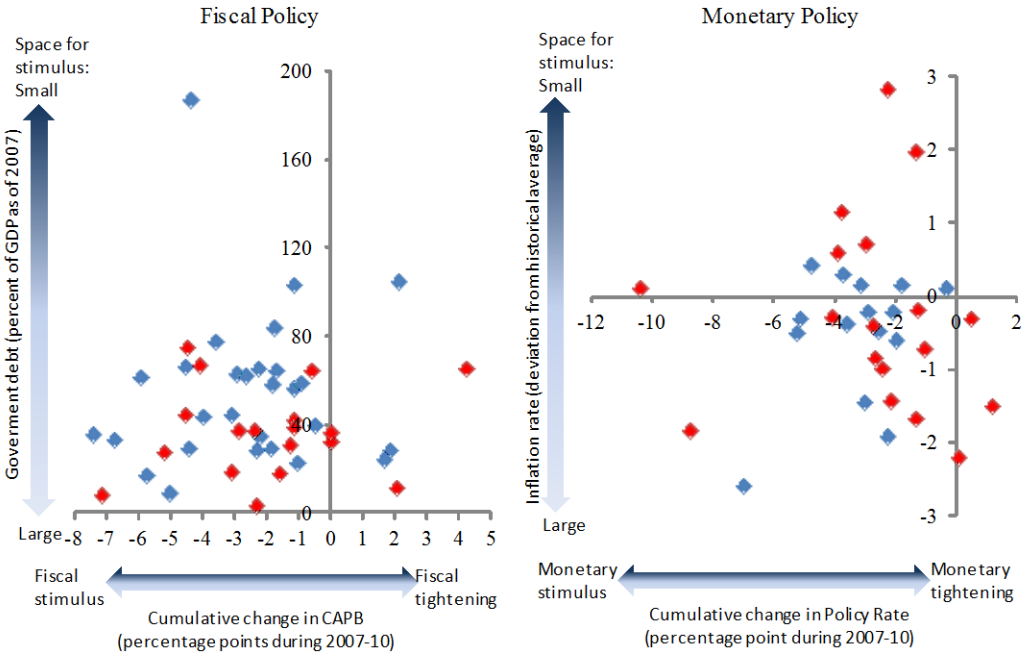
Note: Events that are not related to the IMF's advice on stimulus and exit policies are colored in red.

Figure 2. Stances of Macroeconomic Policies



1. Blue: AMs, Red: EMs. LICs are not included due to a lack of data.
2. Changes in policy rate and cyclically-adjusted primary balance in year *t* from year *t-1* show changes in stances of monetary and fiscal policy, respectively.
3. Policy rates in 2011 are average from January 2011 to the latest month. Others are based on projections as of 2011 Spring WEO.

Figure 3. Relationship Between Key Macroeconomic Policy Variables and Policy Space



1. Blue: AMs, Red: EMs. LICs are not included due to a lack of data.
2. Changes in policy rate and cyclically-adjusted primary balance show changes in stances of monetary and fiscal policy, respectively. Inflation rate is defined as deviation of 2007 CPI inflation from its historical average as of during 2005-10.
3. Projections are based on 2011 Spring WEO.

VI. Coverage of Spillovers Related to Advice on Stimulus and Exit Policies

16. **Multilateral surveillance products included explicit discussion of the spillover effects of stimulus and exit policies**. For example, the 2009 Fiscal Monitor (SPN/09/21, 6/30/09) provided estimates of the impact of fiscal stimulus by G20 countries on non-G20 countries via increased import demand. The Spring and Fall 2010 WEOs stressed the negative spillover effects of the lack of medium-term exit strategies on world interest rates and of prolonged fiscal and monetary stimulus due to delays in the repair of the financial system. The Fall 2010 WEO argued that postponing fiscal consolidation in advanced economies would increase downside risks to the global economy. The Spring 2011 WEO presented analytical evidence suggesting that the net effect of advanced economies' monetary easing would not be detrimental, including for emerging or developing economies, provided it successfully stabilized output.

17. **However, analysis and coverage of the outward spillovers of stimulus and exit policies of systemically important countries were uneven**. Staff recommended in the 2009 and 2010 Article IV consultations with China that the country's fiscal policies be reoriented from investment toward private consumption, including in view of its outward spillovers. The reports also argued against excessive monetary stimulus, in part to avoid exacerbating

trade imbalances. There were also references to the impact of fiscal adjustment in Japan on the Asian region and of quantitative easing by the Bank of England on global equities in the respective staff reports. However, staff reports for the Euro Area (2009 and 2010) were silent on the outward spillover effects of member countries' fiscal consolidation strategy. The 2009 and 2010 Article IV staff reports for the United States argued that increased savings through fiscal consolidation would contribute to global rebalancing but did not discuss the external impact of its accommodative monetary policy (Box 5). With the new spillover reports, the discussion of the impact of domestic macroeconomic policies of the major economies on other members has become more prominent in the context of the 2011 Article IV consultations.

Box 5. Coverage of US Monetary Policy Spillovers

Coverage and assessment of outward spillovers from the US monetary policy was uneven across different surveillance products. The 2010 U.S. Article IV report was silent on the external impact of continued extraordinary accommodative monetary policy in the U.S., e.g., the impact of capital flows from the U.S. to other economies—especially emerging market countries with rising interest rates—despite the red flags raised on this issue within the internal review process. The spring 2011 multilateral surveillance products (WEO and GFSR), however, covered this topic. Key messages included the following: (i) little evidence was found to support that cross-border flows surged due to quantitative easing in the large advanced economies (GFSR, April 2011, Chapter 1); (ii) as long as monetary policy in large advanced economies successfully stabilizes their domestic outputs, its outward spillovers to other economies will not be detrimental (WEO, April 2011, Chapter 1); and (iii) economies that have greater financial exposure to the U.S. are more sensitive to changes in the U.S. interest rates (WEO, April 2011, Chapter 4). The 2011 U.S. Article IV report, which incorporated the main messages of the accompanying spillover report, raised as a main risk a likely reversal of some of the inflows to emerging markets if markets were to suddenly bring forward expectations of monetary tightening, suggesting a premium on clear communication of monetary policy.

18. **The broader country case study also shows that the analysis and coverage of inward and outward spillovers, as well as cross-country analysis was mixed**. Only a few case study countries had substantive analysis of inward spillovers. Discussion of outward spillovers was also mixed. Where spillover analysis was done, these were mainly in the form of qualitative descriptions of potential channels for contagion. The coverage of cross-country analysis was also uneven, with only one instance in the case study where these were extensively discussed.

VII. TRACTION

19. **The overall stance was in line with Fund recommendations**. In response to the economic slowdown, a majority of advanced and emerging market countries started loosening policies in 2008, pursued further expansionary policies in 2009, and exited from these measures at different speeds in 2010 and 2011 (Figure 2) as global growth picked up.

In LICs, the countercyclical policy response that was implemented in 2009 was a first, with LICs with stronger pre-crisis buffers making greater use of countercyclical fiscal policy.[5]

20. **The link between the worsening in the estimated cyclically-adjusted primary balance and fiscal space, on one side, and the reduction in short term interest rates and pre-crisis inflationary pressures on the other side, was tenuous** (Figure 3).[6] However, this does not imply that countries did not follow Fund's advice, as this may be due to a variety of factors. In particular, discretionary policy action explains only part of the worsening in the estimated cyclically-adjusted primary balance—in a situation where elasticities of revenues to GDP fall. In addition, estimates used in these regressions for the policy variables and policy space are ex post measures, that may have differed from how authorities, and the Fund, measured them at the time policy decisions were taken. Finally, pre-crisis inflation was high in a number of countries but as inflationary pressures abated, interest rates were driven to their lower bound in a number of economies—consistently with indications that would have been given by Taylor-type rules becoming consistent with negative interest rates.

21. **There were however instances where staff and authorities disagreed on staff's advice on stimulus and exit policies**. This occurred in a number of countries in the case study (5/12). Examples of disagreements involved the timing of monetary tightening, the pace of adjustment in the fiscal policy stance, and measures to strengthen fiscal frameworks to support the credibility of consolidation efforts. The Article IV review separately found that when there were disagreements with the authorities on the Fund's advice, including on fiscal and monetary policies, these were usually clearly explained. For example, in the 2008 Article IV report on the Euro Area, staff recommended that monetary policy rates continue to be kept on hold, while the authorities were in favor of tightening due to upside risks to inflation. The ECB eventually tightened policy rates in July 2008. The 2009 Article IV report for Ireland signaled differences in opinion on the pace of needed medium-term expenditure consolidation and on revenue forecasts, with the staff's baseline reflecting stronger consolidation and more pessimistic revenue projections. The 2010 Article IV report on Spain noted disagreements about the need to introduce an independent fiscal council to bolster the credibility of fiscal policy.

[5] The policy response in LICs is discussed in detail in *Emerging from the Crisis—Macroeconomic Challenges Facing Low-Income Countries*.

[6] Different specifications (e.g., taking into account the change in the cyclically-adjusted primary balance from 2007 to its trough, with debt-to-GDP ratios and the output gap to adjust for countries' initial cyclical positions as explanatory variables) yielded similar results.

CHAPTER IV. SELECTED ISSUES IN IMF SURVEILLANCE IN LICS[1]

Main Findings

- Bilateral Fund surveillance in LICs has been generally well received by the authorities and has played an important role in domestic policy formulation.
- Surveillance in LICs continues to face unique challenges, including data constraints, and needs to be attuned both to development and poverty reduction objectives and to challenges in economic policy making in LICs, including weak institutions and policy frameworks, vulnerability to external shocks and volatility of aid.
- These challenges complicate key elements of surveillance in LICs, including two on which this paper focuses: exchange rate assessments and financial sector surveillance.
- The Fund has stepped up its cross-country work on LICs in recent years, including by producing LIC-specific macroeconomic policy papers in the context of food and fuel price shocks and the global crisis, and developing a new analytical framework to identify emerging vulnerabilities and risks in LICs (the Vulnerability Exercise for Low-Income Countries or VE-LIC).

Key Recommendations

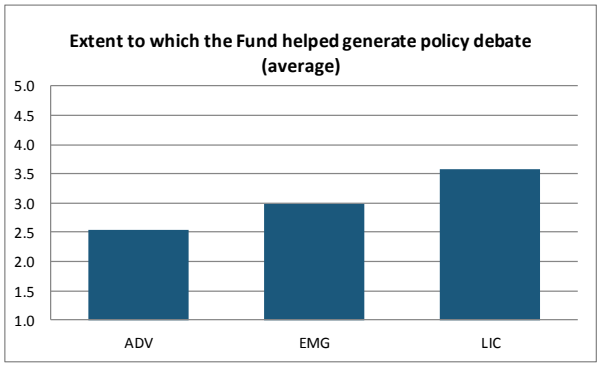
- *Multilateral surveillance:* Regularize and consolidate ad hoc papers on global LIC-specific cross-country issues and macroeconomic risks, vulnerabilities and policies, drawing on the VE-LIC exercise.
- *Spillovers:* Strengthen the coverage of inward spillovers to LICs, including as part of both bilateral and multilateral surveillance.
- *Financial sector surveillance*: Supplement existing financial sector surveillance guidance to address LIC-specific issues, including better integrating financial sector development and its implications for stability, developing bank resolution strategies and strengthening analysis of macro-financial linkages.
- *Exchange rate assessment*: Supplement guidance to ensure that adjustments to CGER methodologies are consistent across countries with similar characteristics, an issue particularly relevant for LICs. Include a discussion of the consistency between results of exchange rate analysis and basic external sector indicators.

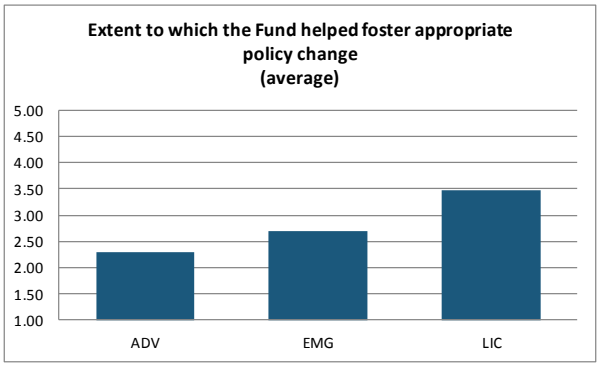
[1] Prepared by Kerstin Gerling, Jules Leichter, Svitlana Maslova, and Bert van Selm (all SPR), and Zaijin Zhan (AFR).

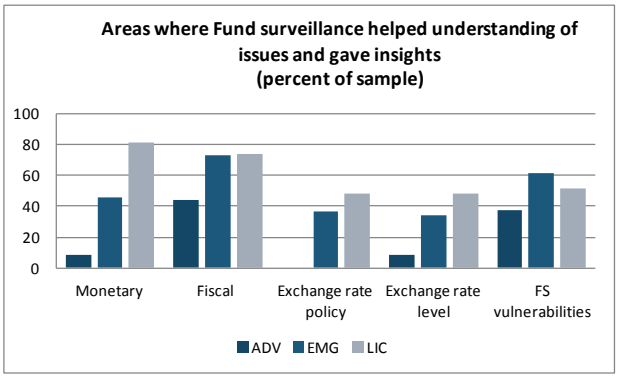
I. INTRODUCTION

1. **The Fund's surveillance work in low-income countries (LICs) contributes significantly to the policy debate in individual member countries**.[2] As already noted in the 2008 TSR, country authorities in LICs value Fund surveillance (Figure 1). To some extent, this likely reflects the high proportion of LICs with IMF-supported programs (60 percent), implying frequent missions and a continuous and often intensive policy dialogue in these countries. Moreover, LICs account for much of the Fund's technical assistance (48 percent in FY2010) which further underpins the policy dialogue and relevance of Fund advice. Another important factor is the lack of publicly available analytical work on LICs, which implies that bilateral surveillance and ad-hoc LIC-related cross-country papers have substantial value added. Finally, the impact of the Fund's LIC surveillance work goes well beyond the LIC authorities, with many donors and private sector actors drawing on the Fund's work in their engagement with LICs.

Figure 1. Country Authorities Survey
Impact of Fund Surveillance
(1 = not at all, 2 = a little, 3 = some, 4 = a large extent, 5 = a very large extent)







[2] The LICs in the chapter are defined as all the member countries that are PRGT-eligible. This is a group of countries with low per-capita income that do not have durable and substantial access to financial markets—see *Eligibility to Use the Fund's Facilities for Concessional Financing* for detailed entry and graduation criteria.

2. **Fund surveillance in LICs covers a broad set of issues, including several that may be less relevant (or less prominent) in more developed countries**. In particular, LICs' macroeconomic policies are closely linked to their longer-term poverty reduction and growth objectives. Generally speaking, a stable macroeconomic environment is a necessary condition for strong and durable poverty reduction and growth, and the manner in which stability is pursued can have important social and growth implications. For instance, Fund surveillance may consider the fiscal implications of addressing large-scale infrastructure needs or how to maintain stability while addressing financial sector underdevelopment.[3] Weak policy frameworks and institutions require particular attention to structural and governance issues, including public financial management. Fund surveillance should also take into account social pressures and tensions in order to provide a comprehensive analysis of macroeconomic vulnerabilities and risks. In this context, it is essential for the Fund to work with development partners to track progress in poverty reduction, meeting the Millennium Development Goals (MDGs), and implementation of priority spending and donor support. Failure to address these LIC-specific issues would limit the effectiveness and relevance of policy advice. Finally, within the set of LICs, states in fragile situations face unique challenges—very low capacity, severe resource constraints, a fractious political environment, to name but a few—that warrant a tailored approach (see *Macroeconomic and Operational Challenges in Countries in Fragile Situations*). In these countries, surveillance would need to pay much greater attention to the political economy of reforms.

3. **LICs are particularly vulnerable to external shocks**. Over the past few decades, LICs' economies have become relatively open and sensitive to commodity price movements, both on the import and export side. International food and fuel price shocks can have severe consequences for the poor, often resulting in fiscal interventions which need to be well targeted. With external grants in LIC budgets amounting to 4–5 percent of GDP, or about one sixth of total revenue, dependence on large and volatile aid flows represent an additional challenge for macroeconomic management. Remittances can also represent an important source of external inflows. In addition, LICs tend to have weak coping mechanisms such as ineffective automatic stabilizers and credit constraints for consumers, businesses and governments. Access to international financial markets is very limited or absent. These are important issues that surveillance will need to remain attuned to.

4. **Some standard surveillance tools should be adapted to address LIC-specific issues**. As discussed in more detail below, greater attention to differences in economic structure, institutions, and data and capacity constraints in surveillance methodologies would be an important step in strengthening Fund surveillance in LICs. This is particularly true of

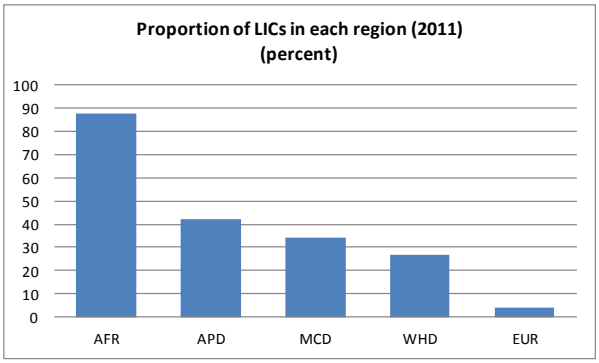
[3] The Fund's *Bilateral Surveillance Guidance Note* explicitly recognizes that the issues relevant for surveillance are broader for LICs than for many other countries, including some policies with a direct link to supporting growth and poverty reduction.

financial sector surveillance and external stability/exchange rate assessments. The VE-LIC[4] exercise could play a useful role in identifying spillovers on LICs and integrating them into bilateral surveillance. This could be facilitated by more regular focus on LIC-specific issues in the Fund's multilateral surveillance, which could also serve as a source of cross-country analysis to inform policy discussions. The three issues related to LIC surveillance featured in this background paper are multilateral surveillance, financial sector surveillance and exchange rate assessment.

II. LIC Multilateral Surveillance

5. **Low-income countries have not featured prominently in the Fund's flagship multilateral products**. The World Economic Outlook (WEO), Global Financial Stability Report (GFSR) and Fiscal Monitor are generally focused on advanced countries and emerging markets, with emerging and developing economies usually grouped together in data presentations. An exception to this was the Fall 2010 Fiscal Monitor, which presented LIC-specific data and policy discussions, including a short general discussion on medium-term fiscal trends in LICs. During 2008–10, the WEO and GFSR have dedicated a total of approximately 2 pages to LIC-specific discussions.[5] Nonetheless, a survey found that a large proportion of LIC country authorities found the WEO (100 percent) and the GFSR (67 percent) to be useful in sharpening their views—a likely reflection of the importance of external developments for LICs.[6]

6. **Regional Economic Outlooks (REO) provide LIC-specific cross-country analysis, but with a regional focus**. Generally speaking, the analysis in REOs tends to group countries by sub-regions rather than by income level and infrequently provides a LIC-specific discussion. A notable exception is the sub-Saharan African (SSA) REO, which covers a group of countries with a high proportion of LICs (and just under half of all LICs globally) and regularly raises policy issues relevant to LICs in SSA. Over the 2008–10 period, the Asia and Pacific (APD) REO has begun to



[4] The VE-LIC exercise complements similar vulnerability exercises for advanced countries and emerging markets, adding an important tool for the assessment of risks across all LICs. See *Managing Volatility: A Vulnerability Exercise for Low-Income Countries*.

[5] This does not include the standard regional discussion on SSA which averages approximately 3 pages per WEO and discussions which group EMs and LICs together, including the April 2008 WEO chapters on climate change, and globalization and commodity prices. This also excludes a one-page box on the effects of the global financial crisis on trade finance in SSA in the Fall 2009 GFSR.

[6] The survey suggests that these documents are particularly useful in providing information on global economic trends and risks that serve as inputs into LIC authorities' macro-economic projections and scenarios.

regularly feature a section dedicated exclusively to LICs which has evolved from a topic-specific discussion such as commodity prices and the impact of the crisis (in text boxes), to a chapter on Asian LICs and Pacific Islands covering more general issues related to LICs. Of the remaining REOs, the 2008 Middle East and Central Asia (MCD) REO included some reference to LICs in the region, but more recent editions have not grouped countries by income levels.

7. **The IMF has recently stepped up efforts to provide an analysis of issues relevant across LICs globally to help inform the policy dialogue with country authorities and donors**. An interdepartmental LIC Consultative Group (begun in 2008) meets frequently to discuss key LIC-specific issues and coordinate potential projects. Recent papers prepared by cross-departmental teams have provided a cohesive framework for policy advice on topical issues affecting LICs. In 2008, policy guidance was prepared on how to respond to the increase in global food and fuel prices (*Food and Fuel Prices—Recent Developments, Macroeconomic Impact, and Policy Responses* and *An Update*).[7] In 2010, a Fund paper (*Emerging from the Global Crisis: Macroeconomic Challenges Facing Low-Income Countries*)[8] described the policy actions which LICs had taken in response to the 2008–10 global crisis and provided policy advice on a wide range of issues as LICs exited the crisis.[9] This followed two papers (*The Implications of the Global Financial Crisis for Low-Income Countries; International Monetary Fund* and *The Implications of the Global Financial Crisis for Low-Income Countries—An Update*) describing the impact of the crisis on LICs and recommendations on policy responses. In April 2010, a paper (*Preserving Debt Sustainability in Low-Income Countries in the Wake of the Global Crisis*) studied the impact of the crisis on debt vulnerabilities and provided policy guidance on how to address this issue. In 2010, a framework (VE-LIC) was created to monitor systematically vulnerability indicators in LICs.[10] A paper analyzing economic linkages between LICs and BRICs was published in early 2011.[11] Work is currently underway on a paper analyzing the vulnerabilities of LICs in the face of recent and prospective commodity price rises, using the new VE-LIC framework.

[7] This issue will be revisited in the Fall 2011 VE-LIC, as part of a discussion of the impact of more recent commodity price volatility on LICs.

[8] *Emerging from the Global Crisis—Macroeconomic Challenges Facing Low-Income Countries*.

[9] The paper concluded that the stronger macroeconomic position LICs achieved prior to the crisis allowed for an effective policy response. Looking forward, the policy message was that, with the exception of LICs where growth continued to be a concern, it was time to begin rebuilding policy buffers. This theme is consistent with the policy recommendations in the April 2010 SSA REO.

[10] A dry run of the VE-LIC was presented to the IMF Executive Board in April 2011 in preparation for a full run ahead of the 2011 Bank/Fund Annual meetings.

[11] *New Growth Drivers for Low-Income Countries—The Role of BRICs*.

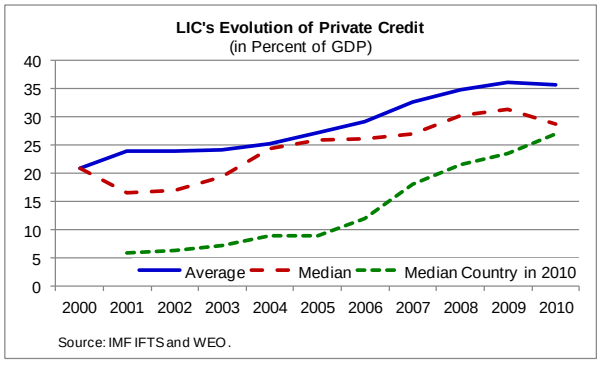
8. ***The new annual VE-LIC exercise could be used to regularize and consolidate such policy work on global* cross-cutting *issues, macroeconomic risks and vulnerabilities***. *The VE-LIC could provide the backbone of the analysis, with a focus on tail risks, scenario* analysis and related cross-cutting policy challenges. The analysis could also summarize debt vulnerabilities in LICs, building on *the periodic reports that Bank and Fund staffs propose to produce once the HIPC/MDRI annual report is discontinued. This work would help inform country work* by focusing on common near-term risks and policy challenges across all LICs. No additional resources would be needed, as work on the VE-LIC and related papers has already been factored into the work plan, and would take the place of previous ad hoc studies.

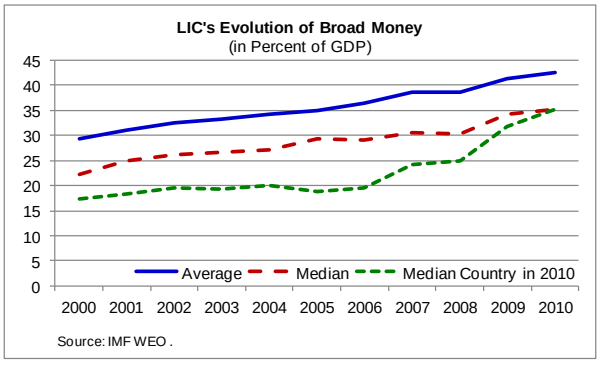
III. Financial Sector Surveillance in LICs

9. **The less developed financial sectors in LICs present unique challenges for bilateral Fund surveillance**. Weak data make the standard quantitative analysis, and risk and vulnerability assessment using Financial Soundness Indicators and stress testing more difficult. Capacity constraints, poor risk management in banks, and uneven implementation of regulations, which in many cases do not adhere to international standards (e.g. definition of non-performing loans), complicate assessment of financial sector risk. Weak institutions and legal and governance issues pose significant additional challenges. On the opposite side of the ledger, the relatively unsophisticated financial sectors in LICs—with e.g. no complex financial products, and limited reliance on wholesale funding—could make IMF financial sector surveillance more straightforward than in more advanced economies.

10. **Financial sectors in LICs have been deepening (Figure 2) over the last decade, and have become increasingly integrated in global financial markets (Table 1)**. Financial sector development is an important element of a LIC's long-term growth strategy. It has the potential to increase growth by tapping additional sources of capital, both domestic and foreign, and allocating it more efficiently. [12]

Figure 2. Financial Deepening in LICs





[12] An upcoming Board paper will analyze financial deepening in LICs.

Table 1. Recent and Planned Eurobond Issuance for LICs

Country	Amounts (in US$)			Current Rating		
	Done	Planned 1/	Remaining	Fitch	Moody's	S&P
Angola	-	500	500	B+	B1	B+
Georgia	500	500	-	B+	Ba3	B+
Ghana	-	700	700	-	-	B
Kenya	-	500	500	B+	-	B+
Mongolia	-	375	375	B+	B1	BB-
Nigeria	500	500	-	BB-	-	B+
Senegal	500	500	-	-	B1	B+
Tanzania	-	500	500	-	-	-
Uganda	-	500	500	B	-	B+
Zambia	-	500	500	B+	-	-

1/ As indicated by the authorities.

11. **While financial sector development can support growth and enhance the tools of macroeconomic management in LICs, it can also create new risks**. Financial sector coverage in low-income countries needs to pay greater attention to the impact of underdeveloped financial markets on the effectiveness of macroeconomic policies and the economy's ability to absorb shocks. The thinness of markets weakens the transmission channels of macroeconomic (especially monetary) policies and limits financial institutions' ability to hedge their portfolios against potential risks. While economies with deeper financial sectors are likely to be better equipped to absorb shocks, a larger, more sophisticated, and more interconnected financial sector will also pose new challenges to domestic supervision. Fund surveillance will play an important role in addressing new potential vulnerabilities associated with this transition, including the implications for macro-financial linkages.

12. **Over the past few years, numerous large banks in LICs have experienced severe problems, jeopardizing financial sector stability and carrying large fiscal costs**. Some examples of note are:

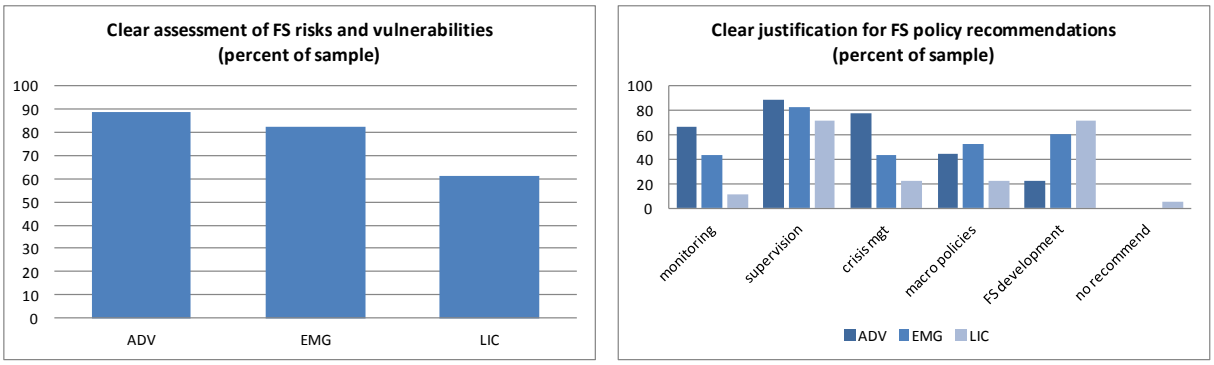
- In Nigeria, a banking crisis materialized in 2009, following very rapid credit growth (of over 140 percent in 2008) which was mostly used to purchase equities, much of it in the stock of domestic banks themselves. When the equity bubble burst, non-performing loans of banks began to mount rapidly and the central bank had to inject liquidity to the troubled banks to avoid a systemic banking crisis. The cost of cleaning up the balance sheets and recapitalizing the troubled banks is estimated at 7.5 percent of GDP (see IMF CR 11/57).
- In Afghanistan, the largest commercial bank (Kabul Bank) experienced a bank run in September 2010, after insider lending and risky real estate operations had led to losses equivalent to more than 5 percent of GDP.

- In the Kyrgyz Republic, a 2010 change in government exposed weaknesses in the largest bank (Asia Universal Bank) which had been favored by the previous regime and had increased its share of overall system deposits to almost 50 percent in a short time span.[13]
- In Nepal, the regulatory and supervisory framework was unable to keep pace with a rapidly growing financial sector characterized by fast credit growth, new banking sector licenses and sharp increases in stock and real estate prices. Many banks are now experiencing severe capital and liquidity problems and systemic risks are high.
- In the Democratic Republic of Congo, the third largest bank (Banque Congolaise) is being liquidated after an unsuccessful attempt to restructure it. This has the potential to have an adverse effect on both the fiscal balance and NFA, estimated at about ¾ of a percent of GDP each.
- In the Caribbean, recent failures of non-bank financial institutions illustrate that these crises need not be limited to the banking sector, or to a single country. The 2009 collapse of the Trinidad and Tobago-based CL Financial Group continues to pose major challenges to the Eastern Caribbean Currency Union (ECCU), which includes some LICs.

13. **Financial sector surveillance in LICs has not kept pace with these changes**. The review of 50 Article IVs confirms that, for the financial sector, the assessment of risks and vulnerabilities and policy guidance is weaker in LICs than in advanced and emerging economies, reflecting a more limited focus on these issues in LIC cases consistent with the more modest traditional role of financial-sector-led intermediation in these economies. Recent experience highlights the importance of deepening financial sector surveillance to go beyond a narrow focus on the soundness indicators for the banking system and cover—in a more consistent way—the broader implications of financial sector development on growth and stability. Moreover, bank failures in LICs suggest that more LIC-specific guidelines are needed to better identify risks at an early stage and provide a framework to cope with banks when they fail.

[13] See *Kyrgyz Republic—Ex Post Assessment of Longer-Term Program Engagement*, Box 7.

Figure 3. Staff Assessment of Article IV Reports
Financial Sector Surveillance



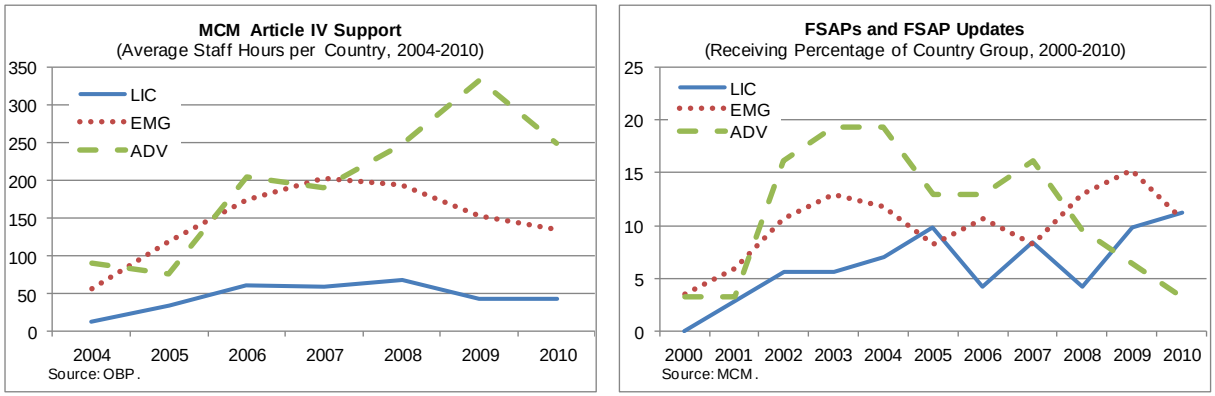
14. **Existing financial sector surveillance guidance could be supplemented by the development of simple and practical guidelines to address key LIC-specific issues**. Efforts to establish the conditions under which financial sector development in LICs reduces economic volatility could help lay the foundations for surveillance guidance in this area.[14] To strengthen assessment of risk and vulnerabilities in LICs, a basic list of red flag issues could be drawn from previous LIC bank and NBFI failures. LIC-specific guidance on how to resolve a troubled bank in an environment where there may be governance issues, a lack of deposit insurance or where the bank is heavily state oriented, could also help strengthen LIC surveillance. Progress in these areas will require continued collaboration with the World Bank. The IMF-World Bank LIC Financial Group, under the auspices of the Financial Sector Liaison Committee (FSLC), could play an important role, having already made progress in establishing a data portal to remedy financial sector data deficiencies in LICs. While recognizing the interplay between stability and development, Fund financial sector surveillance should continue to focus on stability, with the World Bank taking the lead on financial sector development.

15. **Assessing potential financial sector spillovers and the need for supervisory cooperation across LICs create additional challenges for Fund surveillance in LICs**. While the recent global crisis showed that inward spillovers to LICs were largely channeled through trade linkages, increasing integration of LIC financial systems, both at the regional and global level, may create new potential risks (See Box 1). Monitoring developments in supervisory cooperation and assessing the potential for spillovers in LICs could be an increasingly important element of surveillance. In this context, the VE-LIC spillover and scenario analysis could play a significant role.

[14]The Fund's *Financial Sector Surveillance Guidance Note* does not present issues as pertaining to a country's income level, noting that this issue is a matter of *degree* of emphasis between different risks and policy areas. While it recognizes that financial sector development has important implications for domestic and external stability, it does not provide guidance on institutional and policy issues which are more specific to LICs.

16. **Finite resources for financial sector surveillance present a challenge for surveillance in LICs**. As in all cases, the provision of financial sector experts on Article IV mission teams helps strengthen financial sector surveillance in LICs. However, while MCM devotes considerable TA resources to LICs, MCM participates much less frequently in LIC surveillance than in surveillance in other countries. This further points to the need for clear guidance and calls for consideration of ways to leverage scarce resources more effectively. FSAPs also help strengthen financial sector surveillance by providing a comprehensive assessment of longer-term policy challenges. While LICs have received a proportionate amount of FSAP resources over the past few years, it will be important to monitor developments closely to ensure that the Fund's commitment to regularly provide FSAPs to systemically important jurisdictions does not excessively limit resources for LICs in the future.

Figure 4. IMF Financial Sector-Related Resources Dedicated to LICs



Box 1. Inward Spillovers to LICs

Low-income countries are particularly vulnerable to external shocks, some of which are created both directly and indirectly by spillovers from policies in systemically important countries. As a group, LICs are relatively more open and sensitive to changes in the terms of trade and external demand. Commodity price volatility can have a big impact on growth for commodity exporters and fiscal implications, particularly as efforts to protect the most vulnerable from food and fuel price volatility significantly increase subsidy costs. External flows from FDI, remittances and foreign assistance are also essential determinants of growth and stability and are often influenced by policy decisions outside of LICs.

While, historically, spillovers in LICs have come mainly through trade linkages and non-portfolio flows with direct consequences for GDP growth, further integration of LICs with global financial system imply that the potential consequences of volatility in capital flows has increased. For example, the recent global crisis showed that banks in Asian LICs were exposed to the risk of cross-border liquidity drying up.[1] Spillover in LICs could arise from regional, as well as globally, systemic sources.[2] Examples of spillover to LICs include:

Textile sector: Exchange rate and wage policy in large countries competing in the labor intensive textile industries, including China and India, directly affect the competitiveness of smaller countries such as Bangladesh, where three-quarters of exports are in the ready-made garment industry.

Global interest rates: With an increasing number of LICs tapping international capital markets, movements in U.S. interest rates have the potential for spillover effects to LICs. Higher global interest rates could have a direct fiscal impact and important financial sector balance sheet effects.

Customs Union: In the South African Customs Union (SACU), revenues generated by South Africa, Swaziland, Botswana, Namibia and Lesotho can be greatly affected by revenue policy and the formula that is used for revenue sharing. In this context, a fall in SACU revenues in recent years has resulted in large spillovers from South Africa to the smaller members of SACU.[3]

Regional financial integration: Banks with regional interests, including local banks from SSA countries with a presence in neighboring countries, have the potential to create spillovers through financial sector channels.

Spillovers in LICs are being studied through the VE-LIC framework. While this is being used to evaluate the impact of global shocks on LICs, further refinements currently underway, including estimating elasticities to capture better the heterogeneity among LICs in scenario analysis, could make the VE-LIC a valuable tool to assess the potential for and magnitude of spillovers into LICs from policies of individual countries with systemic global or regional importance.

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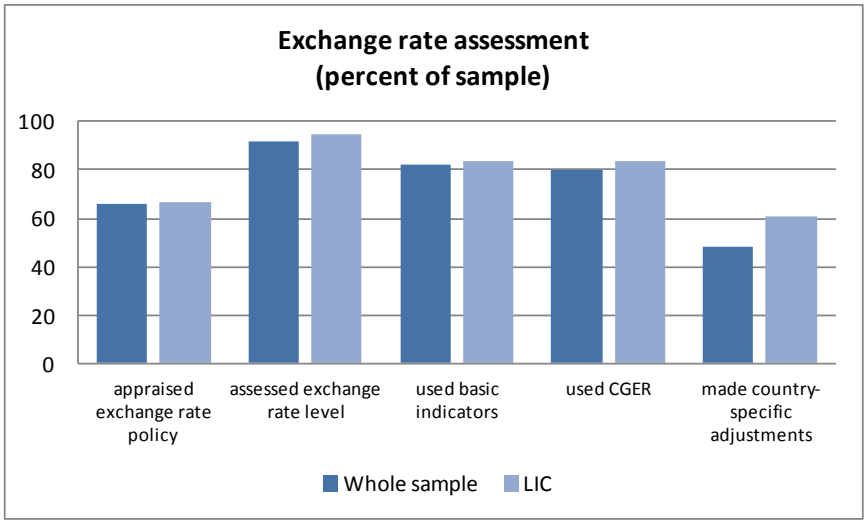
[1] See the Spring 2011 *APD REO*.
[2] See *New Growth Drivers for Low-Income Countries: The Role of BRICs*, IMF.
[3] See *In the Wake of the Global Financial Crisis: Adjusting to Lower Revenue of the South African Customs Union in Botswana, Lesotho, Namibia, and Swaziland*. IMF Africa Departmental Paper No. 11/01.

IV. Exchange Rate Assessment in LICs[15]

17. **Exchange rate-related issues have received more attention in LIC surveillance following the adoption of the 2007 surveillance decision**. A review of a sample of 50 Article IV staff reports does not reveal quality differences between LICs and higher-income countries in terms of assessing the appropriateness of the exchange rate policy and exchange rate level, but does evidence a greater use of country-specific adjustments in LICs. In doing these assessments, consistent with the overall trend, most LIC teams have been moving from traditional indicator-based approaches to more model-based CGER methods. Consequently, there does not seem to be a noticeable difference in terms of assessment methods between countries in different income groups.

Figure 5. Staff's Assessment of Article IV Reports—Exchange Rate Assessment

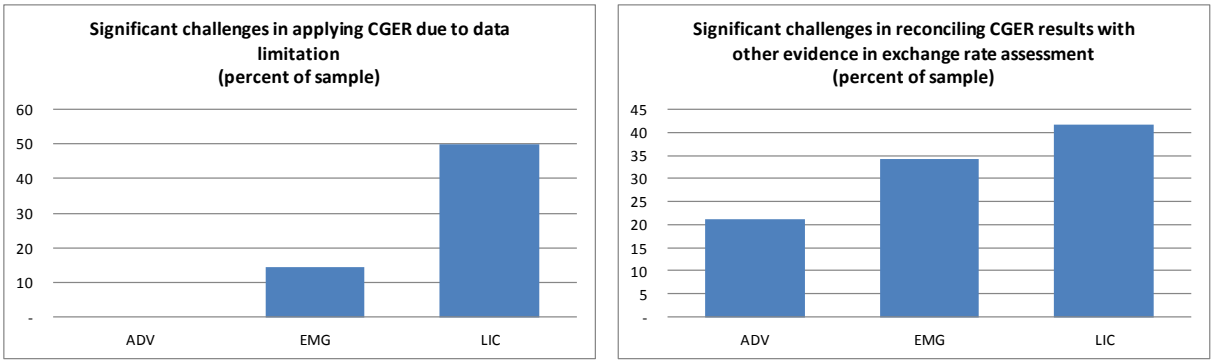


18. **Application of CGER methodologies in LICs yields less robust results than in other countries**. Working groups in the Africa (AFR) and Middle East and Central Asia Departments (MCD) both found that, in many cases, the use of CGER methods did not produce robust results across different specifications or consistent assessments across different approaches. More generally, research has shown that estimating real exchange misalignment in LICs is particularly difficult. De Bella and et al. (2007) reviewed a number of long-term REER estimations in staff reports and found that only about one third of the estimated coefficients for LICs (vs. two thirds for EMs) had both signs consistent with economic theory and statistical significance.

[15] For a broader discussion of CGER across the Fund membership, see Chapter I on Exchange Rate and External Stability Assessments.

19. **Data weaknesses make applying CGER method in LICs technically difficult**. As noted in the 2008 TSR, data issues and structural breaks are particularly problematic in LICs. In many LICs, the length of reliable macroeconomic series is relatively short, which makes uncovering long-run relationships between the equilibrium exchange rate and underlying fundamentals more difficult. For example, the CPI is often the only reliable deflator of nominal exchange rates, yet, in LICs it is a particularly poor measure of price competitiveness in the tradables sector. Significant weaknesses in collecting and compiling required data for CGER methods often reduce the estimates' robustness and meaningfulness in LICs. In addition, structural breaks triggered either by domestic political events or by external shocks are more pervasive in LICs, often leading to abrupt changes in relationships among macroeconomic variables.

Figure 6. Mission Chief Survey
Exchange Rate Assessment



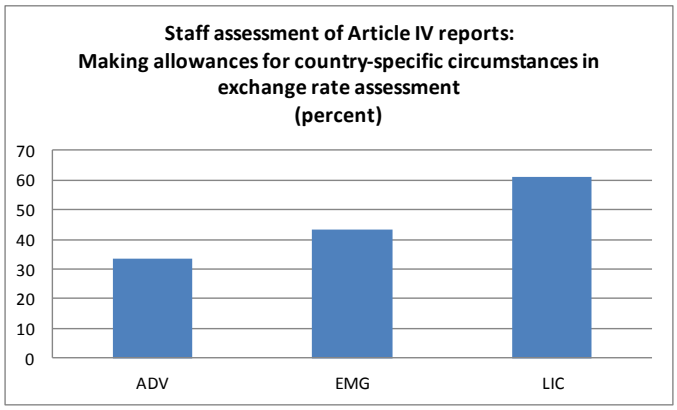
20. **Moreover, LIC-specific structural characteristics pose additional challenges when applying the CGER methods in these countries**.[16] First, the CGER estimates rely on a stable relationship between the current account balance, net foreign assets, and the real effective exchange rate. Most LICs face financing constraints that limit their ability to smooth consumption, but, at the same time, receive a substantial amount of foreign aid and inward worker remittances that do not depend on the exchange rate. Second, CGER methods work best when relative prices are free to adjust and when price signals lead to prompt changes in production and consumption patterns. In reality, price controls are not uncommon in many LICs and the transmission of price signals to real variables is often slow and partial. Third, relative to more developed countries, LICs tend to have a less diversified export structure, and many of them are commodity exporters. Exogenous commodity prices shocks, or more generally terms of trade shocks, often complicate the assessment of the exchange

[16] For a summary of efforts to adjust CGER methodology to account for country-specific circumstances, including commodity exporters and countries which receive significant remittances or aid, see Chapter I on Exchange Rate and External Stability Assessments.

rate, especially when data are weak. Finally, panel regressions across a diverse group of countries diminish the relevance of the estimated coefficients.

21. **Recognizing the difficulties in applying CGER methods in LICs, country teams have assessed and discussed external stability in a broad context**. Alternative methods play an important role in exchange rate and external stability assessments for these countries. In most cases, the CGER-based analysis is part of a comprehensive discussion of external competitiveness, and traditional indicators, such as export market shares or business environment indicators from various sources, provide useful information in this context.

22. **Country teams have also made adjustments to CGER methods to address identified weaknesses**. Specifically, greater attention has been paid to country-specific circumstances in applying the CGER methods in LICs. Among all LIC staff reports under review, more than 60 percent made adjustments to the standard CGER methods. The adjustments made for LICs cover a wide range, including, among others, adding variables deemed important for LICs to the reduced form regression, changing the definition of the regressors, or adjusting the elasticity of the current account balance with respect to the exchange rates.



23. **In recent years, steady progress has been made to modify the standard CGER methods in a more systematic way to improve their application to LICs**. The Research Department (RES) initiated this process in 2008, which started with an effort to build a larger and more consistent database for LICs. The outcome from this exercise suggests that three external indicators (the real effective exchange rate, the current account and net external assets position) can be explained by a broad set of economic fundamentals, although these fundamentals are different from those found in the existing literature or standard CGER methods for AMs and EMs. In particular, aid flows, domestic financial liberalization, the removal of capital account controls, shocks, demographic measures, and the quality of institutions were found to have a great impact on LICs' external indicators. It was determined that these should be appropriately controlled for when assessing exchange rate misalignments in LICs. The area department working groups mentioned above have also taken initiatives in reviewing and improving CGER methods for their countries. MCD has focused particularly on oil-producing countries, while AFR focused on adjusting the standard CGER methods to take into account sub-Saharan Africa's special factors, such as large aid and remittance flows, non-renewable resources, and export concentration.

24. **Nonetheless, further progress is needed**. Greater effort in data collection and compilation and in improving econometric techniques will certainly help. However, data limitations and institutional weakness in LIC that complicate CGER estimates will likely remain for the foreseeable future. Similarly, market distortions and foreign financing constraints are unlikely to go away soon. Against this backdrop, assessing the exchange rate misalignment in LICs will continue to require flexibility and subtlety. Exchange rate assessments in LICs could be strengthened in a number of ways:

- Greater synergy could be sought in improving CGER methods. Resource constraints make it unlikely that a large number of LICs could be included in the centralized regular exchange rate assessments in the near future. However, exchange rate assessments in LICs would particularly benefit from broad guidelines on how to adjust the standard CGER methods to fit different groups of countries based on their defining characteristics (such as non-renewable resource exporters, and large foreign aid or remittance recipients). In this regard, the endorsement of standard adjustments to CGER methods would be helpful and would help to maintain a balance between country-specific circumstances and consistency across countries.
- Staff reports could be more candid about the limitations of the CGER methods and be more cautious in identifying misalignments given that applying CGER methods in LICs often leads to much higher margins of uncertainty surrounding the estimates.
- Determining whether the CGER methods are appropriate for a particular country requires careful judgment. For instance, the three CGER methods may point in different directions or the estimated deviations from the equilibrium may at times be far apart from each other. Simple averaging may not be appropriate given that the estimates from these approaches are unlikely to be equally appropriate for a particular country. If none of the CGER methods generates reasonable estimates, staff may choose not to present these estimates.
- Finally, a comprehensive evaluation of exchange rate misalignment in LICs should discuss the consistency between CGER-type analysis and basic external sector indicators, including dynamics of the current account balance and export market share, foreign exchange intervention, parallel market rates and the accumulation of foreign assets, as part of a broad discussion of external stability.