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ATTENTION**

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EBAP/84/276
Supplement 1

February 19, 1985

To: Members of the Executive Board
From: The Acting Secretary
Subject: Request for Additional Budget Appropriations for Mainframe
Computing Services - Supplementary Information

Attached for consideration by the Executive Directors is a paper providing supplementary information on the request for additional budget appropriations for mainframe computing services. This request was presented in EBAP/84/276 (12/13/84) and discussed at EBM/85/5 on January 11, 1985. Decisions contained therein were postponed pending additional information which is now presented in the attached paper.

Unless an Executive Director requests that this subject be brought to the agenda for discussion by the close of business on Tuesday, March 5, 1985, the decisions appearing on pages 12 and 13 of EBAP/84/276 will be deemed approved by the Executive Board and it will be so recorded in the minutes of the next meeting thereafter.

If Executive Directors have technical or factual questions relating to this paper, they should contact Mr. Minami, ext. 7500.

Att: (1)

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INTERNATIONAL MONETARY FUND

Request for Additional Budget Appropriations
for Mainframe Computing Services
Supplementary Information

Prepared by the Administration Department and
the Bureau of Computing Services

Approved by R. Tenconi and W. N. Minami

February 19, 1985

During the discussion of the request for additional budget appropriations for mainframe computing services (EBAP/84/276, 12/13/84), some Executive Directors asked for additional information on collaboration between the Fund and the Bank in the area of computing services and on the request for three new staff positions. This paper provides additional information on both of these issues.

1. Fund/Bank Collaboration

Following the comments of some Executive Directors on the issue of Fund/Bank collaboration, the Fund technical staff met again with their counterparts in the World Bank to discuss the current collaboration and to agree upon other possible areas of future collaboration. This paper reflects the contents of this discussion.

Today the working relationship between the Fund and the World Bank with respect to computing services is excellent. Senior staff from both organizations meet regularly on these matters and there is considerable sharing of information and technology directions. Fund computer operations are currently staffed by the Bank and managed by the Fund. There is a limited number of systems developed and maintained by the Fund that support joint Fund/Bank operations. An agreement has been reached to keep the Burroughs systems software of both organizations totally compatible to facilitate software support and to insure effective back-up in case either organization should experience a serious hardware failure or environmental disaster. Similarly, software decisions by both organizations have enhanced the possibility of a mutual back-up in IBM technology. There are arrangements for the transfer of data between the existing computers of both organizations, and certain Fund and Bank users with specialized needs have access to the computers of the other organization. Such arrangements will also be extended to IBM computers.

As explained in EBAP/84/276, p.2, the existing mainframe computers of the Fund and the Bank are dedicated to the needs of each of these institutions. The considerable economies of scale that were obtained many years ago by sharing computer hardware no longer exist. The combined needs of both organizations require more than one mainframe computer and it is much more efficient for each organization to use the sizes and types of computers that best meet their specific requirements. The growth in computer usage in both organizations and the downward trend in hardware costs make it unlikely that the Fund and the Bank will, in the future, find it economical to share a common mainframe again. The costs associated with the software customization on a shared computer and the difficulties associated with the management and administration of a large shared computer are further factors that make sharing inadvisable.

In EBAP/84/276, it was explained that the complete sharing of the operational and managerial staff for the Fund's and Bank's mainframe computers has also ceased to be the most effective arrangement. Instead, under a recently negotiated new arrangement, the Bank operates the Fund's Burroughs computers on a fixed price basis but under direct Fund control. This form of cooperation has evolved for reasons similar to the decision to separate the Fund and Bank computer hardware. In order to provide efficient and responsive operations, the Fund's computers have been placed under the day-to-day control of a Bank computer center supervisor reporting directly to Fund technical staff. As for the operations of the Fund's future Burroughs and IBM computers, the Fund has already been investigating opportunities to continue its current relationship with the Bank. The recommendation as to whether the Bank or an outside facilities management firm should be employed will be based on timing, staff availability, costs, and mutual benefits to be derived.

While the sharing of resources which represent variable costs, such as staffing, no longer provides management and financial benefits, the Fund and the Bank are continuing to explore cost-saving opportunities through the sharing of fixed costs. The most promising possibility offered today is the sharing of a common computer building and related facilities such as power generators, air-conditioning, etc. These possibilities will be thoroughly assessed and a report will be presented to Executive Directors as part of the detailed analysis of alternative approaches for the purchase, construction, or lease of appropriate space for a new computer center.

While the financial issues described above are important, the essence of inter-organizational cooperation in the area of computing services is to maintain technical possibilities of sharing information electronically. Through the proposed move towards IBM-compatible equipment, the Fund is now effectively closing a gap that had been opened by the Bank's decision several years before to move toward IBM technology. Issues related to compatibility of computer architecture and data management technology will continue to be discussed by the

technical staffs of both organizations. As a result, the technical capabilities of the Fund and the Bank to exchange data and to provide more effective back-up support during emergency situations have already improved and will continue to do so.

There are several additional areas where the Fund and Bank anticipate opportunities for more collaboration. One example is the area of technology review. Both institutions have a need to keep up with and to evaluate emerging computing-related products and technologies. By sharing in this effort, both institutions could improve the timeliness and comprehensiveness of the review process, while reducing costs and avoiding duplication of effort. Specifically, the Fund and the Bank have recently shared information and made joint investigations in the areas of data communications and database software. Another area for collaboration might be the technical training of EDP staff. By pooling their technical training needs, the Fund and Bank could reduce training costs and/or train more staff at the same cost. Other avenues for future collaboration on computing-related issues will continue to be explored by the Fund and the Bank computing staffs on a regular basis, and in consultation with other affected units in both organizations.

In summary, collaboration between the Fund and the Bank in the area of computing services has gradually evolved from a simple cost-sharing arrangement to a more complex relationship responsive to the needs of each organization and to changing aspects of technology. The task now confronting the computing support staff of both organizations is to provide required services at reasonable cost, while maintaining the ability of both organizations to communicate effectively with each other and to provide mutual back-up. Both the staff of the Fund and the Bank are dedicated to continuing to meet these objectives in an atmosphere of constructive collaboration.

2. Requested New Staff Positions

In EBAP/84/276, three new staff positions were requested, one at Division Chief level. The Division Chief position is considered necessary to provide strong and effective management of the Fund's mainframe computers, while the other two positions are required to bring on board qualified technicians with experience in IBM technology.

As discussed in the previous section, and in more detail in EBAP/84/276, the Fund has assumed in 1984 direct responsibility for the management of its computer center. The Fund wishes to retain this level of management and administrative control over its own mainframe computers, because priority and security issues are better known to Fund computing support staff, and because costs can be more directly controlled in this way. This increased management role, together with the responsibilities involved in setting up and putting into operation the proposed IBM computer, necessitate a full-time, high-level manager. This individual will be responsible for facility management

contracts with the Bank, or some other organization, involving 40 or more staff and annual budgets of several million dollars, and will directly supervise about 10 BCS staff and 24 contractual staff working in support of the Fund's data communications network, minicomputers, and microcomputers. 1/

The two technical positions are requested primarily to support the Fund's shift to IBM technology. The first position is for a specialist in the computer hardware and operations management of IBM-compatible systems. This staff member would be responsible for ensuring that the Fund's computer hardware is efficiently supported and would also evaluate and coordinate all changes or upgrades to the hardware in order to minimize costs to the Fund. The second staff position is requested for a specialist in IBM system software and data communication technology. Because of the large number of options available with IBM system software and the impact of the selected system software on the performance of the computer and responsiveness to users, it is essential that the Fund have an in-house expert in this area. The above two positions are required to maintain the minimum level of in-house technical expertise to protect the Fund's interest vis-a-vis outside facilities management contractors. The addition of these positions would minimize disruptions if the Fund were to decide to switch from one facilities management vendor to another. Since these two positions are at a technical level, they would reduce the number of staff that would have to be supplied by the facilities management contractors. The need for additional Fund staff would be even greater if we chose the alternative of bringing all operational support work in-house, using BCS staff.

Since the Fund staff has not been involved in the operations and management of computer hardware for the past fifteen years, and since the decision to move to IBM technology is fairly recent, there is at present a shortage of staff sufficiently experienced in these areas. Although, over a period of time, Fund staff could acquire the skills to carry out these duties, it is considered essential that we recruit experienced staff to assume the responsibilities of these requested positions as soon as possible in order to avoid costly errors in the operations and management of the Fund computers. It is also felt that

1/ During the past 10 months, these functions have been temporarily performed by an advisor in the BCS Immediate Office and an outside consultant. The estimated cost of these two persons far exceeds that of the requested division chief position. The temporary reassignment of the advisor was at the expense of planning activities which were temporarily interrupted, especially in the data communication area.

the addition of these three new positions would provide improved service to Fund users and a smoother transition from Burroughs to IBM-based mainframe support. There should be little or no increased cost to the Fund, since, if these positions were not to be held by Fund staff, contractual staff would be required to carry out the same duties. Moreover, it is felt that Fund staff would have greater incentive to minimize costs and to work to secure additional benefits and savings.