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March 20, 2002

To: Members of the Committee on the Budget  
(Managing Director, Chairman; Mr. Barro Chambrier, Mr. Bennett,  
Mr. Bischofberger, Mr. Djojosebroto, Mr. Mirakhor, Mr. Portugal,  
Mr. Scholar, Mr. Varela, Mr. Wei, Mr. Wijnholds)

From: A. Mountford, Committee Secretary

Subject: **Medium-Term Information Technology Strategy**

The attached paper provides further information on the Fund's Information Technology Strategy which will be presented in an informal meeting of the Committee on the Budget on **Thursday, March 21, 2002 at 3:00 p.m.** in Committee Room 12-120B.

Questions may be referred to Mr. Stuart, TGS (ext. 34579).

Att: (1)

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INTERNATIONAL MONETARY FUND

**Medium-Term Information Technology Strategy**

Prepared by the Information Technology Policy Committee

March 20, 2002

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## Executive Summary

This paper reports on the key findings of the recent initiative of the Information Technology Policy Committee (ITPC) to update the Fund's Information Technology Strategic Plan. It sets forth a new medium-term information technology (IT) strategy and recommends a series of IT programs for the coming three-year period.

As part of the exercise to update the strategy, an external consulting firm, Logistics Management Institute (LMI), was engaged to review the effect of the Fund's information technology investments over the past decade on the work of the organization and its personnel. LMI concluded that there is convincing evidence of the positive effects of the IT expenditures on the financial and business operations of the Fund.

The IT Strategy for the Fund aims to achieve the following IT vision for the medium term:

**“The IT environment will enable Fund personnel, anywhere and at any time, to use the Fund's information resources efficiently and effectively in the creation, sharing, and dissemination of knowledge.”**

To achieve this vision, the ITPC has identified three key IT goals: (1) improve knowledge and information management, (2) improve administrative and financial information and processes, and (3) strengthen connectivity and safeguard the Fund's IT infrastructure.

In support of these goals, the ITPC has developed three IT Strategic Programs under which various IT initiatives will be carried out: (1) Enterprise Information Program (for example, “information portal”), (2) Administrative and Financial Information Program (for example, new Financial Accounting and Control Tracking System), and (3) Infrastructure and Connectivity Program (for example, enhanced remote access to the Fund network). Taken together, these programs form the work agenda for improving the Fund's IT environment over the medium term. The capital costs of implementing the strategy are projected to be \$89 million for FY 2003 - FY 2005. Approximately 55% of this investment reflects the replacement of many outdated large systems (for example, accounting and administrative systems, economic data systems, and the Treasurer's operation system). It is expected that IT investments will begin to decline in FY 2006 and beyond as most major systems will have been replaced by then.

When fully implemented, the new IT strategy will result in significant and measurable improvements in the Fund's efficiency and effectiveness. These benefits will be reflected in the internal work of the Fund, in the delivery of its services to member countries, and in the strengthening of relations with external organizations and the public.

## I. INTRODUCTION

1. This paper reports on the key findings of the recent initiative by the Information Technology Policy Committee (ITPC) to update the Fund's Information Technology Strategic Plan.<sup>1</sup> It sets forth a new medium-term information technology (IT) strategy and recommends a series of IT programs for the coming three-year period.

## II. BACKGROUND

2. In 1996, the Information Technology Policy Committee (ITPC), assisted by consultants from the Computer Sciences Corporation, undertook a comprehensive review of information technology and supporting processes in the Fund, and developed the Information Technology Five-Year Strategic Plan (the Plan). It provided a framework for aligning investment in information technology with the priorities and work programs of the Fund. The Plan set forth key goals for the Fund's IT environment, articulated the IT strategic programs required to achieve those goals, and proposed individual IT initiatives under each program. The Plan was reviewed by the Executive Board as part of the medium-term budget exercise of 1996.<sup>2</sup>

3. Since 1996, a number of revisions have been made in the Plan to reflect changes in the Fund's IT priorities and technological advances. A more formal review of the Strategic Plan was prepared in 1998 and reported to the Board in the context of the medium-term budget exercise of that year.<sup>3</sup> However, the main thrusts of the Plan and the associated IT programs have been largely unchanged since the original plan was put together. Considering that the Fund's IT strategic plan needs to be forward-looking and the business and technology environment in which the Fund operates is changing rapidly, the ITPC undertook the current exercise to update the Fund's IT Strategic Plan.

4. As part of this exercise, an external consulting firm was engaged to review the effect of the Fund's information technology over the past decade on the work of the organization and its personnel<sup>4</sup>. The review also identified lessons from the experience of past IT

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<sup>1</sup> The exercise focused on the use of information technology in broad terms: information collection, management, and analysis; the retention and sharing of the Fund's institutional memory; communications among Fund personnel and with member countries and other organizations; services to member countries and the public; and IT activities in support of Fund training and technical assistance programs.

<sup>2</sup> Information Technology – Strategy for the Fund (EB/CB/96/5, 10/24/96).

<sup>3</sup> Review of the Information Technology Strategy (EBAP/99/3, 1/4/99).

<sup>4</sup> The term personnel is used throughout this paper to include Board members and their staff, management, and Fund staff.

investments that could be applied to improve the effectiveness of future IT spending (Section III).

5. To gather views on the institution's future directions and how IT can help achieve those objectives, the ITPC conducted interviews and focus groups with a cross-section of representatives from Executive Directors' offices, Fund management, and staff. In the review, participants commented extensively on the important role that changes in management and work practices have in ensuring that full advantage is taken of IT investments. On the basis of these discussions, the ITPC has developed the medium-term IT strategy for the Fund, which is summarized in Section IV. Section V lays out the specific programs to implement this strategy. Section VI describes the budgetary impact of the proposed strategy over the medium term, and Section VII summarizes the benefits of the IT strategy for the Fund.

### **III. IMPACT OF INFORMATION TECHNOLOGY INVESTMENTS ON THE FUND**

6. The ITPC engaged consultants from Logistics Management Institute (LMI) to determine the extent to which past IT expenditures had been effective in delivering business value to the Fund. To help answer this question, LMI examined the cost-effectiveness of 21 major IT investments over the past decade.

7. From FY 1991 to FY 2001, the Fund spent \$124 million on major IT initiatives and \$290 million in ongoing IT support costs. Almost half (\$52 million) of the funding for major initiatives was expended in the last three years and is just now beginning to show benefits.

8. LMI used two different methods of cost and benefit analysis to conclude that there is convincing evidence of the positive effects of the IT expenditures. They were able to identify more than 75 benefits that had recognizable, positive effects on the financial and business functions and operations of the Fund. The financial returns to the Fund total more than \$140 million for 7 benefits that could be readily monetized. A broader "implied productivity" approach showed that the potential increase in staff productivity was 35 percent.<sup>5</sup> In the view of the consultants, the Fund personnel could not have handled the workload increases of the past decade without the increase in productivity provided by the introduction of information technology and related process changes. Put another way, one can infer that more than \$150 million annually would have been needed for staffing if productivity had not improved.

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<sup>5</sup> LMI estimated the implied productivity gains by dividing the percentage change in key workload indicators by the percentage change in staff size over the period. Key workload indicators included the number of: (1) member countries, (2) consultation missions, (3) days on official travel, (4) country papers produced, (5) microcomputers, and (6) administrative transactions. Although technology is not the only factor that has increased productivity (for example, staff overtime), LMI did not see any other source of improvements that could have had effects of the same magnitude as changes in IT.

9. Beyond the quantitative findings, the consultants' analysis showed that significant, nonquantified benefits accrued to the Fund. The overarching benefit to the Fund of its IT investments is that it has successfully moved into the information age, where it can use technology to improve many aspects of its operations. In short, IT is a nonnegotiable prerequisite to conducting business, for the Fund and for all other public and private businesses in the modern economy.

10. LMI found little evidence of failures in IT investments and that the Fund completed most projects within the planned time frame and cost. However, because the Fund chose to implement only "safe" projects or technologies – those that had been on the market for some time – it failed to gain benefits that it could have achieved through earlier adoption of those technologies. Although the Fund's IT investments have been beneficial in the transition to the information age, a less cautious investment approach would have led to even greater overall success.

11. In comparing IT investments of the Fund to those of selected peer organizations and industry standards, LMI found that the Fund, with some notable exceptions, lagged its peers in embracing new technologies.<sup>6</sup> In areas such as advanced desktop tools for time series data management, commercial software for other administrative functions, and document management, LMI found that the Fund was 2 to 3 years behind its peers. However, the Fund was early in implementing a standardized local area computer network and was an early user of commercial versions of human resource management software. Moreover, over the past few years, the Fund has been rapidly catching up with its peers in implementing some new technologies. Within the constraints of IT cost comparisons, the consultants believe that the Fund's expenditures are similar, or somewhat lower, than comparable organizations.<sup>7</sup>

12. In conclusion, the LMI consultants believe that the IT expenditures of the past decade have been instrumental in bringing the Fund into the information age, and have provided the foundation for future growth and advances. As change continues, IT will become an even more important tool in continuing the effectiveness of the Fund in serving the international financial community. By changing the way IT is managed, the Fund can ensure that the benefits achieved through their investments will be maximized. The review concluded with five specific recommendations for accelerating the gains to the Fund through the use of IT (Table 1) and identified two critical success factors. The ITPC has reviewed these recommendations and has incorporated the majority into the Fund's medium-term IT strategy and the three strategic programs as discussed in Section V.

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<sup>6</sup> LMI selected five organizations with business functions that are comparable to those of the Fund, including the World Bank, the United Nations Secretariat, the OECD, the BIS, and the Australian Bureau of Statistics.

<sup>7</sup> A study conducted by the Gartner Group in 2000 also concluded that the Fund's infrastructure costs were reasonable when benchmarked with the comparable costs of its peers.

**Table 1 – Summary of Key Recommendations of LMI Report**

**Recommendations:**

- **Planning:** To achieve maximum benefits, develop business and strategic plans for the Fund—not just the IT sector—as the basis for identifying and prioritizing IT investments.
- **Management:** Strengthen management of IT assets by improving the selection, control, and evaluation of investments using open and published processes.
- **Comparative Advantage:** With IT thoroughly ingrained in the Fund’s business processes, use IT investments to maintain or reestablish the Fund’s comparative advantage as a clearinghouse of information and knowledge about international macroeconomic issues.
- **Knowledge Management:** Invest in IT to capture, store, and access the institutional knowledge of the Fund.
- **Resource Needs:** Recognize and fund the additional resources that are temporarily needed for both the IT and business support organizations when implementing major initiatives.

**Key Success Factors:**

- The Fund will need to find a way to bring IT and business managers together (including at the department-head level) to lead the Fund past cultural and operational impediments that have hindered the success of past investments.
- The Fund will continue to need capital funds to replace or upgrade technology in all areas of its business. The productivity gains that are produced by IT will continue to be necessary to maintain the Fund’s comparative advantage and to contain the growth in staff.

**IV. INFORMATION TECHNOLOGY STRATEGY FOR THE MEDIUM-TERM**

13. The Fund is a knowledge-centric institution. Its products are intangible and include research, analysis, and policy advice. Its major inputs are the intellectual capital of the staff, the organization’s institutional memory, and ready access to relevant, timely, and accurate economic data and other information. Through the integration of the Fund’s business drivers and the technology forecast, the ITPC has formulated an updated IT Strategy for the Fund. The Strategy strives to achieve the following IT vision for the medium term:

**“The IT environment will enable Fund personnel, anywhere and at any time, to use the Fund’s information resources efficiently and effectively in the creation, sharing, and dissemination of knowledge.”**

14. The IT vision for the Fund is to provide its personnel with a seamless view and personalized access to the knowledge and information critical to the institution’s work. The strategy seeks to facilitate access to information content by eliminating artificial distinctions between internal and external sources and disparate information formats (document repositories, structured databases, web sites, news wires, e-mail, etc.). The strategy will also



enable the Fund to communicate more effectively with its members and constituencies worldwide and to disseminate tailored information in an effective and efficient manner. In the administrative and financial area, the strategy builds upon the strategic renewal program that has been underway to increase the efficiency of administrative and financial operations by simplifying internal procedures and adopting best practices.

15. During the past decade, IT efforts focused on using technology to make documents and data accessible, using systems such as the Fund's Document Repository, the internal and external web sites, and the Economic Data Sharing System. The emergence of a new generation of technologies for information management and collaboration will provide new ways of sharing and leveraging knowledge and stimulating intellectual creativity. The new IT Strategy attempts to leverage these technologies in ways that will best help the Fund fulfill its responsibilities in the "interconnected world."

16. To achieve this vision, the ITPC identified three specific IT goals:

- **Improve knowledge and information management:** The volume of knowledge and information (documents, economic data, news, and other types of operational information) that is being produced and shared, and the pressure for timeliness in the Fund continue to increase at a rapid rate. Furthermore, the Fund's increasing commitment to transparency imposes a substantial burden on staff resources. Therefore, methods of information production, sharing, and exchange will need to become more effective and automated. In this context, it will be critical for the Fund to ensure better access to information (internally produced and from external sources) and provide more efficient ways of producing, processing, sharing, and storing information.
- **Improve administrative and financial information and processes:** Access to and integration of disparate administrative, financial, and budgetary information, which is currently scattered throughout multiple information systems and databases, need to be improved. The staff require an integrated financial system and state-of-the-art analytical tools to support policy and analytical work and make available financial information in a timely fashion. The Fund will need to develop well-integrated budgeting, financial, and administrative systems that support both full-time specialists and occasional, ad hoc users of the information. Labor-intensive administrative work processes (for example, time reporting, leave scheduling, conference arrangements, and the requisitioning of supplies, etc.) will continue to be streamlined and automated to save staff resources.
- **Strengthen connectivity and safeguard the Fund's IT infrastructure:** In support of its global operations, the Fund will need to provide efficient communication capabilities for Fund staff (particularly for traveling staff and management, Resident Representatives, and regional offices) and the Board. At the same time, the Fund is under increasing pressure to communicate more quickly and effectively with its members, external organizations, and the public at large. To meet these requirements, it will be critical for the Fund to maintain consistently fast, reliable, and secure global connectivity. In addition, the work of the Fund has become highly dependent on the

smooth functioning of its IT infrastructure, at headquarters and in the field. In this regard, continuing efforts will need to be made to ensure the availability, reliability, and security of the IT infrastructure.

## **V. IT STRATEGIC PROGRAMS**

17. For the IT goals described in the previous section, the ITPC has developed a set of IT Strategic Programs under which various IT initiatives and projects will be carried out. Taken together, these programs form the work agenda for improving the Fund's IT environment over the medium term. The IT Strategic Programs are grouped into the following areas: (1) Enterprise Information; (2) Administrative and Financial Information; and (3) Infrastructure and Connectivity. Each of these programs is detailed in the Appendix.

### **A. Enterprise Information Program**

18. The goal of the Enterprise Information Program is to improve knowledge and information management, particularly in those areas that are essential for the core work of the Fund. The program encompasses three main areas: (1) documents and publications, (2) economic time series data, and (3) an overarching information services program.

19. The first two areas focus on continued efforts to enhance the creation, management, sharing and dissemination of information that is stored within traditional, dedicated applications. In the area of documents and publications, initiatives will focus on strategies that separate the information content of a document from its presentation, making it possible to create the information once but to render it in a variety of formats and media. A Fund-wide Records Management project will establish a common filing scheme across the Fund.

20. The strategy also provides for the completion of an integrated time series data management system, the Economic Data Facility, that will serve economists in area and functional departments and offer state-of-the art tools for collecting, managing, analyzing, sharing and disseminating economic and financial data. This system also will be integrated with a secure Internet-based data reporting facility for use by member countries. While information management in each of these areas has improved considerably during the past 5 years, staff must change their work practices to use more fully and effectively the variety of tools and interfaces that are being provided to access and retrieve this information.

21. One of the key goals of the third (information services) area is to provide staff with a "portal"<sup>8</sup> that enables them to retrieve all information relevant for their work, regardless of where or how it is stored. To achieve this goal, the Fund will have to develop a Fund-wide information architecture that standardizes the way that information in various databases and repositories is described and organized. It will also be necessary to create the governance structures to obtain Fund-wide compliance with these architectural standards and guidelines.

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<sup>8</sup> A portal is a personalized web site that provides a single point of access to all of the critical information, applications, and services a person needs in the workplace.

22. These efforts, combined with new web-based technologies will then provide staff with access to information in Fund databases (e.g., economic, financial, and administrative), documents, Web sites, news services and other sources through a single, customized user interface. This program will also be used to deliver customized information to member countries, furthering the Fund's commitment to strengthening communications with the membership. It will also create new opportunities for collaborative problem solving, sharing of knowledge, and innovation among Fund personnel and their peers.<sup>9</sup>

### **B. Administrative and Financial Information Program**

23. The goal of the Administrative Information Program is to develop an integrated set of information systems for all of the Fund's administrative, financial, human resources, and expenditure planning and control applications. The program aims to automate labor-intensive administrative work processes by streamlining and integrating the administrative information currently scattered throughout multiple information systems and databases. It includes updating present technological platforms to provide staff with modern, integrated tools to present, analyze, and forecast administrative information efficiently. The program will continue to develop and enhance the Fund's financial and human resources systems to support both 'core' (specialist) and 'ad hoc' (generalist) users of the information. It will also implement information systems for Fund managers to improve the planning and monitoring of administrative activities and "e-commerce" facilities to improve efficiency in a number of the Fund's administrative areas such as publication subscription and procurements of goods and services.

24. During this period, the Fund will develop a comprehensive, integrated financial system that will support policy and analytical work, and which will enable the organization to plan, conduct, control, and measure the performance of all of its financial operations. The new Financial Accounting and Control Tracking System, which utilizes Enterprise Resource Planning (ERP) technology will support industry best practices and enhance budgetary controls. This system will provide a starting base for the Fund to capitalize on its investment in ERP tools and enhance the integration of information to support analysis and decision-making. Budget planning and formulation systems in support of budget reform will be introduced. A new time reporting system and development of systems to support costing of outputs and performance measurement will further support the full implementation of budgetary reforms.

25. The Treasurer's Department has commenced a three-year program to modernize the business processes and supporting systems of the core business functions of funding, lending, investment and financial accounting. This integrated financial system will also support policy and analytical work, and will enhance the organization's ability to plan, conduct, control, and measure the performance of its financial transactions and operations with member countries.

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<sup>9</sup> There is now widespread recognition of the value of the Internet to build collaborative "virtual communities" of individuals with shared roles and interests.

### **C. Infrastructure and Connectivity Program**

26. The goal of the Infrastructure and Connectivity Program is to develop and maintain a secure, universally accessible, and reliable IT infrastructure that supports the current work requirements of Fund staff and is flexible enough to accommodate future advances in technology and changes in business requirements.

27. The program will provide the desktop and network computing equipment and communications links needed to support the Fund's knowledge-based and collaborative work environment, as well as the requirements of mission travel, overseas offices, and new flexible work arrangements. Although external evaluations of the Fund's infrastructure have been consistently favorable, they have also warned that IT infrastructure needs continued investments to remain up-to-date and to have an appropriate backup and recovery capability.

28. The IT Infrastructure and Connectivity Program will take advantage of current and future developments in technology to ensure that (1) access to the Fund's IT infrastructure is reliable for Fund personnel and other authorized users, working at mission sites, remote offices, Resident Representative posts, and at home; (2) the Fund's network capacity stays ahead of increases in demand; (3) the IT infrastructure remains up-to-date and sufficiently flexible to accommodate emerging technologies; and (4) the Fund's headquarters and remote office environments remain secure against the disclosure or modification of electronic information accidentally or to unauthorized parties, system unavailability, violation of privacy, and unacceptable use. This program also supports the extension of 24 hours a day, 7 days a week support for most aspects of IT operations.

### **VI. BUDGETARY IMPLICATIONS**

29. The capital costs of the IT Strategy are projected to be \$89 million for FY 2003 - FY 2005 (Table 2), compared with the current medium-term IT capital budget for FY 2000 - FY 2002 of \$82 million. This represents an 8.5 percent increase in capital investments between the two periods.

30. Approximately 55% of the investment from FY 2002 - FY 2005 reflects the replacement of many outdated large systems (for example, accounting and administrative systems, economic data systems, and the Treasurer's operation system) and transformations in the way the Fund uses IT to manage information. The remainder of the investment during this period will be used for hardware, minor system enhancements, and the introduction of new IT capabilities. It is expected that IT investments will begin to decline in FY 2006 and beyond, as most of the major IT systems will have been replaced by then. The typical replacement cycle for such large institutional systems is relatively long (8 to 10 years) and it is unlikely that the Fund will incur significant new development expenditures in these areas for the foreseeable future.

31. The investment pattern over the period FY 2003 - FY 2005 is likely to vary from the figures shown in Table 2. The FY 2003 figure, \$42 million, represents the total resources needed for previously approved projects, which are currently underway, and new projects scheduled to begin that year, and actual expenditures will be spread over the three-year

period. The figures for the outer years are significantly lower because they reflect only the costs of new development phases of presently known projects. In the next two years, it is likely that some new projects will emerge for those years.

**Table 2. IT Capital Budget for FY 2003 – FY 2005**  
(In millions of U.S. dollars)

	Budget Proposal FY 2003	Medium Term		Total FY 2003-05
		FY 2004	FY 2005	
<b>IT Capital Budget</b>	42.2	26.2	20.5	88.9
<i>of which:</i>				
Equipment	5.7	9.3	9.6	24.5
Software Development	36.5	16.9	10.9	64.3
<i>of which:</i>				
Admin & Financial Info Program	23.7	8.7	6.1	38.5
Enterprise Info Program	7.1	7.5	4.1	18.7
Infrastruc & Connectivity Program	5.7	0.7	0.7	7.1

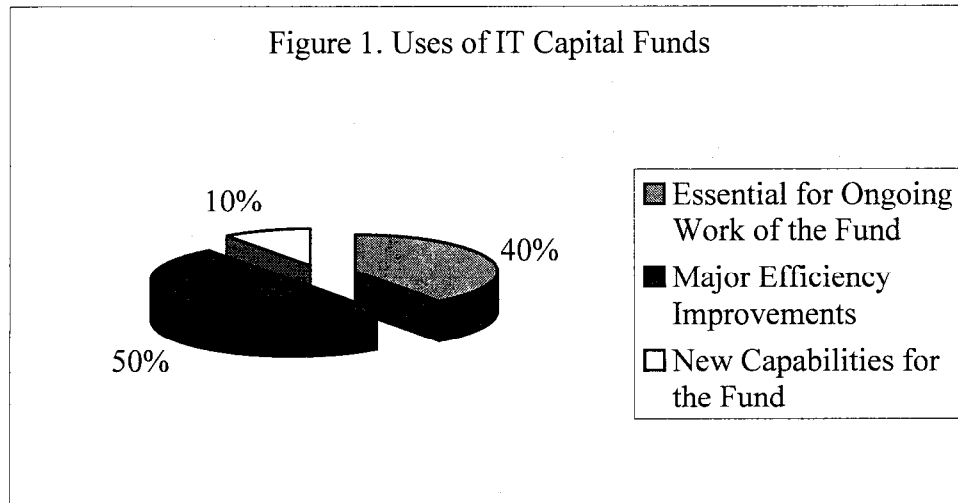
32. Over the coming three years, spending on the Administrative and Financial Information Program is significantly higher than for the other two major IT strategic programs (Enterprise Information Program and Connectivity and Infrastructure Program). This is due to the requirements to replace a large outdated system, such as TRE's Financial Information System, and to implement OBP initiatives to support budget reforms.

33. It is also useful to examine these expenditures in terms of their effect on the work of the Fund. In this regard, IT projects can be classified into the following three categories:

- Projects that are essential to carry out the ongoing work of the Fund (for example, spending on microcomputers and computer network, and replacing the Fund's administrative accounting systems);
- Projects that are required to implement process or efficiency improvements (for example, TRE's financial information system, economic data facilities for area and functional departments, OBP's budget planning system, and the Annual Meeting System); and
- Projects that provide new capabilities to the Fund (for example, web-based collaboration systems with member countries and internal information sharing systems).

34. As illustrated in Figure 1 below, 40 percent of the FY 2003 – FY 2005 capital funds will be used for projects that are deemed essential for carrying on the work of the Fund and

50 percent will be required to enable IT systems to support further enhancements to organizational efficiency. The remaining 10 percent of the funds are for projects that will provide new capabilities to the Fund.



35. As a result of these capital investments, it is expected that a greater portion of the IT administrative budget will be required to maintain the systems over the medium term and beyond. This will require rigorous priority setting within the IT budget and will put pressure on the IT administrative budget for the medium term. The implementation of the strategy will also entail some additional costs that will be borne by the user departments, including the cost of sending staff to training and the cost of implementing organizational change.

## VII. BENEFITS OF THE INFORMATION TECHNOLOGY STRATEGY

36. When fully implemented, the new IT Strategy will result in significant and measurable improvements in the internal work of the Fund, in the delivery of its services to member countries, and in the strengthening of relations with external organizations and the public. Specific benefits of IT investments to the Fund and to its global stakeholders can be summarized across two dimensions: enhanced organizational effectiveness and increased efficiency.

### A. Enhanced Organizational Effectiveness

37. Improved effectiveness will enable the Fund to make faster and better decisions in performing its business functions and to improve the quality of services delivered within the Fund and to external customers. These enhancements will be seen in a number of ways, including improvements in the Fund's institutional memory, agility, accessibility, and transparency.

- **Institutional Memory.** A key goal of the Enterprise Information Program is to develop a stronger, more readily shared institutional memory and a richer store of

institutional knowledge. This will enable the organization to be more effective in the development and provision of its services in support of the Fund's core functions in surveillance, crisis prevention, technical assistance, and training.

- **Agility.** The Fund will become more agile and be able to respond more quickly and proactively to changes in the global economy. Enhanced collaboration and streamlined document review processes supported by IT will expedite analytical work, the sharing of knowledge, and the creation of Fund documents across organizational units and geographic boundaries. The introduction of "portal" technology will provide access to relevant, just-in-time economic and financial information to the economists' desktops and will enable staff to analyze developments in financial and other markets on a real-time basis, enhancing the Fund's ability to prevent and manage financial crises. Policy and decision-making will be expedited as the Fund shifts from paper-based to electronic methods of providing member countries access to documents and financial information.
- **Accessibility.** The proposed strategy will yield further enhancements in the accessibility of people and information. Improvements in global connectivity will ensure that Fund personnel have ready and reliable access to information and people, around the clock, regardless of whether they are at headquarters, at home, on mission, or in remote offices. At the same time, new information delivery tools will provide Fund personnel with seamless access to the full array of pertinent information, both internal and external, that they require. Communication between Board members and their constituencies will be enhanced and they will be able to engage in policy discussions using secure Internet-based collaboration tools and discussion fora. Similarly, the overhauling of the Fund's financial information systems will expand access to member financial information by authorized parties.
- **Transparency.** IT will continue to be a major enabler of the Fund's efforts to increase its openness and to collaborate and communicate more effectively with member countries and external groups, including enhancing the Fund's external web site (IMF.ORG) and the Data Standards Bulletin Board. New technologies will support the rapid dissemination and effective "re-purposing" of larger volumes of information using a wide range of high-quality electronic and print media. As a result, other international institutions, private sector organizations, the press, NGOs, and the general public will gain a better understanding of the Fund's work through greater access to information on the Fund's external web site, in electronic archives, and on electronic discussion forums.

## **B. Increased Efficiency**

- 38. Efficiency improvements will enable the Fund to provide services and products in a more cost-effective manner. In the absence of gains in this area, the Fund will not be able to manage the growing workload in the face of continued staffing and resource constraints. The IT programs proposed in the current strategy will contribute to organizational efficiency by increasing staff productivity and by helping the Fund reduce or avoid costs.

- **Increased Productivity.** The Enterprise Information Program will provide Fund staff with a single point of access to all of the information relevant to their work, significantly reducing the time currently spent on locating and retrieving documents and data. At the same time, new web publishing technologies will streamline and automate currently labor-intensive tasks of reformatting information for dissemination to a variety of audiences. The Administrative and Financial Information Program seeks to leverage IT to enhance productivity by reducing the burden of many time-consuming but low-value-added activities (administrative tasks, budget reporting, redundant data entry, etc.) thus enabling staff to spend more time on the core work of the Fund. The introduction of a new, more stable desktop computer operating system and further efforts to ensure the uninterrupted availability of the Fund's network under the Infrastructure and Connectivity Program will increase staff productivity, and reduce stress. Initiatives to improve secure connectivity, from remote sites and at home, will benefit staff by increasing the flexibility of work arrangements and ensure the continuity of the Fund's operations in emergencies.
- **Cost Savings.** Enhancements to the Fund's document repository, the introduction of an institutional time series data management system, and the development of a comprehensive, integrated financial system will reduce the costs of preserving the Fund's institutional memory and help reduce staffing requirements due to automation and streamlining of work processes. The deployment of efficient, secure web-based mechanisms for gathering and sharing information will lessen the burden on member countries of reporting information to the Fund. Expanded use of electronic communications and dissemination of documents over the Internet will significantly reduce staff and Board time and the costs of printing and mailing paper documents. Similarly, the introduction of e-commerce facilities will improve efficiency in a number of areas, including publication subscription and procurement of goods and services, providing benefits to staff, member countries, and the general public.
- **Budgetary Implications.** These increases in productivity and cost savings could allow for an increase in the services provided by the Fund, a reduction in overtime and other work pressures, reduced staffing, or dollar outlays. Implementation of IT projects in TRE is expected to result in a significant reduction in staffing in TRE and other departments over the next several years. In STA, efficiency improvements in the management of data sets will allow the current mandated expansion in areas such as external debt and international reserves to be undertaken without increases in staffing. Modernization of the IT infrastructure will enable IT to support additional and more complex applications while limiting staffing requirements in TGS.



## APPENDIX

### Summary of IT Programs

#### Enterprise Information Program

The goal of this program is to improve the creation, sharing, dissemination, and management of information essential for the core work of the Fund. Staff will be provided with a single point of access to economic, financial, and administrative information in internal and external data bases, repositories, Web sites, and other sources. Staff-specified profiles will provide for the proactive delivery of selected, filtered information to the desktop on a timely basis. The EIP will also be used to deliver customized information to member countries, furthering the Fund's commitment to strengthening communications with the membership.

#### Key Projects:

- *Information Services Technology Strategy and Information Architecture*
- *Intranet/Internet Improvement*
- *Economic Data Facilities*
- *Electronic Records and Publications*

#### Expected Benefits:

Simplifies accessing disparate internal and external data bases and repositories, streamlines the collaborative sharing of information, and enhances communications with member countries.

Simplifies the posting and retrieval of information to and from the Fund's Web environments; automates the labor-intensive process of reformatting reports and documents for publication on the Internet; enhances secure web-based collaboration facilities.

Implements a unified IT system for use at HQ and on mission for the collection, compilation, management, documentation, and dissemination of statistical information and improves internal and external access to Fund macroeconomic and financial data and the WEO.

Preserves and provides ready access to the Fund's institutional memory; simplifies and streamlines the process for ordering or receiving Fund documents and publications for staff, customers, and the general public.

### **Administrative and Financial Information Program**

The goal of this program is to (1) modernize outdated and inefficient systems and (2) provide quality support and timely, accurate, and trusted financial and administrative information to system users, Fund management, and member countries. The new systems (a) will improve the integration of various, and sometimes overlapping, systems; (b) provide staff with enhanced access for viewing, analyzing, monitoring, and reporting on core administrative information; (c) streamline administrative and financial work processes, requiring fewer resources to support, and eliminate duplicative data entry and error-prone manual processing; and (d) where feasible, bring secured services to the desktop.

#### **Key Projects:**

- *Migration of TRE Financial Information Systems*
- *Human Resource Management System and Treasurer's System Enhancement Projects*
- *Financial and Accounting Control System and Budget and Planning Reforms*
- *Budget Reporting System (BRS)*
- *Enhanced Customer Support Systems*

#### **Expected Benefits:**

Streamlines TRE's labor-intensive financial system processes, enhances functionality, integrates operational and accounting aspects of financial system, and expands access to member financial information by authorized parties.

Enhances existing capabilities and implements new Personnel and TRE systems functions; provides staff with self-service "anytime, anywhere access" to personnel, payroll, pension, and allowance information. Eliminates paper-based forms and streamlines processes in TRE and HRD, reducing costs for delivery of services.

Replaces the Fund's outdated mainframe-based accounting systems with new state-of-the-art web-based commercial software. Supports industry best practices, enhanced budgetary controls, and extends access to all Fund users for a variety of on-line functions. Provides a framework to support other processes, such as incorporation of budget reforms and enhanced project accounting capabilities.

Aligns the budget reporting systems with the approved budgetary reforms; facilitates access to information for decision-making.

Replaces outdated modules of the Annual Meeting and Locator Systems; enhances the Institute's Participant's Application and Tracking System; introduces an enhanced Project Planning and Management System for operational and technical assistance projects and the closer alignment of staff work and TA programs with the Fund's policy priorities.

### **Infrastructure and Connectivity Program**

The goal of this program is to develop and maintain a secure, universally accessible, and reliable IT infrastructure that supports the work requirements of Fund staff and is flexible enough to accommodate future advances in technology.

#### **Key Projects:**

- *Remote Computing and Remote Access Technologies*
- *Authenticated Communications*
- *Windows Operating System Upgrade*
- *Improve Network Availability and Reliability*
- *Directory Services Initiative*
- *Software Distribution Upgrade*
- *Information Security Program*
- *Business Continuity Program*

#### **Expected Benefits:**

Provides enhanced and secure access to Fund's information resources for staff working from home, on mission, in remote offices, and from Resident Representative posts.

Replaces obsolete telex-based technologies used by the Fund and OED to communicate with member countries and provides for a secure and robust communications between the Fund and its members.

Provides a more stable desktop computing environment for Fund staff.

Reduces network outages and increases staff productivity.

Reduces errors through implementation of better network management tools and procedures  
Provides underlying technologies that can be used to automate workflows and simplify user access to the network.

Introduces more efficient software distribution systems, especially for remote offices and posts.

Provides updated information security guidelines to increase staff's awareness of their information security responsibilities

Allows the Fund to continue, in the event of a disaster, its business by providing appropriate backup and recovery of key IT systems