Part 2

Report of the External Evaluation Committee on the IMF's Economic Research Activities

Contents

Committee Members		9
Exe	cutive Summary and Recommendations	10
l.	Introduction Objectives of the Evaluation How the Evaluation Was Conducted Structure of the Report Research and the Wider Environment of the Fund	13 13 13 14 14
II.	The Role of Research What Is Research and Why Is It Needed at the Fund? Nature and Organization of Economic Research in the Fund	15 15 17
III.	The Committee's Evaluation of Research Activities Evaluation of Research Output Evaluation of Inputs and the Research Process	18 18 22
IV.	Recommendations for Change Key Recommendations Supplementary Recommendations	34 34 39
Anr	nexes	
III.	Terms of Reference Nature and Organization of Economic Research in the Fund The Review Process IMF Organizational Chart Glossary	44 46 60 62 63
Bibliography (Selected)		66

Boxes I. Case Study of Research on Inflation Targeting 20 The Fund's Performance Assessment and Rating System 28 **Tables** Research Products of the IMF by Country Specificity, 1995-98 52 Research Products of the IMF by Type of Country, 1995-98 52 Research Products of the IMF by Department, 1995-98 53 Research Products of the IMF by Research Topic, 1995-98 53 Research Products of the IMF by Document Type and Department, 1995–98 54 Comparison of Citations of Staff Papers, Brookings Papers on Economic Activity, and World Bank Economic Review (Citations of 1991 and 1995 Articles) 54 7. Comparison of Journals Citing Staff Papers, Brookings Papers on Economic Activity, and World Bank Economic Review (Citations of 1991 and 1995 Articles) 55 8a. 1971-99 Citations of Staff Papers Articles Published in Selected Years (Excluding Citations in Staff Papers) 58 8b. 1971–97 Comparison of Total Citations (Over Selected Time Periods) of Staff Papers 59 Articles Published in Selected Years (Excluding Citations in Staff Papers)

Committee Members

Frederic S. Mishkin (Chairman) A Barton Hepburn Professor of Economics, Graduate School of Business, Columbia University,

United States

Francesco Giavazzi Professor of Economics, Department of Economics,

Bocconi University, Italy

T.N. Srinivasan Samuel C. Park, Jr. Professor of Economics and Chairman, Department of Economics, Yale Uni-

versity, United States

Note: Johanna Honeyfield, Special Projects Officer, served as the coordinator of this committee. She was much more than a coordinator of the committee: but for her efficiency, energy, enthusiasm, and intimate knowledge of the Fund as an organization, we would not have been able to complete our report successfully and in time. We thank her for her extraordinary work going above and beyond the call of duty. We also thank Michael Vaney for his research assistance. Finally, we thank the Director and staff of the Office of Internal Audit and Inspection, in particular Elena Frolia.

Executive Summary and Recommendations

esearch is critical to the Fund's successful operation because it provides the analytical foundations for the work of the institution. Without it, the Fund's views and advice would lack credibility. The contribution of research to the work of the Fund depends on ensuring that research is relevant, of high quality, and disseminated effectively. Our evaluation finds that there is room for improvement on these dimensions.

Specifically, we find the following.

- Although the Fund produces some excellent research products, there is substantial room for improvement in the overall quality of the Fund's research.
- The mix of research conducted at the Fund needs to be directed more to areas where it can add the most value.
- Research in functional departments needs to be integrated to a greater extent into operational work.
- Fund researchers do not have the visible profile in the outside world that they had in the past.

To determine the factors that lie behind these conclusions, we examine five basic issues central to the research process:

- · organizational structure;
- · culture;
- incentives and accountability;
- · resource allocation; and
- · dissemination.

We find room for improvements on a number of fronts and we make a set of recommendations to achieve these improvements. The recommendations focus on setting priorities for research activities in the Fund and improving incentives and accountability in the research process. Most of the recommendations directly address research activities. However, we believe that it is also important to improve aspects of the wider environment that have an important influence on incentives and resources for research. To this end, we make two recommendations of a more general nature.

Our recommendations are grouped into two sets: this first set consists of 9 key recommendations, followed by a second set of 13 supplementary recommendations.

Key Recommendations

In our evaluation of the research process, we found room for improvement in the following areas:

- the value attributed to research in the day-today priorities of the Fund;
- the amount of time allocated to conduct highquality research;
- the coordination of research and overall research strategy and priorities;
- the mix of research;
- communication between departments regarding their research activities;
- incentives to conduct high-quality research;
- openness to the outside world;
- the choice of visiting scholars; and
- the allocation of resources for hiring consultants.

The following three recommendations, which focus on allocation of the Fund's scarce resources, address the issues identified above.

1. Create a Committee on Research Priorities to assist in strategic planning and to support research activities.

This committee should identify research priorities for the Fund. It should also provide resources to research projects it selects from those submitted to it and make Fund-wide decisions on inviting visiting scholars and hiring outside consultants.

2. Introduce explicit departmental targets for staff time allocated to research activities.

Each department should be required to set aside a share of its staff time for research and make this explicit in its budget.

3. Shift the mix of research toward topics that add most value.

Within its mandate, the Fund should shift more of its research efforts toward developing and transition economy, cross-country, and financial sector research.

The following could also be improved:

- collaboration between departments;
- incentives for researchers to be involved in the policy development process;
- accountability of staff involved in research work.

The three recommendations that follow address these issues, and those mentioned earlier, by making improvements to various aspects of the Fund's incentive structure.

4. Create incentives to improve collaboration between departments and to encourage researchers to contribute to policy work.

Research staff should receive credit in their annual performance reviews for providing valuable service to other departments, based on input from these departments. Requests for assistance on major policy development projects and mission work should be advertised on the Fund's internal website.

5. Improve the assessment of research quality in the annual performance evaluation system.

The performance assessment for research staff should be based more systematically than at present on a serious assessment of the quality, and not merely the number, of research papers produced.

6. Give all staff, no matter how junior, opportunities to present their research products to management and the Executive Board.

The Fund should adopt a convention that the primary author or authors of a research product should always be the ones who present it to Management or the Executive Board (unless they opt not to do so).

The culture in the Research Department must be supportive of research.

The following recommendation focuses on the role of the Director of the Research Department in fostering a culture that supports research and engages the department in the policy development process:

Give a clear mandate to the Director of the Research Department to be both an active research leader and economic counselor to the Fund.

A Director of Research should be actively engaged in the research process, as well as being a

source of independent advice to the Fund on policy issues.

There is a need to improve accountability in general and make better use of resources. These issues have important effects on the resources and incentives for research activities but also affect the organization as a whole.

The following recommendations, of high priority but of a more general nature, address these issues.

8. Create a more effective performance evaluation system.

The performance evaluation system should be changed to discriminate more effectively between high and low performers and to encourage poor performers to leave the organization, with a serious threat of termination.

Consider how to reduce unnecessary internal review of Fund work and avoid formal written comments where informal communication would be adequate.

As part of an evaluation of the review process, the Fund should consider changes that allow review to take place at an earlier stage of the document development process, make communication more informal, and reduce the amount of reviewing.

Supplementary Recommendations

Recommendations 10 to 14 address issues relating to the Fund's culture, incentive structure, and accountability.

10. Encourage participation in relevant external conferences.

As a departmental objective, each department should explicitly set aside time for their staff to participate in external conferences of relevance to the Fund, and ensure that presentations by staff at relevant conferences are rewarded.

11. Put only the names of significant contributors on Fund publications.

Only the names of individuals who have made a significant contribution to the research should appear as authors on Fund publications, and there should be no presumption that senior staff should be listed first on coauthored publications simply because of their seniority.

12. Improve collaboration between World Bank and Fund researchers.

A joint weekly (or biweekly) research seminar, and possibly an annual conference, should be established by the Research Department in conjunction with the appropriate counterparts in the World Bank.

13. Introduce more flexibility into the hiring procedures for entry-level economists.

Economist Program candidates should include those with strong research interests. The Fund should, at the outset, assure some good candidates a place in the Research Department (contingent upon their successful completion of the two-year Economist Program). Candidates with strong research interests should be required to present their research at a seminar and the opinions of active researchers should be taken into account in the hiring decision.

14. Consider streamlining the management structure in the Research Department.

The Research Department should consider adopting a less hierarchical structure as a means of increasing collegiality in the Department, enhancing intellectual exchanges and making efficiency gains.

Recommendations 15 to 18 address issues relating to dissemination of research both within and outside the organization.

15. Write and disseminate nontechnical summaries of highest quality and most relevant research.

Selected research papers with interesting and/or relevant conclusions should be summarized for nontechnical audiences and be disseminated throughout the Fund.

16. Treat working papers as preliminary.

Working Papers should no longer be authorized for distribution by Front Offices or division chiefs and should have the following phrase added to the current disclaimer: "This Working Paper is preliminary and is for discussion purposes only."

17. Create a new vehicle for non-senior staff to make presentations to Management and the Executive Board.

Periodically, perhaps four times a year, staff should make presentations of their research work in an informal meeting of the Executive Board.

18. Improve dissemination of research to nontechnical audiences outside the Fund.

The Fund should review its overall dissemination strategy, consider publication vehicles that have been successful in other public policy institutions and encourage greater researcher involvement in some nontechnical publications.

Recommendation 19 addresses an issue relating to resource allocation in the Fund.

19. Increase the number of research assistants relative to economists.

The Fund should substantially increase the overall number of research assistants, and hire more of them on fixed-term, nonrenewable contracts.

Recommendations 20 to 22 address issues relating to the culture of openness to the outside world.

20. Create an ongoing external review process for research products.

On a periodic basis, the Fund should contract with outside experts to read and comment on the individual products of the research projects that have been approved by the Committee on Research Priorities.

21. Monitor progress on implementing the recommendations in this report.

To ensure the effective implementation of the recommendations in this report that are approved by the Executive Board, the Board should require Management to submit a follow-up report on implementation one year from the date of discussion of this report.

22. Create periodic, general, external reviews of research activities.

The Executive Board should commit to periodic external reviews of research activities at intervals of no more than five years.

Section I Introduction

Objectives of the Evaluation

- 1. This evaluation of the International Monetary Fund's economic research activities was commissioned by the IMF's Executive Board. The evaluation is one of a series of external evaluations looking at different aspects of the Fund's operations.
- 2. The purpose of the evaluation, as stated in the Terms of Reference, is to

assess whether economic research in the IMF contributes successfully to the achievement of the Fund's objectives. For this purpose, the evaluation will assess the appropriateness of the present scale and organization of research activities, the way in which the level of resources are chosen, and how they relate to the overall work of the Fund. The evaluation will also seek to assess the quality and the added value of different aspects of the Fund's economic research and to appraise its utility in the Fund among its member countries, and within the wider economics community.

- 3. Our committee of external consultants was given a six-month timeframe, with total resources of six person-months and a limited travel budget, in which to make an assessment. In making that assessment, we have considered the following broad, interrelated questions:
 - What is the definition of economic research in the context of the Fund?
 - Why does the Fund need research and what are the Fund's research needs?
 - What is the present scale of research in the Fund?
 - Is the Fund doing the right amount, type and mix of research to best meet its needs?
 - Is research organized in the most effective way?
 - Is the research of high quality?
 - Is the research presented and disseminated effectively to the right audiences?

4. The full Terms of Reference for the evaluation are attached as Annex I to this report.

How the Evaluation Was Conducted

- 5. The Committee interviewed a wide range of people, both inside and outside the Fund, to canvass their opinions on Fund research.
- 6. Within the Fund, the Committee interviewed about 100 people:
 - 2 members of management;
 - 15 Executive Directors;
 - 36 A-level economist staff and 40 B-level staff (including all Department Directors) from the following departments: African, Asia and Pacific, European I, European II, Fiscal Affairs, IMF Institute, Middle Eastern, Monetary and Exchange Affairs, Policy Development and Review, Research, Statistics, and Western Hemisphere.
- 7. We also interviewed several staff in the Administration and External Relations Departments. We actively sought interviews with a number of the people we interviewed. However, we also circulated an open invitation to all members of the departments mentioned above to meet with us if they wished to.
- 8. Outside the Fund, we spoke to 86 people. Of these:
 - 15 are former Fund staff (5 are now in academia, 4 are now in policymaking capacities in national governments, 3 are now in the private financial sector, 2 are retired, and 1 works in a policy institute);
 - 30 are national policymakers (in 12 countries in Europe, Asia, North and South America);
 - 5 work at the World Bank;
 - 17 are in academia (many with some prior or current link to the Fund or the World Bank);
 - 10 work in policy institutes;
 - 3 work in the private sector; and

- 6 work in other international financial institutions.
- 9. Given limited time and budget for travel, we could not realistically interview all potential producers and users of Fund research. However, our interviewees are large in number and cover a wide spectrum of all interests inside and outside the Fund.
- 10. We also collated a list of the Fund's research output in the last four years (1995–98) and reviewed samples of the output for quality and relevance. This process is described in greater detail in the beginning of Section III.
- 11. We are grateful to all those we interviewed for their insights, and to Fund staff in support functions who provided us with background information, data, and other Fund records.

Structure of the Report

- 12. We begin in Section II by articulating our view of the role of research in the Fund. We first define research in the context of the Fund, then consider why research is important for the Fund. The details of how research is organized are found in Annex II.
- 13. Section III contains our evaluation of the effectiveness of research activities in helping the Fund to meet its objectives. We outline what we expected to see in the research operations of an organization such as the Fund, and assess the extent to which the Fund's research operations meet our expectations.
- 14. Section IV contains our recommendations for improvement in the way research is organized, and operates. These recommendations are designed to ensure that the Fund's research activities provide support for its operations and policy advice, thereby putting the Fund in a strong position to advocate and defend its advice and views to relevant external parties. The recommendations fall into two sets. The first set contains nine key, high-priority recommendations. The second set supplements and reinforces the nine key recommendations.

Research and the Wider Environment of the Fund

- 15. In any evaluation of a part of an organization's functions, it is also necessary to consider how that part interacts with the rest of the organization. In evaluating research in the Fund, it is particularly necessary to consider the way the whole organization works because
 - research is not simply an output per se, it is also an essential input into other parts of the Fund's operations (lending, advising on policy, etc.); and
 - research in the Fund is done throughout the organization, not only in the Research Department (although the type of research and the amount of time devoted to research varies significantly across the Fund).
- 16. Many of the issues that have important effects on the environment and incentives for research also affect other activities in the organization. We have therefore viewed the Terms of Reference for this report broadly, to include issues that affect other aspects of the way the organization operates as well as research.
- 17. We are also aware that in reviewing research—a specific activity of the Fund—we run the risk of failing to consider the trade-offs between the needs of research and the needs of other activities in the Fund. Research is extremely important to the Fund. However, we recognize that trade-offs have to be made between effort devoted to research and to other activities. These trade-offs are best made within the framework of an overall strategic plan for the institution, which would also set the broader framework for deciding on research priorities.
- 18. While the scope of our review necessarily must be limited to research activities, we believe it should feed into a wider strategic planning process so as to allocate sufficient resources for research activities and to determine where to concentrate research effort.

Section II The Role of Research

What Is Research and Why Is It Needed at the Fund?

Definition in the Context of the Fund

- 19. Research can mean different things to different people. Our terms of reference note that "the boundaries between research and operational work are not clear-cut, since much of the staff's regular work on surveillance and the use of Fund resources involves elements of research." In other words, research in the Fund is, in many cases, an intermediate input into many of the Fund's other activities.
- 20. Recognizing this, in the context of the Fund, we define research widely as the set of activities that provide an analytical foundation for the Fund's operations. These activities might involve either developing new or improved theoretical and empirical frameworks and databases or making use of existing frameworks to provide an analytical basis for decision making and policy advice. Research, in whatever form it takes, should be thought of as an investment. Research adds to the stock of the Fund's knowledge and human capital and feeds through into operational work to achieve the overall objectives of the Fund.
- 21. For the purposes of our evaluation, we have identified three categories of research at the Fund. Research in each category has different objectives and can result in different end products—some of which will be stand-alone research papers while others will be incorporated into staff reports, papers presented to the Executive Board, or internal memoranda.

Policy Foundation Research

This is research that develops basic analytical tools and frameworks on which the development and analysis of policy rests. Some research of this kind is done in academia. At its broadest, it covers a wide variety of research, some of which is only very distantly related to policy. Policy foundation research also includes the creation of new data sets that are essential for sound empirical research. Some recent examples of policy foundation research conducted in the Fund include the following:

- "Are Currency Crises Predictable?" This paper evaluates the effectiveness of three different pre-1997 econometric models in predicting currency crises.
- "Asymmetric Information and the Market Structure of the Banking Industry." This paper examines the role of asymmetric information in the determination of the equilibrium structure of loan markets in the context of a multiperiod model of spatial competition.
- "Does the Introduction of Futures on Emerging Market Currencies Destabilize the Underlying Currency?" This paper investigates whether volatility spillovers from the derivative market destabilize the underlying cash market and disrupt the exchange rate policy. The paper examines three emerging market countries—Mexico, Brazil, and Hungary—that have already allowed derivative contracts on their currencies to be traded.

Policy Development Research

This is research that draws on policy foundation research to create the broad policy frameworks (strategy) that guide the Fund's operations. Recent examples of policy development research conducted in the Fund include the following:

- "Sequencing Capital Account Liberalization: Lessons from the Experiences in Chile, Indonesia, Korea, and Thailand." This paper examines the sequencing of capital account liberalization and draws lessons from experience in four emerging market economies: Chile, Indonesia, Korea, and Thailand.
- "IMF-Supported Programs in Indonesia, Korea, and Thailand: A Preliminary Assessment." This paper examines the 1997/98 Fund-supported programs in each of these countries and draws lessons from the experience.
- "Dollarization: Implications for Monetary Policy." This paper reviews recent trends in

the use of foreign-denominated monetary assets in developing countries, then analyzes the implications for the choice of exchange rate regime and choice of monetary aggregate for programming purposes.

"The Scope for Inflation Targeting in Developing Countries." This paper considers the wider applicability of inflation targeting as a monetary policy framework in several developing countries.

Policy Analysis Research

This is research that draws on policy development and policy foundation research. It is research that looks at the specific details of a policy problem and is needed to provide policy advice in the day-to-day operations (tactics) of the Fund. For example:

- "Measuring Currency Volatility in Poland."
 This paper assesses the degree of volatility of
 the Polish zloty in currency markets and considers whether the volatility of the zloty may
 be increasing over time.
- "The Transmission of Monetary Policy in Israel." This paper investigates the transmission of monetary policy to real activity in Israel from January 1990 to April 1997 and assesses whether monetary policy significantly influences real activity and the relative importance of different transmission channels from monetary policy to real activity.
- "Inflation Targeting in Korea: An Empirical Exploration." This paper explores some of the practical aspects of a move toward inflation targeting in Korea and assesses whether an inflation-targeting framework is likely to be successful in Korea.
- 22. The first two categories (policy foundation research and policy development research) require a substantial amount of time to produce. The third category, policy analysis research, can sometimes involve a long research process, but often covers research conducted in relatively short timeframes (a few days to a month).
- 23. While there is likely to be disagreement over the terms we have used to describe each type of research, or which category certain specific pieces of research fall into, such disagreements should not detract from the importance of the general conceptual distinction that we are trying to make between the categories. Inevitably, in the Fund, these types of research will blend into each other. This is desirable. Research should be both proactive and reactive. Proactively, research ideas feed into a pipeline: that is, policy foundation research feeds into policy de-

velopment research, which feeds into policy analysis research, which feeds directly into the Fund's operations. Reactively, problems or issues that arise during operations may call for research on policies, which in turn could stimulate policy foundation and policy development research.

Why Does the Fund Need Research?

- 24. The Fund has two core functions:
 - monitoring the economic performance of Fund members and providing them with policy advice, technical assistance, and financial resources to improve macroeconomic and financial management in their economies; and
 - monitoring and analyzing the functioning of the international monetary and payments system and providing advice for ensuring the system's stability and efficiency.
- 25. Research of all three types we identified at the beginning of this section is crucial to performing these core functions successfully:
 - Policy foundation research helps the Fund assess the models and assumptions that underlie its policy advice in light of new ideas, and prevent rigid, entrenched thinking. While its relevance for policy can be somewhat less immediate, in the long term, it can fundamentally change the way the Fund thinks about policy issues.
 - *Policy development research* helps the Fund identify successful, as well as demonstrably failed, general policy approaches. This knowledge can be used to help design better policy recommendations for members and organize its own operational policies (such as the Fund's lending facilities).
 - Policy analysis research helps the Fund gain a thorough understanding of how its member countries' economies operate, and what the trade-offs between different policy options may be. This is necessary in order for the Fund to make sound policy recommendations to individual member countries and to its membership as a whole.
- 26. Research is the means by which the Fund ensures that the approaches it takes to the issues confronting its members are the best that the current stock of knowledge and state of the art in policy design can offer. Any organization that relies on old ways of doing things in a changing world will eventually cease to be relevant. There is much still to learn in the field of economic policymaking, and the Fund must continue to learn and update its thinking.

- 27. Of course, the Fund does not, and should not, try to produce all the research that is relevant for its needs:
 - There are certain areas of economic research, particularly some areas of economic theory, where the relevance of the research is difficult to link to policymaking. This research is best left to academia. The Fund cannot hope to create an environment that is conducive to the production of this type of research. Even if it could, and even if the research was of extreme importance for the Fund in the much longer term, it would be difficult to justify the Fund conducting this type of research at the expense of other forms of research that have a more direct payoff to the organization.
 - The Fund can benefit from contracting with outside researchers to conduct some of the research that it needs, particularly when outsiders conduct that research in collaboration with Fund staff. This is a useful way of bringing skills and expertise that the staff do not have into the organization.
 - Most important, the Fund should make use of good research that already exists outside the organization. It is clearly appropriate for the Fund to conduct research on topics relevant to its functions that are also actively studied outside the Fund, but it should use relevant research that already exists outside, without duplicating it.
- 28. However, we strongly believe that the Fund should have an in-house research capacity and should rely only to a very limited extent on external researchers on contract to substitute for its own research. We consider that in-house research is essential for the following reasons.
 - Fund staff with a research orientation need to be given an opportunity to conduct research so that the Fund can continue to hire and retain the best economic minds.
 - Research is more easily drawn into the process of policymaking when the same people that conduct the research are also involved in the operational processes of the Fund.
 - Fund staff have an in-depth understanding of the problems and issues faced by the Fund's member countries. They can use that knowledge to produce more insightful research than those approaching the problem from a more removed position.
 - Fund staff can gain an in-depth intuition from conducting their own research that can be called upon to help in the policy design

- process. Often, in policy design, decisions have to be made quickly. The quality of those decisions can be improved by drawing on someone who has thought about the issue in depth.
- Successful in-house research can independently help enhance the credibility and reputation for quality of the Fund among the academic community as well as policymakers in member countries. This can produce greater confidence in the Fund's recommendations and reduce the likelihood that the Fund's recommendations will be ignored or doubted.
- 29. Some of the people we spoke to asked us whether policy foundation research should be left to the academic community. They were concerned that, for an organization with limited resources and an emphasis on operations, policy foundation research might be an unproductive luxury. Policy foundation research is relatively riskier than other forms of research because there is a greater likelihood that the research will not come up with useful results. However, in our view, when the research succeeds, the returns are very likely to be high. It is our firm belief that policy foundation research should be an important and valued component in the portfolio of inhouse research activities, both for all the reasons described above, and also because
 - the objectives of academic research and the incentives in academia are different, and often not appropriate for producing research helpful for the eventual formulation of policy. However, policy foundation research in the Fund, if accompanied by the appropriate incentives, should be policy relevant even if it does not feed directly into policy work;
 - Fund staff are closer to some of the underlying, real-world issues (on which the Fund has to advise its members) than academics, so they will be able to identify and conduct policy foundation research on these issues in a more effective and timely manner; and
 - most important, policy foundation research is an essential element in generating and nurturing an organizational culture that emphasizes fresh thinking, learning, and continually challenging conventional wisdom.

Nature and Organization of Economic Research in the Fund

30. A description of the type of research conducted in the Fund and the way that research is organized is found in Annex II.

Section III The Committee's Evaluation of Research Activities

31. We have divided our evaluation of research activities into two parts. In the first part, we assess the Fund's research against the characteristics that we consider to be desirable for the research of a public policy institution such as the Fund. In the second part, we evaluate the inputs into the research process, that is, the way Fund research is organized and operates, and how this affects the Fund's research output.

Evaluation of Research Output

- 32. The characteristics of successful research output differ across organizations. For example, the characteristics of successful research output in an academic institution are different from those that should define success in a public-policy institution such as the International Monetary Fund. In evaluating the success of the Fund's research output, we looked for the following characteristics in the research:
 - fresh, creative thinking that helps to develop new frameworks for Fund operations and policy advice;
 - sound analytical foundations;
 - support for day-to-day operations such as policy advice to policymakers in Fund member countries:
 - a focus on areas where the Fund has a comparative advantage: i.e., areas in which the Fund is uniquely placed, or better placed than outsiders, to use the resources available to it (expertise, data, information) to conduct good research; and
 - work that enhances the Fund's reputation in its member countries, particularly among their policymakers.
 - 33. We came to the following four conclusions.

Conclusion 1: Although the Fund produces some excellent research products, there is substantial room for improvement in the overall quality of the Fund's research.

34. Policymakers and academics told us that certain flagship research products such as the *World*

Economic Outlook and the International Capital Markets report were both of high quality and of great relevance to them. Particularly noteworthy is that academics, who are typically less interested in these types of research products, cited the International Capital Markets reports as filling a niche that they do not see filled elsewhere. We were also impressed by the quality of these products.

- 35. However, on the whole, with some exceptions, we were not as impressed with other research products we reviewed.
- 36. We looked in detail at 30 Working Papers produced in 1998, which were selected at random from the 182 Working Papers produced in that year (the selection was weighted to reflect the number of Working Papers produced by each department). We decided to restrict ourselves to papers from 1998 in order to provide us with a good snapshot of where research activities are at the present time. While we expected to find a mix of very good and not so good research products (such is the nature of any research process), in general we found that most of the papers had one or more serious weaknesses.
- 37. In some cases, the research was on interesting topics that were relevant to the Fund's work, but the research was either not particularly innovative or it lacked depth. In some cases, the research could have been improved if more care had been put into the way the research was specified and designed. We also thought that several of the papers appeared to have been too hastily produced without devoting the time to refine them. In other cases, the research was excellent, but either the subject matter was not closely enough related to the Fund's core functions or it did not draw out the relevant policy conclusions from the research. In fact, some of the best analytical pieces were rewritten chapters from Ph.D. dissertations that were not closely related to the Fund's work.
- 38. Many of the randomly selected Working Papers covered topics that were outside of the areas of expertise of our committee. To ensure that our conclusions were not biased by an insufficient knowledge of the subject matter, we also undertook a case study of a particular topic of research on which members of our committee have, ourselves, con-

ducted extensive research—inflation targeting (see Box 1). Of the 12 pieces we reviewed, we considered 3 of them to be quite useful for informing the Fund's analysis. However, the other 9 pieces were not particularly noteworthy, either because they were insufficiently developed to make them useful for policy advice or because the papers did not contain analysis that was superior to that which has already been conducted outside of the Fund.

39. In addition to reviewing the random selection of Working Papers and the papers relating to inflation targeting, we also wanted to get a sense of the quality of the research that Fund departments believed to be their best work. We requested that all departments engaged in research send us one or several pieces of research, in any form, that they considered to be their best work produced in 1998. In evaluating the 22 papers we received, we applied the same criteria that we suggest in this report for evaluating the quality of research in the context of annual performance evaluation of researchers (see recommendation 5).

40. We found 12 out of the 22 to be excellent products. Eight papers were analytically competent and extremely pertinent to the Fund's mission. These did not contain any analytical innovation either in theory or empirical analysis, but they were clearly of high value to the Fund's work. Four more were of very high quality not only in their relevance for the Fund's operations, but also in both the theoretical and econometric sophistication of their analyses. These might be accepted for publication in top academic journals. Of the remaining ten, five were of dubious value for the Fund's operations. These included some that were unrelated to the main concerns of the Fund, and others that were either on esoteric topics or that could have been done better by researchers outside the Fund. Four others were analytically weak, in their theory, empirics, or both. The remaining paper was analytically sound but did not sufficiently challenge Fund thinking. Given that the sample represented research deemed by departments themselves to be their best work, we expected a higher number of first-rate pieces.

41. Finally, we also asked people outside the Fund, both academics and policymaking economists, for their impressions of the quality of Fund research. Outsiders' opinions are likely to be based on their impressions built up over several years, and based on their perceptions of a wide range of Fund research products, including publications in journals with which they are familiar, so they give a perspective additional to our survey of recent Fund research. Although these outsiders often admired the Fund's interpretive work, many said that the Fund is not currently contributing as much to

the stock of economic ideas that are relevant to policy as it did in the past.²

42. Outsiders did admire some individual pieces of work, but frequently made the comment that they were disappointed in the total volume of high-quality work, given the resources available to the Fund. Some also thought that the research carried out in the Fund was too "orthodox," that is, too shy to challenge conventional wisdom, particularly the Fund's internal wisdom. In addition, policymakers often did not see the relevance of some of the research to the Fund's mission and commented that Fund research lacked coherence.

43. Parenthetically, we would add that one of the members of our committee participated in two of the recent conferences organized by the Fund ("EMU and the International Monetary System" and "The Future of the SDR in Light of Changes in the International Financial System"). It was his impression, and that of other conference attendees he spoke to, that the conferences were not up to the standards one expects from an institution such as the IMF.

Conclusion 2: The mix of research conducted at the Fund needs to be more directed to areas where it can add the most value.

44. Our reading of various pieces of Fund research and outsiders' reactions to the research they have been exposed to also suggests that the focus of the Fund's research output could be usefully reoriented.

45. In addition to reading the 30 Working Papers and the inflation targeting research, we examined abstracts of 364 Working Papers written in 1997 and 1998³ and read various other pieces of research in detail (Staff Memoranda, conference volumes, Occasional Papers, etc. from all parts of the Fund). We also collated a list of all distinguishable research output conducted in the Fund in the years 1995 through 1998, and categorized the research in various ways (see Tables 1–5 in Annex II).

²We would note, however, that outsiders' perceptions may not fully take account of the fact that in the period of the late 1980s to early 1990s, the Fund's research was not perceived within the Fund as being successfully integrated into its operations.

³Of the 364 Working Papers, 138 (or a little over a third) were on topics of concern to industrial countries only and 166 (or less than half) were on topics of interest to developing countries. The remaining 60 were either theoretical or general enough to be of possible interest to both groups of countries. In addition, using a quick, simplified ratings scale, we assessed the relevance of the research for the Fund and the extent to which it made use of the Fund's special expertise and advantages. Our results, while subjective, suggest that a large number of the Working Papers were on topics that are not central to the Fund's operations and that much of the research is on topics already widely studied outside the Fund.

Box I. Case Study of Research on Inflation Targeting

Inflation targeting has recently become the monetary policy strategy of choice in several industrial countries and a few emerging market countries. Inflation targeting involves:

- public announcement of medium-term numerical targets for inflation;
- an institutional commitment to price stability as the primary, long-run goal of monetary policy and to achievement of the inflation target;
- an information-inclusive strategy, with a reduced role for intermediate targets such as money growth;
- increased transparency of the monetary policy strategy through communication with the public and the markets about the plans and objectives of monetary policymakers; and
- increased accountability of the central bank for attaining its inflation objectives.

Inflation targeting has become increasingly relevant to the Fund's analysis of monetary policy in Article IV consultations and programs. Indeed, in the current Fund program with Brazil, the Fund has agreed with Brazil on the implementation of a new inflation targeting regime, and will monitor its implementation under the program.

Our search of the research output of the Fund in the last five years turned up 12 research products that focused on inflation targeting:¹

- One Working Paper on the theory and policy implications of inflation targeting (policy foundation research);
- Two Working Papers on the cross-country experience with inflation targeting and whether this strat-

¹This may not represent the total Fund research output on inflation targeting because some of the work on inflation targeting was not easily identifiable from the title of the paper.

- egy is feasible in developing and transition countries (policy development research).
- Nine papers on actual or potential inflation targeting regimes in individual countries (policy analysis research). Of these, three appeared in "Selected Issues" documents associated with Article IV consultations for industrial countries (Canada and the United Kingdom). Four more on industrial countries appeared as Working Papers or PPAAs (Canada, the United Kingdom, Italy (PPAA), and Korea), and two, dealing with developing/transition countries (Poland and the Philippines), appeared as Working Papers.

The breakdown above clearly highlights the following:

- The bulk of the research is country-specific, policy analysis research. Only 25 percent of the research is in the policy foundation or policy development research categories.
- The bulk of the country-specific research is on industrial countries. (The classification here is thus consistent with the results in Table 2 in Annex II: a substantial amount of research focuses on industrialized countries relative to the proportion of the Fund's membership that is made up of industrial countries.)

Of the 12 pieces of work, we judged 3 of them to be both relevant and valuable to the Fund's operations:

- Although the two cross-country, policy development research pieces do not break any new methodological ground and often rely on research done outside the Fund, they do provide a sensible survey of the key lessons that have been learned from the inflation targeting experience in the countries that have adopted it. Both of these pieces clearly benefit from their multicountry focus, which allows the authors to see the common features in the different countries' experience
- 46. Our conclusions from these exercises are that, while Fund research covers most of the wide range of issues of relevance to the Fund, the mix of research could be improved to better exploit the Fund's comparative advantage and increase the coverage of underrepresented areas of Fund research:
 - Much of the country-specific research may be policy relevant, but it does not adequately exploit the Fund's comparative advantage of knowledge about a wide range of countries to develop appropriate general frameworks for policy (see case study, Box 1. See also Table 1 in Annex II, which, by a somewhat simplistic measure, indicates that about 40 percent of the Fund's research (by volume) is country
- specific, and about 25 percent is cross country). We were also somewhat surprised that more of the research did not examine the analytical basis for Fund programs.
- Much of the country-specific research on industrial countries does not have sufficient value added; that is, it does not add much to what is already being produced by both policymakers and academics in these countries (see Table 2 in Annex II for a breakdown of research by type of country and Table 3 for a breakdown of research by department).
- Financial sector research is underrepresented relative to its importance (as illustrated by the role of financial sector problems in Japan and

and to provide guidance as to what works and what doesn't. Both pieces, and particularly the one that discusses the scope for inflation targeting in developing and transition countries, develop a framework for deciding when inflation targeting is likely to work in developing and transition countries. This is highly useful to the Fund's operations because inflation targeting is an important alternative strategy to exchange rate pegs, which are currently used by many emerging market and transition countries.

• The paper on the feasibility of inflation targeting for Korea (which uses the policy framework laid out in the two papers above) is a very thorough empirical analysis of whether inflation targeting would be likely to be successful in Korea. It provides the very useful answer that the preconditions for inflation targeting to be successful in Korea are indeed in place. This research could thus be highly useful both to the Fund in its policy recommendations, and to the member country, Korea.

The other papers were less useful.

- The piece of policy foundation research lacked fresh, innovative thinking.
- The two pieces of country-specific research on developing/transition economies were not as thorough as the piece on Korea. One of the pieces was too superficial to provide a solid foundation for policy advice. We suspect that the authors were unable to devote enough time to the work to do a thorough job. This is consistent with complaints from researchers, particularly in area departments, that they do not have sufficient time to do a thorough job on their research.
- The other six pieces of research on individual industrial countries did not appear to be the best use

of the Fund's scarce research resources. The three pieces of research that appeared in "Selected Issues" as part of the Article IV consultations were narrowly focused, mostly repeated what has already been discussed in well-written research produced outside the Fund, and added little that is not already well known in the central banks of these countries. The three Working Papers conducted some sensible empirical analyses, but in all three cases the central banks of these countries, which all have good research departments, have conducted research of higher quality because central banks of the three countries in question have much larger resources to devote to these topics than the Fund, and their economists are as well trained as the economists at the Fund.

What conclusions can we draw from these findings? They suggest the following.

- Much of the country-specific research is less valuable than cross-country research. (We found the latter to be potentially of greater value in assisting the Fund's operations.)
- Area departments may not have time to do sufficiently deep and thorough research, with the result that research is too superficial to be useful for policy analysis (this is consistent with what area department economists have told us).
- A substantial amount of resources is being directed toward industrial country research, which may not always have high payoffs. It can take up to three months of an economist's time to produce a piece of research to appear in a Selected Issues document. This suggests that if less research were done on topics where the Fund can add little value, it would free up significant amounts of time in the organization to pursue research with higher value added.

recent crises in Mexico, East Asia, and Russia) (see Table 4 in Annex II for a breakdown of research by topic).

- 47. Background research for Article IV consultations on industrial countries that synthesizes work done outside the Fund should, of course, continue. However, often, brief summaries that reference the work done outside the Fund would be adequate for informing the Executive Board and country authorities.
- 48. Outside policymakers and academics that we interviewed expressed similar views. They often commented that a disproportionate amount of Fund research appears to be conducted on individual countries, particularly on industrial countries. They said that much of this research focused on narrow

and often technical issues, or on issues where good work was already done outside the Fund, rather than on broader problems that were common to many countries. Some senior policymaking economists indicated that the Fund spends too much time summarizing work that is already well expressed outside the Fund, and thus does not provide sufficient value added.

49. They also indicated that, except for the *International Capital Markets* report, they have not seen much Fund research on financial sector issues, which they regard as an important priority for the Fund. The link between macroeconomic and financial sector performance has been recognized in the economics literature as a very important area of research, and it is an area in which the Fund research has been initially slow to respond.

Conclusion 3: Research in functional departments needs to be integrated to a greater extent into operational work.

50. For research to be both valuable and valued in a public policymaking organization it must be relevant to, and integrated into, operational work. Our interviews with members of the Executive Board, the staff, and people outside the Fund revealed the following.

- Staff in area departments, which are the operational core of the Fund, consider that research conducted in the functional departments is often not sufficiently relevant to their needs.
- Staff in functional departments expressed frustration because they believe that their research is not read by area departments, and their ideas are not adequately taken into account when making operational decisions.
- Some Executive Directors, outside policymakers, and academics believe that Fund research does not provide a solid foundation for Fund policy advice. Some note that Working Papers, in particular, seem too academic to be useful for policy analysis.
- On the other hand, members of the Executive Board valued highly the World Economic and Market Developments presentations. These presentations are provided to the Executive Board by the Economic Counsellor every six weeks. They outline key recent developments in both markets and the economies of the member countries. They not only provide a forum for the Research Department to express its views on current economic events, but also provide the Department an opportunity to comment on Fund policy advice. These presentations are highly valued not only because they provide an excellent overview of the world economy, but because they are candid and, on occasions, challenge prevailing views in the Fund.

Conclusion 4: Fund researchers do not have the visible profile in the outside world that they have had in the past.

- 51. The purpose of Fund research should not only be to provide insights for internal analysis. Fund research also has a role in lifting the profile of the Fund in the outside world. Research acts as a marketing tool to help the Fund sell its ideas and develop an external constituency for its work.
- 52. Fund researchers play an important role in this regard. In interviews, many people outside the Fund, particularly in academia, have told us that Fund researchers are not as active in outside con-

ferences as they once were and that their research, both published and unpublished, does not receive the attention that it once did. We have also noted the relative absence of Fund staff at events organized by two well-known public policy research organizations—the National Bureau of Economic Research and the Centre for Economic Policy Research—which are major sponsors of conferences on public policy that are relevant to the policy issues facing the Fund and which are attended both by academics and policymakers.

Evaluation of Inputs and the Research Process

- 53. What lies behind the conclusions on research output reached above? Why is the general quality of the Fund's research not as high as might be expected? Why is the mix of research not optimal? Why is there not a stronger link between some of the Fund's research and the operational work done in the Fund?
- 54. To answer these questions, we need to analyze the input side of the equation: that is, how the research process actually works at the Fund. We have examined the research process, and inputs into it, under five basic headings: organizational structure; culture; incentive structure and accountability; resource allocation; and dissemination of research.

Organizational Structure

55. As described in Annex II, research is conducted throughout the organization. Furthermore, what could be thought of as the Fund's core research capacity is actually split among four departments: Monetary and Exchange Affairs, which specializes in research on monetary and exchange rate issues; Fiscal Affairs, which specializes in research on fiscal issues; Policy Development and Review, which specializes in research directly relating to operational needs (i.e., policy development); and the Research Department, which conducts research across a broad spectrum of issues.

Decentralization of research is appropriate for the Fund, but greater coordination could generate a more appropriate balance and mix of research conducted by the Fund.

- 56. As a general principle, we support this decentralization of research. Capacity for research should be maintained in area departments and in other functional departments beyond the Research Department, to ensure that
 - operational economists with significant insights into difficult policy issues they have

- experienced can explore those issues in depth;
- timely research can be conducted (this is one problem with hiring external contractors to conduct research); and
- operational economists can keep in touch with the economic theory relevant to their needs and maintain their own human capital.
- 57. However, for research to meet the Fund's objectives successfully in a decentralized environment, some central coordination/priority setting process is required to provide a strategy that ensures that the right balance of research is achieved. Currently, this coordination is weak, with the following results, as reported to us by staff and evident in the Fund's research output:
 - There is substantially more research conducted in divisions in area departments that deal with nonprogram countries because they have more time to do research. Divisions that deal with program countries (ones to which the Fund makes its financial resources available with certain conditions attached) typically have little time to do research on these countries or any other relevant subjects.
 - Much of the research undertaken that is decided at the division level in area departments is very specific to a particular country. This is driven by the primacy of the bilateral relationship of the Fund with each of its individual members.
- 58. While country-specific research is important, we take the view that if priorities for research were considered on an organization-wide basis, it would make more sense for the Fund to allocate relatively more resources to research on program countries and to research that compares similar countries or similar policy issues.
- 59. One might expect that these issues could be taken into account in the budget allocation process. In reality, however, like most organizations, a zero-based budgeting effort (that is, one in which the allocation of resources between activities, divisions, and departments is completely reconsidered from scratch) is not undertaken, so historical patterns of expenditure continue. The Working Group on Fund Policy Advice has recently taken on some role in setting priorities for research that is beneficial to the Fund as a whole, but we have been told that its effectiveness could be substantially improved.

Research quality could be improved by paying greater attention to ensuring that staff are given uninterrupted blocks of time to conduct research.

- 60. Research is a highly specialized, time-consuming job requiring uninterrupted blocks of time to be devoted to it if it is to be done successfully. Thus, staff, while engaged in research, have to be protected from the demands of operational and administrative work. This is more difficult to achieve in a decentralized environment for research, because research may actually take up only a small fraction of an economist's time.
- 61. Staff we have spoken to in area departments, and often in the functional departments (Fiscal Affairs, Monetary and Exchange Affairs, Policy Development and Review, and Research), have indicated that they find it difficult to find blocks of time to work on research because operational duties keep interrupting them. They think that the quality of their work suffers because they cannot find uninterrupted time to think deeply about the research they are doing.

Culture

- 62. The Fund's mandate requires it to hold regular consultations with each of its members and to provide financial resources to some members under well-defined circumstances and conditions. Effective execution of this mandate requires that the Fund speak with one clear voice and make its decisions quickly. Logistically, these activities require good internal organization, and a clear, well-structured decision-making process. The Fund is strong in these dimensions.
- 63. Nonetheless, ensuring that the Fund makes good decisions requires that it also cultivate an environment that encourages the production of good thinking, relevant research, and the absorption of that research into the organization's core work. That means a culture that
 - · accords high value to research;
 - encourages risk-taking while recognizing that some ideas might prove to be dead ends;
 - is tolerant of seemingly heterodox ideas from both inside and outside the organization that challenge conventional wisdom and stimulate fresh thinking;
 - allocates adequate time for creative thinking by its economists;
 - encourages lively debate of challenging, current policy problems/options;
 - promotes a learning organization in which people's human capital is kept high;
 - has good communication and collaboration, especially between researchers and operational staff; and
 - avoids excessive hierarchy that inhibits ideas from blossoming at all levels.

64. We have found that, while all these attributes exist to some extent in the Fund, there are areas where there is substantial room for improvement.

While Fund staff recognize the value of research in the organization, this is not always reflected in the organization's day-to-day priorities as it should be.

- 65. Staff at all levels in the organization, from department directors to young desk economists, have indicated that they do not believe enough priority is being given to allocating time for staff to do high-quality, innovative research. Time for research is typically treated as a residual (after available staff time has been allocated to other higher-priority activities) and many staff consider that research has been squeezed out by increased operational demands in recent years. Staff in operational departments have also told us that they need more time to think and reflect on the possible research issues arising out of their operational work and to be able to absorb the results of research done elsewhere.
 - 66. Specifically, staff have told us the following.
 - In divisions of area departments that primarily focus on program countries, very little staff time is put aside to do research, or even simply to read research or think about research issues. Operational "fire-fighting" takes up most of their time.
 - In divisions of area departments that are not responsible for countries with programs, staff conduct research in conjunction with Article IV missions, but have little time to conduct policy development research or to step back and evaluate whether past policy advice was appropriate. Some also reported that the research they conduct for Article IV consultations is rushed.⁵
 - In functional departments, staff are given more time to do research, but still find that operational work frequently limits their ability to set blocks of time aside for research, which affects the quality of the product.

- In the Research Department, policy analysis research products in the form of the *World Economic Outlook*, the *International Capital Markets* report, and various other activities are absorbing an increasing fraction of the department's time. Staff say that this is crowding out other types of research.
- 67. Staff, particularly those in area departments, have expressed concern that this lack of priority given to research contributes to insecurity about the robustness of their policy analysis.
- 68. Only in the IMF Institute, which has not been a home for research in the past, do staff say that they have time for all types of research. We have been told that one reason that the Institute has built up its research capacity in recent years is that it felt that not enough research was being done elsewhere in the organization, particularly on issues central to the Fund's mandate that affect developing countries. The research done in this department has helped improve the quality of teaching and thus of the Fund's technical assistance operations, but it could also play a more useful role in other Fund operations if it were better integrated with the rest of the Fund.
- 69. We also found two aspects of the Fund's operational rules and policies that suggest that research does not have a high enough priority in the organization. First, the hiring procedure of young economists (into the Economist Program) places insufficient emphasis on research capabilities of candidates. The initial screening of candidates in the first interview does not focus on the applicant's research capabilities. The second round of interviews does include a discussion of the applicant's research work, but applicants are not asked to present their research in a seminar, a standard part of the hiring process in other public policy institutions where research is important.
- 70. Second, one of the Fund-wide personnel guidelines, the so-called mobility requirement, can frustrate good researchers. In order to be promoted to a position at the B-level (managerial responsibilities), an A15 candidate must have spent at least two years either working outside the department they are currently in (excluding the Economist Program) or undertaking an approved external assignment. Otherwise, they need to move to another department in order to be promoted.
- 71. We strongly support the concept behind the mobility rule. Mobility is an important way of providing staff with a stimulating and varied career. It also helps prevent country economists from becoming apologists, rather than impartial analysts of the countries they work on. It also ensures that Fund managers understand different aspects of the Fund's operations and it helps create links between different

⁴We did not find irrefutable evidence that this has resulted in a decrease in the number of research products in recent years (see Tables 1–5 in Annex II, which show a decline in research in 1995 to 1997 but an increase in 1998. However, the list of research products for 1998 may, for various reasons, include more of the total research than the lists for earlier years). Nonetheless, the staff's concerns that research is being squeezed out could be an important factor behind the observation that the quality of research is not as high as might be expected.

⁵Our reading of the research output in paras. 32–52 provides support for this view. We sensed that in area departments, research was often hastily done without any prospect of staff being given the time to revise and refine their research.

parts of the organization. This is particularly valuable for creating links between area departments and functional departments, and ensuring that all Fund economists have had "hands-on" experience in operational work.

72. However, the current mobility system does not appear to ensure that good researchers who have left the Research Department to meet the mobility requirement can return relatively quickly to the Research Department, where their strengths and interests lie.

More open communication and stronger collaboration between departments would help strengthen the link between research needs in area departments and research conducted in functional departments, and improve the overall relevance and quality of Fund research.

73. The Fund is an institution endowed with an extraordinary amount of human capital. The quality and diversity (especially in terms of culture) of the staff is exceptional. The externalities that could be associated with the intellectual interactions among this group of people have the potential to be immense. Yet this is an inefficiently used resource in the Fund.

74. A culture of open communication, with a lively exchange of views between people from all over the organization with different experiences, is essential to the success of any research process. This exchange is also likely to generate greater collaboration between people in the organization. Staff, former staff, and outsiders who have interacted with the Fund have told us that they believe there are weaknesses in the Fund's interdepartmental communications networks and that collaboration could be improved.

- In general, staff at all levels of the organization, as well as outsiders, have commented that Fund departments are like fiefdoms (even more so than other bureaucracies they have worked in), and that this is inhibiting communication between departments.
- Specifically, many have commented that there is little communication between staff in area departments and functional departments in discussing policy problems outside of the formal review process.⁶
- A number have commented that collaboration between staff in different departments, in the process of generating ideas for and producing research on interesting and relevant topics, is sporadic and not actively encouraged by the organization. Many feel that this reduces the

- relevance of research conducted in the Research Department, in particular.
- Some staff have commented that they find it difficult to access data that they need for research that resides in other departments because of a lack of cooperation by those departments.

More open communication and stronger collaboration between the IMF and the World Bank would help avoid duplication of research effort, expose staff in both organizations to new ideas, and improve the quality of research.

75. There are potentially large synergies between research activities at the World Bank and the IMF. The Bank and the Fund have mutual interests in research topics such as financial sector reform, which are important to policy development in both institutions. Collaboration could improve the quality of research on these topics in both institutions. Furthermore, because of limited resources, the Fund must limit the research topics it can explore. Rather than duplicate research conducted across the street at the World Bank, it could exploit the research that is done at the Bank.

76. Discussion with staff at both institutions indicates that little collaboration in the research process is taking place. Staff engaged in research at the IMF have told us that collaboration with the World Bank is not encouraged and that the only research collaboration with the World Bank is the result of personal relationships.

The Fund's openness to new ideas, which reflects itself in innovative research that challenges existing norms, could be improved by encouraging a culture that is more accepting of diversity of views.

77. As we indicated at the beginning of this section, the Fund needs to make firm decisions and speak with one voice on many occasions to perform its functions successfully. However, this must not translate into a culture of conformity of views within the organization. There is evidence that this may be occurring at the Fund. Staff and former staff have told us that

- although the internal review process generates debate, staff are sometimes reluctant to express their views and do controversial research because there is a strong sense of the need to fit in with the norm/accepted wisdom in the organization;
- the organization emphasizes generating consensus at the expense of deeper debate; and
- when alternative views are expressed, they are often met with hostility.

⁶See Annex III for a discussion of the review process.

78. This is an issue that many public policy institutions struggle with. Bright, ambitious staff can feel that in order to succeed in the organization, they should not rock the boat, and indeed this is what we have heard from Fund staff. A concerted effort needs to be made to guard against this dangerous tendency.

Research that displays free thinking is important but can upset relationships with member countries: the Fund needs to pay more attention to the balance between these two objectives.

79. The Fund relies on maintaining good relationships with its member countries in order to continue to obtain information from them to enable it to conduct analysis. Of necessity, this means that the Fund does not have the freedom to conduct any research it wants. However, it is also important to ensure that sufficient freedom of research is maintained so that the Fund can effectively and impartially advise its members.

80. A number of current and former staff have told us that they believe that

- in some instances, research papers associated with missions are deliberately noncontroversial so as not to upset member countries; and
- research papers on controversial issues are discouraged, and staff do not feel that they would be valued or rewarded for conducting such research.
- 81. While these are clearly only perceptions, the fact that they exist and are widely shared is cause for concern, as is the influence they appear to be having on the behavior of staff conducting research.

The quality of Fund research and the Fund's reputation would benefit from greater openness to the outside world.

- 82. Just as internal communication is important for the exchange of ideas, communication with policymakers and academics outside the Fund will also generate more creative research. Furthermore, it will also raise the profile of the Fund in the outside world, which enhances the Fund's reputation (see also paras. 125–39, on dissemination).
- 83. Our interviews with staff and outsiders, as well as our own personal experience indicate that, while the Fund is moving in the direction of greater openness, there is room for improvement.
- 84. Of particular importance to research, staff have told us that
 - participation in outside conferences is not sufficiently valued in the organization. One staff economist told us that he had to use part of his annual leave to attend and make a pre-

- sentation at a conference held by the Centre for Economic Policy Research, a prominent policy research institute; and
- some departments in the Fund do not set aside sufficient resources to allow more productive researchers to attend some conferences that would be useful for both the staff member and the organization.
- 85. More generally, outsiders have told us that they have often seen—as have some members of our Committee—an unwillingness on the part of some Fund staff to take the Fund's critics seriously and to engage them, both in their research and in their comments at conferences. Fund staff are instead seen as taking a defensive attitude.

86. In addition, we have heard both from Fund staff and outsiders that when hiring midcareer staff, the Fund places insufficient value on outside experience, with the consequence that people from senior positions outside the Fund are offered fairly junior positions at the Fund. This may mean that the Fund is missing opportunities to attract midcareer people who would bring in outside expertise that the Fund would find very valuable.

A culture shift in the Research Department would raise morale and help strengthen the contribution of the department to the policy development process.

87. All the issues relating to the Fund's culture discussed above are equally relevant to the Research Department. However, as the Research Department is the one place in the Fund where research is the primary activity, it is particularly important to ensure that the Research Department subculture encourages research that is both of high quality and relevant to the Fund's needs.

88. The Research Department should have an important role in questioning existing paradigms and frameworks relevant to the Fund's work through policy foundation and policy development research. Creating a culture that encourages this requires (among other things) that the management in the Research Department be actively engaged in leading the research process.

89. Good research managers supply research leadership by identifying important research issues and by ensuring that research is related to current policy issues, while at the same time giving enough freedom to individual researchers to motivate them to produce innovative work. In addition, they must be doing research themselves and be active in attending seminars and commenting on staff's research. Research managers, in particular the Director of the Research Department, must also be able to integrate the research ideas of the staff into the Fund's opera-

tions and be listened to at the table where policy is designed.

90. We spoke extensively to staff in the Research Department, and to staff and former staff that had spent time in the Research Department. Repeatedly, we received the following comments about the way they perceived the Research Department culture:

- The Department's management places a high value on policy analysis research in the form of the *World Economic Outlook*, the *International Capital Markets* report, and several other policy analysis research products (over 30 percent of the Department's professional time is devoted to these products, by its estimate), and has increasingly focused on the review of other departments' work (about 8 percent of the Department's professional time is devoted to this). This focus is crowding out policy foundation research and policy development research.
- The Front Office and division chiefs are not perceived as being sufficiently engaged in the research process outside of the *World Economic Outlook* and the *International Capital Markets* report—for example, by attending seminars; reading or commenting on research; being active researchers themselves; and promoting/encouraging research other than policy analysis research.
- Research, beyond that contained in policy analysis research products such as the World Economic Outlook, and the International Capital Markets report, is not sufficiently valued or recognized in reward and promotion decisions.
- The Department is quite hierarchical—an organizational structure that is not conducive to frank exchanges of ideas and fresh thinking.
- 91. Some current staff told us that they are frustrated because they perceive that the research work they do is not taken seriously by the Department. Some suggested that this may even be acting perversely to reduce the relevance of their research for the organization because they conduct whatever research will best ensure that they can maintain a reputation outside the Fund so that they can keep their outside options open. This may, in part, explain some of the less relevant output we have observed.
- 92. In the past five years, the Research Department has given increasing attention to the analysis of current events in the world economy and markets and to involvement in the review process, as a means of making the Department more relevant and visible. This is not entirely inappropriate. We agree that the relevance of the Research Department is essential

and that it needs to be integrated into the Fund's operations. The policy analysis research products that the Research Department produces are both visible and valuable, particularly outside the Fund.⁷

93. However, the Research Department has sought to achieve greater relevance by increasing the amount of its policy analysis research at the expense of its role in policy development, and has developed a culture compatible with these objectives. Policy development and policy foundation research that is relevant to the Fund is essential for the Fund's longer-term success, and we believe this research needs to be reemphasized in the Department. A culture shift is required in the Department to bring this about.

Incentive Structure and Accountability

94. Closely related to the need to foster an appropriate culture (discussed in the previous subsection on culture) is the need to put in place the right incentive structure and make staff accountable in order to ensure that good, relevant research is conducted and brought into the Fund's operations. The general message we are receiving from staff is that the Fund needs to pay greater attention to both these issues.

In the Fund as a whole, improvements in the formal accountability system (the annual performance review), including a credible commitment to terminate very poor performers, would boost morale and improve staff quality, affecting positively the quality of research.

95. Almost no staff member is ever classified as a poor performer in the performance evaluation system. Box 2 outlines the performance classifications and documents performance ratings in 1998 for professional grades in most of the departments where research is conducted. The box indicates that of the 770 people rated, not one received an unsatisfactory rating of 4. Only one person received a rating of 3, which indicates performance below standards. All the other 769 received a rating of 1 or 2, which indicates either extraordinary performance or performance that is above or meets standards. Furthermore, all departments have allocated "1" ratings up to the maximum allowable 15 percent of their staff.

96. This contributes to the observation that, after an initial probationary two-year contract, few people are encouraged to leave the Fund on account of poor performance. Total turnover (excluding retirement and expiration of secondments) among economist

⁷Although some staff feel that not enough effort is made to integrate the analysis contained in these products into the Fund's operational work.

Box 2. The Fund's Performance Assessment and Rating System

The annual performance review is a formal mechanism for supervisors and their staff to review the staff member's performance over the course of the previous year, give feedback, chart a work program and a development program, and set results expectations for the year ahead. The annual performance review (APR) is an input into salary, promotion, and staffing decisions.

Central to the annual performance review is the APR form. On this form, staff members record their major responsibilities, contributions, and achievements, along with any work assignment preferences, training needs, mobility aspirations, and other career development issues. This is used as a basis for discussion between the staff member and the supervisor. The supervisor makes an assessment of the staff member's performance on the basis of the work done by the staff member over the previous year and the extent to which the staff member meets the core competency requirements at his/her particular grade level and job.

Once all performance reviews are completed within a department, the performance of all staff in the department is rated on a department-wide basis. Performance categories are:

Category 1: An outstanding performer in relation to departmental peers and/or has made an exceptional contribution in a particular area of Fund work (a cap of 15 percent of staff per department is put on this category).

Category 2: A staff member who has met or exceeded the requirements and expectations for the job at the grade level he or she is in.

Category 3: A staff member whose performance requires improvement in one or more important areas.

Category 4: A staff member whose overall performance was unsatisfactory, and who failed to meet

the basic requirements for the job in several important areas.

Under the Fund's guidelines, a staff member can be rated "3" only twice consecutively or twice within any five-year period. Staff must either be rated "4" or "2" in the following year. This is intended to strengthen the use of "3" ratings to clearly signal the need for a significant performance improvement and trigger the formulation of a performance improvement plan. A staff member whose performance has been rated as a "4" will be placed on probation for at least six months. The distribution of performance ratings for 1998 for most of the economist staff (and some noneconomists) is shown below. As can be seen from the table, ratings of "3" or "4" are very rare.

Distribution of Performance Ratings by Selected Departments, Grades A9 to B3

		Ratings			
Department	1	2	3	4	
African	17	96	0	0	
Asia and Pacific	11	59	0	0	
European I	13	69	0	0	
European II	10	56	0	0	
Fiscal Affairs	11	61	0	0	
IMF Institute	6	28	0	0	
Monetary and					
Exchange Affairs	9	49	0	0	
Middle Eastern	7	39	0	0	
Policy Development					
and Review	13	69	0	0	
Research	9	52	0	0	
Western Hemisphere	13	72	1	0	
TOTAL	119	650	1	0	

staff has been less than 4 percent per annum in the last five years, and a much smaller percentage than this is likely to be due to unsatisfactory performance. This is likely to affect the performance of the whole organization including research activities.

Across the Fund, 8 changes to elements of the current accountability and incentive regimes would contribute to the production of more relevant, high-quality research.

97. Staff from various different parts of the Fund have told us that a serious assessment of research

quality is not uniformly included as an important feature in their annual performance reviews. Several staff indicated that the quantity of research (say, the number of Working Papers) was taken into account in their annual performance review, but they did not think that their managers paid enough attention to its quality—particularly whether the work had been published in good journals or whether it was proving useful in the operations of the Fund (both important indicators of quality).

98. If staff think that the quality of their research work is not being valued, they are likely either to pay less attention to the quality dimension of their research, or to continue to produce high-quality research, but feel frustrated and seek to leave the Fund. This can result in a loss of some of the best staff who

⁸That is, in all area departments and research producing functional departments (Policy Development and Review, Monetary and Exchange Affairs, Fiscal Affairs, IMF Institute, and Research).

can be most useful in policy formulation. Their departures can also lead to an external perception that the Fund does not value research quality, and thus to an erosion in the Fund's ability to recruit superior staff.

99. Indeed, in recent years a number of excellent researchers, who have very strong reputations among both academics and policymakers, have left the Fund. We spoke to some of these people, and they confirmed what we heard from current staff: that they did not believe that the quality of their research was sufficiently valued in annual performance reviews, and that this was an important reason why they chose to leave the Fund.

100. Assessment of research quality is equally important, to send signals to economists currently producing low-quality research that they should focus instead on areas where their strengths lie.

101. Staff have the perception that staff members are likely to rise more rapidly in the Fund hierarchy if they concentrate on highly visible operational work, such as work on an important program country. This creates incentives to move out of research-intensive jobs in order to get ahead in the organization. While research is not a frontline activity, it is important to ensure that incentives are adequate to ensure that good researchers remain in research-oriented jobs.

102. Junior-level, primary authors of major research papers that are discussed at the Executive Board do not often get the opportunity to sit at the Board table and field questions from Board members on their work. Instead, senior staff represent the paper at the Board. This restricts the opportunities for staff to learn from this experience and makes them less accountable for the work they have done on these projects. Staff have told us that they find it discouraging when a more senior staff member, who did not do the bulk of the work, gets praised for the work in the Board because they made the presentation.

103. Junior staff have expressed frustration that senior staff sometimes claim coauthorship of research products for which they have made little contribution beyond editorial comments. Not only is this demoralizing, but it can decrease accountability of junior staff for the quality of their research output.

In area departments, changes to incentives would improve the quality of research conducted in these departments, and encourage greater cooperation with functional department staff, which would improve the quality and relevance of the work of functional department staff.

104. Economists in area departments have told us that they are given some rewards for producing research on the countries they cover, but, as we noted earlier, they do not think they are given sufficient time to refine their analysis and produce research that provides a solid foundation for policy advice.

105. Economists in area departments have told us that there are few incentives to encourage them to share their knowledge and data about specific countries with economists in functional departments or to write papers with economists in other departments.

106. Staff in both area departments and functional departments have told us that, because incentives for collaboration are not strong, area departments are not bringing functional department researchers as fully into the policymaking process as they could be.

The value of the Research Department to the organization could be enhanced by aligning incentives more closely with the desirable objectives of greater interaction with other departments and production of relevant research.

107. Current and former Research Department staff have indicated to us that there are

- few incentives operating in the department to ensure that research outside of the policy analysis research conducted (*World Economic Outlook*, G-7 notes, *International Capital Markets* report, etc.) is relevant to the operational needs of the Fund; and
- few incentives for working with area departments to develop research proposals and ideas.

108. Some people have suggested that this is also a problem in other functional departments, but it is particularly relevant to the Research Department, as it has the least involvement in the operational aspects of the Fund's work. Despite the Department's involvement in the review process and policy analysis research products like the *World Economic Outlook* or the *International Capital Markets* report, many people have indicated to us that they still consider the Research Department to be insufficiently integrated into the work of the Fund.

Resource Allocation

109. Research is only one of the activities of the Fund. When the Fund considers how to allocate resources across its activities, including research, it must simultaneously consider whether resources are adequate and efficiently allocated and utilized across activities.

110. In the subsection on organizational structure, we noted the concern of many staff who thought that there was not enough time made available for research and research-related activities. We take the view that more time is needed for research that is not associated with Article IV consultations or policy analysis research products such as the *World Economic Outlook*. However, it is not clear that the Fund needs more staff to achieve this. Some of this time

can be created by changing the mix of research away from country-specific research toward broader research that has the potential for higher payoffs for member countries and the Fund.

111. Furthermore, the time available to research is partly a function of researchers' time allocated to activities other than research. It is therefore appropriate to consider whether the organization can free up time for research by more efficiently conducting nonresearch activities. As we are not management consultants, we do not have the expertise or mandate to look at the efficiency of the overall organization in detail. However, some efficiency issues were raised so frequently by staff in interviews that they warrant attention.

112. Compared to other public policy organizations with which we are familiar, the number of research assistants relative to economists in the Fund is very low. Work that research assistants would normally do in other organizations, such as data collection and entry, spreadsheet manipulation, statistical analysis, and other sundry tasks are done by highly qualified economists. As a result, economists spend a large amount of their time engaged in activities that do not fully make use of their skills. This creates substantial frustration for economists because they have less time to conduct the sophisticated analysis they are trained for. In addition, using highly paid economists to do a research assistant's work is an inefficient use of Fund resources.⁹

113. Currently, many of the Fund's research assistants have worked at the Fund on a long-term basis. While some long-term research assistants can be useful, economist staff that we have spoken to have said that young, short-term research assistants are more valuable in many cases because they bring the latest technology, skills, and enthusiasm to the job. In the organizations that members of our committee have been a part of, we have also found this to be true.

114. The Fund has recognized that increasing the number of research assistants and shifting the mix of research assistants toward more short-term, fixed-contract hiring of young research assistants will contribute to higher productivity and greater job satisfaction. Consequently, it has recently taken steps in this direction, starting a program to hire more re-

search assistants—primarily young college graduates with relevant backgrounds, on fixed-term, non-renewable contracts.

Redesigning the review process¹⁰ could both increase the effective contribution of researchers to policymaking and reduce the time that reviewing absorbs.

115. We strongly agree with the need for a review process, and see it as one of the Fund's key strengths. However, it is widely recognized in the Fund that there is room for improvement in the way it operates. Management has attempted, on several occasions, to improve the review process through mandates in memoranda. Discussions we have had with economists throughout the Fund reveal continued dissatisfaction with the review process.

116. Reviewers from the functional departments say that

- they have to comment on too many documents, in some of which they have little expertise;
- they are consulted too late in the process to provide any meaningful input; and
- area departments do not pay adequate attention to their comments and do not take significant differences of view to management.

117. Area department authors say that comments from review departments are excessive and picky, and many are made by reviewers who do not know enough facts about the country they are reviewing.

118. Review is one way in which researchers can have an input into and be involved with operational work. However, the review process does not appear to be achieving this objective adequately while at the same time it is absorbing substantial amounts of time in both in area and functional departments.

Choosing visiting scholars in a more transparent way and reallocating some resources spent on visiting scholars to more outside consultant researchers would help maximize the value of their contribution to the Fund's research activities.

119. The Fund spends a fairly large amount of resources on bringing in visiting scholars. More than 335 person-weeks are dedicated to this activity. 11 We

⁹The two most probable reasons cited by the staff to whom we spoke for the relative lack of research assistants are the following. First, there is a prevalent attitude in the Fund that in entering the data themselves, economists get a better understanding of the data. We agree that economists need to understand the data, but engaging in the rote task of data entry and collection is not necessarily the best way of achieving this goal. Second, the Fund has a head-count approach to budgeting. This has the unintended consequence of biasing hiring toward Ph.D.s because a manager will almost always choose to hire a highly qualified economist over a research assistant if the extra cost of hiring an economist is not reflected in his or her budget.

 $^{^{10}\}mbox{Details}$ on how the review process operates can be found in Annex 3.

¹¹The Research Department alone, which has a specific budget for visiting scholars, allocates about 275 person-weeks to visiting scholars. The Fiscal Affairs Department, also has a visiting scholars program of about 60 person-weeks. Other departments also bring in visiting scholars on a short-term basis, utilizing accumulated vacant staff-weeks from their overall head-count allocation.

believe that visiting scholars are of great value to the Fund because they bring outside ideas into the Fund in an effective way, and being exposed to the research in the Fund, they help in raising its external visibility and influence.

120. However, two features of the program could be improved.

- Staff have told us that the procedure for choosing visiting scholars is not sufficiently transparent. A more open process of choosing visiting scholars can help make sure that the scholars who interact with staff, and are therefore of the greatest value for the Fund, are those invited.
- It is not always necessary to have scholars come to the Fund to conduct research. While staff benefit from the interaction with visiting scholars, it is our opinion that the overall visiting scholar budget is large enough to allocate some of it to hiring consultants to conduct particular pieces of work outside the Fund in collaboration with Fund staff. This alternative can not only be cheaper than having someone work on the premises of the Fund but if it involves active collaboration between junior staff and outside consultants and the consultant is an experienced scholar, it can help junior Fund staff to acquire valuable research experience. This can be substantially more cost-efficient than conducting a research project completely inhouse using solely Fund staff.

Ensuring that the right staff have the opportunity to participate in Fund training programs will maximize the benefit to the Fund from these training courses.

121. Staff speak very highly of the IMF Institute's "Economics Training Program," which includes half-day seminars and multi-day courses conducted by well-known academics and policymakers on topics of interest to the Fund. Our committee was also impressed by both the topics and the speakers chosen and the effort put into organizing these courses. The IMF Institute is continuing to increase the number of seminars and courses available to enable more staff to participate.

122. A number of staff have, however, raised concerns about the transparency of the process of selection of staff (which is decided by departments, not by the IMF Institute) to attend the courses and seminars.

- Some believe that priority is given to senior staff, rather than staff who most need to attend the courses to help them in their work.
- Some staff have said that they do not understand why some people are selected and oth-

ers are not, and they would prefer to see a more transparent set of criteria for selection.

Changes in the managerial structure of the Research Department could be beneficial to the environment for, and efficiency of, the research process.

123. Currently, divisions in the Research Department report to coordinator/supervisors in the Front Office. Nonmanagerial staff in the Research Department have told us that they think this extra reporting layer creates additional, unnecessary work. Although the nonmanagerial staff may not recognize the importance of some of this work, our managerial experience suggests there is some validity to their concerns. A large number of managers who are producing less research also means that the department produces a smaller amount of research than if it trimmed the number of managers at the top levels. A change in the managerial structure could improve the environment for and efficiency of the research process.

Are more resources needed for research?

124. Although we have indicated that more time is needed for research that is not associated with Article IV consultations or policy analysis research products, we strongly believe that all the measures to gain efficiency, described earlier in the report, should be exploited fully before allocating additional resources for research. However, if these measures are not sufficient, the Executive Board might consider allocating more resources for research.

Dissemination

125. For research activities to be considered successful, research must not only be both relevant and of high quality, it must also be disseminated effectively to both internal and external audiences.

Improvements to the way research is disseminated within the Fund would improve the impact of research on the Fund's operations and build support for research within the organization.

126. In the subsection on culture, we mentioned that communication links across departments in the organization could be strengthened, and that openness to new ideas was important to improve the effective use of research in the Fund. In the subsection on incentives, we noted that incentives for cooperation between departments could be strengthened. These will help improve the dissemination of research. Two other aspects of the internal dissemination process could also be improved. First, more appropriate dissemination vehicles should be created (see paragraphs 127–29) and second, the overall

strategy behind the internal dissemination of Fund knowledge should be reconsidered (see paragraphs 130–31).

127. Much of the research conducted in the Fund is disseminated to economists, management, and the Executive Board in the form of Working Papers. Because they are often very technical and difficult to read, people in operations and the Executive Board may perceive Working Papers as having limited value from an operational perspective, even though this may not be the case.

128. Furthermore, in academia and in many research organizations, Working Papers are meant to be preliminary reports, and are intended to solicit comments and criticisms from readers before they are revised and finalized. In the Fund, in contrast, Working Papers are often considered to be an end product of research. Working Papers represent both the strongest and the weakest of the Fund's research (not all research will be successful). The strongest should be polished further and the weakest should be abandoned at the Working Paper stage. Treating Working Papers as final products and disseminating them to people in operations and the Executive Board, who are unlikely to have time to read them carefully and sort out the successes from the failures, can erode support for research by the Executive Directors and operations people, who might see the research as being weak, irrelevant, and wasteful.

129. Other methods of disseminating the information in Working Papers need to be considered.

130. Several staff thought that the Fund's institutional memory could be improved. They indicated that they thought the Fund too often "reinvented the wheel" because it did not effectively store the knowledge it had gained in the past, so it could not apply that knowledge to similar situations that arose in the future and thereby avoid repeating past mistakes.

131. The Fund has an electronic document database, which contains the titles and sometimes the text of many Fund documents, but the people we spoke to did not think that the database alone was sufficient to achieve the knowledge transfer that they were seeking.

Improvements to the way research is disseminated outside the Fund would help to build public support for the Fund's work and help convince policymakers and the public in member countries of the soundness of Fund policy advice.

132. It is critical that the Fund is perceived in the outside world as an organization whose advice is based on sound analysis. A good strategy for external dissemination of its research findings is essential to this.

133. The Fund has successfully disseminated some of its policy analysis research. The *World Economic Outlook* and *International Capital Markets* report are both widely read. However, as Annex II indicates, the Fund distributes a wide range of other research products. Several outsiders found this confusing. They said that the large number of products can make it difficult for readers outside the Fund to make sense of the status of what they are reading, or to pinpoint what it is they want to read. This suggests a lack of cohesion in the marketing strategy for Fund research products.

134. In addition, to successfully disseminate Fund research, researchers themselves must be involved in thinking about who their target audience is and how best to reach them. The fact that Working Papers are often considered to be an end product of research, but are not refined to reach the right target audience outside the Fund, suggests that the researchers could play a more active role in raising the profile of Fund research.

135. In contrast to other public policy organizations, the Fund does not currently publish a policy journal that disseminates the findings of research to an audience of policymakers and the general public. (However, the Fund has decided to issue an annual volume of Policy Discussion Papers—which are normally published individually—prior to the Annual Meetings this year.) People in other public policy institutions have told us that they have found that in-house policy journals fill a niche that is not met by outside publications and have proved to be a successful way to feature the expertise of the organization and enhance its reputation outside.

136. The Fund currently publishes an academicstyle economics journal, *IMF Staff Papers*. Publication is restricted to articles written by Fund employees, and until recently, the journal had a right of first refusal on research papers produced in the Fund.

137. There are now a large number of excellent academic journals in the field of international economics, so the rationale for an academic Fund journal is weaker than it was in the past (when fewer journals of this type existed). Staff have told us that the publication procedures for *IMF Staff Papers* in the past were often arbitrary, and many staff did not think that the journal served the needs of the organization, nor that it resulted in the publication of the highest quality research.

138. However, Table 6 in Annex II indicates that, at least for the two sample years, articles published in *Staff Papers* are referenced at least as frequently as those in the *World Bank Economic Review* (the World Bank's academic-style journal), but less than *Brookings Papers on Economic Activity* (an academic public policy journal). Tables 8a and 8b indicate

that there is no discernable trend in the number of citations of *Staff Papers* over time. ¹²

139. In any case, in response to staff's concerns, the procedures for publication of *IMF Staff Papers* have recently been overhauled and the journal is under new management. In addition, the new editor plans to move *IMF Staff Papers* in a more policy-oriented and less technical direction. We believe the changes will improve the journal's quality and relevance, but whether it will be of substantial value to the Fund remains an open question.

¹²We attempted to do similar citation counts for the *World Economic Outlook*, the *International Capital Markets* report, Occasional Papers, and several Fund conference volumes. We do not report these tables because we could not satisfy ourselves of the accuracy of these counts and did not have the resources to conduct a more thorough count.

Section IV Recommendations for Change

140. In the recommendations below, we first lay out the general principle(s) governing each recommendation. Each recommendation also contains sufficient detail to ensure that the concept presented is clear. However, the recommendations are not intended to be blueprints for implementation. Putting them into practice successfully will require modification of some of our specific suggestions, and more detailed specification of others. We expect and welcome adaptation of the details of our recommendations. It is our expectation that the Executive Board will decide whether it agrees with the basic principles governing the recommendations, and leave it to Fund management to develop the details necessary to implement them.

141. The recommendations fall into two related sets. The first set contains what we consider to be the nine key, high-priority recommendations: these are suggestions for change that we believe are necessary to improve the effectiveness of the Fund's research activities. The second set contains recommendations that supplement and reinforce the nine key ones.

142. Some of our recommendations directly address the Fund's research activities. Others address issues in the overall organization of the Fund. While the latter have a more indirect link to the objective of improving the Fund's research activities, they do have an important impact on the resources and incentives for research. We believe that it is important to improve aspects of the wider environment in which the research process operates in order for the organization to operate optimally. In laying out our recommendations, we distinguish between the two types.

143. A key principle behind all our recommendations is that for research to successfully meet the needs of the Fund, it must be encouraged by creating an environment conducive to the pursuit of creative ideas through appropriate incentives, accountability, and good management, and an avoidance of micromanagement.

Key Recommendations

Recommendations 1 through 3 focus on ways to allocate the Fund's scarce resources for research.

The first recommendation addresses the need for a stronger coordinating mechanism to identify a research strategy and choose priority research projects (discussed in paragraphs 56-59). It also addresses the need for greater communication about ongoing or planned research projects (discussed in paragraphs 73 and 74), and the need to enhance the incentives to conduct high-quality research (discussed in paragraphs 94-108) by creating a mechanism for internal competition for resources for research products requiring additional resources. Furthermore, it addresses the need to increase staff interaction with the outside world by providing additional resources for conference participation (discussed in paragraphs 82–86), to improve the visiting scholars program by increasing transparency, and to allow reallocation of resources to enhance the collaboration between Fund staff and outside consultants (discussed in paragraphs 119–20).

Recommendation 1: Create a Committee on Research Priorities to assist in strategic planning and to support research activities in the Fund.

144. To improve the relevance, quality, and coordination of the Fund's research, we recommend upgrading the role and responsibilities of the current Working Group on Fund Policy Advice, including:

- expanding its priority-setting responsibilities;
- giving it resources to allocate to specific research activities, and
- renaming it the Committee on Research Priorities (CRP) to better reflect its new role.

145. The CRP should do the following.

• Identify research priorities for the Fund through an annual strategic planning process involving all departments. This would also include the commissioning of specific research papers. These priorities and specific projects would set the agenda for the Fund's research efforts in the year ahead. At an annual meeting, the Executive Board and management would review the research done in the previous year in relation to that year's

- agenda, and discuss and approve the agenda proposed by the CRP for the coming year.
- Encourage staff members, either individually or in partnership, with approval and time allocation from their departmental management, to submit proposals to the CRP seeking financial support for specific research projects (money for data collection, research assistance, travel, etc.). The CRP would evaluate and compare research proposals, and decide which projects should be allocated additional resources (guided by the Committee's annual statement of research priorities). This would create a competitive process for submission of research proposals, and their transparent and fair evaluation.¹³
- Through a transparent process, make decisions on inviting visiting scholars throughout the Fund and on projects involving contracts with outside researchers.
- Be responsible for monitoring the projects it authorizes and evaluating their output. The Committee could make use of outside consultants to evaluate project output.

146. The members of the Committee on Research Priorities should be appointed by management and consist of staff chosen primarily for their strong research interests (and not necessarily on the basis of seniority). The Committee would normally be chaired by the Director of the Research Department, although Management should retain discretion on whom to appoint.

147. Management should encourage the submission of proposals to the Committee by acknowledging a department's success in obtaining funding from the Committee in the annual performance reviews of department directors. The specific terms of reference of the Committee would need to be further elaborated by management.¹⁴

148. The budgets for the various activities of the Committee on Research Priorities should be decided by management and should come from reallocating some existing resources from departments to the CRP.

The second recommendation is designed to enhance the Fund's commitment to research and ensure that staff have sufficient time to conduct high-quality research (discussed in paragraphs 65–68).

Recommendation 2: Introduce explicit departmental targets for staff time allocated to research activities.

149. Research cannot be treated as a residual activity if the Fund is to maintain its analytical capacity. Research produced for some Article IV consultations and other policy analysis research products such as the World Economic Outlook, the International Capital Markets report, G-7 notes, etc. has an established place in the organization. However, research above and beyond these products must be prevented from being squeezed out by operational demands. The amount of research conducted in the Fund should also be more transparently recorded in departmental budgets. We recommend that department directors, in consultation with management, set aside a percentage of staff time to be allocated to department-sponsored research, beyond that conducted as part of Article IV consultations or other policy analysis research products, and to independent research.15

150. The amount of time allocated to staff for these two categories of research would vary across departments, depending on departmental priorities, naturally with a higher allocation for the Research Department. The time allocation would be explicit in departments' budgets, and department directors would be held accountable for meeting this target.

151. Given the current resource constraints, the success of this recommendation depends on the ability to free up staff time to conduct research over and above that produced for Article IV consultations and policy analysis research products. While Fund staff claim that they are currently too stretched for resources to put additional time aside for research, we believe that resources can be freed up and reallocated by implementing the recommendations we have identified below—in particular by reducing research activities with low value added and by increasing the efficiency of the research process. However, the Executive Board might also consider whether additional resources need to be allocated to research.

The third recommendation addresses the need for a different mix of research output in the Fund (discussed in paragraphs 44–49).

Recommendation 3: Shift the mix of research toward topics that add most value.

¹³The CRP could consider inviting, possibly on a case-by-case basis, outside academics to its meetings, in order to use their experience in making decisions.

¹⁴The purpose of the CRP is to ensure some coordination and prioritization to exploit the synergies from decentralized research. The CRP should not become another layer of hierarchy or overly centralize the research process. Management should monitor the workings of the CRP to make sure that this does not happen.

¹⁵Staff need to be given some time to independently pursue their own research interests without approval of their projects. Giving staff this time to pursue their own intellectual curiosity is a strong incentive to produce quality research and to maintain their human capital by keeping abreast of developments in their own fields of interest. This research should, however, be evaluated ex post for its relevance to the Fund's work. See Recommendation 5 below.

152. The current mix of research fails to adequately distinguish between topics where the marginal value of Fund research is particularly high, and others where Fund research adds little value to what goes on outside the Fund. For example, excellent research already takes place outside the Fund on topics such as the sustainability of the social security system in Europe.

153. There are, in particular, two areas in which the Fund has a strong comparative advantage in its research:

- developing and transition country research for those countries for which there is a lack of good outside work (for instance, in Africa), and
- cross-country research—research that draws policy-relevant lessons from cross-country comparisons based on in-depth knowledge of several countries.

154. We recommend that the Fund shift the mix of its research activities to incorporate more of these types of research, focusing on topics that are at the core of the Fund's mandate.

155. Furthermore, recent developments have highlighted the need for the Fund to better understand the workings of the domestic financial sector in member countries and of the global financial system, given the important role of the IMF in ensuring the stability of the international monetary and financial system. We therefore recommend that an additional specific priority of Fund research be financial sector research. We observe that the Fund has recently been putting more resources into this activity. We encourage it to continue in this direction.

156. Management, department directors, and the Committee on Research Priorities should each take responsibility for ensuring that this shift to more developing and transition country, cross-country, and financial sector research occurs. 16 Department directors can ensure that background research for Article IV consultations on a specific country that now appears in the "Selected Issues" paper included in some Article IV documents is restricted to cases where it provides substantial value added. Research on topics that are already adequately studied by academics or researchers in other policymaking institutions should not be undertaken. This implies that there could be fewer economists working on country-specific issues in industrial countries, who may then be able to be redeployed to other areas of the Fund where desirable research is not currently conducted.

157. The Committee on Research Priorities (discussed above) can encourage reallocation through its priority setting and project approval processes.

Recommendations 4 through 6 focus on providing a better incentive structure to promote high-quality research.

The fourth recommendation addresses the need to improve collaboration among departments (discussed in paragraphs 73–74) and to increase incentives for researchers in functional departments to be involved in the policy development process (discussed in paragraphs 104–108).

Recommendation 4: Create incentives to improve collaboration among departments and to encourage researchers to contribute to policy work.

158. Researchers, particularly those in the Research Department, need to be involved in policy work originating in other departments, not only to help improve the quality of this work, but to stimulate research ideas and to increase the relevance of their research. To achieve this, we recommend that the annual performance reviews for staff engaged in research should take into account whether a researcher has provided valuable service to other departments, based on input from these departments. Such services would include involvement in large-scale policy development projects, but also mission and review work.

159. Participation by functional department staff in policy development and mission work might be further enhanced by creating an informal and limited internal market for the services of functional department economists. We recommend that the Fund consider advertising requests for assistance for major policy development projects¹⁷ and mission work on the Fund's internal website. ¹⁸ Staff members with appropriate expertise would apply to be included in the project or mission, with the agreement of their department.

The fifth recommendation addresses the need to increase the incentives to conduct high-quality research (discussed in paragraphs 97–100).

Recommendation 5: Improve the assessment of research quality in the annual performance evaluation system.

160. The performance assessment for research staff needs to be based (more systematically than ap-

¹⁶We recognize that the Fund has, in recent years, greatly enhanced its research capabilities on transition countries and is also increasing the number of projects devoted to developing country and financial sector research. This recommendation reinforces this trend.

¹⁷With limited exceptions approved by management on the basis of sensitivity.

¹⁸The posting of requests on the Fund's internal website would supplement the current informal process in which departments approach other departments directly for assistance on policy work.

pears to be the case at present) on a serious assessment of the quality of their research, and not merely on the number of papers produced.

161. High-quality research at the Fund should be research that is relevant to the design of Fund policies, or adds to the stock of knowledge relevant for the Fund's operations. Incentives to conduct high-quality research come from its recognition both within the Fund and outside it. The annual performance review for staff involved in research should therefore take into account the following internal and external signals of quality and relevance.

- Is the research judged to have contributed significantly to the Fund's mission?
- Has the research been perceived to be of high quality by departmental management?
- Has the research been directly useful in the operational work of the Fund?
- Has the research been presented at a highly regarded conference or published in a highquality academic journal or in one of the Fund's official publication vehicles (i.e., excluding the Working Papers series)?¹⁹
- Has the research been favorably received by the external review process (suggested later in this document)?

162. In departments whose primary focus is not research, department directors should consider appointing one staff member to assist departmental managers in evaluating the quality of the research activities of their staff.

The sixth recommendation addresses the need to increase accountability of staff involved in research, motivate them, and provide learning experiences for them (discussed in paragraph 102).

Recommendation 6: Give all staff, no matter how junior, opportunities to present their research products to management and the Executive Board.

163. Making presentations to management and the Executive Board is crucial to staff for their development into first-rate policy economists. It also helps to improve staff morale, which is important for retention of the best and brightest. Furthermore, those closest to a research product have the best understanding of it and so should be given the opportunity to present it. We recommend the following.

 The Fund should adopt a convention that the primary author or authors of a research prod-

- uct should always be the ones to present it to management or the Executive Board (unless they opt not to do so). This includes both discussions of board papers on research topics, and individual items in the World Economic and Market Development presentations. Of course, a senior staff member should also be available at the presentation to support the department's staff if needed.
- As one example, we suggest that in the World Economic and Market Development presentations made to the Executive Board, the Director of Research should give an overall introduction, outlining the topics to be covered and presenting his or her assessment of Fund policies. This would be followed by individual presentations by staff, and then an informal question and answer period for each presentation. This structure has been extremely successful in public policy institutions in which some of the Committee members have been involved.²⁰

The seventh recommendation addresses the need to ensure that a leader of the Research Department creates a culture that supports policy foundation and policy development research and engages the department in the policy development process (discussed in paragraphs 87–93).

Recommendation 7: Management should give a clear mandate to the Director of the Research Department to be both an active research leader and economic counselor to the Fund.

164. A Director of the Research Department plays two distinct roles in the organization, which in turn requires that he or she possess two equally important characteristics:

 The Director of Research is the leader of the Fund researchers. To lead effectively, the Director needs to be actively engaged in the research process by creating an environment in which everybody, including the senior staff, is encouraged to express their views openly, considers it normal practice to attend seminars and comment on their colleagues' research, and writes research papers as part of

¹⁹This will not be a relevant criterion for all pieces of Fund research.

²⁰There might be a concern that the quality of presentations will be inadequate when given by more junior staff. In our experience, this has rarely occurred in public policy institutions with which we have been affiliated. Staff have tremendous incentives to give a good presentation because it has a beneficial impact on their careers. Furthermore, giving presentations to the Board creates strong incentives for staff to improve their presentation skills.

his or her job. Moreover, because the Committee on Research Priorities (described above) will normally be chaired by the Director of the Research Department, such a person will play a central role in the design of research projects throughout the Fund.

• The Director of Research is the Fund's Economic Counsellor, and as such is expected to be a source of independent advice to the Fund on policy issues, to be able to integrate the ideas of research staff into the design of Fund policies and operations, and to convey such ideas effectively to policymakers in the organization as well as outside.

The eighth and ninth recommendations focus on issues that have important effects on research activities but that also affect the organization as a whole.

The eighth recommendation addresses the need to improve the performance evaluation system and raise the accountability of staff (discussed in paragraphs 95–96 and in Box 2).

Recommendation 8: Create a more effective performance evaluation system.

165. The ability to discriminate between high and low performers is an essential feature of a performance evaluation process and of the award of merit increases in any well-managed organization. It is essential that poor performers be encouraged to leave the organization with a serious threat of termination.

166. The present performance evaluation system in the Fund—in which over 99 percent of staff economists are meeting or exceeding performance standards, and termination for poor performance is infrequent—clearly does not have the two essential features identified above. We understand that a review of the issues surrounding performance management is currently being conducted by the Office of Internal Audit and Inspection. We welcome this review and recommend that one outcome of this process should be a change in the performance evaluation system to incorporate the two essential features indicated in the paragraph above.

The ninth recommendation addresses the need to redesign the review process to both increase the effectiveness of researchers in this process and to make it more efficient (discussed in paragraphs 115–118).

Recommendation 9: For departments other than the Policy Development and Review Department, the Fund should consider how to reduce unnecessary internal review of Fund work and avoid formal written comments where informal communication would be adequate.

167. We are concerned that the review process is not operating as effectively as it could to bring insights from researchers in functional departments into the policy advice process. We also consider that the review process could operate more effectively with less time devoted to it. We understand that systematic studies of the review process are currently under way. We welcome these studies and would like to highlight the following issues for consideration in these studies.

• Changes in the way review is conducted. As several staff members told us, the best exchange of ideas and constructive critiques of each others' research in the Fund occurs in informal discussions over coffee or a meal in the cafeteria. The simple point is that a successful policy institution is one in which people spend a significant amount of their time discussing ideas with each other at the formative and preliminary stage of work rather than in writing comments on a piece of work, in its relatively final form, from behind closed doors.

We therefore consider that it would be more appropriate in the review process for a department to circulate an outline of its document (i.e., at an earlier stage of development than is presently the case) to other departments. The outline should include all key facts, figures, and preliminary conclusions. Departments should be invited, but not required, to make comments. Comments should be communicated informally (either orally or by e-mail), rather than by formal written memoranda (which is the current norm). Management should provide incentives in annual performance reviews to ensure that outlines are circulated at an early stage and that the department is prepared to discuss the documents openly with other departments.

In specific cases where Management thinks that more formal review is of crucial importance to the Fund, a seminar based on a draft outline should be the primary means of review. This brings researchers into the review process earlier (before positions are entrenched), and allows for better interaction between authors and reviewers than in the current written process.

The openness of a seminar is a more appropriate and productive way to bring comments from researchers to bear on important issues. It should also help reduce trivial comments because the person making them is more directly accountable. If a reviewer is unable to attend the seminar, he or she could still communicate

his or her comments and suggestions verbally to those writing the paper/report.

If significant disagreements persist between departments, written comment could then be used to document differences and refer them to management.

• A reduction in the amount of reviewing. Unless a department (other than the Policy Development and Review Department)²¹ has something of significant value to add, it should not make comments. The absence of comments by departments (other than the Policy Development and Review Department) should *not* be viewed as a sign that a department is not doing its job properly. Management should monitor departments' progress in cutting out unnecessary review.

Supplementary Recommendations

168. The 13 supplementary recommendations below are designed to provide support for the 9 key organizational changes that we have recommended above. They are grouped into four categories: (1) changes in the culture, incentive structure, and accountability mechanisms; (2) changes to improve the dissemination of research; (3) changes in the allocation of resources in the organization to improve efficiency; and (4) establishment of an external review and monitoring process.

Changes in the Culture, Incentive Structure, and Accountability Mechanisms

Recommendation 10 addresses the need to encourage greater interaction with the outside world (discussed in paragraphs 82-86); Recommendation 11 addresses the need to increase morale and accountability of the junior staff by ensuring that only significant contributors are listed as authors on research products (discussed in paragraph 103); Recommendation 12 addresses the need to increase incentives for collaboration between the Fund and the World Bank (discussed in paragraphs 75-76); Recommendation 13 addresses the need to bring more flexibility into the hiring procedure for young economists suitable for the Research Department (discussed in paragraph 69); and Recommendation 14 addresses the need to reconsider the current management structure in the Research Department to improve efficiency and the environment for research (discussed in paragraph 123).

Recommendation 10: Encourage participation in relevant external conferences.

169. Participation by Fund researchers in external conferences is an important way of exposing them to outside ideas and having their research seen and critically examined by outsiders. Participation in relevant external research conferences needs to be further encouraged in the organization.

170. To encourage conference participation we recommend the following.

- As a departmental objective, departments should explicitly allocate time to participate in conferences relevant to the Fund and ensure that their travel budget is sufficient to accommodate this.
- Researchers should be allocated time to attend relevant conferences, particularly when they are asked to make a presentation or participate as a discussant. A high priority should be given to achieving this, so that operational responsibilities do not crowd out attendance.
- Presentations and participation as a discussant in relevant conferences should be reflected in annual performance reviews and be rewarded.
- The Committee on Research Priorities should be provided with an additional pool of resources to finance, at its discretion, conference participation in cases where the departmental travel budgets are exhausted.
- Department directors should be held accountable by management for meeting conference attendance objectives.

Recommendation 11: Put only the names of significant contributors on Fund publications.

171. To improve morale of junior staff and increase accountability for the quality of their research product, we recommend that only the names of individuals who have made a significant contribution to the research should appear as authors on Fund publications and papers to the Executive Board. Staff whose contribution was limited to providing comments on a draft should not be deemed to have made a significant contribution. There should be no presumption that senior staff should be listed first on coauthored publications simply because of their seniority.

Recommendation 12: Improve collaboration between World Bank and Fund researchers.

172. There are large potential synergies between research activities at the World Bank and the IMF. In

²¹The Policy Development and Review Department has the organizational responsibility to certify the paper's contents as representing the Fund's position. Thus, there is clearly a need for this department to continue to make written comments.

areas where both the Fund and the Bank have an interest in and conduct research on the same issues (for example, research on financial sector reform), collaboration could improve the quality of analysis in both institutions. In areas where one institution specializes and the other does not (for example, the World Bank in environmental issues, and the IMF in monetary policy), gains in efficiency could also be achieved by making use of each other's expertise rather than trying to duplicate it.

173. Collaboration occurs naturally when researchers are encouraged to talk to each other. We recommend that new vehicles be created to encourage this process.

- A joint weekly (or fortnightly) research seminar should be established by the Research Department in conjunction with their appropriate counterparts in the World Bank. The seminar would feature presentations by staff from both institutions or presentations by outside experts whose research is relevant to both institutions.
- The World Bank and the Fund might also consider jointly running an annual research conference, organized on the Fund side by the Committee on Research Priorities, in which prominent academics and staff members from both institutions participate. An annual event along the lines of the National Bureau of Economic Research (NBER) Macroeconomic Annual Conference would go a long way toward improving the morale of Fund researchers and enhancing the reputation of the Fund and the Bank.

Recommendation 13: Introduce more flexibility into the hiring procedure for entry-level economists.

174. Attracting the best young researchers is particularly important to the Research Department, which differs from other departments in that research is a large component of an economist's job in the Research Department. The hiring policies for entry-level economists must be flexible enough to ensure that economists with strong research skills can be hired for the Research Department.²²

175. We recommend the following.

- The pool of candidates selected for the second round of interviews in the Economist Program should include some candidates with strong research interests.
- The Fund should make a commitment to some of those candidates who wish to work in the Research Department (and are suitable for the Department) that they will be placed in the Research Department after their successful completion of two years in the Economist Program. (This appears to be critical to attracting some of the best young researchers.)
- Candidates with strong research interests who are interested in a commitment to being placed in the Research Department should be required to present their research at a seminar as part of their interview process, and the opinions of active researchers should be solicited and taken into account in the hiring decision.

Recommendation 14: Consider streamlining the management structure in the Research Department.

176. Multiple layers of management can stifle creativity as well as result in substantial inefficiencies. Successful research operations have a relatively nonhierarchical management structure. Adopting a structure with less reporting layers has become more common in public policy organizations, and may enhance the effectiveness of the Research Department.²³ We therefore recommend that the Research Department consider alternatives to the current management structure as a means of increasing collegiality in the Department, enhancing intellectual exchanges, and making efficiency gains.²⁴

Changes to Improve the Dissemination of Research

Operational staff and management are often too busy to read all research output, particularly long papers, and select that which is most relevant to their needs.

²²In a poorly integrated organization, creating a special hiring procedure in a research department has the potential to isolate the department. However, successful research departments in public policy organizations are those in which there are some individuals who focus on research, but the department ensures that there are strong incentives in place to encourage those researchers to provide value to the operational parts of the organization, and to exit them when they fail to do so. Recommendation 4 addresses this by providing greater incentives for researchers to be involved in the operations of the Fund.

²³In a research unit headed by one of the Committee members, such a change in structure produced substantial increases in efficiency because the time devoted to management activities and multilevel editing of written documents decreased dramatically. It also led to substantial improvements in the quality of research output because researchers were now held more accountable for their final product and did not feel that they had to make their products less controversial to please the many layers of management.

²⁴We have neither the time nor the expertise to design a detailed proposal for change, which would also need to consider any proposed changes in the wider context of the general organizational structure of the Fund. We see value in bringing in external experts to consider this issue.

Authors of research, and the Fund as a whole, need to think about ways to make research more accessible in order to ensure its absorption into policy work. Recommendations 15 and 16 address the need to disseminate research effectively around the Fund (discussed in paragraph 126); and Recommendation 17 addresses the need to provide additional opportunities for young staff to make presentations to the Executive Board, thereby increasing accountability and motivation (discussed in paragraph 102).

Recommendation 15: Write and disseminate nontechnical summaries of highest quality and most relevant research.

177. In order to more effectively disseminate research ideas throughout the institution we recommend the following.

- The Front Office in each department should, on a periodic basis, select a fraction of research papers (Working Papers, Policy Discussion Papers, Occasional Papers, papers submitted to outside journals) with interesting and/or relevant conclusions, and require that these be summarized by the authors. These summaries should be written for a nontechnical audience, making them accessible to educated laypersons (along the lines of the Economic Focus section in the *Economist* magazine). They should be more substantial than current abstracts, but short enough for busy people to readily absorb the key facts and conclusions—probably less than five pages.
- These summaries should be disseminated to all departments and to individual members of the Executive Board or management if they so choose.
- Assistance from the editorial/writing unit of the External Relations Department should be made available to assist staff in writing these nontechnical summaries.

Recommendation 16: Treat Working Papers as preliminary.

178. The purpose of issuing Working Papers should be primarily to stimulate discussion with other researchers. To ensure that Working Papers are treated as preliminary, and not end products of research nor representative of Fund views, we recommend that the Fund put more distance between its official views and the views expressed in Working Papers.

Working Papers should no longer be authorized for distribution by Front Offices or division chiefs, which is sometimes interpreted as suggesting that they have been approved by the Fund.

- The following sentence should be added to the current disclaimer: "This Working Paper is preliminary and is for discussion purposes only."
- Working Papers should only be minimally screened for quality but should be screened by the External Relations Department, with the assistance of the department where the Working Paper originated, prior to release for confidentiality issues and problematic language.

Recommendation 17: Create a new vehicle for nonsenior staff to make presentations to Management and the Executive Board.

179. The Executive Board should have more face-to-face exposure to good Fund research. We recommend that periodically, perhaps four times a year, a Board meeting be scheduled at which staff make presentations of their research work. (In our committee's experience, four presentations per meeting should be the maximum.) The topics for presentation could be chosen by the Executive Directors themselves, or by the Committee on Research Priorities. The Board meeting would be informal and would not require formal Board papers.

180. We understand that the Executive Board is already under significant time pressure, and that adding these additional meetings will create even further pressure. However, these meetings should be an important priority for the Executive Board because they will help the Board to provide input into the priorities for future research. They are also a more effective and efficient way of disseminating research to Executive Directors than the current system of providing them with Working Papers, and they will help send a signal to staff that research is valued in the Fund.

To successfully disseminate research outside the Fund, the Fund must have a coherent dissemination strategy, and researchers themselves must be involved in thinking about who their target audience is and how best to reach it. Recommendation 18 addresses the need for the Fund to enhance the reputation among policymakers and the public in member countries (discussed in paragraphs 132–35).

Recommendation 18: Improve dissemination of research to nontechnical audiences outside the Fund.

181. Improving the dissemination of the Fund's expertise and research to nontechnical audiences outside of the institution is of great value in developing a constituency for the Fund's work. It is important to ensure that nontechnical outsiders have ac-

cess to appropriate publications, and that there is a coherent strategy for dissemination of these publications (on this latter point, the purpose and status of the current set of publications seems to generate some confusion).

182. We understand that the strategy behind the Fund's nontechnical publications is currently being looked at by external consultants as part of a wider review of the Fund's external communications strategy. If the review does not consider this issue in sufficient depth, we recommend that a more careful review take place, which considers the following issues.

- The overall dissemination strategy, including whether there are too many publication vehicles.
- Publication vehicles that have been successful in other public policy institutions. For example, if the changed orientation of the IMF Staff Papers journal is not sufficient for communicating to policymakers and the general public, the Fund might consider creating a separate policy journal. Such a journal must be set up with a serious peer review process and might even make use of prominent outside experts.
- The wider issue of greater researcher involvement in some nontechnical external publications. Currently, the impetus behind two nontechnical publications—Finance and Development and the Economic Issues series—comes largely from the External Relations Department. We believe researchers themselves should be more actively engaged in the process:
 - (a) The External Relations Department should consult with the Committee on Research Priorities as to what research products might be appropriate for the nontechnical publications. When this research is written for these publications, the author of the original research should be responsible for writing up a nontechnical version of the original research with assistance from the External Relations Department.
 - (b) Researchers should be encouraged to submit work to appear in these nontechnical publications. Researchers should be given incentives to have their work published in these vehicles by receiving credit for these publications in their annual performance reviews and merit increases.
- 183. An additional advantage of engaging research staff in writing these nontechnical papers is that it will improve their ability to communicate

with noneconomists. This will help them to become better policy economists.

Changes in the Allocation of Resources to Free Up Staff Time

Recommendation 19 addresses the need to create more time for economists to focus on research issues by increasing the number of research assistants (discussed in paragraphs 112–14).

Recommendation 19: Increase the number of research assistants relative to economists.

184. The lack of research assistants reduces the productivity of researchers in the Fund. The Fund has recently implemented changes to increase the number of research assistants and change the mix. We welcome these changes and encourage acceleration of the rate of change. We recommend that the Fund further increase (substantially) the number of research assistants in the organization. New hires should primarily be young college graduates with a relevant background, hired on fixed-term, nonrenewable contracts. This will increase the Fund's head-count, but should reduce the need for economist staff, and therefore could be operated in such a way as to ensure it is roughly budget neutral. (For example, one economist could be traded off for, say, three research assistants.)25

185. Increasing the number of research assistants, and paying for it by reducing the number of economists, is likely to increase the overall efficiency of the research process.

Establishment of External Review and Monitoring Processes

Recommendations 20–22 address the need to open up the Fund to ideas from the outside world (discussed in paragraphs 82–86) and to increase accountability of the Fund's research through the establishment of external review and monitoring processes.

Recommendation 20: Create an ongoing external review process for research products.

186. External review of research products has two important benefits. First, by opening up Fund research to outside scrutiny, it makes it more likely that that Fund research will incorporate the latest ideas and developments from outside, thereby preventing insularity. Second, external review will increase the accountability of Fund researchers, par-

²⁵This complication would not arise if the Fund had a dollar budget rather than a head-count budget for staff.

ticularly if the results of the review are made public.

187. We recommend the following.

- On an annual basis, the Fund should contract with outside experts, including academics, to read and comment on the individual products of the research projects that have been approved by the Committee on Research Priorities. These comments should then be published on the Fund's external website and used by the Committee on Research Priorities and Management to analyze the success of research projects.
- The Committee on Research Priorities might also contract to have a selection of other research products from throughout the organization subjected to external review.

Recommendation 21: Monitor progress on implementing the recommendations in this report.

188. To ensure the effective implementation of those recommendations that the Executive Board

approves, the Board needs to monitor the progress of implementation. We recommend that one year from the date of this report, a follow-up report by management and staff, perhaps with the input of an independent external advisor, be submitted to the Board for discussion. At that time the Board can assess whether progress on these recommendations has been sufficient and what further steps need to be taken to improve the research process.

Recommendation 22: Create periodic, general, external reviews of research activities.

189. Although an external review of research products along the lines of our Recommendation 20 will increase the accountability of Fund research, it will, of necessity, be narrowly focused on individual research products. A more general external review should help the Fund evaluate whether the research process is being managed properly, whether the resources devoted to research are appropriate and whether research activities serve the operational needs of the Fund. We recommend that the Executive Board commit to another external review of research

Annex I Terms of Reference

December 4, 1998

activities within five years. This should be part of an ongoing, regular process of external reviews, both of research and of the Fund's other major activities.

I. Purpose of the Evaluation

The Executive Board of the International Monetary Fund has decided to request an independent external evaluation of the Fund's economic research activities. The purpose of the evaluation is to assess whether economic research in the IMF contributes effectively to the achievement of the Fund's objectives. For this purpose, the evaluation will assess the appropriateness of the present scale and organization of research activities, the way in which the level of resources and economic research programs are chosen, and how they relate to the overall work of the Fund. The evaluation will also seek to assess the quality and the added value of different aspects of the Fund's economic research and to appraise its utility in the Fund, among its member countries, and within the wider economics community.

2. Focus of the Evaluation

The evaluation will focus on all aspects of the Fund's economic research activities and will be carried out by three independent external experts, as indicated in Section 3 below. The experts are requested to consider five broad topics in their evaluation.

- a. The definition of economic research in the Fund. The boundaries between research and operational work are not clear-cut since much of the staff's regular work on surveillance and the use of Fund resources involves elements of research.
- b. *The objectives of the Fund's economic research activities*. Why does the Fund do research? Have the reasons changed over time? Are the current objectives the right ones? How might the objectives of the Fund's research activities evolve over the medium term?
- c. The organization of the Fund's economic research activities. How are decisions made about

- the topics for research and the resources devoted to research and how are these related to the work program? How best should research work relate to operational work in the Fund? Is the present distribution of research time across departments the most appropriate?
- d. The agenda and focus of the Fund's economic research. What is the value added by the Fund's own research activities, both within the Fund and externally? What should determine whether the Fund (rather than the academic community or other international institutions) undertakes specific research and how deeply? Does the research utilize effectively the wealth of information to which the Fund has access? Is there an appropriate balance in the Fund between research in theoretical economics and research on more operational topics? Should more resources be allocated to one or the other?
- e. The influence of the Fund's economic research. To what extent does the Fund's research influence its policymaking and operational work? How is the quality of Fund research perceived by relevant interested parties and to what extent does it have influence in Fund member countries, in other international institutions, and within the academic community? What is the best way of publicizing the research (the role of conferences and seminars; the role of the publications concerning the World Economic Outlook and International Capital Markets report; the role of Staff Papers; the accessibility of Working Papers; etc.)?

In focusing on the above topics, the experts may wish to be aware of the following more specific questions that are of interest to Executive Directors:

- (i) What incentives do Fund staff have for working on economic research? Is freedom of research preserved?
- (ii) Are there any major areas of research at present undertaken by the staff whose value added could be regarded as insufficient? Are there major omissions in the Fund's research agenda?
- (iii) How useful is the visiting scholar program? Should research agendas be coordinated with

- other entities? Could more research be done in partnership with others or be contracted out?
- (iv) How important is it for Fund staff to continue undertaking theoretical and applied research as a means of maintaining their human capital? In seeking to enhance the human capital of staff, does the Fund provide an appropriate mix of opportunities to its staff to receive training and to do research work?
- (v) What internal or external mechanisms exist, or should exist, for ongoing evaluation of Fund economic research activities?

3. Evaluators and their Independence

Professors Francesco Giavazzi, Frederic S. Mishkin, and T.N. Srinivasan have agreed to conduct the evaluation and to submit a joint report; Professor Mishkin will serve as chair. They shall conduct their work freely and objectively and shall render impartial judgment and make recommendations to the best of their professional abilities. At their full discretion, the evaluators may wish to take into account the views of member country authorities, academic experts, representatives of other international organizations, and Fund Executive Directors and staff.

4. Access to Confidential Information and Protection of Confidentiality

- a. The evaluators shall have access to information in possession of the Fund as needed for carrying out the evaluation. This may include, but will not necessarily be limited to, access to staff reports and other publications, internal memoranda and studies, existing databases, relevant communications with management, as well as minutes of Executive Board proceedings. The Chairman of the Evaluation Group of Executive Directors (Evaluation Group) shall make all necessary arrangements to facilitate and assist the procurement by the evaluators of relevant information in possession of the Fund.
- b. The evaluators undertake not to disclose, deliver, or use for personal gain or for the benefit of any person or entity without the consent of the IMF, any restricted or confidential information in possession of the Fund that they receive in the course of the evaluation. The Chairman of the Evaluation Group will request an appropriate officer of the Fund to review the draft

- evaluation report with the purpose of pointing out to the evaluators any inadvertent disclosure of restricted or confidential information.
- c. The evaluators are free to request information from country authorities and other sources outside the Fund as deemed appropriate.

5. Evaluation Report: Publication, Executive Board Consideration, and Comments

- a. The Fund reserves the exclusive right to publish the report, and the evaluators undertake not to publish any part of the report separately.
- b. In accordance with generally accepted practices for the conduct of audits and evaluations, the Chairman of the Evaluation Group will ensure that those whose actions and advice are the subject of evaluation shall have the opportunity to respond to relevant parts of the evaluation report in draft form, as well as in final form. The evaluators are free to take account of, or ignore, any comments on the draft evaluation report.
- c. Comments on the final evaluation report shall be considered part of the official record. If the Executive Board decides to make public the final evaluation report, it may also decide to make public the comments thereon, including the conclusions of the Executive Board consideration of the report.

6. Resources and Timing

The budget for the external evaluation of the Fund's economic research activities shall not exceed US\$220,000 (excluding any support from Executive Directors or Fund staff that might be requested by the evaluators); within this total, and in consultation with the Chairman of the Evaluation Group, the evaluators may arrange for research assistance support. The Chairman of the Evaluation Group will make arrangements to assist with any logistical or liaison support from Executive Directors or Fund staff requested by the evaluators.

The evaluators shall be provided with a contract for contractual employment, on terms and conditions approved by the Chairman of the Evaluation Group. The "Terms of Reference of the External Evaluation of the Fund's Economic Research Activities," dated December 4, 1998, shall be attached to the contract and acceptance of the contract by the evaluators shall also mean acceptance of the "Terms of Refer-

Annex II Nature and Organization of Economic Research in the Fund

ence." The contract will expire with delivery of the evaluation report and its consideration by the Executive Board, or if the Executive Board determines that the contract should be terminated for other reasons.

The evaluators will begin work in January 1999; completion of the evaluation report is expected for July 1999. The evaluators will keep the Chairman of the Evaluation Group informed of the progress of the work.

How Is the Fund Organized?

- 1. The IMF has nearly 2,700 staff, of which approximately 1,100 are professional economists.²⁶ Annex 4 sets out the Fund's organizational structure. There are 6 area departments, 8 functional and special services departments, and 12 information, liaison, and support departments. Most economists work in area departments and functional and special services departments.
- Each department has a "Front" or "Immediate" Office, and several divisions. Staff in the Front Office include the head of the department (called a Director), between 5 and 15 managerial-level staff, and several support staff. The Front Office supervises and coordinates the work of the department. Each division within the department is led by either a "Division Chief" or an "Assistant Director" (depending on seniority) and contains around 6 to 10 economists. It may also contain a research assistant (in functional departments). Each division deals with a subset of the issues/countries covered by the department. Area departments are primarily responsible for monitoring and assessing economic developments in member countries in the region. For example, the African Department monitors and analyzes economic developments in the Fund's 44 African member countries and in the region as a whole.

- 3. Functional and special services departments contribute to the Fund's monitoring and analysis of developments in member countries, but they are organized around issues or functions rather than countries, and they also monitor and analyze developments in the international monetary system as a whole. For example, the Fiscal Affairs Department specializes in fiscal policy and fiscal institutions; and the Monetary and Exchange Affairs Department specializes in monetary policy, monetary and financial institutions, and exchange rate policy.
- 4. The Policy Development and Review Department has a particularly important role in the organization. It reviews and approves many of the documents originating in area departments to ensure that the work produced is consistent with the Fund's overall approach, and that inconsistencies do not occur between the advice given to one member country and the advice given to another. As the name suggests, the Department also develops overall policies for the organization. For example, the recently introduced Contingent Credit Line was designed by the Policy Development and Review Department.
- 5. The Research Department is also classified as a functional department. Its role is discussed further below.
- 6. Economic research, as we have defined it at the beginning of Section II, is conducted to a greater or lesser extent in all the area departments and functional and special services departments in the Fund.

What Are the Objectives of Economic Research in the Fund?

7. Although not specifically referred to in the Articles of Agreement, research is conducted by the Fund to help it achieve the "Purposes" stated in the Articles of Agreement, particularly the first purpose:

To promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems.²⁷

8. The objectives of research undertaken in the Fund were most recently specified explicitly in the 1993 Review of Research Activities in the Fund:

²⁶Fund economists are hired through two main channels: (1) through the Fund's Economist Program, which hires recent graduates from top economics faculties around the world (generally at the Ph.D. level); and (2) at midcareer level. Midcareer economists are hired from public policymaking institutions, academia, and the private sector. The Economist Program looks for people with a strong interest in public policy and the capacity to work in various parts of the Fund. Economist Program hires spend their first two years in two different parts of the Fund, and are then offered a permanent place in a department if they have performed successfully in their first two years.

²⁷Article I (i).

The main objectives of research in the Fund are to further the staff's understanding of policy and operational issues of relevance to the institution, and to improve the analytical quality of work prepared for management and the Executive Board, and of the advice provided to member countries. Different departments have differing objectives, depending on their particular institutional responsibilities. Generally speaking, the research programs of area departments are oriented toward country-specific and regional issues and seek to: (1) deepen the staff's understanding of country situations for purposes of surveillance and the formulation of programs supported by the Fund; (2) strengthen the analytical basis for policy advice provided to country authorities; (3) assist the authorities in developing their analytical and policymaking capacities; and (4) disseminate the staff's experience with policy approaches to economic problems and issues.

As functional departments have a greater diversity of interests and responsibilities, their research programs are more varied. These departments engage in research so as to: (1) improve surveillance of developments in the international monetary and financial systems, and in the world economic situation; (2) strengthen the analysis related to the design of adjustment and reform programs; (3) improve technical assistance provided to countries; (4) support the development and implementation of the Fund's financial policies and operations; and (5) provide a set of up-to-date international statistical standards, as well as guidance on the statistical treatment of new issues and priorities in statistics.²⁸

What Type of Research Is Done in the Fund?

9. As the discussion above suggests, decisions about what research should be undertaken are largely decentralized. Most research projects are initiated and designed at the departmental level. The 1993 Review noted that "this allows resources to be directed toward the most important policy and operational problems confronting each department."²⁹

10. Area departments tend to undertake mainly research that we have defined at the beginning of Section II as policy analysis research. This is consistent with the objectives for area department research stated above. That is, the research is mainly concerned with deepening the staff's understanding of country situa-

tions and strengthening the analytical basis for policy advice in surveillance and program formulation. Some policy development research is also conducted in area departments. This is consistent with the objective of disseminating the staff's experience with policy approaches to economic problems and issues.

11. Functional and special services departments, particularly the Monetary and Exchange Affairs Department and the Fiscal Affairs Department, undertake a mix of policy analysis, policy development, and policy foundation research. The Statistics Department and the Treasurer's Department undertake very little economic research (the Statistics Department does, however, undertake specialized research in statistical methodology). The Policy Development and Review Department conducts mainly policy development research, such as the recent "IMF-Supported Programs in Indonesia, Korea, and Thailand: A Preliminary Assessment." The research conducted in the Research Department is discussed separately below.

12. In order to get a ballpark idea of the total amount of research conducted in the Fund, the type of research conducted, and the distribution of that research between departments, we have constructed a historical list of research output of the Fund over the last four years, and classified the research in various ways.³⁰

13. Tables 1 to 5 at the end of this annex set out:

- research by country specificity (country-specific, cross-country, non-country-specific, or not classified) (Table 1);
- research output by type of country (Table 2);
- research output by department (Table 3);
- research output by topic³¹ (Table 4); and
- research by document type and department (Table 5).

²⁸Review of Research Activities in the Fund, prepared by the Interdepartmental Working Group on Fund Policy Advice, November 16, 1993, p. 2.

²⁹Ibid., p. 3.

³⁰This list was constructed by combining the official annual list of completed research projects from the Interdepartmental Working Group on Fund Policy Advice, the Fund's publication Research Activities of the International Monetary Fund, January 1991-December 1997, and several other lists of research output that departments provided us with. We have classified research output according to year of publication. This is somewhat artificial, as a paper that was worked on throughout one year may not have been published until the following year. We have tried to capture as much of the Fund's research output as we can, but the list may miss some shorter internal pieces of research that have not been published and some research that has been published outside the Fund that has bypassed the Fund's normal vehicles for the distribution of research and has not been reported in the Interdepartmental Working Group's list. The list may also fail to incorporate some papers that, although not considered to be pieces of research themselves, may have a research component to them. The list for 1998 is likely to be more comprehensive than lists for earlier years.

³¹Classification taken from Research Activities of the International Monetary Fund, January 1991–December 1997.

How Much of the Fund's Resources Are Allocated to Research?

14. It is difficult to estimate the total amount of resources dedicated to research in the Fund. The Fund's Budget Reporting System does not record "research" as a separately defined output, partly because different types of research are conducted in the Fund (for example, the research associated with surveillance work is classified as "surveillance"). Furthermore, the value of research depends not only on how much time is available for research, but also on the time that the researcher has taken to convey the ideas in the research to others in the organization (through informal conversations, meetings, follow-up memos, etc.) and from the time that nonresearchers have taken to absorb the results of research that is conducted both within the Fund and outside it. Time spent on these activities is very difficult to quantify.

How Do Individual Departments Allocate Resources to Research?

15. The process by which resources are allocated to research varies among departments. In general, in area departments, research is planned at the division level as part of the annual Article IV consultation process (whereby a team of Fund economists visit each Fund member, generally annually, to discuss the country's economic policies with government officials and others in the member country and make an assessment and policy recommendations). Research tends to be undertaken on countries that do not have economic programs supported by the IMF (a program is the set of measures agreed to by the member country in conjunction with the use of the Fund's financial resources), as program divisions find their time and resources consumed by mission travel and program work. Some departments say they have a "wish list" of research projects that they would like to do, but frequently operational demands crowd out time for research.

16. The Asia and Pacific Department has experimented with setting up a small group of staff who have been given significantly reduced operational responsibilities so that they have time to do research on important issues relevant to the Asia-Pacific region. Some of the topics for this research come from discussions in the Front Office. Other topics are chosen by the staff themselves.

17. People we spoke to in some of the functional departments described research as the residual in their departments' budget allocation process. Demand-driven operational work such as technical assistance, mission work, and review work takes prior-

ity, and remaining time is allocated to research and other activities (training, etc.). In general, some research topics are directed from the Front Office and others are chosen by individual economists, in consultation with their division chief.

18. Several departments also set money aside to bring in visiting scholars to work on projects of interest to the Fund and interact with Fund staff. The size of the visiting scholars program, and the way it operates, varies by department.

What Is the Role of the Research Department?

19. As can be seen from Table 5 at the end of this annex, the Research Department conducts about 25 percent of the total research produced by the Fund in volume.³² Given its prominent role in the Fund's research activities, we describe it separately here.

20. The Department has a Front Office (consisting of 7 managerial staff and 15 other staff) and 6 divisions: Capital Markets and Financial Studies, Commodities and Special Issues, Developing Country Studies, Economic Modeling and External Adjustment, Emerging Market Studies, and World Economic Outlook. Around 70 professional economist staff work in the department, supported by around 23 research officer/assistants and 5 specialized technical vendors. The Director of the Research Department is known as the Fund's Economic Counselor. This role requires the Director to be a source of independent advice to the Fund on current policy issues and the design of Fund policies and operations, and to convey such ideas to policymakers in the organization as well as outside.

- 21. The Department has several key (somewhat overlapping) functions:
 - to conduct research on issues relevant to the Fund:
 - to input into the analysis and design of Fund policy advice to member countries (through participation on missions and review of other departments' work);
 - to prepare the *World Economic Outlook*, including coordination of the interdepartmental forecasting exercise; and
 - to prepare the *International Capital Markets* report.

22. The Department also prepares notes and presentations on the current state of the world economy

³²Note, however, that a volume estimate is somewhat simplistic since some of the research produced in the Research Department is of much larger scale than that produced in area departments.

and key international economic and financial issues for the Executive Board and various other audiences such as the G-7 and APEC.

- 23. The Department has provided a rough estimate of the breakdown of its professional economists' time (for the Department as a whole) in FY1998/99 as follows:
 - 10.5% Research for and preparation of the World Economic Outlook
 - 17% Research for and preparation of the *International Capital Markets* report and resources allocated to the global markets unit
 - 7.5% Reviewing the work of other departments
 - 4% Article IV and use of Fund resources, missions, and mission-related research
 - 2.5% Preparation of G-7 notes, Coordinating Group on Exchange Rate (CGER) exercises, and briefings for other meetings
 - 2% Research for papers designed for presentation to the Executive Board (for example, the 1998 board paper on Early Warning Systems)
 - 35% Other research
 - 21.5% Other activities (predominantly managerial supervision and training)
- 24. The Department notes that the figure for "other research" is probably overestimated as it is calculated as a residual, and probably includes other activities (including, possibly, research for the *World Economic Outlook*).
- 25. The research output of the Department covers a wide range of topics. Research output reflects both directed research (topics chosen by departmental management), and nondirected research (topics chosen by individual researchers):

Fully directed research. This generally takes the form of papers written for the Executive Board. The Economic Counselor, in consultation with management, decides what papers will be prepared for the Executive Board. These generally stem from requests from the Executive Board for research on certain issues or discussion that the Economic Counselor has observed in the Executive Board where he thinks that a research paper could add depth to the Executive Board's discussions. These papers (such as the recent papers on Hedge Funds, the Coordinating Group on Exchange Rate framework for estimating equilibrium exchange rates, and the role of Early Warning Systems in anticipating balance of payments crises)

are generally a mix of literature review and new thinking by the Department.

Semidirected research. As part of the process of preparing the World Economic Outlook and the International Capital Markets report, the Front Office generates a broad set of topics/themes for each report. Individual researchers can develop their own specific research proposals within these topics/themes, and discuss and agree on them with the Front Office. Research may also be conducted by mutual agreement with an area department that requests the services of someone on the Research Department staff to conduct a piece of country-specific research.³³

Nondirected research. When not otherwise engaged in review work, mission activities, other operational activities or directed research, staff are able to work on subjects of their own choosing, typically in consultation with their managers, subject to the constraint that the work must have some relevance to the Fund's mission. This generates a broad range of research. Some young staff continue to explore their thesis topics. Others work on topics relevant to the division they are in that they have either identified individually or in conjunction with their managers.

Does a Mechanism Exist for Coordinating Research Between Departments and/or Identifying High-Priority Research?

26. The Working Group on Fund Policy Advice (WGFPA) was set up in 1989 to "serve as a forum for identifying country related, analytical and policy issues and strengthening research collaboration on these issues so as to enhance the effectiveness of Fund policy advice." This was an attempt to bring some centralization to the otherwise decentralized process of conducting research.

³³There is no formal contracting system for area departments that wish to use the expertise of a staff member in the Research Department. Departments that require specialized research (or that simply want a staff member from Research to accompany a mission) either contact a specific individual, or they approach the Economic Counsellor, someone in the Front Office, or the relevant division chief and ask them whether the department is able to provide someone suitable for the project or mission.

³⁴ Review of Research Activities in the Fund," op. cit., p. 1.

It has 15 members—one from each area and functional/special services department, and one from the External Relations Department. It is chaired by the member from the Research Department. All members are appointed by the First Deputy Managing Director.

- 27. The Working Group on Fund Policy Advice meets several times a year (historically, between two and seven times). It is responsible for maintaining and disseminating a database of all ongoing and planned research projects across the Fund and ensuring that there is no overlap between projects. (The list of ongoing projects can be found on the internal website (www-int.imf.org), and a similar list, edited to remove confidential research, appears on the Fund's external website (www.imf.org).)
- 28. The Working Group on Fund Policy Advice is also responsible for taking a Fund-wide perspective on the key issues on which the Fund needs to do research and compiling a list of projects of Fund-wide interest that should be undertaken. Its terms of reference specifically refer to "analytical and empirical issues that arise in individual country cases which have wider implications" and "special studies . . . to evaluate and draw lessons from the Fund's experience in providing policy advice to its members"
- 29. Once a year, a meeting is devoted to identifying these priority projects. Each member comes to the meeting with a list of projects that his/her department intends to undertake or thinks should be undertaken. Other members of the group may indicate their own department's willingness to participate. Individual members also make suggestions outside of the departmental list, and a list of suggestions made by Executive Directors in the course of Board meetings is also discussed.
- 30. A complete list is then compiled, based on departments' willingness to undertake the projects, and sent to the First Deputy Managing Director, who agrees to or amends the project list and may offer additional suggestions. In FY1997/98 the Working Group identified eight such research projects, including *The Implementation of Monetary Policy in Dollarized Economies*, which was presented at an Executive Board seminar, and *Exit Strategies—Policy Options for Countries Seeking Greater Exchange Rate Flexibility*, which was presented to the Executive Board. Both papers have been published in the Occasional Papers series. In FY1998/99, 17 projects were identified.
- 31. The 1989 terms of reference for the Working Group on Fund Policy Advice also specified that the group should receive, from the Research Department:
 - "reports on its agenda in the area of the design of economic policy, particularly relating to the developing countries" and
 - "periodic reports on the implications of its research work for practical policy issues."
- 32. There does not appear to have been any specific reporting on these issues in the history of the group.

What Role Does the Executive Board Play in the Research Process?

- 33. The Executive Board has an indirect role in shaping the research agenda of the Fund. The Board influences the research conducted in the Fund in four ways:
 - (1) During Board meetings, Board members may make suggestions for research that they think would be useful for the Fund to conduct. The Board Secretary makes a note of the suggestions of Executive Directors, and these suggestions feed into the deliberations of the Working Group on Fund Policy Advice (discussed above).
 - (2) Issues discussed in the Board may spark research ideas in individual staff members who are attending the Board meetings.
 - (3) Executive Directors, on behalf of the countries they represent, can suggest research ideas to mission chiefs in advance of Article IV missions to their constituency countries.
 - (4) Department directors and the management decide on what research products (outside of Article IV-related Selected Issues research) they think should be produced for presentation to the Executive Board. These are included in the twice yearly forward-looking Work Program of the Executive Board (the Work Program is a list of the items that management proposes for consideration by the Executive Board in Board meetings in the six months ahead. The list of items includes Article IV reports, internal management issues, general policy issues, etc., which are predictable in advance). Directors consider the Work Program in a Board meeting, and may seek to add or delete items from the list, including specific pieces of research.
- 34. The World Economic Outlook and the International Capital Markets report are always presented to the Board in draft form (i.e., additional changes can be made after the Board meeting). Other individual pieces of research presented vary from year to year. In 1998, for example, the Board considered a paper on "Hedge Funds and Financial Market Dynamics" and another on "Experience with Disinflation and Growth in the Transition Economies." Some of these research pieces are designed mainly to inform the Board rather than to drive Fund policy (e.g., "Hedge Funds"). Others are not research pieces in themselves, but policy development papers that are based upon research (e.g., "Involving the Private Sector in Forestalling and Resolving Financial Crises").
- 35. Members of the Executive Board also receive copies of all of the Fund's research output.

How Is Research Disseminated Inside and Outside the Fund?

36. Not all research conducted in the Fund is disseminated externally. Some feeds into Board papers on policy development (for example, the research component of the policy development process surrounding the Contingent Credit Line), most of which are not made public. Other pieces of research are circulated internally in the form of Internal Memoranda. For example, in 1998, the Policy Development and Review Department issued several memos including "Aid in Fund Programs: Preliminary Considerations" (a note on analytical issues related to treatment of aid in Fund-supported programs), and, in conjunction with the Research Department, "Asian Crisis Countries: Exchange Rate Assessments" (a note presenting a first cut at exchange rate assessments for Indonesia, Korea, and Thailand).

37. Research that is disseminated externally as well as internally is published in several forms:

IMF Survey. This is a 16-page newsletter-type publication issued 23 times a year. It contains short, nontechnical articles on recent IMF research and policy analysis and articles on current events at the IMF. It is automatically distributed to university libraries, university professors, government agencies, international agencies, and financial writers, and is available by subscription and on the Fund's website.

Finance & Development. This is a free, nontechnical quarterly magazine for policymakers, academics, economic practitioners, and others who are interested in the work of the IMF and current economic issues. The publication includes articles reviewing the analysis and activities of the IMF. Articles are about four pages in length. Some of them draw on more technical Fund publications such as Working Papers. Some are written by guest authors. The magazine also contains book reviews on current topical publications. Issues are also available on the Fund's website.

IMF Staff Papers. This is the Fund's in-house economic journal aimed at the academic community. It is published quarterly and contains theoretical and empirical analyses of various macroeconomic and structural issues. Beginning with the March 1999 issue, copies are also available on the Fund's website.

World Economic and Financial Surveys. The semiannual World Economic Outlook (WEO) and the annual International Capital Markets report are the two anchor publications in this publication series, but other individual studies covering monetary and financial issues of im-

portance to the world economy are also included in the series (e.g., *Toward a Framework for Financial Stability*, 1998). This series is widely distributed to member governments, academia, business, media, and international organizations. (The *WEO* and the *International Capital Markets* report are also available on the Fund's website.)

IMF Staff Country Reports. These reports contain background material and research on economic developments and trends in individual IMF member countries. They are background documents prepared in the context of the periodic consultation with member countries. Not all member countries permit the release of background documents. The research content in country reports varies by report. These reports are targeted at member country officials, academia, the media, and business. They are also available on the Fund's website.

Economic Issues. These publications (about 10 annually) present the Fund's economic research (drawn primarily from selected IMF Working Papers) in accessible language, to a nonspecialist audience. The one-topic booklets are designed to acquaint readers with Fund research topics of current importance. They are distributed to research institutes and academia (as well as to business, the media, and other educated lay audiences) and are also available on the Fund's website.

Working Papers. Working papers cover a wide range of topics of both a theoretical and an analytical nature. They are distributed to member country government policymakers, academia, and the media by subscription or individual copy. They are also available on the Fund's website.

Policy Discussion Papers (formerly Papers on Policy Analysis and Assessment). These papers cover research in the area of policy design. They are normally fairly nontechnical and are aimed primarily at operational staff involved in mission work in the Fund and people outside the Fund who are interested in policy issues. They are also available on the Fund's website. Consideration is being given to compiling these papers into an annual volume.

Books and Seminar Volumes. These cover a wide variety of topics (e.g., Transition to Market: Studies in Fiscal Reform (1993); Value-Added Tax: International Practice and Problems (1988)). Seminar volumes are based on seminars held or cosponsored by the IMF. Both books and seminar volumes are distributed to member country government officials, academia, business and the media.

Occasional Papers. The Occasional Papers series (about 20 produced annually) features staff analyses of a variety of economic and financial subjects of current importance to the Fund's work, with topics including both country and policy analyses. These publications are aimed at government officials, business, academia, and the media.

Staff Studies. These one-off studies cover a range of topics (e.g., External Evaluation of the ESAF, The Economy of the West Bank and Gaza Strip)

things) Working Paper and Policy Discussion Paper titles and summaries, and Board papers and IMF Staff Country Reports (both in full text in recent years). Research is also presented to external parties through Fund-organized seminars and conferences, and at outside conferences.

	1995	1996	1997	1998	All Years		
Research specific to:							
Country-specific	168	151	134	182	635		
Cross-country	81	97	102	107	387		
Nonspecific	154	100	116	146	516		
Not classified	9	6	1	6	22		
Total	412	354	353	441	1,560		

and are targeted at member government officials, academia, business, and the media.

Country Type	1995	1996	1997	1998	All Years
Relevant to all countries	103	70	81	107	361
G-7	79	62	74	51	266
Other industrial countries	75	99	85	106	365
Transition economies	62	50	46	60	218
Developing countries	122	104	120	168	514
Not specified	8	5	1	2	16
Total	412	354	353	441	1,560

A list of these documents is found in the Fund's Publications Catalog. The Fund also has an internal document database, which contains (among other

Department ¹	1995	1996	1997	1998	All Years	Percent of Total
Area departments	165	174.5	161	225.43	726	47
Africa (135)	18	23	13.5	20.4	74.9	5
Asia-Pacific (98)	25.5	30	30	91.5	177.0	- 11
European I (86)	86	83.5	64	58.5	292.0	19
European II (75)	8	12.5	- 11	17.5	49.0	3
Middle Eastern (59)	13.5	15.5	21	15.5	65.5	4
Western Hemisphere (103)	14	10	21.5	22.0	67.5	4
Functional and special services departments	237	173.5	186	216.37	813	52
Fiscal Affairs (98)	31.5	29.0	33.0	24.8	118.3	8
IMF Institute (42)	0	1.0	10.0	21.3	32.3	2
Internal Audit and Inspection	0	0.0	1.0	0.0	1.0	0
Legal	0	0.7	1.0	0.2	1.9	0
Monetary and Exchange Affairs (68)	37	37.5	42.8	39.7	157.0	10
Office of the Managing Director	0	1.0	0	1.3	2.3	0
Policy Development and Review (103)	33	21.7	15.3	10.5	80.5	5
Research (67)	123.5	74.5	77.3	116.2	391.6	25
Secretary's	0	0.0	2.5	0.0	2.5	0
Statistics (79)	8	6.5	1.0	1.0	16.5	1
Treasurer's (63)	4	1.7	2.0	1.2	8.9	1
Other						
Geneva Office	1	I	2	0		
Total	412	354	353	442	1.561	100

 $^{^{}I}Number\ of\ permanent\ staff\ members\ in\ grades\ A\ I\ I-B5,\ including\ resident\ representatives,\ is\ shown\ in\ parentheses.$

The large increases in research output in the Asia and Pacific Department and the Research Department in 1998 probably reflect a more complete list of research in the two departments in 1998 than in earlier years, as these departments specifically sent us a list of their 1998 research outputs, whereas the information for earlier years was obtained from other sources.

Topic	1995	1996	1997	1998	All Years
International monetary system	24	26	35	42	127
International capital markets and official financing	61	61	66	96	284
Inflation and inflation stabilization	21	23	19	31	94
Growth and structural issues	133	127	122	129	511
Development economics	50	36	16	35	137
Economies in transition	53	30	27	22	132
Fiscal issues	68	62	61	63	254
Monetary and financial sector issues	39	33	37	33	142
Exchange rate behavior	33	18	26	34	111
Fund financial policies	21	13	4	5	43
Statistical issues	12	7	3	4	26
Total	412	354	353	441	1,560

Note: Numbers in columns may not add to total at bottom of column because some research fits into more than one topic category.

Notes: Joint research was apportioned evenly among the departments involved.

Table 5. Research Products of the IMF by Document Type and Department, 1995-98

Department	Working Paper	IMF Staff Papers	Occasional Paper	PPAA	Staff Memorandum	Other Fund Publication	Outside Publication	Published ¹	Mimeo ²
Area departments	223	26	40	16	258	87	6	30	118
African	39	5	10	2	15	51		2	24
Asia-Pacific	35	5	9	4	68	10	3	9	43
European I	56	7	7	4	219	i		4	17
European II	31	4	7	5	2	1		5	5
Middle Eastern	39	1	7		2	9	2	9	15
Western Hemisphere	23	4		1	9		Ī	Ì	14
Functional and special									
services	457	67	46	26	19	66	76	36	84
Fiscal Affairs	77	6	8	9	3	10	1	12	6
IMF Institute	18	Ĭ	, i	2	_	3	5		3
Internal Audit and	. •			_		_	•		
Inspection	1								
Legal						2			1
Monetary and									
Exchange Affairs	74	5	- 11	8	3	13	5	15	25
Office of the Managing									
Director	3				1		1		
Policy Development									
and Review	28	1	13	4	10	15		5	12
Research	239	54	14	3	2	17	64	3	32
Secretary's	3								
Statistics	9					2		1	4
Treasurer's	5					4			1
Other									
Geneva Office	4								

Not specified where.

Note: Staff Memoranda are predominantly Selected Issues documents associated with Article IV consultations. The table counts every individual piece of research in a Staff Memorandum as a separate Staff Memorandum for the purposes of the table, even though one Staff Memorandum may, in fact, contain several pieces of research.

Table 6. Comparison of Citations of Staff Papers, Brookings Papers on Economic Activity, and World Bank Economic Review (Citations of 1991 and 1995 Articles)

	IMF Staff Papers			Papers on ic Activity	World Bank Economic Review		
	1991	1995	1991	1995	1991	1995	
Number of citations since publication	208	78	331	58	148	99	
Number of articles	32	24	19	12	45	32	
Average citations per article:							
including self-citations	6.5	3.3	17.4	4.8	3.3	3.1	
excluding self-citations	5.9	2.7	16.4	4.6	3.1	2.8	

Source: Social Sciences Citation Index.

²Or not enough information to categorize.

Table 7. Comparison of Journals Citing Staff Papers, Brookings Papers on Economic Activity, and World Bank Economic Review (Citations of 1991 and 1995 Articles)

Imf sp (32 articles)	208	bpea (19 articles)	331	wber (45 articles)	148
Int monet fund s pap	20	am econ rev	20	world dev	20
j int money fin	10	brookings pap eco ac	20	world bank econ rev	9
econ j	9	eur econ rev	16	econ dev cult change	6
j dev econ	9	reg stud	12	am j agr econ	
world dev	9	weltwirtsch arch	10	land use policy	5
j int econ	8	q j econ	8	econ polit weekly	4
weltwirtsch arch	8	rev econ stat	8	food policy	4
appl econ	6	int monet fund s pap	6	j public econ	4
am econ rev	5	j int econ	6	world bank res obser	4
eur econ rev	5 5	j polit econ	6	dev change	3
j econ issues		econ j	5 5	dev econ	3
mach sch econ	5	growth change	_	j dev stud	_
brookings pap eco ac	4	j comp econ	5	j econ lit	3
econ model	4	j econ perspect	5	j econ perspect	3
j comp econ	4	jahrb natl stat	5	j mod afr stud	3
open econ rev	4	oxford rev econ pol	5	land econ	3
rev econ stat	4	pap reg sci	5	rev income wealth	3
rev etud comp est q	4	can j econ	4	b indones econ stud	2
econ lett	3	econ lett	4	ids bull-l dev stud	2
j dev stud	3	j econ hist	4	j dev areas	2
j econ dyn control	3	j law econ	4	j econ behav organ	2
j econ persp	3	rand j econ	4	soc econ stud	2
j jpn int eco	3	reg sci urban econ	4	third world plan rev	2
j macroecon	3	rev income wealth	4	trimest econ	2
j money credit bank	3	appl econ	3	africa	
j policy model	3	econ inq	3	agr ecosyst environ	
rev econ	3	econ polit weekly	3	am j econ sociol	
world bank econ rev	3	ind labor relat rev	3	am polit sci rev	
world dev j dev stud	3	j monetary econ	3	ambio	
eastern eu econ	2	j money credit bank	3	ann assoc am geogr	
econ model	2	j urban econ	3	ann u rev anthropol	
economist	2	natl tax j	3	bus hist	
econ polit weekly	2	new engl econ rev	3	can j econ	
econ rec	2	rev ind organ	3	ecol econ	!
explor econ hist	2	small bus econ	3	econ j	
int polit oslo	2	appl econ lett	2	econ lett	
j afr econ	2	cambridge j econ	2	environ plann	
j bank financ	2	can public pol	2	environ resour econ	
j econ lit	2	econ hist rev	2	geogr z	
kyklos	2	econ model	2	george wash j intl	
scand j econ	2	environ plann c	2	gerontologist	
acta oecon	!	ind relat	2	int labour rev	
appl econ lett	!	int j ind organ	2	int monet fund s pap	
cato j	!	int regional sci rev	2	int rev adm sci	
contemp econ pol		j common market stud	2	j am plann assoc	
econ dev cult change		j dev econ	2	j asian stud	
economica		j econometrics	2	j bank finance	
econ theory		j hous econ	2	J comp econ	
eur j op res		j ind econ	2	j dev econ	
europe-asia stud		j labor econ	2	j econ educ	
geneva pap risk ins		j policy model	2	j eur soc policy	
int econ rev		j popul econ	2	j inst theor econ	
j econ		j public econ	2	j lat am stud	
j financ quant anal		j regional sci	2	j law econ organ	
j monetary econ		kyklos	2	j peasant stud	
j post keynesian ec	1	mich law rev	2	j policy model	
j world trade	1	mon labor rev	2	j polit econ	
math comput simulat		q rev econ financ	2	j rural develop	
nationalokon tidsskr		rev econ	2	popul dev rev	
oxford econ paper		scand j econ	2	public admin devel	
public money manage		urban stud	2	public choice	
q rev econ finan	I	world dev	2	public finance	
s afr j econ		accident anal prev		g rev econ financ	

		Table 7 (continued))	
991 (continued)				
cot j polit econ	1	am j econ sociol	l s afr j econ	
	i		I soc forces	i
outhern econ j		am polit sci rev		
rimestr econ		ann pharmacother	l soc legal stud	
vb res ober	1	ann regional sci	I soc policy adm	1
vorld econ	1	antitrust law	I soc sci med	1
		cato j	l tijdschr econ soc ge	1
		china econ rev	I urban geogr	i
		communist econ ec tr	l world econ	
		econ dev q	l yale law j	1
		econ geogr	I I	
		econ record	1	
		econ soc rev	1	
		econometrica	1	
		environ plann a	i	
			i	
		eur j polit res		
		eur rev agric econ	I I	
		eur urban reg stud		
		georgetown law j	I	
		harvard bus rev		
		housing stud		
			i	
		int econ rev		
		j am real estate urb	. !	
		j appl econom	I	
		j bank financ	1	
		j econ bus	1	
		j econ educ	1	
		j econ educ	i	
		•		
		j hum resour	!	
		j inst theor econ	I	
		j jpn int econ	1	
		j labor res	I .	
		j law econ organ	1	
		j macroecon	i	
		•		
		j transp eng		
		j world trade		
		kolner z soziol soz	I I	
		manch sch econ soc	1	
		med care	I	
		omega-int j manage	1	
		open econ rev	1	
		oxford b econ stat	i	
		oxford econ pap	!	
		pac aff	I I	
		pharmacoeconomics	1	
		polit ekon	I	
		polit quart		
		prog plann		
		public finance rev	i	
		rev econ stud	I I	
		s afr j econ	1	
		scot j polit econ	1	
		southern econ j	i	
		stanford law rev	i	
		strategic manage	!	
		technol forecast soc		
		transport res b-meth		
		transport res e-log	I	
		transport rev		
		transport sci		
		transportation		
		trimest econ		
		u pa j int econ law	I and the second	
		u penn j int bus law		
		water resour res	1	
		world bank econ rev		
		world bank res obser		
		world bank res obser		

1995	70	1 (12 (11)	F.0	. (22 (1.1.)	00
imf sp (24 articles)	78 13	bpea (12 articles)	58	wber (32 articles)	99
int monet fund s pap		am econ rev	4	world bank econ rev	11
j int money financ	5	q j econ	4	j dev econ	5
econ j	4	brookings pap eco ac	3	world bank res obser	4
j econ lit	4	eur econ rev	3	econ rec	3
open econ rev	4	ind relat	3	j financ	3
brookings pap eco ac	3	j afr econ	3	world dev	3
am econ rev	2	world econ	3	am econ rev	2
appl econ	2	econ j	2	econ dev cult change	2
appl econ lett	2	j dev stud	ı	econ j	2
econ lett	2	j law econ	I	int monet fund s pap	2
econ rec	2	b indones econ stud	I	j dev stud	2
j jpn int econ	2	calif law rev	I	j econ lit	2
oxford rev econ pol	2	communist econ ec tr	1	j econ perspect	2
weltwirtsch arch	2	contemp econ policy	1	j int money financ	2
am polit sci rev	1	econ ing	1	j portfolio manage	2
ann regional sci	1	econ lett	1	new engl econ rev	2
contemp econ policy	i	econ polit weekly	i	q rev econ financ	2
dev econ	i	econ soc rev		world econ	2
econ dev cult change	i	economist		africa	1
•		ekon samf tidskr			
econ inq				am j agr econ	
econ model	!	eur j oper res	!	appl econ lett	
econ soc rev	!	eur rev agric econ	!	brookings pap eco ac	
eur econ rev	ı	food policy	l l	can j econ	
ind relat	I	ind labor relat rev	ı	china econ rev	I
int j forecasting	1	int econ rev	1	common mkt law rev	I
j comp econ	1	int polit-oslo	1	communist econ ec tr	I
j econ dyn control	1	j appl econom	1	comp polit	- 1
j econ perspect	1	j bank financ	1	contemp econ policy	1
j int econ	1	j dev econ	1	decon educ rev	
j monetary econ	i	i econ lit	i	desarrollo econ	i
j policy model	i	i inst theor econ	i	econ lett	i
j polity model	i	i int econ	i	econ model	
•			- 1		
j popul econ		j money credit bank		econ polit weekly	
jpn world econ		j polit econ		econ transit	
kyklos	!	jahrb natl stat		ecosystems	
nber macroecon ann	!	nationalokon tidsskr	!	energ econ	
public choice	1	open econ rev		eur econ rev	l l
reg stud	I	oxford econ pap	ı	europe-asia stud	I
scand j econ	1	polit soc	- 1	food policy	ı
soc res	- 1	rev black polit econ	ı	geo forum	ı
va law rev	1	weltwirtsch arch	1	j afr econ	- 1
world bank econ rev	1			j comp econ	1
world dev	1			j econ theory	
				j financ econ	
				i financ intermed	
				j financ quant anal	
				: A	i
				j finance	
				j int econ i interam stud world	
				j libr inf sci	
				j monetary econ	
				j popul econ	
				lat am res rev	
				open econ rev	
				oxford econ pap	
				public admin develop	
				public choice	i
				rev financ stud	
				soc forces	
				soc res	
				stud family plann	
				theor soc	
				water resour res	
				weltwirtsch arch	

		666		0	0	-	0	0	-	∞	-	9	m	6	6	m
		1 866		0	0	4	ω	2	7	7	-	24	<u>~</u>	34		=
		1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999		0	0	7	7	m	m	9	4	59	32	12	6	7
		1 966		0	0	7	9	-	7	=	2	7	76	7	4	
		995 1		0	0	4	m	-	4	12	=	76	33	m		
		994		0	0	4	œ	7	7	2	6	<u>~</u>	76			
ars		993		0	0	9	7	6	6	6	=	78	33			
ed Ye		992 1		0	0	œ	œ	2	œ	7	0	_	<u>∞</u>			
lecte		1 166		0	0	9	20	m	<u>~</u>	<u>6</u>	15	6	4			
n Se		1 066		0	0	9	2	9	9	<u>∞</u>	12	7				
ed ii		1 686		0	0	6	m	12	=	9	ω					
blish ers)		1 886		-	7	=	2	=	74		<u>&</u>					
s Pul Pape		1 286		0	7	∞	2	23	<u>6</u>	9	9					
ticle: taff	uo	1 986		m	m	9	77	=	2	6	7					
ations of Staff Papers Articles Publis (Excluding Citations in Staff Papers)	Year of Citation	85		_	m	9	20	20	<u>8</u>	0						
aper tions	ear of	94 19		7	4	=	7	25	<u>∞</u>							
aff P Cita		3 19		7	9	6		24								
of St ling (32 198		4	7	6		27 2								
ons		361 18		_	_	24		=	_							
itati (Ex		30 1 98		٣	_	6		_								
Ö		36 62		2	6	<u>-2</u>	•									
71-9		.8 19		_	6	20										
Table 8a. 1971–99 Citations of Staff Papers Articles Published in Selected Years (Excluding Citations in Staff Papers)		77 197		2	<u>-2</u>		19 3									
le 82		76 19.		7	2	_ ∞	4									
Tab		75 19.		~	7	7										
		74 19.		2	4											
		73 19.		2	12											
		72 19.		7	0											
		61 12	cation	~	_											
		16.	r Publi	0	_	Ŋ	S	0	_	Ŋ	S	0	_	2	S	
			Year of Publication	1970	197	1975	1976	198(198	198	1986	199	199	1661	1996	1661

Table 8b. 1971–97 Comparison of Total Citations (Over Selected Time Periods) of Staff Papers
Articles Published in Selected Years (Excluding Citations in Staff Papers)

		Citations			
ear of Publication	First three years ¹	First four years	First five years		
1970	10	15	20		
1971	23	37	44		
1975	27	47	60		
1976	57	91	115		
1980	38	62	87		
1981	35	53	71		
1985	25	56	72		
1986	26	34	49		
1990	28	56	89		
1991	55	81	114		
1995	25	59	68		
1996	30	39			
1997	16				
Average	30.4	52.5	71.7		

[&]quot;First three/four/five years" refers to the number of citations of Staff Papers articles in the first three/four/five years after they have been published (including the year of publication).

Annex III The Review Process

To ensure the quality and consistency of the Fund's work, and to keep Fund staff abreast of developments in other areas of the Fund, review is used extensively. A formal review process is applied to a number of Fund documents, including the following.

Briefing Papers: internal briefings prepared by every mission team prior to going on mission. Briefing papers contain background data, a summary of the issues that the mission team thinks should be discussed on mission, and a statement of the position the team thinks it should take.

Staff reports: these reports are prepared for the Executive Board on the outcome of the mission.

Letters of Intent: these contract-type documents are written with member country authorities who are negotiating a program with the Fund.

Policy Framework Papers: these documents, prepared by member country authorities in collaboration with staff in the Fund and the World Bank, set out a medium-term economic and financial policy framework in conjunction with IMF/World Bank structural adjustment loans.

Country Strategy Papers: these papers set out a multiyear strategy and analytical framework to guide Fund work on specific countries.

Memoranda of Economic Policies: these documents are written jointly with member country authorities negotiating a program with the Fund.

World Economic Outlook.

International Capital Markets report.

Policy papers presented to the Executive Board: e.g., "Involving the Private Sector in Forestalling and Resolving Financial Crises."

This annex describes the review process associated with specific country-related work, namely, the first six types of documents identified above. The review process for the other documents listed above is similarly thorough, but involves different reviewers depending on the nature of the document.

After a document has been written, one or more of the senior staff in the Front Office of the author's department review it to determine whether it is consistent with the department's overall approach. Once the author has made any amendments suggested by the Front Office, the document is sent to the Policy Development and Review Department—the primary reviewing department—and various other departments depending on the nature of the document. For example, a briefing paper might be sent to the Monetary and Exchange Affairs, Fiscal Affairs, Legal, Statistics, Treasurer's, and Research Departments for comments. These latter Departments are not required to comment if they do not think that they can add any value (for example, both the Research Department and the Fiscal Affairs Department have, in consultation with area departments, established a list of the countries that they regularly comment on). These departments check for technical accuracy, appropriateness of policy recommendations, completeness, and consistency of treatment across countries.

Reviewing departments often send the document to several people in their department with different specializations. In some departments, all reviewers' comments are sent to the Front Office where they are consolidated into a departmental statement (including any additional comments made by the Front Office coordinator) and sent back to the originating department, with a copy sent to the Policy Development and Review Department. In other departments, coordination of comments generally takes place at the divisional level.

The authors use their judgment to incorporate changes suggested by the reviewers, then send a revised copy to their Front Office and the Policy Development and Review Department for clearance. If the Policy Development and Review Department does not think that other departments' comments have been adequately incorporated, they will not "sign off" on the document. Unresolved disagreements between departments are brought to the attention of the Deputy Managing Directors, who have responsibility for adjudicating.

The review process is the subject of significant debate and dissatisfaction in the Fund. Three years ago, management issued a memorandum attempting to streamline the review process and improve the quality of the outcome. The memorandum noted that "we do too much reviewing" and that steps should be taken to reduce "by a considerable margin the volume of reviewing that is done in the Fund."

The memorandum made the following recommendations.

originating departments should exercise discretion over which departments, other than

- the Policy Development and Review Department, are asked to comment on papers;
- departments should not feel obliged to comment on all papers circulated to them;
- reviewing departments should confine their comments strictly to their own areas of expertise;
- area departments should take full responsibility for quality control;
- the Policy Development and Review Department, in its comments, should distinguish between the two to four key issues that have to be addressed, and minor or editorial comments:
- area departments should seek to consult with relevant reviewing departments on important policy issues before briefs are prepared;
- area departments should, as much as possible, allow reviewing departments three working days to give their comments; and

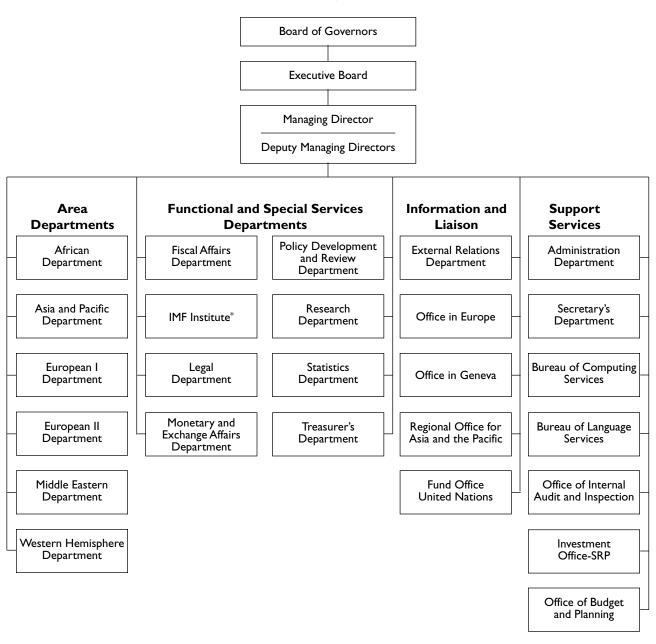
 papers sent to management should include a one-page summary that outlines key issues.
 This should be accompanied by a cover note that identifies any differences of views among departments.

Three years later, discussions we have had with economists throughout the Fund reveal that there continues to be substantial dissatisfaction with the review process.

Management and department heads are aware of these problems, and are in the process of looking again at the way in which the interdepartmental review procedures are operating and the possible need for improvements. The body of our report makes recommendations for improvements to the process, from the perspective of (1) ensuring that researchers have a more effective input into operational work, while at the same time (2) reducing the overall amount of time that is devoted to the review process, both in area and functional departments.

Annex IV IMF Organizational Chart

INTERNATIONAL MONETARY FUND Chart of Organization



^{*}The Institute also supports two training centers: the Joint Vienna Institute (Vienna, Austria) and the Singapore Regional Training Institute (Singapore).

Annex V Glossary

A-level: The Fund's job gradings for permanent staff are divided into groups "A" and "B." For economists, A-level positions are predominantly nonmanagerial, although grade A15, the last grade before the B-level, has some managerial responsibility (note that the career structure for noneconomists is somewhat different).

Annual Performance Review: See Box 2 on page 28.

APEC: The Asia-Pacific Economic Cooperation (APEC) is a regional grouping of 21 economies in the Asia and Pacific region. It was established in 1989 as an informal dialogue group, and has since become the primary regional vehicle for promoting open trade and practical economic cooperation. The APEC group holds a number of meetings annually. The IMF's Research Department provides information and analysis of current economic issues to certain APEC meetings.

Area Department: See page 46, paragraph 2

Article IV Consultation: Under the provisions of Article IV of the Articles of Agreement (see Articles of Agreement), the Fund holds bilateral consultations with all its members countries, in most cases every year. As part of these consultations, a staff team from the Fund visits a country to discuss with the authorities the economic developments and the monetary, fiscal, and structural policies that the authorities are following. The team also gathers relevant economic and financial information on the economic situation in the country. On its return to Fund head-quarters, the team prepares a report analyzing the economic situation and evaluating the stance of policies. This serves as the basis for discussion by the Fund's Executive Board.³⁵

Articles of Agreement: The Articles of Agreement established the IMF's existence. They are a charter of rights and obligations on both the Fund and its members. There have been several modifications to the original Articles.

B-level: The Fund's job gradings for permanent staff are divided into groups "A" and "B." For economists, B-level is the managerial level (note that the career structure for noneconomists is somewhat different).

Coordinating Group on Exchange Rates (CGER) exercise: Internally, the Fund tries to identify possible misalignments among major currencies. An interdepartmental working group (the CGER) acts as the technical secretariat to prepare exchange rate analysis for staff and management discussion using a methodology developed in-house. CGER exercises are conducted periodically.

Department Director: Each Fund department is headed by a director.

Economic Counselor: The Director of the Research Department is formally known as the Fund's Economic Counselor. The role of the Economic Counselor is to be a source of independent advice to the Fund on policy issues, to integrate the ideas of research staff into the design of Fund policies, and to convey such ideas to policymakers inside and outside the Fund.

Economist Program: Each year, the Fund hires 30–35 economists below the age of 33 into its Economist Program. Participants in the program undertake one-year assignments in two different departments—usually an area and a functional department—and take part in at least two missions. Applicants require a superior academic training in economics—with emphasis on monetary economics, international trade, and finance and public finance. Typical participants in the Economist Program are around 29 years old, with a Ph.D. in macroeconomics and demonstrated aptitude in working as an applied economist on policy issues in an international environment.³⁶

Executive Board: The Executive Board is a 24-member, in-residence board. The Board is staffed by representatives of the Fund's member countries. The Board meets at least three times a week in formal session and is responsible for conducting the day-to-day business of the Fund. It carries out its work largely on the basis of papers prepared by IMF management and staff.³⁷

First Deputy Managing Director: The Fund has three Deputy Managing Directors, who are each responsible for different aspects of the Fund's operations. Currently the First Deputy Managing Director is assigned responsibility for, among other things,

³⁵Definition adapted from the Annual Report of the Executive Board for the Financial Year ended April 30, 1997, International Monetary Fund, Washington.

³⁶Definition adapted from advertisement for Economist Program in *Finance and Development*, June 1999, p. 57.

³⁷Definition adapted from IMF, Annual Report, 1998, p. iv.

research, policy development, and policy advice to national authorities.

Front (or Immediate) Office: See page 46, paragraph 2.

Functional Department: See page 46, paragraphs 3 and 4.

G-7: Group of Seven (G-7) meetings are meetings between representatives of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. Economic and financial issues are among the topics discussed in G-7 meetings.

G-7 Notes: In preparation for G-7 meetings, the IMF's Research Department prepares information notes on world economic and market developments.

IMF Institute: The IMF Institute is the IMF's training department for officials of member countries. The Institute runs a number of economics courses and also organizes seminars and training courses for Fund staff.

IMF Staff Papers: See page 51.

Internal Memorandum: A wide variety of internal memoranda exist in the Fund. For the purposes of this report, an internal memorandum is a think piece on an issue that is for internal consumption only. It may be prompted by the need to explore a difficult issue that the Fund is grappling with, or to clarify Fund thinking on an issue, or to discuss an issue that is the subject of internal debate.

International Capital Markets report: This report, prepared by the Research Department, surveys developments in international financial markets. The report draws on discussions with commercial and investment banks, securities firms, stock and futures exchanges, regulatory and monetary authorities, and others.³⁸

Management: The term "management" in this report refers to the Managing Director, the First Deputy Managing Director, and the two Deputy Managing Directors.

Mission: The term "mission" is used generically in the Fund to refer to any overseas travel related to the Fund's work. In the context of this report, however, it is used to refer specifically to the visits of teams of IMF staff to member countries in the context of Article IV consultations, programs, or technical assistance.

Mission Chief: A mission chief is the staff member who leads the team of staff on a mission (see above).

Occasional Papers: See page 51.

Policy Discussion Paper: See page 51.

Program: A program is a detailed economic package based on the analysis of the economic problems of the member country. It specifies the policies being implemented or that will be implemented by the country in the monetary, fiscal, external, and structural areas, as necessary, to achieve economic stabilization and set the basis for self-sustained growth. It is usually supported by the use of Fund resources, and therefore includes criteria that the members must adhere to as a condition for the use of Fund resources.

Research Assistant: A research assistant helps economist staff with various aspects of their data and computer work. Tasks might include comparing and evaluating alternative data sources, and ensuring consistency of data series and definitions; providing support in maintaining fully documented data files; performing various computations, preparing charts, and formatting tables to Fund standards; and executing computer programs for statistical and econometric analysis in support of policy work. Qualifications for the job generally include completion of a university degree program in economics, or equivalent, with good knowledge of statistics and econometrics.

Review Process: See Annex III, page 60.

Surveillance: Surveillance refers to all aspects of the Fund's monitoring, analysis of, and advice concerning the policies and prospects of individual member countries and the world economy. The IMF exercises surveillance through both multilateral and bilateral means. Multilateral surveillance consists of Executive Board review of developments in the international monetary system based principally on the staff's World Economic Outlook reports and through periodic discussions of developments, prospects, and key policy issues in international capital markets. Bilateral surveillance takes the form of consultations with individual member countries, conducted annually for most members, under Article IV of the IMF's Articles of Agreement.³⁹

Visiting Scholar: Visiting scholars are academics (and sometimes policymakers) who are paid by the Fund to come to the Fund for a period of time to conduct research and interact with Fund staff. In the Research Department, visiting scholars typically come to the Fund for between two and four weeks. Some departments specifically set aside resources for visiting scholars; others fund visiting scholars out of their accumulated vacancies. Decisions about who to invite are made by individual departments.

Working Group on Fund Policy Advice: See pages 59–50, paragraphs 27–32.

³⁸Definition adapted from *International Capital Markets*, September 1998, Preface, p. ix.

³⁹Taken from IMF, Annual Report, 1998, Chapter VI, p. 33.

Working Paper: The Working Paper series features original research by Fund staff, consultants, and visiting scholars. The length of a Working Paper, except for review articles, should not normally exceed 25 single-spaced pages (including figures, tables, and appendices).

World Economic Outlook: The World Economic Outlook (WEO) is generally produced twice annually. It is

prepared by the Research Department, drawing on input from all Fund departments, primarily from the information they receive through their consultations with member countries. The WEO contains the IMF's projections for a number of economic variables in its member countries, both individually and in various different aggregates. It also contains an analysis of the trends, policies, and issues underlying the projections.

Bibliography (Selected)

Miscellaneous

- "IMF Economist Program," 1999, Finance and Development, Vol. 36 (June), p. 57.
- Interdepartmental Working Group on Fund Policy Advice, 1993, *Review of Research Activities in the Fund*, SM/93/242.
- ______, 1998, "Research Activities of the International Monetary Fund, January 1991–December 1997."
- International Monetary Fund, 1993, Annual Report of the Executive Board for the Financial Year Ended April 30, 1997.
- _____, 1998a, Articles of Agreement.
- ______, 1998b, International Capital Markets: Developments, Prospects, and Key Policy Issues, World Economic and Financial Surveys.

Papers on Inflation Targeting

Working Papers and PPAAs

- Baumgartner, Josef, and Ramana Ramaswamy, 1996, "Inflation Targeting in the United Kingdom: Informational Content of Financial and Monetary Variables," IMF Working Paper 96/44.
- Christoffersen, Peter F., and Robert F. Wescott, 1999, "Is Poland Ready for Inflation Targeting?" IMF Working Paper 99/41.
- Debelle, Guy, 1997, "Inflation Targeting in Practice," IMF Working Paper 97/35.
- ______, and Cheng Hoon Lim, 1998, "Preliminary Considerations of an Inflation Targeting Framework for the Philippines," IMF Working Paper 98/39.
- Gonzalez-Hermosillo, Brenda, and Takatoshi Ito, 1997, "The Bank of Canada's Monetary Policy Framework: Have Recent Changes Enhanced Central Bank Credibility?" IMF Working Paper 97/171.
- Green, John, 1996, "Inflation Targeting: Theory and Policy Implications," IMF Working Paper 96/65
- Hoffmaister, Alexander, 1999, "Inflation Targeting in Korea: An Empirical Exploration," IMF Working Paper 99/7.
- Lane, Timothy, Alessandro Prati, and Mark Griffiths, 1995, "An Inflation Targeting Framework for Italy," IMF PPAA 95/4.
- Masson, Paul, Miguel Savastano, and Sunil Sharma, 1997, "The Scope for Inflation Targeting in Developing Countries," IMF Working Paper 97/130.

Selected Issues

- Dunaway, Steve, and others, 1999, *Canada: Selected Issues*, IMF Staff Country Report No. 99/14.
- Lane, Timothy, Skander Van den Heuvel, and others, 1998, *United Kingdom: Selected Issues*, IMF Staff Country Report No. 98/04. Also published as "The United Kingdom's Experience with Inflation Targeting," IMF Working Paper 98/87.
- Samiei, Hossein, Jan Kees Martijn, Zenon Kontolemis, and Leonardo Bartolini, 1999, "United Kingdom: Selected Issues," IMF Staff Memorandum SM/99/43.

30 Randomly Selected Working Papers from 1998

- Bayoumi, Tamim, David T. Coe, and Douglas Laxton, "Liberating Supply: Fiscal Policy and Technological Innovation in a Multicountry Model," IMF Working Paper 98/95.
- Begum, Jahanara, "Correlations Between Real Interest Rates and Output in a Dynamic International Model: Evidence from G-7 Countries," IMF Working Paper 98/179.
- Blejer, Mario I., and Liliana Schumacher, "Central Bank Vulnerability and the Credibility of Commitments: A Value-at-Risk Approach to Currency Crises," IMF Working Paper 98/65.
- Chan-Lau, Jorge, "Monetary Policy in a Small Open Economy with Credit Goods Production," IMF Working Paper 98/153.
- Crafts, Nicholas, "East Asian Growth Before and After the Crisis," IMF Working Paper 98/137.
- Cubeddu, Luis, "The Intragenerational Redistributive Effects of Unfunded Pension Programs," IMF Working Paper 98/180.
- Debelle, Guy, and Cheng Hoon Lim, "Preliminary Considerations of an Inflation Targeting Framework for the Philippines," IMF Working Paper 98/39.
- Dell'Ariccia, Giovanni, "Exchange Rate Fluctuations and Trade Flows: Evidence from the European Union," IMF Working Paper 98/107.
- ______, and Pietro Garibaldi, "Bank Lending and Interest Rate Changes in a Dynamic Matching Model," IMF Working Paper 98/93.
- De Fiore, Forella, "The Transmission of Monetary Policy in Israel," IMF Working Paper 98/114.
- Guergil, Martine, and Martin Kaufman, "Competitiveness and the Evolution of the Real Exchange Rate in Chile," IMF Working Paper 98/58.

- Gupta, Sanjeev, Hamid Davoodi, and Rosa Alonso-Terme, "Does Corruption Affect Income Inequality and Poverty?" IMF Working Paper 98/76.
- Haque, Nadeem Ul, and Abbas Mirakhor, "The Design of Instruments for Government Finance in an Islamic Economy," IMF Working Paper 98/54.
- Haque, Nadeem Ul, and Mohsin S. Khan, "Do IMF-Supported Programs Work? A Survey of the Cross-Country Empirical Evidence," IMF Working Paper 98/169.
- Havrylyshyn, Oleh, Ivailo Izvorski, and Ron van Rooden, "Recovery and Growth in Transition Economies, 1990–97: A Stylized Regression Analysis," IMF Working Paper 98/141.
- Heijdra, Ben, and Jenny Ligthart, "The Dynamic Macroeconomic Effects of Tax Policy in an Overlapping Generations Model," IMF Working Paper 98/182.
- Ize, Alain, and Eduardo Levy-Yeyati, "Dollarization of Financial Intermediation: Causes and Policy Implications," IMF Working Paper 98/28.
- Johnston, Barry R., and Natalia T. Tamirisa, "Why Do Countries Use Capital Controls?" IMF Working Paper 98/181.
- Kuijs, Louis, "Determinants of Inflation, Exchange Rate, and Output in Nigeria," IMF Working Paper 98/160.
- Lane, Timothy, and Skander Van Den Heuvel, "The United Kingdom's Experience with Inflation Targeting," IMF Working Paper 98/87.
- Lightart, Jenny, "The Macroeconomic Effects of Environmental Taxes: A Closer Look at the Feasibility of 'Win-Win' Outcomes," IMF Working Paper 98/75.
- Lopez-Mejia, Alejandro, and Juan Ricardo Ortega, "Private Saving in Colombia," IMF Working Paper 98/171.
- Lye, Jenny N., and others, "Parametric Distributional Flexibility and Conditional Variance Models with an Application to Hourly Exchange Rates," IMF Working Paper 98/29.
- Mikkelsen, Jan G., "A Model for Financial Programming," IMF Working Paper 98/80.
- Morales, Armando, "Exchange Rate Uncertainty in Money-Based Stabilization Programs," IMF Working Paper 98/3.
- Repkine, Alexander, and Patrick P. Walsh, "European Trade and Foreign Direct Investment U-Shaping Industrial Output in Central and Eastern Europe: Theory and Evidence," IMF Working Paper 98/150.
- Ricci, Luca Antonio, "Uncertainty, Flexible Exchange Rates, and Agglomeration," IMF Working Paper
- Van Elkan, Rachel, "From Autarky to Integration: Imitation, Foreign Borrowing, and Growth," IMF Working Paper 98/140.
- Zebregs, Harm, "Can the Neoclassical Model Explain the Distribution of Foreign Direct Investment

- Across Developing Countries?" IMF Working Paper 98/139.
- Zettelmeyer, Jeromin, "The Uzbek Growth Puzzle," IMF Working Paper 98/133.

Research Considered by Departments to Be Their Best Work in 1998

African

"Inflation, Money Demand, and Purchasing Power Parity in South Africa," by Gunnar Jonsson, part of Executive Board Paper SM/98/164.

Asia and Pacific

- Baig, Taimur, and Ilan Goldfajn, "Financial Market Contagion in the Asian Crisis," IMF Working Paper 98/155.
- Goldfajn, Ilan, and Taimur Baig, "Monetary Policy in the Aftermath of Currency Crises: The Case of Asia," IMF Working Paper 98/170.
- Goldfajn, Ilan, and Poonam Gupta, "Does Monetary Policy Stabilize the Exchange Rate Following a Currency Crisis?" IMF Working Paper 99/42.

European I

Christofferson, Peter F., and Peter Doyle, "From Inflation to Growth: Eight Years of Transition," IMF Working Paper 98/100.

European II

Aitken, Brian, "Falling Tax Compliance and the Rise of the Virtual Budget in Russia," forthcoming IMF Working Paper.

Fiscal Affairs

- Chalk, Nigel, "Fiscal Sustainability with Non-Renewable Resources," IMF Working Paper 98/26.
- Gupta, Sanjeev, Marijn Verhoeven, and Erwin Tiongson, "Does Higher Government Spending Buy Better Results in Education and Health Care?" IMF Working Paper 99/21.
- Kopits, George, and Steven Symansky, *Fiscal Policy Rules*, IMF Occasional Paper No. 162.
- "Revenue Implications of Trade Liberalization: Overview" and "Revenue Implications of Trade Liberalization," Executive Board Paper SM/98/254 and Supplement 1.
- Zee, Howell, "Taxation of Financial Capital in a Globalized Environment: The Role of Withholding Taxes," *National Tax Journal*, Vol. 51, No. 3, 1998.

IMF Institute

Senhadji, Abdelhak, "Time-Series Estimation of Structural Import Demand Equations: A Cross-Country Analysis," *Staff Papers*, Vol. 45 (June 1998).

Monetary and Exchange Affairs

- Hardy, Daniel, "Anticipation and Surprises in Central Bank Interest Rate Policy," *Staff Papers*, Vol. 45 (December 1998).
- Levy Yeyati, Eduardo, and Angel Ubide, "Crises, Contagion, and the Closed-End Country Fund Puzzle," IMF Working Paper 98/143.

Middle Eastern

- Handy, Howard, and a staff team, *Egypt: Beyond Stabilization, Toward a Dynamic Market Economy*, IMF Occasional Paper No. 163 (May 1998).
- Nashashibi, Karim, Patricia Alonso-Gamo, Stefania Bazzoni, Alain Feler, Nicole Lafromboise, and Sebastian Paris-Horvitz, *Algeria: Stabilization and Transition to the Market, 1998*, IMF Occasional Paper No. 165.

Policy Development and Review

- Ghosh, Atish Rex, and Steven Phillips, "Warning: Inflation Can Be Harmful to Your Growth," *IMF Staff Papers*, Vol. 45 (December 1998).
- "IMF-Supported Programs in Indonesia, Korea and Thailand: A Preliminary Assessment," Executive Board Paper EBS/98/139, August 1998.

"Involving the Private Sector in Forestalling and Resolving Financial Crises," Executive Board Paper EBS/98/139, August 1998. (This was an interesting, well-written paper, but we did not include it in the evaluation because we considered that, although it was based on research, it was not actually a research paper.)

Research

- Berg, Andersen, and Catherine Patillo, "Are Currency Crises Predictable? A Test," IMF Working Paper 98/154; also published in *IMF Staff Papers*, Vol. 46 (June 1999).
- Flood, Robert, and Nancy Marion, "Perspectives on the Recent Currency Crisis Literature," IMF Working Paper 98/130 (this excellent paper was excluded from the evaluation).
- Kodres, Laura, and Christian Jochum, "Does the Introduction of Futures on Emerging Market Currencies Destabilize the Underlying Currencies?" IMF Working Paper 98/13; also published in *Staff Papers*, Vol. 45 (September 1998).
- Mauro, Paulo, and Antonio Spilimbergo, "How Do the Skilled and the Unskilled Respond to Regional Shocks? The Case of Spain," IMF Working Paper 98/77; also published in *IMF Staff Papers*, Vol. 46 (March 1999), pp. 1–7.

Western Hemisphere

Catão, Luis, "Intermediation Spreads in a Dual Currency Economy: Argentina in the 1990s," IMF Working Paper 98/90 (June 1998).