INTEGRATED FINANCIAL MANAGEMENT SYSTEMS: A GUIDE TO IMPLEMENTATION

BASED ON THE EXPERIENCE IN LATIN AMERICA

Institute For Democratic Strategies
Margaret Bartel, CPA

Public Sector Modernization Division
Technical Department
Latin America and the Caribbean Region

This publication reflects the ongoing work program of sector research and analysis of the Public Sector Modernization Division in Latin America and Caribbean Regional Technical Department of the World Bank. Its purpose is to stimulate discussion among staff on key issues facing the sector. The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s) and should not be attributed in any manner to the World Bank, to its affiliated organizations, or to the members of its Board of Executive Directors or the countries they represent.
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. FOUNDATION OF IFMS</td>
<td>5</td>
</tr>
<tr>
<td>Conceptual Framework</td>
<td>5</td>
</tr>
<tr>
<td>A. A Systems Approach</td>
<td>5</td>
</tr>
<tr>
<td>B. Entity based management</td>
<td>6</td>
</tr>
<tr>
<td>C. Normative centralization, operational decentralization</td>
<td>8</td>
</tr>
<tr>
<td>D. Matching levels of aggregation with decision-making authority</td>
<td>8</td>
</tr>
<tr>
<td>E. Unified responsibility</td>
<td>9</td>
</tr>
<tr>
<td>Legal Framework</td>
<td>10</td>
</tr>
<tr>
<td>Political Will</td>
<td>12</td>
</tr>
<tr>
<td>Benefits of IFMS</td>
<td>13</td>
</tr>
<tr>
<td>Components of IFMS</td>
<td>15</td>
</tr>
<tr>
<td>A. Core components</td>
<td>15</td>
</tr>
<tr>
<td>B. Ancillary components</td>
<td>15</td>
</tr>
<tr>
<td>Integrating Structures</td>
<td>16</td>
</tr>
<tr>
<td>A. Uniform Chart of Accounts</td>
<td>16</td>
</tr>
<tr>
<td>B. Single bank account</td>
<td>17</td>
</tr>
<tr>
<td>C. Single database</td>
<td>17</td>
</tr>
<tr>
<td>D. Coordinating group</td>
<td>17</td>
</tr>
<tr>
<td>Effecting Change</td>
<td>18</td>
</tr>
<tr>
<td>A. Implementing team</td>
<td>18</td>
</tr>
<tr>
<td>B. Training</td>
<td>19</td>
</tr>
<tr>
<td>C. Participation of top management</td>
<td>20</td>
</tr>
<tr>
<td>III. BUDGETING</td>
<td>21</td>
</tr>
<tr>
<td>A. Overall requirements</td>
<td>21</td>
</tr>
<tr>
<td>B. Budget formulation</td>
<td>23</td>
</tr>
<tr>
<td>C. Budget execution</td>
<td>23</td>
</tr>
<tr>
<td>D. Budget evaluation</td>
<td>26</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV. ACCOUNTING</td>
<td>A. Role of accounting</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>B. Parameters for designing an accounting system</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>C. Cash versus accrual accounting</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>D. Management of the accounting system</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>E. Financial reporting</td>
<td>34</td>
</tr>
<tr>
<td>V. CASH MANAGEMENT</td>
<td>A. Modern approaches to the management of cash flows</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>B. Collections</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>C. Integration with other elements of IFMS</td>
<td>41</td>
</tr>
<tr>
<td>VI. PUBLIC DEBT</td>
<td>A. Overview</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>B. Organizational structure</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>C. Legal framework</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>D. Political will</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>E. Operations</td>
<td>47</td>
</tr>
<tr>
<td>VII. INFORMATION SYSTEM</td>
<td>A. Overview</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>B. Quality of the assessment and the design</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>C. Sustainability of the software and hardware platforms</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>D. Skill of implementors in dealing with end-users</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>E. Degree of coordination</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>F. Reinventing the system</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>G. Implementation</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>H. Three systems to consider</td>
<td>53</td>
</tr>
<tr>
<td>VIII. INTERNAL CONTROL AND AUDIT</td>
<td>A. A Modern view</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>B. Relationship with External Audit</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>C. Pre-Control</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>D. Computer Fraud</td>
<td>62</td>
</tr>
</tbody>
</table>

Appendix: Summary of laws from Argentina, Ecuador and Bolivia
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFI</td>
<td>International Financing Institution</td>
</tr>
<tr>
<td>IFMS</td>
<td>Integrated Financial Management System</td>
</tr>
<tr>
<td>OCEPRE</td>
<td>Central Budget Office in Venezuela</td>
</tr>
<tr>
<td>SAI</td>
<td>Supreme Audit Institution</td>
</tr>
<tr>
<td>SIAF</td>
<td>Sistema Integral de Administración Financiera</td>
</tr>
<tr>
<td>SIDIF</td>
<td>Sistema Integrado de Información Financiera</td>
</tr>
<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
</tr>
</tbody>
</table>
During the last fifteen years the momentum for developing and implementing Integrated Financial Management Systems (IFMS) has grown in Latin America. Programs have been implemented with varying degrees of success—later projects learning from earlier ones.

This guide provides a substantive overview of IFMS. It seeks to make the concept and experience of implementing IFMS in Latin America accessible to a variety of parties—those who are financial managers, and those who are not. Its focus is the management aspects of IFMS.

In the modern age, strong financial management in the public sector is a necessity, not a luxury. Citizen confidence in public institutions is sharply affected by the degree to which such institutions are perceived to be well managed—including and especially financially. Transparency in government and accountability for resources are essential elements of a strong, democratic society.

The Institute for Democratic Strategies (IDS) is a nonprofit organization working to strengthen democratic institutions across traditionally separated sectors. IDS was founded on the belief that democratic institutions cannot be sustained unless development is integrated at all levels and across all sectors. Its approach emphasizes dialogue between the private and public sectors and civil society to establish methods of sustainable development. Improving the financial management of the public sector can have a wide impact on the quality of citizens lives, the long-term growth potential of the private sector and the overall development of a country. Successfully implementing IFMS provides governments with a tool to help achieve those goals.

Margaret Bartel, CPA
December, 1996
I. INTRODUCTION

1. Strong financial management in the public sector is a tool for achieving political, economic and social goals. Government, long a backwater compared with the financial sophistication of the private sector, is realizing that many of the same techniques and approaches that allow private sector firms to grow and provide solid returns to shareholders can be adapted to the public sector to increase return on the public dollar. In an era of diminishing resources and increased demand for accountability and transparency in government, the "stakeholders/shareholders" of the public sector are demanding more effective and efficient use of public resources.

2. Traditionally, control over funds was sufficient for public financial management. Emphasis was placed on compliance with financial regulations, not performance. Audit, external and internal, pre and post, was a primary mechanism. Today, audit is no longer good enough. Accountability in its broadest sense is required. Accountability not only for physical control of funds and reporting on their use but also for their effective and efficient use in securing the public good.

3. Good public sector financial management requires an "entity," rather than a functional, approach to financial management. An entity may be part of a larger government agency. It can be a ministry, a local government unit, a quasi-government agency or a public enterprise. It may require information that is highly aggregated or disaggregated, depending on its role in the overall government structure. Key to an entity is that it integrates its activities to work toward achieving its overall mission and goals. A functional approach can deteriorate into purposeless compliance with regulations and procedures, with no regard for effective and efficient achievement of an organization's mission and objectives.

4. An entity based, integrated approach to financial management is required to support the goal/performance orientation being demanded of public sector organizations. Combining financial data with other performance measurements can result in a clearer picture of the degree to which an organization is achieving its goals and objectives.

5. Key to developing an integrated financial management system (IFMS) is understanding the mission and goals of the overall organization, the role played by the sub-entities within the overall structure and the relationships among the various entities. No single element of an IFMS is dominant. It is the parts working as a whole that make the system work. A system that produces information required to develop macroeconomic policies, but leaves the operating manager in the dark, will not produce optimum results. Although computerization has provided the tools to
integrate increasingly complex organizations and systems, the information needs of the entity must be carefully defined and the interfaces between the various operating units or information sub-systems understood. Too often, computerization is seen as the "cure," when in fact, it is only the means of implementing an integrated system; it is not the system itself.

6. There are many elements to an IFMS. The system required for each entity will be different. Certain elements will always be important. This guide seeks to lay out these elements, provide suggestions for their development and structure and give examples from experiences with IFMS in Latin American governments. It does not attempt to exhaust the possibilities. No guide can do that, because in the end, any system must be tailored to the needs of the entity or group of entities for which it is being developed. A financial management system is not an end in itself—it exists as a tool to serve the mission, goals and objectives of the entity that will shape it.

7. Every IFMS shares certain core components—budgeting, cash and debt management and accounting. Other ancillary components can be incorporated. The most common of these are asset management, personnel and procurement. In the past, control, especially through external audit, was also considered a key component. Today, internal controls remain extremely important, but control structures and techniques in IFMS emphasize, and exist in the context of, management. This means that control, as traditionally

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1 Terminology Note: Sometimes the term "treasury" refers to cash receipts and management only, sometimes it refers to cash and debt management, and sometimes it is used as a synonym for financial management. Therefore, more precise terminology is used in this paper and the term "treasury" is avoided. Similarly, the term "expenditure management" is often used in a broader sense than the disbursement of funds, sometimes as a synonym for financial management. It, too, is avoided in this paper, since it seems too restricted to the disbursement of money—an unacceptably narrow view that tends to compartmentalize rather than integrate financial management.
understood (including external audit), is only one component of a broader system of monitoring—a system that considers the cost/benefit of controls in terms of the entity’s overall ability to achieve its goals and emphasizes the integration of internal managerial controls within each decision-making process.

8. Integrating elements help to hold the system together. A uniform classification of accounts coordinates budgeting and accounting, assuring that the planning process has input from the experience of implementation and that implementation works toward the goals set forth in the budget. A single database provides uniformity of information and facilitates its flow between and within entities. A transaction is entered once, then shared throughout the system. A single cash account improves cash management, allowing entities to maximize returns. Standard-setting agencies establish the technical standards that coordinate the system, but also allow for decentralized execution. Coordinating groups help to assure that the system continues to evolve in a way that responds in an integrated manner to the needs of individual units. Data and processes are not duplicated, they are shared electronically.

A PROBLEM OF DEFINITION

The term "control" in the public sector in Latin America has become synonymous with audit—a reflection of an outdated view of control. Such a definition does not distinguish between internal control and internal audit. Internal controls include managerial, administrative and financial controls, of which internal audit is a monitoring and evaluative tool.
II. FOUNDATION OF IFMS

CONCEPTUAL FRAMEWORK

A. A SYSTEMS APPROACH

9. At its core, IFMS is first and foremost a system. It parts cannot effectively function or exist isolated from each other. They are interdependent. This has certain implications for the design, development and operation of IFMS. First, the design must encompass the basic critical elements. The human body can survive without a great deal of stress, if some of its peripheral systems are missing or malfunctioning. If the vital organs are missing or weak, the impact on the health of the organism is dramatic. It is, therefore, important that, at a minimum, the IFMS design encompass the key elements of accounting, budget, cash management, public debt, internal management, control, audit and an appropriate legal framework.

10. Second, systems are grown. They evolve and unfold. They do not suddenly appear. For sustained growth, the foundation must be solid. Growth must be integrated from the beginning. One element cannot succeed if another fails.

11. Third, the relationship between system elements is as important as the individual elements themselves. How the elements will work together must be as carefully planned as the element itself. At the same time, a system has borders—not everything is part of the system. What is left out of the system is also very important.

12. Fourth, higher functions delegate lower level responsibilities to lower level operations. Primary controls are built into the system through decision rules and through monitoring and detecting significant variances. Controls are designed to operate in sync with the flow of activity instead of being a barrier which must be circumvented.

13. Finally, a system must be constantly feed, continuously updated, never allowed to become static. Static systems are dying systems. Stable systems contain the elements of their own renewal. An example of this is the importance of achieving a critical mass of trained staff that can quickly assimilate and train new staff. This is much easier when the majority of the staff have experience with the operations of the unit.
B. ENTITY BASED MANAGEMENT

14. IFMS is based on the concept of entity management. It is the entity structure that defines the parameters and purposes of an IFMS. Financial management does not exist in a vacuum. It exists to further the purposes of the organization—whatever those purposes may be. In designing an IFMS, defining the entity and sub-entities is crucial. What are the borders of the overarching entity? Does it include regulatory agencies, state owned enterprises or provincial governments? When all the resources of a particular entity are part of a government budget, the answer is simple—it's included. When the government provides only a portion of the resources for a particular organization, the answer is not so simple. The final decision will depend on the requirements and structure of the public sector. Too narrow a definition can hamper the integration of information. An entity may be defined as a single operating unit of the government without regard to the rest of the government. If this is the case, then financial information for this unit may be integrated within the unit but can't be readily integrated into the overall government figures. More likely, several agencies and operating units will comprise the overall government entity, each of which may have decentralized and national offices.

15. Crucial to the conceptual framework of IFMS is the definition and understanding of the organizational structure within the entity (i.e., how do the sub-units relate to each other?). Most governments are very complex, and understanding the relationship between the various instruments of the government is difficult. A simple example illustrates. Some regional units may operate programs for several national ministries. A regional office, for example, may operate programs of the Ministries of Health, Agriculture and Education. An IFMS must be capable of reporting and aggregating financial information along ministry categories as well as regional, agency and multi-agency programs and projects.
16. International accounting standards exist to facilitate reasonable comparisons between different firms within an industry or across industries. They do not exist to integrate this information in the same fashion that an IFMS exists to integrate the financial activities of an organization. A financial system reflects the monetary consequences of organizational decisions and activities. To aggregate data and facilitate comparison between different units and activities of an entity, the financial information must be recorded only once at the transaction level and aggregated in a consistent manner using standard definitions. A national government's IFMS may be correlated to a large, diversified business conglomerate. Their financial management needs have much in common: both must integrate information from a variety of operating entities.
C. NORMATIVE CENTRALIZATION, OPERATIONAL DECENTRALIZATION

17. In designing an IFMS, the goal is to set standards that allow financial information to be aggregated and compared across budget centers within the entity, not to directly control the operations of these centers. A standard general ledger for a central government, for example, provides for consistency across budget centers of an entity and establishes the framework for aggregation of data, but it does not dictate which accounts must be activated for a particular center. A numbered classification system is established by the standard general ledger. An agency might expand that system to meet its own needs by adding sub-accounts, but any expansion would need to roll up into an account provided for in the standard general ledger.

18. The standards may require that every agency establish a financial management system capable of tracking transactions by type of economic activity, program, projects, budget and cost classification, and budget center. Those standards would not dictate how the centers were defined, only that the financial information generated by these centers be recorded in conformity with the standard general ledger and classification scheme.

19. By defining standards centrally, information from all budget centers can be aggregated, integrated and compared. By delegating implementation of the standards to lower operational units, the financial system can be tailored to meet the specific needs of each. As an example, the Core Financial System Requirements of the U.S. Federal Government define four processes in the management of the core financial system: accounting classification structure management, standard general ledger, transaction control and archiving and purging. The box on the next page summarizes the most important standards each financial system must meet in the area of accounting classification and structure management. The implementation of these requirements is left to the agency, but the standards are set centrally.

D. MATCHING LEVELS OF AGGREGATION WITH DECISION-MAKING AUTHORITY

20. Different levels of decision-making require different levels of information aggregation. Operational units need much more detailed financial information than a central agency that might be responsible for compiling data from several operating units or agencies. In IFMS, the interfaces between the various units and agencies must be designed so that the correct level of aggregation is available at each managerial level.

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2 A budget center is the lowest level unit which has responsibility for executing a budget. An example would be a department or service center within a larger ministry. A budget center can include one or more operational units.
21. An example is the management of health service costs. Many governments run health clinics, especially in rural areas. At the ministry level, managers may want information on the cost of the vaccination program versus the amount spent to treat childhood diseases. Managers may want to compare total cost of each program on a regional basis to assure that a particular area is not neglected. At the regional level, managers will want to compare operating costs per clinic across subregions. They will want to access information on both a clinic and a program basis. Finally, managers of individual clinics will want detailed information on line item expenditures to assure that they do not exceed budgeted costs. They may also want to look at the cost of the various programs as they try to measure the clinic's effectiveness.

E. Unified Responsibility

22. The entity based foundation of IFMS implies that there are clear and unified lines of responsibility at each level and that financial reporting corresponds to those levels. The program manager who is provided budgetary resources to carry out program activities must also receive corresponding financial reports on the costs of those activities. He/she is responsible for managing the program and its costs. Unified responsibility also implies that there is a person or body

U.S. Key System Standards
Account Classification

The capacity to track activities by fund, program, organization (including subunits), project, revenue source and cost object.

- Consistent budget and accounting classifications that reflect agency's organizational structure and are in accord with U.S. Standard General Ledger.

- Developed fund structure that organizes activities by appropriation account, providing additional detail below appropriation level to support reports to U.S. Treasury and financial statement preparation.

- Program structure with sufficient detail for making budgetary or policy decisions either internally or by elected officials.

- Cost center or project structure that allows particular project or cost centers to be funded from multiple organizations, programs and funding sources.
responsible for the financial management function of an entity (i.e., for managing the financial system that produces the financial information required for management of the organization).

23. The concept of a chief financial officer (CFO) of an agency or entity is an important one. A CFO for a government agency or entity fulfills the same role as his or her counterpart in the private sector. Besides assuring that accounting records are kept accurately and financial statements are timely, the CFO provides agency management with advice and analysis to determine the cost-effectiveness of agency programs being executed or planned. He or she assures that the functions of budget, accounting and cash management work together on an entity basis to achieve the most cost-effective implementation of the entity's programs. Without a CFO at the entity level, the financial implications of programmatic decisions become divorced from the agency's decision-making process. The result is an inferior allocation of resources and probable duplication or gaps in information.

**LEGAL FRAMEWORK**

24. Unlike private companies, the internal workings of public sector entities are governed by laws passed by the legislature and promulgated and implemented by the executive branch. An IFMS requires a solid legal foundation that is not created piecemeal. To be most effective, the legal foundation for IFMS should be a Codified Law of Financial Management for the Public Sector that is passed and promulgated and sets the basic legal framework for the financial management of the public sector. The law establishes the framework for IFMS, assuring that any system developed meets constitutional requirements, identifies the standard-setting and oversight agency(s) and lays out the framework for the system, allowing specific regulations and guidelines to be developed by the normative agencies.

25. The legal framework should set forth the major components of an IFMS. At minimum these components are budgeting, accounting, cash management and debt management. Responsibility for internal and external audit should also be designated by reference to other legislation, or may be included in a single "Law of Financial Management and Audit." The oversight agencies and their respective responsibilities should be clearly delineated. The law should establish an Office of Auditor General, independent of the executive branch and headed by a professionally qualified auditor duly licensed to perform audits who has not been involved in partisan politics. The basic jurisdictions of the core components should be defined and the characteristics of their functions laid out. The entities that are subject to the provisions of the law should be indicated. Appendix 1 is a summary in English of Argentina's "Law of Financial Administration and Auditing Systems for the National Public Sector," Bolivia's "Law of

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3 Referred to in Spanish as an "Organic" law.
The degree of detail incorporated into the governing law has varied in Latin America. Bolivia's "Law of Government Management Control and Audit," passed in 1990, is an example where the law is relatively short and much of the actual working of IFMS is left to regulations, standards and manuals. Ecuador's "Organic Law of Financial Management and Audit of 1977" has more than 300 articles that lay out specifically not only the conceptual framework but many of the procedures to be followed. The shorter law places more emphasis on regulations and standards developed outside the political, legislative process. A detailed law establishes a more comprehensive and coordinated legal base for IFMS. The initial legal framework is usually drawn up at a time of increased interest and coordination among the various responsible offices. By fully developing IFMS and incorporating specifics into the legal framework, the integrity of the system is preserved over a longer period of time.

**KEY ELEMENTS OF THE LEGAL FRAMEWORK**

- Require a common classification system.
- Clear responsibility for accounting principles and policies incorporating, to extent possible, professional standards and internationally generally accepted accounting principles applicable to public sector.
- Definition of types of entities covered under law—i.e., law is inclusive of agencies, public sector enterprises, regulatory bodies, local governments (where federal resources are involved) and semi-public enterprises.
- Clear definition of central agency(s) involved in IFMS and roles—e.g., Ministry of Finance as core agency, with Offices of Budget, Accounting, Public Debt and Cash Management under Ministry of Finance.
- Specifies use of single database, onetime entry of data and unified cash account.
- Requires development of internal audit office by each operating entity.
- Specifies external audit office with full (operational and financial) independence from executive branch.
26. Whether the legal framework is detailed or conceptual, some level of regulations and procedures will be required once the legal framework is in place. The legal framework should provide for a method of circulating to affected parties draft regulations for comment. This is especially important when the underlying law does not contain much detail.

27. Steps can be taken toward establishing an IFMS without a comprehensive financial administration law. Brazil, Panama, Paraguay, Guatemala and Nicaragua are examples of countries that have implemented or are implementing aspects of IFMS without a complete legal framework. A comprehensive law, however, provides a more stable foundation and prevents conflicts between prior laws and the requirements of IFMS. Ecuador, Bolivia, Argentina and El Salvador presently have such laws. Nicaragua has a draft law yet to be passed.

**Political Will**

28. Political will of top political and government leaders is essential to the implementation of IFMS. Implementation can encounter strong resistance from those who are "comfortable" with the old methods. In some cases, the increased accountability and transparency associated with IFMS is unwelcome because it diminishes the power of certain individuals and groups. Transparency means that "bad news" is included in monthly or quarterly financial reports. Some governments prefer to suppress the "bad news," defending their actions by claiming that political opponents will capitalize on it. Changing the financial management system of a country requires a long, sustained effort and substantial resources. While the benefits are many, they are not as politically "visible" as building a hospital or opening a school.

29. An example of the effect of political will on IFMS is the SAFCO project in Bolivia. SAFCO was one of the pioneering projects in IFMS. At its outset it was strongly supported by top government officials and early progress was good through two different administrations. SAFCO was seen as a model for implementation of IFMS. But as early support waned because of changes in government and lack of interest, the project became less cohesive and stalled. An evaluation of SAFCO identified lack of support from leaders in the bureaucracy and political leadership as a key constraint to implementation and recommended that, unless the situation changed, the multimillion dollar financial improvement project be scrapped. Fortunately, the situation changed and the project is receiving more support.
30. Developing political will can be a tricky process, especially since the time frame for implementing IFMS usually extends across several administrations. One of the most basic techniques is to establish a dialogue regarding the benefits of improved financial management with all major political forces—not just those currently in power. This dialogue is not a onetime affair; it should be maintained over the course of the project.

31. A second way to increase political will is to build dialogue into the process. Even when the direction of the four major elements of IFMS are under one Ministry, there is still a need to provide for regularly scheduled meetings in which the top management of the affected units can discuss implementation problems and issues. Regular dialogue with users—both program managers who will use the information and financial staff who are directly affected by IFMS—should be held throughout the process.

32. The importance of coordination and communication between the various elements of IFMS cannot be overstated. Failure to achieve an acceptable level of both among the responsible offices for budget, accounting, cash management and public debt has been the most significant constraint to the development of IFMS in Latin America. In one country, turf battles and lack of communication and coordination within the units of the Ministry of Finance severely delayed and impaired an IFMS project.

33. Finally, to build and maintain political will at all levels, the new system must quickly show results—results that directly benefit individuals in their work. This can be difficult, because especially in the early stages of implementing a new financial system there may be much effort with little to show in terms of assisting line staffs to better manage their programs financially. Financial staff may find their workload temporarily increased as they learn the new systems. There is no substitute for leadership and vision in building and sustaining political will. In designing and implementing, designers should look for specific problems whose resolution will have a direct impact on the primary stakeholders. Where possible, without forfeiting the systematic implementation of IFMS, these problems should be targeted and resolved so that stakeholders can see a relatively immediate positive effect of the new system. To maintain political will, IFMS must early and consistently deliver benefits to major stakeholders in terms of helping them to achieve their organizational goals.

BENEFITS OF IFMS

34. The primary benefit of installing IFMS is improved quality of decision-making regarding the use of limited financial resources. The financial consequences of decisions become much more apparent. Financial information is more timely, reliable and relevant because it is entered once when the transaction takes place and is quickly available for various users. Integrated with budget estimates, accounting data is used to track progress of projects. Rolled into larger categories, the
financial information can be combined with similar information from other units to provide a financial snapshot of the agency as a whole. Information from various agencies can be combined to furnish government wide data for use at the highest levels. Sound cash management can improve cash flows and forecasts, reduce borrowing costs and/or increase investment income, assure that required funds are available when needed and facilitate payment of bills, improving the government's ability to negotiate with vendors. Public debt management improves. Money is not borrowed before it's needed for recurring expenditures; foreign exchange risks can be offset more completely and policymakers have a clearer picture of the government's liability.

**A Better Way**

A major difficulty faced by International Financing Institutions (IFIs) such as the World Bank, in assuring adequate accountability for grant or loan funds, has been a severe lack of financial management capacity in the public sector in many developing countries. An early response by IFIs was to create separate "project accounts," or units that handled the grant and loan funds. This "enclave" approach to accountability, though well intended, probably contributed as much to poor public sector financial management as any other factor, since it fosters "disintegrated financial management" and takes pressure off of governments and IFIs to foster long term, sustainable improvements in financial management. With the enclave approach, money and human resources are used to set up separate accounting, with no long term improvement in the ability of the public sector as a whole to manage its funds. Instead of institutionalizing improved financial management, the unit is disbanded at the end of the project. The staff, generally more highly compensated than their peers in the regular government, take their skills elsewhere in search of comparable pay.

A well functioning IFMS eliminates the need for this enclave approach to project financial management. While requiring longer term implementation, the benefits of IFMS are more permanent and far reaching--affecting government accountability throughout the public sector. Over the long term this is a much more cost-effective approach. Properly implemented, IFMS in an entity or a government relieves IFIs of the costs of setting up duplicative and separate accounting systems and improves public sector management over all funds, internal and international--a major development need and objective.
35. Timely and accurate financial information improves the confidence of the government's major creditors in its ability to pay bills on a timely basis. Creditors charge premiums for risk. Lack of reliable financial information increases the risk factor, adding to the cost of borrowing. When reliable information is available, creditor confidence rises—even in difficult financial times. When Mexico's peso crisis occurred in December 1994, Argentina, because of earlier reforms in implementing IFMS, was able to provide creditors with timely financial information to demonstrate that its financial condition was solid. The widely predicted devaluation was avoided. IFMS will not assure good fiscal and economic policy, but it can provide the information required to formulate that policy.

COMPONENTS OF IFMS

A. CORE COMPONENTS

36. The core components of IFMS are budgeting, accounting and cash and debt management. At minimum, these must be integrated. Each is to some degree dependent on the others. Budgeting lays out the financial plan to achieve the entity's goals and objectives. Cash management forecasts and supplies the financial resources needed at a particular time. Accounting records the execution of the financial plan. Public debt management arranges financing for budgeted longer term investment projects or operating deficits. Information provided by budget, cash management and accounting allows the debt function to arrange financing in a timely manner.

B. ANCILLARY COMPONENTS

37. The most common ancillary components of IFMS are asset management, procurement and personnel management. Each of these has financial consequences and can benefit by being integrated into the overall financial management system. Even without direct integration, these functions will benefit from improved, standardized financial information. Ecuador, for example, included human resource management and procurement in implementing IFMS. Argentina and Guatemala included procurement. Bolivia's SAFCO project stimulated a comprehensive modernization of the entire public sector. That experience is not
unusual—financial management reform often is a precursor to, and stimulates major public sector modernization efforts. Experience has shown that it is wise to put financial management reforms in place before attempting wider reforms.

38. It is important to be clear about the role of informatics in IFMS. Information technology makes possible much more sophisticated classification systems. It allows integration of more complex systems and the quick retrieval of information. Informatics is a means for implementing the integration of the various components, but in itself is not a component. To properly implement IFMS, this function must often be improved, but it does not substitute for a strenuous analysis of the current system and design of IFMS. The dramatic drop in the cost of data-processing, combined with great leaps in technology, places information based IFMS within the reach of even the smallest municipality. The development of "Intranet" technology makes information based IFMS feasible for even the least developed national governments.

**INTEGRATING STRUCTURES**

**A. Uniform Chart of Accounts**

39. Certain structures are common to IFMS and serve to integrate the components. One of the most important is a uniform Chart of Accounts in which budgeting and accounting classifications are compatible. To design a Chart of Accounts requires a clear vision of who the users of the information will be and what their needs will be. Users will include program managers working at an operational level, policymakers developing a country’s fiscal and economic policy, external investors (public and private) and members of the legislative branch in carrying out their oversight authority.

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4 "Intranet," in contrast to Internet, refers to recent movements in information technology to enhance sharing of information within corporations by developing bulletin boards, websites and other elements commonly found on the Internet, but restricting them to intracompany use.
40. Argentina's uniform Chart of Accounts classifies information by institution, stream of resources, cost category, program, economic classification, geographic location and type of money (national or foreign currency). Across categories it divides resources and expenses by object class, function, program category and source of financing.

B. SINGLE BANK ACCOUNT

41. A second element important to IFMS is a single, unified bank account. This account is established by the National Treasurer, generally at the Central Bank. Sub-accounts are opened under the name or number of the various government agencies and instrumentalities. These accounts channel disbursement payments. Government receipts are channeled to the single bank account by the central revenue collection administrations and public entities that produce revenue or charge for services. Quite often, the private banking sector is utilized for direct, decentralized tax deposits. Daily transfers should be made to the single bank account. The administration involved designates persons authorized to withdraw funds in accordance with policies and procedures established by the government. Through a single account, the cash management function can monitor activity in the sub-accounts and manage the overall finances of the government.

C. SINGLE DATABASE

42. Use of a single database is the third integrating element of IFMS. This database may be several relational databases that are linked electronically so that all data is shared. Data entry occurs at dispersed locations closer to where the transactions occur, but an open system architecture allows for information to be electronically compiled and processed from those individual points of entry. Dispersed processing can facilitate decentralization-a major current theme worldwide because it standardizes procedures, reports and systems allowing even remote locations to benefit from the sophistication built into IFMS. Uniform Chart of Accounts, budget classifications and information standards used throughout the government are essential to establish the "single" database. The technical term coming into use to describe this process is "data warehousing," which also encompasses data that is not quantified in financial terms.

D. COORDINATING GROUP

43. A coordinating group consisting of high level representatives from oversight and implementing agencies is crucial to implementing and sustaining IFMS. To work properly, IFMS must address the needs of the various agencies. A coordinating group helps assure that these needs are met in an integrated and coordinated manner. Essential during design and initial implementation, a coordinating group remains important throughout the process. In Bolivia, the coordinating group faded away as SAFCO lost its momentum—with serious impact on progress in further implementing IFMS.
EFFECTING CHANGE

A. IMPLEMENTING TEAM

44. The technical elements of designing and implementing an IFMS system are challenging, but the human factor has a major impact as well. Almost uniformly, the majority of the barriers cited by projects implementing IFMS are related to the human, not the technical, element. In the modernization of the budget process in Venezuela, four of the six barriers cited by the Central Budget Office (OCEPRE) relate to the human factor.

45. What this means for implementing IFMS is that a brilliant technical analysis of the shortcomings of the current system, or the best technology, will not result in successful implementation unless the human barriers to change are addressed.

46. Involving as many people as practical in the change process is one way to overcome built in resistance. When people feel they have a say in how the system evolves and that their concerns are addressed, they take more ownership of the process and are more willing to overlook the difficulties that invariably accompany implementation of a new system.

47. The choice of personnel to be responsible for designing and implementing the new system is a key decision. Not only their technical skills but also their human relations skills must be considered. Staff who are highly competent, from a technical point of view, but are perceived as arrogant, will fail because they will not be able to win the cooperation of line staff who must at some point accept the changes if the new system is to succeed. At the same time, staff implementing the changes must be clearly competent and knowledgeable in the field in order to win the confidence of those with whom they will work.

VENEZUELA
MODERNIZATION OF THE BUDGET PROCESS
BARRIERS TO CHANGE

1) Resistance to change
2) Failure of central agencies and various subsystems to cooperate
3) Lack of confidence in persons chosen to implement change
4) Lack of standardization among computer platforms in various organizations
5) Lack of understanding of basic accounting and budgeting concepts
6) Insufficient resources to accomplish change

Source: Presentation by Rodrigo Peraza of OCEPRE at 1996 Conference on New Developments in Government Financial Management
B. TRAINING

48. A second important element in successful implementation is a strong and continuous long term training component. Training in IFMS never ends. Many of the staff affected by the

NINE PRINCIPLES FOR THE DEVELOPMENT OF IFMS

1) Radical Change. IFMS represents a radical redesign in systems and procedures. Taking advantage of the latest technology, IFMS allows improvements in the quality, timeliness and relevancy of information for decision-making.

2) Support and Political Will. IFMS requires total support from the political structure as well as the various sectors and professional and civic organizations.

3) Long term Commitments. The political will and financial resources must be available consistently over several decades.

4) Leadership. To develop and institutionalize IFMS requires a charismatic, motivational leader with vision who can create a sense of excitement for change. In addition, technical leadership is required, with deep experience in the concepts and applications of IFMS and the experiences of various countries.

5) Break Down Barriers. A multidisciplinary team is required to eliminate programs that arise from the segregation and specialization of the agencies involved. At the highest level, a mechanism must exist to resolve conflicts or differences that cannot be resolved by the technical team.

6) Management Autonomy. IFMS provides information by which management can achieve greater operating autonomy and decision-making within established parameters and increases accountability to the Executive, which in turn must respond to the public and the legislative branch regarding the management of public resources.

7) Competent Personnel. It is important to recruit expert advisers who are versed in the financial systems of other countries in order to choose and adapt the best practices and avoid repeating errors. Local staff must be professionally prepared and appropriately knowledgeable and experienced to be able to operate the system.

8) Continuous Improvement and Training. Once implemented, IFMS must be constantly improved, including continuous training of staff.

9) Exchange of Ideas, Experiences and Tools. New ideas and experiences should be shared across borders, both regionally and internationally. This includes the sharing of software and other materials.

Source: Adopted from a presentation by Jim Wesberry during a 1995 seminar in Bolivia.
implementation of IFMS do not have a strong academic background in accounting, budget or cash management. They are familiar with the regulations that guide their work, but they do not know the underlying concepts of a modern financial management system. Even the lowest level staff members should have an understanding of the basic principles behind modern accounting and budgeting, such as their role in financial management, and an understanding of accrual accounting and program budgeting. Training should be timed so that the conceptual foundation occurs first, before the system is operational or before employees assume new duties in relation to it. Such training can help "sell" staff on the need for the new system. Practical training in how the system works should occur when staff can immediately apply it to their work. Continuous updating is necessary as technology changes and processes are modernized.

C. PARTICIPATION OF TOP MANAGEMENT

49. Creating a sense of cooperation among agencies affected by the new system requires a clear signal from the top management of each agency of the importance placed on the development and implementation of IFMS. While a coordinating group of top management from each agency is important, it is also important to develop mechanisms for encouraging dialogue and cooperation among staff members at lower levels whose work will affect their respective agencies. All staff members should have a basic understanding of all IFMS components, not simply the one involved with their particular work. Training must instill a sense of control consciousness, which in turn fosters sound internal managerial control.
III. BUDGETING

A. OVERALL REQUIREMENTS

50. Budgeting is a core element of an IFMS. Through the budget process, government plans for, implements and evaluates its policies. In carrying out these three functions, budgeting interacts with and depends on other elements of IFMS, particularly accounting but also cash management and public debt.

51. Although accounting may be at the heart of IFMS in that it plays a central role in recording and developing information, budgeting determines the kind of information needed and, working within the framework of generally accepted accounting principles, determines to a large extent the classification system of revenue and expenditure accounts. The classification system must provide information for decision-makers at both a macro and a micro level. As the financial plan for the execution and monitoring of government operations, the budget function must take into consideration the needs of decision-makers at all levels. This will include macro and micro operating data.

52. The budget also provides a primary internal managerial control over the expenditure of government funds. Budgetary control should not be interpreted as simply fulfilling the legal requirements of staying within budget. It should be more broadly defined to include a responsibility for effective and efficient use of government funds. With the broader definition of budgetary control comes a need to "assign" responsibility for implementing the budget. This assignment of responsibility should be reflected in the selection of the implementing units and how data from these units is aggregated into larger units.

53. Budgetary allocation of resources among competing sectors of activity follows from policy formulation, which is carried out through a country's political process and often involves the legislative and the executive branches of government. Traditionally, budget execution has emphasized the legal restrictions imposed. Modern budgeting systems look at performance indicators that often combine financial and physical outputs. Such indicators are indispensable to properly evaluate how well the budget has been executed.

54. Throughout IFMS is the basic premise that the establishment of norms and standards is centralized and execution is decentralized. Many traditional government financial systems centralize all aspects of budgeting, including formulation, execution and evaluation. This often results in a dislocation between what is supposed to happen, according to distant planners and what actually transpires at the operational level. This has an impact throughout the budget cycle. Budgets are not based on operational realities nor can operational managers be held accountable for results, since they did not participate in the planning. In terms of execution and evaluation,
when systems that are not integrated compile data far from where the actual transaction takes place, accounting information regarding budget implementation is generally untimely, or less reliable and relevant. Often, no evaluation of operating results takes place.

55. Certain overall elements should be taken into consideration when designing the budget component of IFMS:

- Establish clear operating procedures between the financial management sections of each implementing agency and the central budget office.

- Limit programmatic classifications to only what is absolutely necessary for decision-making. There is a trade-off between sufficient classifications to aid decision-making and too many distinctions which can lead to confusion.

- Limit and simplify account classifications. Too much detail can hide essential information and overload the system.

- Match budget authority with operating level.

- Distinguish between types of budgets--operating, investment and capital. Investment budgets should include the full investment cost as well as the cumulative costs incurred in prior years, the current allocation, the amount projected for the budget fiscal year and the estimated amount remaining for completion of the investment.

- Codify budget procedures in a manual distributed to all offices involved in the budget process. Avoid abrupt changes in such procedures from year to year to maintain stability and consistency. On a cyclical basis (e.g., every 5 years) procedures should be updated.

- With input from operating units, develop performance measurements that can be used to measure efficiency and effectiveness as well as progress toward the achievement of longer term physical targets. These indicators will be a mix of physical and financial indicators.

5 For multiyear projects with clear physical outputs, performance measurements that combine physical and financial information can be especially important to help keep a project on track and hold project implementors accountable. For example, certain physical milestones in construction can be linked with specific levels of expenditures. A simple example would be in road construction, where, excluding startup costs, the relationship between output and costs is relatively linear. In this case a five year road construction project expected to build 5000 miles of road for $500 million should be able to build 1,000 miles in one year at a cost of $100 million.
B. BUDGET FORMULATION

56. Budget formulation is the translation of government policies and programs into their financial implications. This financial plan becomes the yardstick against which performance can be measured. The budget formulation process lays the framework against which implementation of activities and programs delineated in the budget will be measured. The budget's usefulness as a means of implementing policy will be determined largely by the degree to which it accurately integrates government policy with operational realities.

57. In developing a budget focused on financial management, certain elements are important:

- Program categories should be true programs, not a type of expenditure such as transfers, public debt or financial assistance.
- Program categories should be limited and meaningful, not separated into a plethora of minor categories.
- Present multiyear data—prior, current and projected for the upcoming year. To do this, current data must be available on a timely basis.
- Tie the budget closely to the operational plans of the implementing unit. The budget should be a direct reflection of activities to be undertaken.
- User input is vital for developing a realistic budget that is supportive of operational plans and government policy.
- Include in the budget formulation process all units that require government resources. Develop separate budget instructions for each of the different types of organizations, central agencies, independent agencies, government owned businesses and regulated agencies.
- Reflect the source(s) of revenue as well as the type of expenditure.

C. BUDGET EXECUTION

58. One of the biggest problems in public sector financial management is a lack of current, relevant financial information at the operational level as operations are being carried out. The financial element of budget feedback is provided by the accounting system, which too often provides information that is untimely, unreliable and not relevant. When information is available, it often does not reach those making decisions at the operational level, nor is the financial information linked with other types of performance data to measure program progress.
59. It is important to design internal managerial controls over budget compliance taking into consideration the cost/benefit of controls and the capacity of the system to administer them. In some circumstances the cost of the controls outweighs the benefits. In this situation, the whole control system can break down because the controls have been set at unrealistic levels that may sound good in theory, but in practice paralyze execution or are meaningless. Failure to delegate approval authority to appropriate levels, for example, can result in persons approving transactions who have no basis by which to judge appropriateness. The result is lots of initials signifying approval but meaning little and delaying implementation.

60. Delegating approval authority does not mean giving up oversight. Exception reporting is one technique used to exercise oversight. With this technique, comparisons are made between actual and expected expenditures, or between current expenditures and those of a prior comparable period or some other preset standard. The variance is calculated between what is expected and what actually happened. Exceptions are noted for further inquiry. An exception to what is expected does not necessarily indicate there is a problem. It does mean that the area needs to be investigated further and the reason for the exception understood.

61. An example of a simple exception report for budget management is a report in which expenditures for the month of March might be compared with those from March of the prior year. In comparing actual to budgeted expenditures a variance is calculated. The variance can be expressed as an absolute amount, a percentage, or both. The percent of time remaining in the budgeted year is also calculated for comparison purposes. Table 1 shows a simple budget with variances calculated both as an absolute amount and as a percentage remaining. When a large difference exists between expected and actual expenditures, the manager with oversight authority should determine if there is a reasonable explanation.

62. Another analytical technique for maintaining oversight without specifically approving each transaction is to compare financial results between comparable operating units. If two health clinics are relatively the same size, for example, their costs should be comparable. If one clinic is spending 15-20% more on medicines than a similar clinic, that difference should be investigated. The explanation may be perfectly reasonable: perhaps it is in a section of the country
where malaria or another disease is much more common. It also could be that the clinic is spoiling more medications because of improper handling, perhaps because of a lack of adequate refrigeration facilities. This is a problem that should be addressed by upper level management. Finally, setting levels for individual transactions above which the approval of higher authority is required helps to maintain oversight without losing control in a blizzard of small transactions.

Some of the key elements in the financial management of budget implementation:

- Each operational unit that has authority to incur costs should receive a notification of the budget amounts appropriated for its operations, and periodic reports on the expenditure of funds.

- Guidelines for reprogramming budget line items should be clear. Reprogramming requiring higher level approval should be only for shifts between major line items (e.g., between personnel and non-personnel costs). At lower operating levels, internal to an agency, approval requirements may be more strict and stratified according to the unit’s level within the organization.

- Establish clear procedures for committing funds for goods and services, accruing expenses and making payments. These procedures should be designed to discourage, if not prevent, budget implementation practices that result in unrecorded outstanding

<table>
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<tr>
<th>Line Item</th>
<th>Annual Budget</th>
<th>Sept.</th>
<th>Year To-Date</th>
<th>Amount Remaining</th>
<th>Percent Remaining</th>
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</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>20,000</td>
<td>1,667</td>
<td>15,000</td>
<td>5,000</td>
<td>25%</td>
</tr>
<tr>
<td>Supplies</td>
<td>30,000</td>
<td>2,000</td>
<td>18,000</td>
<td>12,000</td>
<td>40%</td>
</tr>
<tr>
<td>Travel</td>
<td>6,000</td>
<td>1,000</td>
<td>5,000</td>
<td>1,000</td>
<td>17%</td>
</tr>
<tr>
<td>Seeds/Fertilizer</td>
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<td>25,000</td>
<td>49,000</td>
<td>1,000</td>
<td>2%</td>
</tr>
<tr>
<td>Other Costs</td>
<td>4,000</td>
<td>500</td>
<td>3,200</td>
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</tr>
<tr>
<td>Total</td>
<td>110,000</td>
<td>30,167</td>
<td>90,200</td>
<td>19,800</td>
<td>18%</td>
</tr>
</tbody>
</table>
liabilities (e.g. allowing unpaid bills to accumulate outside the accounting records because the budget authority does not exist or is pending approval). The practice of charging expenses to line items because the budget authority exists and not because those expenses truly belong to that particular program or line item, should be specifically prohibited. This is blatant misclassification, which leads to misinformation and, eventually, to poor budget formulation the following year.

- Establish clear procedures for distributing allotted budget authority on a quarterly or monthly basis. Distributions should be based on disbursement plans developed by operating units in cooperation with Cash management and fiscal policymakers.

D. BUDGET EVALUATION

63. Budget evaluation requires periodic reports on the results of operations that provide information on costs incurred and results achieved. This is very important in IFMS because, through the evaluation process, decision-makers at all levels can determine future actions. It is highly dependent on the timeliness and relevancy of the information produced by the accounting system. The effectiveness of budget evaluation depends on the design quality of the uniform Chart of Accounts and other classifiers.

- Budget evaluation should first occur on an operational level where adjustments can be made most rapidly. An IFMS must allow managers of the lowest budget unit to access data and generate reports pertinent to management of the budget under their control.

- Reports should be designed that provide feedback on the status of revenue and expenditures (primarily financial data) and the performance indicators as defined in the budget formulation stage.

64. One important method for evaluating the results of operations is the establishment of performance measurements that combine physical data with financial information. Performance measurements must be designed carefully because they can have a substantial impact on the decisions managers make. If the measure of the performance of the highway department is the cost per mile of new road paved, for example, there is a strong incentive for the manager to contract for construction at the
lowest possible price regardless of quality. Such a practice could result in higher costs for road maintenance in subsequent years. Consequently, performance measures for the highway department would have to include measurement of the level and cost of road maintenance.

65. Performance measurements have the potential to increase accountability provided they do not become empty exercises because the resources to achieve the planned level of performance are either not available or are not timely because of poor cash management. Program managers will become quickly cynical unless accountability is mutual. They agree to achieve certain results provided the resources are available. The emphasis on performance measurement should be to highlight and reward good performance. For line personnel to respond to performance measurements they must perceive them as fair and of benefit to them.
PERFORMANCE MEASUREMENTS

There is much talk today about performance measurements—especially combining financial data with other types of quantitative data to arrive at benchmarks and standards. In countries such as the United States, the private sector has employed such performance measurements for some time. In the public sector, countries such as New Zealand and Australia have led the way in designing performance measurements.

Designing performance measurements is difficult, especially in areas that are hard to quantify over the short term. Some of the issues that have been raised in regard to performance measurements:

1. It can be difficult to establish a cause-and-effect relationship between the government activity and the outcome. The outcome can be affected more by external forces than by government actions.

2. Performance measurements can be manipulated. Personnel and programs might focus on achieving good "marks" rather than achieving the long term objectives of the government program.

3. Initial costs to develop meaningful measurements can be steep.

4. Data-gathering requirements can be extensive for some performance measurements. Indicators for some activities, such as research, are difficult to design because of the long term or qualitative nature of the program.

5. Data on performance must be subjected to appropriate internal managerial controls and properly recorded/documented so as to be equally credible with financial data produced by the accounting system.

Governments that are just beginning to develop performance measurements must be realistic about the uncertainties and costs involved in developing indicators. Nonetheless, even imperfect performance indicators can help identify unexpected changes in output.
IV. ACCOUNTING

A. ROLE OF ACCOUNTING

66. Accounting is the primary provider of financial information linked to the operations of the government. It is the function in IFMS that records and integrates the results of the myriad financial transactions that occur in the daily operation of the public sector.

67. Accounting is the systematic gathering of financial transactions and the compiling and reporting of them in a meaningful and consistent way, so that decision-makers can rely on the financial information provided to measure progress toward goals, estimate resources required to accomplish objectives, and allocate resources among competing goals and objectives. Accounting is reactive in nature, but it provides decision-makers with the information required to be proactive in their decisions. The value of the information furnished by an accounting system is determined by its relevancy and timeliness.

68. To the uninitiated, accounting seems straightforward—cash in, cash out. In fact, accounting is a complex system that must be properly designed in order to function well. Many decisions must be made in determining how financial transactions are recorded in order to best reflect the financial performance of the entity. Governments operating strictly on a cash basis, for example, may ignore obligations to vendors for services and goods received but not yet paid for, thus creating an enormous "floating debt" outside the financial management system. Questions also arise in the treatment of costs that have a multiyear benefit. Charging the full cost against the budget in the first year overstates expenses in the first year and understates them in the second and third years. This may lead to decisions that appear in the short term to be good, but in the long term are much more costly.

69. Accounting information, if not timely, is generally irrelevant because the decisions that the accounting information should support have already been made. This can result in the loss of vast amounts of resources if poor decisions are made because of inadequate information. Increasingly in the information age, success, whether in the private or public sector, will be determined by the quality and immediate availability of information upon which to base decisions.

70. Untimely information also undermines accounting's role in safeguarding resources. Fraud is an ever present threat. In modern times, fraud perpetrators are using technology to steal large sums of money. Electronic transfers of cash can be made quickly across borders and into foreign, often secret, bank accounts. Unless an accounting system is producing relevant information about the resources of the public sector and how they are being spent, the chances increase that a thief will be able to steal larger sums of money or goods and be gone before the fraud is discovered. Information "black holes" created by untimely and poorly run accounting systems may even
encourage fraud because the perpetrators know that no one has the information required to catch them until it is too late, if at all.

71. Comparability and completeness of information are key factors in determining the quality of information provided by an accounting system. For information to be comparable between projects, entities and countries it must be recorded in a consistent manner from period to period. Thus, account classifications, for example, must not be changed arbitrarily or constantly from year to year.

72. Increasingly, countries are competing for international capital. The investment flows from the private sector to emerging markets dwarf monies invested by multilateral agencies. Strong public financial management systems will provide a competitive advantage for countries that install them. Their ability to provide timely information on public expenditures and investments reflects decisions that affect the economic well being and reduce the risk related to private investment in a particular country. Without a strong accounting system based on generally accepted accounting principles (GAAP) applicable to the public sector, information provided to investors will be neither timely, relevant, comparable or complete.

73. To answer these questions and others, the accounting profession has developed conceptual frameworks and internationally accepted accounting standards. Governments have been slow to adopt generally accepted accounting standards, believing them to be more relevant to the private sector. Some countries, such as the United States, have set up Government Accounting Standards Boards to develop generally accepted accounting standards for the public sector. Although the public sector does have some unique characteristics, many of the concepts and practices of the private sector are relevant to the public sector. The Public Sector Committee of the International Federation of Accountants has recently begun to develop appropriate international accounting standards for the public sector, based on those developed for the private sector by the International

**AN ACCELERATING, SHRINKING WORLD**

The world may be physically the same, but in every other way it is getting smaller and spinning faster. Advances in technology are decreasing distances and accelerating the rate at which organizations (including governments) have to respond to events. Techniques such as flexible manufacturing and just-in-time inventory represent some of the ways the private sector is responding to its accelerating, shrinking environment. Governments are not immune to these changes and must develop tools to deal with the modern era's accelerating pace and increasing calls for transparency and accountability. IFMS is such a tool because, when implemented properly, it speeds the transformation of data into information and allows wide access for decision-makers.
Accounting Standards Committee. It is now generally agreed that private and public sector accounting principles and standards should be as similar as possible.

B. PARAMETERS FOR DESIGNING AN ACCOUNTING SYSTEM

74. The key word in integrated financial management is "management." Decisions regarding the design of the accounting system should be oriented to providing the best information that will allow decision-makers to manage public resources under their control in the most effective and efficient manner.

75. Accounting is a system and as such, balance is an integral part. Too much detailed information is expensive to collect and hides important trends. On the other hand, insufficient detail can hide emerging problems that, if addressed early, can be corrected and the effects mitigated. The amount of detail required should be matched to the operating level. Line managers require significant detail so that they can spot problems as they emerge and take corrective action or report them to higher levels. Policymakers need to be able to spot trends and the general impact of policies.

76. Although detail is important to line managers, the sheer volume of transactions that run through an accounting system means that information regarding individual transactions must be collected and classified systematically. The Chart of Accounts, designed collaboratively with users and other components of IFMS, is a basic structure. It must include all categories of assets, liabilities, revenue and expenditures of the government, as well as government equity accounts. The segregation of revenue and expenditures into a separate classification for so-called budgetary accounting is antiquated and should be avoided. Written policies and procedures that accurately reflect current operations are equally important. There will be trade-offs between conflicting user needs in designing both.

77. A well designed Chart of Accounts provides a strong and logical structure for
classifying financial transactions and, at the same time, flexibility so that financial data can be viewed from a number of perspectives and can accommodate new types of financial transactions and needs that may not have been foreseen when it was designed. The chart must incorporate the diverse needs of the various agencies as well as handle data from the different levels of government. The revenue and expenditure sections of the chart must be compatible with budgetary classification. Thus, the development of these classifications must be a collaborative effort between budget and accounting officials.

78. Systems are constantly evolving—some elements becoming obsolete as new ones arise. The accounting system also will evolve, albeit at a considered pace. Mechanisms for reviewing the system, the degree to which it is producing relevant and timely information and new challenges that must be addressed, should be built in. This implies a constant need for training and retraining personnel.

79. Information and internal managerial controls are not free—they cost money. The collection of information and the level and type of internal control required should be balanced against its relevancy and its cost. If information is not relevant to decision-making it should not be collected. Controls should be at levels such that the person exercising the control has some knowledge of the transaction.

80. Instituting controls at the wrong level is a problem which is pervasive. One of the clearest examples is in the area of travel. Travel can be a major discretionary expense and should be controlled tightly. This does not mean, however, that several people should review and approve the trip. Certainly the immediate operations manager should approve the trip and there would be need to inform others for coordination purposes. In many organizations, several additional management layers also are involved in approval of the single event. Controls at these levels are more appropriately exercised through budgetary control and setting limits of authority which would require higher managerial approvals for extraordinary transactions or ones which exceed a certain cost.

81. Where costs are recorded is important to the timeliness of the information. Costs should be recorded at the closest operating unit to the level where they were incurred. Extension service costs for the Ministry of Agriculture, for example, should be recorded in the regional or sub-regional office where those costs are incurred. These operating units also should have a budget against which the costs can be charged. The budget should contain all costs that are under the control of the operating unit. This transfers responsibility for staying within the budget to the level at where costs are incurred.
C. CASH VERSUS ACCRUAL ACCOUNTING

82. One of the most fundamental decisions in designing an accounting system is the basis on which transactions will be recorded. Four basic methods are recognized by the International Federation of Accountants/Public Sector Committee: cash, modified cash, modified accrual and accrual. A cash basis accounting system records income and expenses when cash is received or spent. It has serious limitations because it does not adequately record liabilities, either to provide future services or in recognition of services or goods received for which the bill has not yet been paid. The benefit of cash basis accounting is that of simplicity, but in unusual circumstances or where there exists a strong parallel encumbrance system, cash basis accounting fails to adequately control the increasingly complex transactions of modern governments.

83. Cash basis accounting is sometimes modified to include accruals that will be received or are due in the period directly following the end of the fiscal period being reported. Bills that are expected to be paid in the month following the close of the fiscal year, for example, would be accrued as would receipts that were certain to be collected in the following month. Longer term receivables, or commitments that might be received or paid out several months into the next fiscal year, would not be reflected.

84. In full accrual accounting, the financial impact of a transaction is recorded in the period in which it occurs, regardless of whether cash has been paid out or received. This is simplest to understand in regard to the recording of expenses: the expense is recorded when the goods or services are actually received and used in operations. Full accrual accounting uses methods such as depreciation to allocate costs that are paid for in one period but which benefit several periods. A truck bought from funds in one fiscal year, for example, would benefit several future fiscal years.

85. In modified accrual accounting, most transactions are accrued in the period in which the benefit is received; others, especially revenue, are recorded on a cash basis. Generally, in modified accrual accounting in the public sector, expenses are accrued and income from taxes, fees and other sources is recorded when collected. The effect is to bring income in line with actual cash available to pay bills, while assuring that the recording of expenses cannot be manipulated by simply delaying until the bill is paid. This is a prudent approach recommended for the initial development of IFMS.

D. MANAGEMENT OF THE ACCOUNTING SYSTEM

86. Many different configurations are used in the management of accounting systems, but successful systems always incorporate the principle that normalization is centralized and execution is decentralized. Ideally, the accounting standards would be set by a standard setting body or
IFMS: A Guide to Implementation

The council comprised of high level professional accountants from the government, professional accounting organizations, prominent accounting firms and the Supreme Audit Institution (SAI). The council should be independent of the executive branch, whose responsibility it is to implement the budget. The responsibility for translating those standards into operating procedures should rest with the Accountant General’s Office of the Ministry of Finance (or its equivalent). Responsibility for compiling the data should be with the line agencies where information from lower operational levels would be compiled. Line agency information would be compiled by the Accountant’s General Office of the Ministry of Finance to prepare government wide financial reports.

E. FINANCIAL REPORTING

87. Financial reporting is one of the most important products of the accounting system. Unless financial information compiled by accounting is organized into meaningful reports and distributed to the appropriate people, accounting will have little effect on the overall management of the public sector. Financial reports both for external and internal purposes should be issued on a timely basis. A fully operational IFMS will facilitate the ability of operating unit/program managers to inquire electronically for information and to design reporting formats and content in accordance with their own needs, lessening their dependence on the distribution of pre-packaged, inflexible, paper based reports.

88. External reporting consists largely of three basic financial statements: Balance Sheet, Statement of Operations and Cash Flow Statement. Few countries are able to issue these on a timely basis, but they are especially important for current and potential outside investors. Argentina posts these reports quarterly on the Internet, allowing investors to review the results of the current budget year on a timely basis. Chile publishes, by March 31 of each year, an annual financial report along with comments, charts and explanatory notes. Access to such information can have an impact on the risk investors associate with a country and the interest rates at which they are willing to advance funds. It also increases the transparency of government operations for concerned citizens and nongovernmental organizations.

89. Internal reporting is varied depending on the needs of users. One of the most common reports compares actual with estimates of expenditures. These reports should be issued at the lowest level of budget authority and subsequently rolled up to the ministry level. Ideally, the reports would be available on-line and would allow users to select certain criteria. A regional manager, for example, should

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**PRUNING THE TREE**

Financial management reports, once established, can continue to be produced unthinkingly, even if they are obsolete. Periodically, required financial reports should be reviewed to assure that they still serve a useful purpose. In financial reporting quantity is not particularly useful because it often obscures rather than enlightens.
be able to access data by program (all units), individual operating units (subregional) or cost category. In each instance the user should be able to select the specific program(s), unit(s) or category(s) desired.

90. Other reports might be specific to a particular function. The cash management function, for example, would want on a daily basis to receive and disseminate a cash position report showing disbursements, receipts and balances. It would also want to have access to a cash requirements report showing the amounts and types of currency that will be required daily, short and medium term. The Office of Public Debt would need a daily report on the status of debt so that it might reconcile the report with its own more detailed records. All reports containing information expressed in financial terms (monetary units) should be based on or directly reconcilable with the data produced by the accounting system.

91. All of these reports are available in IFMS, on-line, drawing from a common database maintained by the accounting function. Cash management, public debt and budget all provide input into the database from their specific areas, eliminating any need for separate databases and the inconsistency in data and inefficiencies that invariably occur when a single database is not used.

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6 A Public Debt Office might normally maintain more detailed records on individual loans such as terms, due dates and interest. Information on loan balances and interest expense paid, for example, would be available from the accounting system. The Public Debt Office would reconcile its records to the accounting records. Any differences would be pursued until the more detailed records agreed with the accounting system.
V. CASH MANAGEMENT

92. IFMS is more than simply integrating the cash management function with other system components. For many countries, it is an entirely new way of viewing the purpose and place of cash management. Too often, cash management is seen as simply the disbursing office for the government, rather than as the government agency responsible for managing the flow of public sector resources in such a way as to minimize costs and maximize effectiveness. It is important that cash management policies support the overall fiscal policies of the government and the achievement of government goals and objectives as expressed in the budget and operational plans of the executing units.

93. To achieve this result, the cash management function must be proactive in consolidating the cash resources of the government and planning for required cash disbursements. It must work to assure that excess cash is either invested or used to pay down short term lines of credit. At the same time, creditors must be paid on a timely basis. If not, creditors will charge a premium price—if they do business with the public sector at all. With fewer vendors to choose from, quality can suffer and prices will rise.

94. One of the key elements of a good cash management system is a strong capacity for developing cash flow projections based on expected receipts and expenditures. This includes close cooperation with budget execution and an ability to collect cash resources timely and consolidate them quickly in the unified account.
A. MODERN APPROACHES TO THE MANAGEMENT OF CASH FLOWS

95. What does it mean to minimize costs? Everyone is familiar with the cost of borrowing money. People are less familiar with the cost of idle cash or the failure to match the timing of resources and expenditures. In modern cash management in the private sector, excess cash resources are invested in overnight accounts to maximize interest returns. Idle cash is opportunity foregone. Either too much has been borrowed or a potential to earn interest income has been lost. In either case there is a cost to the government.

96. While there is a cost to idle cash, there is an even greater cost to not having enough resources on hand to pay the government's bills in a timely fashion. These costs take several forms. First is the interest cost of borrowing funds to meet required payments. Even in cases where the government is allowed to borrow "free" from the Central Bank, there is still a cost to the government: funds lent to the government free of interest could have been invested elsewhere and earned income.
97. Borrowing money to fund temporary cash shortfalls requires at least a modicum of planning. In many instances such planning doesn’t take place, so bills simply go unpaid. Although these "loans" from vendors appear to be interest free, they actually carry high costs. Qualified, business-oriented vendors either stop doing business with the government, charge a premium by increasing prices to cover the cost of capital tied up in receivables with the government, or provide a lower level of service.

98. In today's modern state the government's cash must be carefully managed, not simply secured. It is no longer sufficient to have an office that is simply a payer of bills. Cash is an asset that both costs the public sector and can serve as a generator of funds. Cash resources of a country must be managed in such a way as to minimize net borrowing costs, maximize interest income and at the same time assure that the functions of government have the cash resources required. To accomplish this, cash management must be closely integrated with the other components of IFMS. It must be proactive in its approach, rather than passively waiting for a properly certified payment voucher to arrive.

99. The economic life of the modern state is divided into fiscal years, but the lifeblood of the state—its cash resources—flows on a continuous basis. The cash management function must manage that flow.

100. The cycle begins with budget preparation when resource inflows and outgoes are mapped out. Depending on the accounting basis, the budget may be either cash or accrual. Regardless of the basis, the cash management function must prepare cash flow projections based on the approved budget.

101. These projections need to be built from the bottom up—based on input received from the line agencies as to the timing of the cash resources needed to execute the approved programs at their approved levels. Arbitrarily dividing the annual budget into equal tranches, be they monthly or quarterly, can result in some functions of government being cash starved at critical points in their service year and others having an excess of spending authority for the particular period.

102. One example is agriculture—a seasonal activity with more expenses incurred in the planting and harvesting seasons than at other times. Agriculture extension work would normally follow that seasonal pattern. Since activity levels and resource needs tend to travel in tandem, if the agriculture budget is divided into equal tranches some period of the budget cycle will be cash starved while others will have excess resources—resources that may not be spent as wisely as they would otherwise be because of a need to "spend the budget."

103. Cash management personnel should work with the various state entities in developing cash projections to avoid a front loading of cash requirements in the early portion of the year. This can
be facilitated by allowing agencies to make quarterly (or more frequent) adjustments to their proposed cash flow so long as the total does not exceed the amount approved by the legislature.

104. One element of cash management that is central to the cash management function of IFMS is the concept of a single government bank account. A single account, with several sub-accounts, allows the cash resources of the government to be managed as a whole. When a single account is used, sub-accounts are opened for various line agencies or projects, depending on needs. In deciding whether a sub-account should be opened, the costs of managing a sub-account are weighed against the benefits of segregating expenditures by a particular agency/project. Using a single account means that cash will not lie idle in one agency's account while another agency cannot pay its bills. It also eliminates the transaction costs of transferring cash resources from the central account to other government entities.

105. The payment system is an important aspect of the cash management function and will vary from country to country, depending on the degree of sophistication of the financial sector. Worldwide, the percentage of transactions done in cash continues to decline as checks and electronic mechanisms for moving funds become more common. While this trend is most significant in industrialized countries, the cash management function should be designed to take maximum advantage of new payment alternatives that lower transaction costs and improve management.

106. Certain key elements should be incorporated in a cash management program:

- Establish written procedures for certifying payments and transferring payment requests to cash management.
- Develop written, government wide payment priorities that are adhered to in processing payments.
- Update cash flow projections continuously and distinguish between foreign and local currency needs.
- Develop payment schedules that allow agencies to track payment of their requests.
- Establish standards for the time required to process particular types of transactions.
- Establish standards and procedures to assure that government obligations are paid when due.
- Seek to lower transaction costs by using electronic payment mechanisms when possible.
Match the terms of resources with the types of expenditures (long term investments are funded out of long term debt, for example and operating expenses out of current revenue).

B. COLLECTIONS

107. Government's ability to borrow and sometimes even "print" money can lead to a casual attitude toward the collection of revenue due. Although government borrowing is sometimes necessary, it is not a substitute for good cash management, including efficient cash collections.

108. How cash collection is handled depends on the conditions in the country, but the underlying philosophy in IFMS is to move funds as quickly as possible to incorporate them into the single account. One avenue for cash collection is to use the commercial bank network to collect funds. Designated banks serve as collection points for the periodic deposit of taxes and other revenue due from the public to the government. Collections are transferred via the central clearing function from the bank's account to the government.

109. Another option is to use the postal system, which in many countries is controlled by the government, to pay and receive funds. This is especially relevant in more remote areas where the post office may be one of the few permanent offices with a direct relationship to the central government. A third option is to use separate offices for paying and receiving funds. This can be an expensive alternative and usually does not have the same reach as does the postal service.

110. Other techniques are continually being devised. Public enterprises in some countries, such as Panama, use supermarkets as collection points. As security and infrastructure issues are resolved, modern technology will provide a wide range of options for collecting and transferring monetary resources.

C. INTEGRATION WITH OTHER ELEMENTS OF IFMS

111. Unless cash management is closely linked with the other elements of IFMS, managing government revenue and payments is like driving a car, blindfolded. Progress is either very slow or you promptly wreck the car.

112. The budget function provides cash management with the master plan for spending during the year. In close cooperation with the cash management function, it determines budget quotas for government agencies and operating units. It is the starting point from which cash management begins to develop cash flow projections for the fiscal year—projections that will be continuously updated and revised as the year unfolds. Developing cash flow projections cannot be done in isolation from the operating units of the government. Nor should it be done arbitrarily, by simply dividing the expenses into equal tranches. Instead, the cash projection should be based on input
MANAGING CASH FLOW

The cash resources available to an operating agency are directly tied to the spending authority and how it is divided over the year. Spending authorizations are a balance between available income (usually projected based on historic collections), short term borrowing authority and program needs. Most countries predict revenue based on collections from past years and from previous months in the fiscal year. Some countries, such as Argentina, authorize the Treasury to incur short term debt, with certain restrictions, to help match cash resources and requirements. All short term debt must be repaid by the end of the budget year. Peru has a permanent, high level coordinating group composed of the Vice Minister of Finance, the Vice Minister of the Economy, the Director of Budget, the Managing Directors of the Central Bank and the National Bank and representatives from Treasury and Public Debt. This body meets on a monthly basis to set policies for payment priorities.

Regardless of the process, once the budget has been approved by the appropriate political body, then program management needs should be a primary determinant in deciding quarterly or monthly budget allotments and authority to disburse funds. Often there is a lack of coordination between the budget allotment and the spending authority with the result that although duly budgeted, expenditures cannot be made because of a lack of liquidity. In some countries, cash management uses budget allotments and/or spending authority to hold back agency spending until closer to the end of the year. At year end only a certain percentage of total funds have been expended, defeating the entire purpose of the budget process. The result is late payments to vendors (which increase prices paid by the government for goods and services) and a rush of spending at the end of the fiscal year. Cash management personnel are not close enough to the program to be able to manage it via the control of spending authority. Attempting to do so absolves the line agencies from a responsibility to produce results, since cash management didn’t provide the resources approved and required at an appropriate time. An integrated and coordinated approach between budget and cash management results in the improved use of limited available resources.

from the various agencies as to the expected timing of their cash needs. Actual experience from the past fiscal year provides an initial basis for the projections, but is not sufficient by itself.
113. Accounting provides constant feedback to the cash management function in terms of the expenditures that have been paid and what remains to be paid. It also provides information on collected revenue—allowing cash management to adjust its cash flow projections based on actual activities. It is important that this information be timely so that the cash management function has time to adjust cash flow projections. In systems that operate on some type of an encumbrance basis, accounting can provide real-time reports on commitments and accrued costs by due date—providing a basis for developing a preview of probable cash disbursements.

114. The relationship between public debt and cash management is so close that in some countries they are combined into the same office. Public debt provides resources to cash management and makes demands in terms of loan servicing. Debt policy and cash management

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must be closely coordinated. A tenet of financial management is that the source of resources should be matched with the types of expenditures. This cannot always be accomplished with the public sector. Incurring long term debt to meet operating expenses is not tenable in the long term: sooner or later the bill must be paid. Likewise, funding long term projects with short term funds can be very risky. If the debt cannot be rolled over, the project can still be under construction—not contributing to the economic health of the country—while placing demands on economic resources.

**NEW YORK CITY**

New York City was one of the most visible examples of what happens when short term borrowing is used to finance operating expenses. In the 1970s, one of the largest cities in the world and an international finance center had borrowed so extensively to cover operating costs that it could not repay its short term lenders. The crisis reverberated throughout New York State, which had guaranteed many of the loans, and the rest of the country.
VI. PUBLIC DEBT

A. OVERVIEW

115. The importance of debt management became painfully clear during the 1980s, when countries throughout the developing world experienced financial crises because of heavy debt burdens. Some countries did not know how much they owed or to whom. The Venezuelan Comptroller General, for example, was forced to obtain balances due from creditors. He proved that the external debt was one-third more than what had been reported by the Finance Ministry. This was compounded by the increasingly complex nature of debt financing—multiple currencies, variable interest rates, syndicated debt, restructuring on top of restructuring, and debt swaps, which demanded increasingly skilled staff and analytical tools to effectively manage even a small country’s debt. Low salaries and high turnover among skilled staff created a shortfall in the human resources needed to manage the debt.

116. As a result of the debt crisis, international agencies placed more emphasis on helping creditor nations improve their public debt management. A leader in this area is the United Nations Conference on Trade and Development (UNCTAD), which developed a capacity to deliver technical assistance and a software program for the management of public sector debt. This software has been installed worldwide, including most Central American countries, Argentina, Bolivia, Egypt, Pakistan and the Philippines. Most countries in Latin America are either using the system or plan to.

117. Debt management may be one of the smaller functions of IFMS in terms of the number of transactions it generates, but it is very important to the overall management of the public sector. Debt is a costly input. In conjunction with cash management, budget and accounting, properly managed debt can yield big dividends in government savings on interest.
It is difficult to speak of debt in isolation from other IFMS components. Debt often provides the budget resources necessary to carry out capital investment programs. At the same time, loans must be paid back and foreign currency (in the case of external loans) must be available. The planning and budgeting process takes into account the overall debt burden of a country's need for debt servicing and retirement and the impact of additional borrowings on the strength of the economy and the country's ability to repay the loan. The cash management function must know when funds from the planned new debt will be available. Similarly, public debt generates payment requests—often large payments—that must be carefully planned in advance so as to be honored punctually. Accounting records the transactions that reduce or increase debt, produces reports tied to actual receipts and disbursements, and provides consolidated figures on debt liabilities.

B. ORGANIZATIONAL STRUCTURE

The two basic functions of debt management are a macro policy-setting function that interfaces closely with the macroeconomic management of a country's economy and an operational function concerned with the negotiation and management of specific loans. This operational function has the closest interaction with the other IFMS components. Within this function, there are three distinct units. One deals with debt negotiation and structure. This unit needs to be conversant with trends in financial products and global interest rate movement. The other two units—a debt-servicing function and a registry function—are much more intimately involved with the central budgeting, accounting and cash management functions.

A key issue is where the debt office will be located. Circumstances vary among countries so there is no definitive answer. Because the staff of the Central Bank in many countries is more highly trained and paid than those in the general public service, some countries opt for the Central Bank to manage the public debt. In recent years there has been a movement to make the Central Bank more exclusively responsible for management of a country's currency and more independent of the rest of government. When this occurs, management of the public debt generally gravitates to the Ministry of Finance or its equivalent. In Argentina, the debt office is located in the Ministry of Finance along with the other offices involved in IFMS—budget, accounting and cash management. In Chile, public debt is managed by the Central Bank. In Bolivia, it is shared between the Finance Ministry and the Central Bank. Coordination with the elements of IFMS should be easier when they are all under one jurisdiction, but in countries where trained human resources are scarce or the remuneration system discourages qualified candidates, the Central Bank can have a concentration of expertise not found elsewhere.

C. LEGAL FRAMEWORK

As with other components of IFMS, a strong legal framework is required in order for the debt office to operate effectively. That framework should specify under what conditions debt can
be incurred and by whom. Many countries forbid the use of debt to finance recurrent costs. Given the fungible nature of money, this does not result in as clear a limitation as it may appear but nonetheless sets a good standard. Another important element in the legal framework is a clear definition of the role of the office of public debt in relationship to other agencies, especially with regard to the ability to initiate debt, use debt funds and report debt information. It is not always easy for the Office of Public Debt to get other agencies to cooperate in reporting debt. The ability of the debt office to manage a country’s debt depends on getting accurate and timely information from many governmental units and state-owned enterprises when they incur debt backed by the government. The debt office needs to have sufficient legal authority to be able to gather information from other government agencies and state-owned enterprises.

D. Political Will

122. As with all aspects of IFMS, political support at high government levels is important for a successful debt management operation. Policymakers need to understand the importance of good debt management. Most political decision-makers do not have a background in finance, yet they need to understand the results of weak debt management as expressed in higher interest costs and the impact on the macroeconomic management of a country’s economy. Developing political will involves good but simple communication and analysis with oversight bodies on the cost-benefit of investing in debt management.

E. Operations

123. Public debt continuously interfaces with the three other elements of IFMS. The incurrence of debt, especially medium and long term debt, is programmed into the annual budget through the budgeting process. The budget serves as a blueprint for debt incurrence over the next year. Similarly, debt repayment must be programmed into the overall budget, since public resources will be required to satisfy the debt. An important part of budget formulation involves obtaining complete information from the Office of Public Debt on debt-service requirements for the year being budgeted. During the operational year, before initializing any payment order for debt servicing, the Office of Public Debt should recheck payments with budget—assuring that the payment required was in fact foreseen and planned for. The debt service

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**FOREIGN DEBT AND ASSISTANCE**

The importance of integration in a IFMS is illustrated in the treatment of proceeds from foreign debt and donations. Recipient agencies, sometimes supported by donors, want to exclude these funds from a single unified account. Agencies are concerned that funds will not flow back to the project through the normal budget allocation process on a timely basis. Control of the funds can be seen as a source of political power. Mechanisms for handling these types of receipts and disbursements must be part of the design of IFMS. If officials are expected to give up control of the funds, they must be assured that the budget and cash management systems will provide the resources required on a timely basis.
must be paid, but by checking against the planned budget, any mistakes, discrepancies or possible frauds would be highlighted.

124. The cash management function is the paying office for debt servicing and often the recipient of loaned funds. Timeliness is important in debt servicing to avoid penalties associated with late payments. The Office of Public Debt must initiate a payment request with sufficient lead time to assure that the request is properly approved (generally by the budget office signaling that budget authority does exist) and that cash management has adequate time to assure itself that sufficient cash resources are on hand to service the loan.
VII. INFORMATION SYSTEM

A. OVERVIEW

125. What ties all components together in IFMS is the underlying information system. The system cannot be designed apart from individual analysis of each of the components. At the same time, the information system supersedes any single component. Many people mistake computer systems for information systems. In the modern era, computerization is certainly a significant component of information systems—often the mechanism, or platform, on which the system is implemented, but not the system itself.

126. The successful implementation of a computerized IFMS depends on several elements:

1. Quality of the assessment and the design.
2. Suitability of the hardware and software platforms chosen.
3. Skill of implementors in dealing with end-users.
4. Degree of coordination.
5. Degree to which the system is reinvented.

B. QUALITY OF THE ASSESSMENT AND THE DESIGN

127. Most systems have been assessed to death. In doing an assessment it is not unusual to find several dusty evaluations or manuals that have already been done and a long line of consultants who have come before. Before undertaking even a prefeasibility study, a coordinating committee of high level government officials should be formed. Unless there is political will for a long term (10-15 year) commitment, the resources required for an effective assessment will be wasted. If the political will exists to go forward, a team of individuals from each of the components to be affected (e.g., budgeting, accounting, cash management and public debt) should be appointed to conduct an initial assessment of the strengths and weaknesses of the existing system. A person skilled in management information systems should be included. The composition of this team is critical, since it will become one of the chief linkages between the old and new systems. The team should be knowledgeable regarding the old system, but open and eager for change.
128. If possible the core team should visit other sites that have been successful or are in the process of implementing IFMS. Among these are Argentina, Bolivia, Brazil, Mexico, Nicaragua and Panama. Outside Latin America, notable efforts are occurring in several U.S. states, the United Kingdom, Sweden, Australia and New Zealand. Once the core team has completed its prefeasibility assessment and has documented its findings, a more in-depth analysis can be done.

129. To conduct the more in-depth analysis, the core team should be assisted by a team of outside experts in each of the areas. The experience of the core team in the functioning of financial management in their agencies is very important to the overall quality of the assessment. At the same time, outside experts can provide their experience with different systems. A combination of these two perspectives is the most effective.

130. Choosing outside experts is difficult. The credentials of either the firm or the individuals should be thoroughly checked. The experts should be chosen and then the timing of the assessment established, rather than the reverse. The schedules of many outside experts who are highly regarded and effective are often full. Technical expertise is an important element in choosing an outside expert. Equally important is the person's ability to communicate and listen. It is also important that experts have, if possible, experience in working with several systems in different countries. Otherwise, they may tend to favor a single approach--the one they know--whether or not it is appropriate for the country they are working in.

131. The assessment should identify not only the strengths and weakness of the current system but the types of information that will be required in the new system and the flow of information among the various components and the existing computer environment. By their very nature, systems are interdependent. The more complex the system, the greater the need to understand and map these interdependencies.

132. Items that should be addressed in assessing the computer environment are the hardware and software being utilized and the capacity and cost-benefit to upgrade, the skill level of available staff and their training potential, the functionality of the current system, the reliability of power sources and telecommunications (especially if computing power is to be distributed) and the availability of vendors to provide ongoing support. Software should include the primary program and peripheral programs such as spreadsheets and wordprocessors that might be used in conjunction with the main application.

133. A high quality design is built on a solid assessment. Holes in the assessment result in design weaknesses. One critical component in the design of the computer system is input from end-users. This includes not only the line agencies but also users in the core IFMS departments.

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7 Mexico's systems are in the ministries, not government-wide.
By soliciting input during the design period, the team can build support for final implementation because of increased ownership on the part of the finance staff.

C. SUSTAINABILITY OF THE SOFTWARE AND HARDWARE PLATFORMS

134. The software and hardware platforms chosen should be sustainable within the country and, if possible, build on systems already in place. This does not mean that an obsolete software or hardware platform should be continued. Rather, the difficulty of migrating the main or ancillary programs to the new platform should be considered. Technology moves quickly, making hardware and software platforms obsolete, but backward compatibility must be considered in designing the system.

PROBLEMS FREQUENTLY ENCOUNTERED WITH COMPUTER SOLUTIONS

- Informatics is not the appropriate solution for the problem
- The solution adopted is either obsolete or too advanced for specialists in the country to support
- Lack of high level support for changes in organization and procedures to support the new system
- No single person in charge of implementing the system
- "Reinventing the wheel" instead of looking at existing systems that have been successfully implemented and might serve the need with only slight modifications.
- Inadequate follow-up and follow-through by implementing agencies


135. The ability of hardware and software producers to continue to invest in research and development and keep their product lines up to date with changes in technology is important. In developing their products, companies may incorporate new technologies and provide more powerful programs, but they do so with an eye toward backward compatibility so as not to lose their customer base. Mainstream hardware companies use more consistent supplies of components, reducing or eliminating the sometimes elusive hardware "conflicts" between components that should be compatible, but are not under all circumstances.

136. Portability of the system is important for IFMS, especially in countries that have many entities of varying size and locale. Ideally, data entry would be as close to the originating operating unit as is practical.
D. **SKILL OF IMPLEMENTORS IN DEALING WITH END-USERS**

137. The technical skills of the computer system designers and implementors are very important, but without the cooperation and assistance of end-users, a successful system is difficult to obtain. The important role the end-users play in designing and implementing a new system is well documented. Mechanisms such as user workgroups for obtaining end-user input are used. Computer and system analysts must be highly skilled technically as well as possess strong interpersonal skills in order to effectively interact with end-users, some of whom will be defensive about changes to "their" system. The computer analysts must speak the "language" of the end-users.

E. **DEGREE OF COORDINATION**

138. Coordination among the various components of an IFMS are important for all aspects of designing and implementing a system, from the design of the Chart of Accounts to developing policies and procedures for each area. This coordination is particularly important when dealing with setting up the computerized portion of IFMS.

F. **REINVENTING THE SYSTEM**

139. There are characteristics and needs unique to any financial management system, whether for a government, a public sector entity or a business. Within categories of organizations, such as government accounting, however, there are many similarities. Systems exist that have been developed for specific countries, such as Argentina and Mexico, have been tested and refined, and can be adapted to fit the needs of governments. Commercial software also exists. Agresso was chosen by the National Audit Office of Sweden as a standard package suggested for use by the government's various agencies, with technical support from the National Audit Office. Before developing a custom program, which can be very expensive, the adaptation of available software should be considered.

G. **IMPLEMENTATION**

140. Implementing IFMS is a long term prospect. Depending on the availability of off-the-shelf software, programming and installation of a computer system can require from 6-8 months to customize an off-the-shelf package, to 18 to 24 months if programming is done from scratch. Packages from scratch are more likely to contain unexpected glitches which can delay implementation or require a technology which was not foreseen at the beginning. Sometimes these delays can be extreme. The more tailored a particular program is to the circumstances of one country, the more difficult it will be to "transplant" the system to another environment. Applications that are written for more general use, with customization available, can be a cost-effective solution.
H. THREE SYSTEMS TO CONSIDER

1. Argentina

141. SIDIF (Sistema Integrado de Información Financiera) was developed in Argentina beginning in 1992. The core system is installed in the Ministry of Finance under which the four primary functions of IFMS fall: budget, accounting, cash management and public debt. Argentina uses the UNCTAD DMFAS 5.0 software to manage its debt portfolio, but all receipts and payments flow through the IFMS. Local SIDIF installed in other ministries can transfer data electronically to the central system—preserving the principle of the single entry of data. SIDIF is highly tailored to the particular legal requirements and operating environment in Argentina. It also has been selected for installation in Nicaragua.

142. Operating in a UNIX environment, the system uses both Novell/DOS and Windows NT operating systems. Oracle is its database. The primary modules are budget, accounting, cash management and public debt. The system is modular. At the central level each module is the responsibility of a specific subministry, with the information residing in a common database and managed by an information administrator. At the local level these modules are combined into one system under the responsibility of the particular agency.

143. The system currently consists of a core of four local area networks operating in the offices of Public Debt, Budget, General Accounting and Treasury. Together, the four networks have a total of 295 PCs that serve as workstations. Another 275 workstations are connected to the system outside the core functions. The installed base consists of 386 and 486 machines. The main server is a U6000/85, 8 Pentium chip machine with 35 gigabytes of hard-disk space and 768 MB of RAM.

2. Mexico

144. SIAF (Sistema Integral de Administración Financiera) originally was developed for use in Mexico. Programmed in a fourth-generation language, it uses the

**Hints for Implementing IFMS**

**The Bolivian Experience**

- Use appropriate technologies
- Integrate via the design of the system
- Define standards for facts and procedures
- Recognize that the successful functioning of IFMS is an exercise in human relations
- Adapt to the needs of the user
- Design simple and practical subsystems
- Know the resources available
- Step back periodically to review the work
- Give users on-line access to data
- Use a modular design
- Assure compatibility of information across functions
relational database Oracle and a client/server architecture. It has seven primary modules—planning, budget management, cash management, payments, accounting, audit and personnel. It can be operated as independent units, centralized, or use a distributed database. The various functions are integrated via a network with a single database controlled at the central level, supported by distributed databases for each of the executing agencies to which subordinate offices are connected. Data is entered at various workstations (PCs) and the data is transferred directly to the centrally controlled database. Different levels of physical and logical security assure that

**ITEMS TO CONSIDER WHEN SELECTING SOFTWARE**

- Ease of customization. Systems that have been constructed for a single purpose may be difficult to customize. True, off-the-shelf software targeted at a wider audience may be easier to tailor to a particular situation.

- Effect on current investment in software and hardware. Many countries have made significant investments in particular hardware and software platforms. Compatibility with the current system, especially whether data can be migrated over to the new format may be a key consideration.

- Use of latest technology that has been sufficiently tested. Being on the "cutting edge" can be precarious, but obsolescence is a constant threat in computer technology.

- Capacity for both centralized and distributed processing.

- Degree of limitations built into the system. This includes number of digits for numbers, account classifications, number of concurrent users and access to comparative data.

- Ease of data consolidation from distributed systems. Local systems should provide operating ministries with required data on operations, while allowing for rapid and seamless consolidation with the government-wide system.

- Full integration of modules.

- Security features to prevent unauthorized changes in programming code and unauthorized access to data.

- Ease of data recovery.

- Ability to interface with popular spreadsheets and wordprocessing packages.
only authorized users have access to individual modules, thereby helping to assure data integrity. The current system is not based on a client/server architecture but can be modified to do so. DINAMO, a second program in Mexico, has many similarities to SIAF but is a Windows-based program with a graphical interface. Based on an expert methodology, it can be easily customized through the definition of parameters. DINAMO is available in Oracle, INFORMIX, SYBASE and INGRESS. It can run in UNIX, NOVELL, Windows NT and other common operating systems.

145. SIAF was developed by a private firm under contract with the Government of Mexico and is currently installed in the Ministry of Finance and Public Debt. Work to expand the system to other ministries has stalled as a result of the "peso" crisis. As of 1996, other agencies cannot communicate electronically with SIAF and must rely on physical documents.

3. Agresso

146. Agresso is a software package developed originally for the private sector by a Norwegian firm using the latest, fourth-generation technology. It is a complete system, with all the modules fully integrated, including budget, accounts payable and the general ledger. Information is available on a timely basis, increasing its relevance. Agresso interfaces easily with other packages such as Excel and Word.

147. Agresso is a multilingual, multicurrency package that can be readily customized. It is available in English, French, Spanish, German, Portuguese, Dutch, Norwegian and Swedish. Integration between the modules is seamless. It has a powerful query function. One unusual function is the ability, with the click of the mouse, to see the underlying general ledger detail behind reports displayed on the screen. Its reporting function is very strong.

148. Developed as a high-end multiuser system, it has a current installed base of more than 1,000 licenses, 30% of which are central and local governments. It has systems installed in public sector agencies in Estonia, Norway, Sweden, Mozambique and the United Kingdom. Its installed base ranges from a single user to 1200 users. It is available in Oracle V 777.1, Sybase v10, Informix, Ingres 6.4, Watcom v4, MS-SQL and server v6.0. It uses a Windows interface (3.1x, 95 or NT) and it can operate under most common operating systems including Windows NT, Unix, Novell and Dynix.

149. Many other private sector packages have been adopted by government agencies or enterprises (e.g. Sun Systems, SAP of Germany and Tec Apro of Costa Rica), but not yet by a national government.
THE SWEDISH EXPERIENCE

Under Sweden's "management for results," each agency annual report must contain five financial reports: a balance sheet, an income statement, an appropriation report, a statement of changes in financial position and a performance report. The annual report is a key link in providing feedback to Parliament regarding the implementation of objectives and priorities it set. The financial accounting system underlying the financial reports is similar to that found in most private companies. The internal accounting structure, or the "object" plan, must be organized in such a way as to segregate costs in a meaningful way. A typical structure would classify costs according to organizational department, sector, function, activity, project and product.

The old mainframe accounting system was unable to provide information in a timely or sufficient manner to meet the more stringent financial management standards imposed by Parliament. As a result, in 1990 the National Audit Office, which audits government agencies and provides technical assistance in financial management, was charged with developing a local system that could be implemented by the agencies.

In determining the requirements, the National Audit Office worked with representatives from various agencies, each with different needs. The group organized the requirements into three areas—technical, functional and vendor. The technical requirements specified were: (1) that a relational database structure be used for easy access to data; (2) use of SQL language to assure standard tools to access information from the system; and (3) the system had to be UNIX but compatible with the old mainframe system (which would continue to be used to consolidate data). Other requirements were user friendliness, a standard system that could be used in a variety of situations including commercial entities (thus providing a larger base to the vendor to spread maintenance and development costs), a high level of functionality, and adaptability to different agency needs.

The system selected by the National Audit Office was Agresso, a software package developed by a Norwegian firm using the latest, fourth-generation technology. It is a complete system, with all the modules fully integrated, including budget, accounts payable and the general ledger. Information is available on a timely basis, increasing its relevance. Agresso interfaces easily with other packages such as Excel and Word.
VIII. INTERNAL CONTROL AND AUDIT

A. A MODERN VIEW

150. Internal audit and control is an integral part of IFMS and of the overall operations of the entity. Internal control provides the glue that holds the system together and offers reasonable assurance that operations are functioning in the manner management intended, that financial information generated by the system is materially correct and that applicable rules and regulations have been complied with. Properly applied, internal controls are tools of management, intricately woven into the fabric of an agency, and help management to execute its responsibilities effectively and efficiently manner. The concept of internal control has been confused in Latin America because of the frequent use of the term "control" to mean "audit." Often it is wise to use the phrase "internal managerial control" to emphasize that it is a responsibility of internal management.

151. Internal audit reviews the efficiency of operations, suggests improvements and reviews compliance with existing internal controls. In both internal control and audit, the focus is on working with management and staff to improve operations. It is a supportive, not adversarial, relationship. Only if fraud is suspected does internal audit take on a potentially adversarial posture vis a vis suspected staff members.

152. This view of internal control is relatively recent, appearing first in private sector entities, as competitive pressures, increasingly complex organizations and advances in technology demanded and made possible more efficient and effective operations. Systems theory, on which IFMS is based, points to a "process" view of internal control that is inherent in the operations of an agency—not a control mechanism that is tacked on as an extra burden. Internal controls are not an end in themselves but come under the same kind of cost/benefit scrutiny that any other aspect of an entity's operations would be subject to.

153. Governments face pressures similar to those of the private sector for improvements in operations. Citizens are demanding more accountability and transparency in government activities. National governments compete for capital in an international market where wary investors look for evidence of fiscal responsibility and sound management. Poor controls undermine the confidence of citizens and investors. Unnecessary or unproductive controls drive up the cost of government activities, raising cost/benefit concerns. False controls, those which really serve no purpose, may actually do damage because they foster an unrealistic sense of security.

154. Viewing internal control as a tool of management has an impact on the organization and work of the internal audit function within IFMS and the public sphere. First, enforcement of
internal controls becomes the responsibility of all personnel, not only the internal auditors. Second, internal audit, while separate from operational management, becomes responsible to the highest executive authority within the agency. Third, the emphasis shifts in internal audit from periodic reviews of compliance to a continuous review of operational systems and their inbuilt controls for effectiveness, efficiency and compliance. Controls that do not contribute to all three aspects of internal control are revised or eliminated. Fourth, the skills of audit staff must go beyond accounting and auditing to incorporate an understanding of some of the skills involved in the

**COSO**

The Committee of Sponsoring Organizations of the Treadway Commission (COSO), composed of the leading associations of the accounting profession in the United States, undertook a study of internal control with the objective of developing a common understanding and framework of internal control among all parties in the U.S. assisting management in developing better controls over an enterprise. Similar studies were conducted by the Criteria of Control Committee (CoCo) in Canada and the Cadbury Commission in the United Kingdom. Many of the findings are applicable to public sector entities worldwide.

According to COSO, internal control is "broadly defined as a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories:

- Effectiveness and efficiency of operations
- Reliability of financial reporting
- Compliance with applicable laws and regulations
- Safeguarding of resources and assets"

Internal controls "enable management to deal with rapidly changing economic and competitive environments, shifting customer demands and priorities and restructuring for future growth. Internal controls promote efficiency, reduce risk of asset loss and help ensure the reliability of financial statements and compliance with laws and regulations." The World Bank currently is using self-assessment techniques based on COSO framework to review and strengthen its system of internal controls.

operations of the agency and an ability to solicit and gain the cooperation and support of operational personnel who possess those skills and are most likely to encounter and understand
material weaknesses in the control structure. Finally, audit procedures must look beyond particular transactions for evidence of compliance, to a review of the control environment including the ethical standards and overall levels of staff competency and an assessment of the risks facing the organization.

### COSO FRAMEWORK FOR INTERNAL CONTROL

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Environment</strong></td>
<td>Overall ethical standards of conduct as demonstrated by leadership within the agency and the government as a whole. Emphasis on competency of personnel and clear and realistic organizational structures and responsibilities. Management support of internal controls as an integral part of agency's work.</td>
</tr>
<tr>
<td><strong>Risk Assessment</strong></td>
<td>The clarity of the objectives of the agency and the degree to which the external and internal risks to obtaining those objectives have been assessed and addressed. With the rapid changes that are occurring in technology, the ability of the organization to identify the impact and manage change is a key risk area.</td>
</tr>
<tr>
<td><strong>Control Activities</strong></td>
<td>Key areas of control activities include top level reviews, operational management reviews, controls on data-processing to assure accuracy, completeness and proper authorization, physical controls, performance indicators and segregation of duties.</td>
</tr>
<tr>
<td><strong>Information and Communication</strong></td>
<td>Information is the lifeblood of modern organizations and make controlling the organization possible. Clear communications lines that transmit responsibilities, expectations and results are imperative for a strong system of internal control. Communications flow must be multilateral and both external and internal.</td>
</tr>
<tr>
<td><strong>Monitoring</strong></td>
<td>Monitoring involves both ongoing activities and specific evaluations. It is the responsibility of all staff. Internal auditors evaluate effectiveness of control systems.</td>
</tr>
</tbody>
</table>
ECUADOR

KEY CHARACTERISTICS OF INTERNAL AUDIT UNDER 1977 LAW

- Internal audit integrated within operating unit.
- Pre-control is the responsibility of executing agencies.
- Each entity or agency establishes its own internal audit unit in coordination with Office of Comptroller General. Once hired, internal auditors can be fired only with prior review by Comptroller General.
- Technical standards for internal audit are issued by Comptroller General. The basic standards are those generally accepted auditing standards that Comptroller General determines to be appropriate to the public sector.
- Comptroller General publishes general auditing manual, which serves as basis for requirements, techniques, methods and procedures to be applied in government audits.
- Internal control includes plan of organization that establishes appropriate segregation of duties; methods and procedures of authorization and recording that facilitate control over resources; sound practices for carrying out duties; assignment of trained, competent and qualified personnel, and an internal audit unit.
- Systems of internal control, including internal audit, examined and evaluated by Comptroller General in performing its external audit function.
- Internal audit performed as service to management. Work plan is presented to Comptroller General to coordinate work between offices.
- Functions and activities of internal auditors completely segregated from activities and operations subject to their examination.
- Internal audit prepares a specific manual that is approved by Comptroller General.
- Internal auditors communicate findings to agency management and to Comptroller General when necessary.
B. RELATIONSHIP WITH EXTERNAL AUDIT

155. Very important to the effectiveness and efficiency of internal audit is the degree to which its relationship to external audit is clear and independent. Internal audit is a tool used by top management to assure that the management controls instituted to help the organization achieve its goals are functioning as intended. Internal audit is independent of operational management and reports directly to the agency's highest authority--either a governing board or the agency head. External audit is independent and separate from an organization's management, even top management. In the public sector, it is part of the legislature's oversight of executive branch agencies. The SAI, as the external auditor of the government, must be totally independent of the executive branch.

156. The SAI usually sets the auditing standards by which internal auditors must operate. It evaluates the work of the internal audit function through quality control reviews. It cannot have responsibility for hiring and firing internal auditors or directly controlling their work and still maintain its independence. When it does, the relationship between the two becomes muddied: the internal audit function becomes a weak form of external audit, and top management no longer has the tool of internal audit by which to improve operations. The SAI cannot perform adequate quality reviews of the work of these auditors because it is, in essence, reviewing the work of its own staff. In short, lack of separation between the two types of auditing results in neither performing at an optimum level. This is true regardless of where the auditors are physically located.

157. Although their roles are different, they are complementary. Internal audit should submit its annual work plans to the SAI for review--this is not be confused with approval. Reviewing the work plan of the internal audit units allows the SAI to bring to the attention of the internal audit unit any potential duplicative work and to adjust its own schedule if it decides to rely on the audit work. The internal audit unit should only make adjustments in its own schedule if it thinks it appropriate. To be effective the internal audit unit should be independent operationally from external audit.

158. Without a strong internal audit function, the SAI can become a large, costly and unwieldy operation. Without the monitoring provided by internal audit, problems are likely to increase. At the same time, the SAI cannot rely as much on the work of the internal audit unit and must do more direct auditing instead of quality reviews. Additionally, external auditors may have less knowledge of an agency's operation and must spend more time acquiring that knowledge in order to audit.

C. PRE-CONTROL

159. Another important issue in designing the internal control system is dealing with pre-control; internal control procedures performed before undertaking an operation or transaction that help
assure only proper transactions are allowed. As a holdover from the days of the now outdated Courts of Accounts, many countries in Latin America had systems of pre-control that involved parties external to either the organization or the executing unit. Because the persons approving the transactions were external to the organization or unit, they often had little knowledge of the activities involved or were not accountable for results. In worst cases, external pre-control increased opportunities for corruption. Effectiveness and efficiency were sacrificed without necessarily achieving any increase in the quality of the internal control. In fact, corrupt practices were facilitated. In recent years there has been a strong movement away from external pre-control, requiring instead that agencies set up adequate internal pre-control systems that can be audited for effectiveness by either the internal audit staff or external auditors.

D. COMPUTER FRAUD

160. Fraud is a constant threat to any financial system, but the computerization of these systems has opened new opportunities for high-tech theft and new challenges for internal control and audit. In the United States, computer fraud is the fastest growing area of fraud. According to an assessment by the U.S. Department of Defense, only 1% of computer fraud is detected. The U.S. Federal Bureau of Investigation has estimated the figure at about 2%. The average discovered computer fraud in the U.S. is estimated at $550,000, with half of those under $20,000; 25% over $100,000; and 5% over $1.0 million.8 These figures paint an alarming picture. With widespread access to data-processing facilities through client/server configurations and powerful microcomputers, computer fraud becomes a very real threat to the integrity and security of IFMS.

161. The proper design, implementation and monitoring of electronic data-processing (EDP) controls requires an internal audit staff well trained in EDP. Ideally, such staff would be a part of each internal audit unit in all larger government agencies. It can be argued that the cost of developing and maintaining qualified personnel in this area might require a specialized unit that would service more than one agency. This, however, should be done only as a stop-gap measure.

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The increased use of computer technology will require that every internal audit unit have the capacity to perform EDP audits and that all auditors have strong computer skills.

162. Controls on the EDP environment involve issues of authorized access, segregation of duties, preservation of data integrity during input and afterwards, system development controls including additions and changes and controls over program and data libraries. In addition, employees with access to computer data must be conscious of the risks involved. Fraud often has been perpetrated because staff were careless in sharing passwords or circumventing other access controls. Unauthorized modifications to computer programs also have been made by fraud perpetrators to divert funds to accounts they control.

163. In this age of electronic transfers of cash resources, large amounts of money can be rapidly transferred with limited physical evidence. Without timely information and strong controls, fraud may go undetected for extended periods of time--sufficient to do considerable damage or give the perpetrator the time necessary to coverup entirely the theft. Computer-related fraud may well be one of the greatest challenges facing IFMS in the near future.
Select Bibliography


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Venezuela, Ministerio de Hacienda, Modernizacion del Proceso Presupuestario en Venezuela, Oficina Central de Presupues, April 1996.


APPENDIX

Summary of Laws from Bolivia, Argentina and Ecuador
## Three Approaches to a Legal Framework for IFMS

Bolivia, Argentina and Ecuador

<table>
<thead>
<tr>
<th>Description</th>
<th>Bolivia</th>
<th>Argentina</th>
<th>Ecuador</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of detail specified in law.</td>
<td>Low—Details of organization of central agencies and role in IFMS left to regulations and subsequent manuals.</td>
<td>Medium—Some details included but most of organization of central agencies and role in IFMS left to regulation and subsequent manuals.</td>
<td>High—Law contains many details regarding organization of central agencies and role in implementing IFMS.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Functions included in law.</th>
<th>Bolivia</th>
<th>Argentina</th>
<th>Ecuador</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Budget</td>
<td></td>
<td>- Budget</td>
<td></td>
</tr>
<tr>
<td>- Accounting</td>
<td></td>
<td>- Accounting</td>
<td></td>
</tr>
<tr>
<td>- Cash management</td>
<td></td>
<td>- Cash management</td>
<td></td>
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<tr>
<td>- Public debt</td>
<td></td>
<td>- Public debt</td>
<td></td>
</tr>
<tr>
<td>- Internal control</td>
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<td>- Internal control</td>
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<tr>
<td>- External control</td>
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<td>- External control</td>
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<tr>
<td>- Operations programming</td>
<td></td>
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<td></td>
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<tr>
<td>- Personnel management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Acquisitions and supply management</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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1 Full text of laws in English is available from LATPS Division of the World Bank or Institute for Democratic Strategies, 909 Duke Street, Alexandria VA 22314, 703-739-4224 (t); 703-739-4232 (fax).
<table>
<thead>
<tr>
<th>Description</th>
<th>Bolivia</th>
<th>Argentina</th>
<th>Ecuador</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Setting Ministry</strong></td>
<td>Ministry of Finance</td>
<td>Oversight ministry to be designated by Executive Branch</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>Budget</td>
<td>Ministry of Finance</td>
<td>Ministry of Finance</td>
<td>Office of the Comptroller General</td>
</tr>
<tr>
<td>Annual operating &amp; capital</td>
<td>Ministry of Planning &amp; Coordination</td>
<td>Ministry of Finance</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>Medium &amp; long term</td>
<td>Ministry of Finance</td>
<td>Ministry of Finance</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>Accounting</td>
<td>Ministry of Finance</td>
<td>National Controller's Office</td>
<td>Office of the Comptroller General</td>
</tr>
<tr>
<td>Cash management</td>
<td>Ministry of Finance</td>
<td>National Audit Office</td>
<td>Office of the Comptroller General</td>
</tr>
<tr>
<td>Public debt</td>
<td>Ministry of Finance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Control</td>
<td>Office of the Comptroller General</td>
<td></td>
<td></td>
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<tr>
<td>External Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Agency with Operational Authority</strong></td>
<td>Ministry of Finance</td>
<td>To be designated by Executive Branch</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>Budget</td>
<td>Ministry of Finance</td>
<td></td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>Annual operating &amp; capital</td>
<td>Ministry of Planning &amp; Coordination</td>
<td></td>
<td>Ministry of Finance</td>
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<td>Medium &amp; long term</td>
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<td>Accounting</td>
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<tr>
<td>Cash management</td>
<td>Ministry of Finance</td>
<td></td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>Public debt</td>
<td>Ministry of Finance</td>
<td></td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>Internal Control</td>
<td>Each government entity</td>
<td></td>
<td>National Controller</td>
</tr>
<tr>
<td>External Control</td>
<td>Office of the Comptroller General</td>
<td></td>
<td>Office of the Comptroller General</td>
</tr>
<tr>
<td><strong>Standard setting and implementation</strong></td>
<td>Standard centralized in governing entity and implementation is decentralized.</td>
<td>Standards centralized in governing entity and implementation is decentralized.</td>
<td>Standards centralized in governing entity and implementation is decentralized.</td>
</tr>
<tr>
<td>Description</td>
<td>Bolivia</td>
<td>Argentina</td>
<td>Ecuador</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Highlights of budget system</td>
<td>Number of articles related to budgeting - 1.</td>
<td>Number of articles related to budgeting - 45.</td>
<td>Number of articles related to budgeting - 76.</td>
</tr>
<tr>
<td></td>
<td>General precepts only.</td>
<td>Revenue budgets list category and source</td>
<td>Budgets are management tools</td>
</tr>
<tr>
<td></td>
<td>Transfer of resources from capital to operations prohibited.</td>
<td>Expenditures related to sources of financing</td>
<td>Requires timely presentation of information which compares budget to actual.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multi-year projects require past expenditures, current year projections and future investment required.</td>
<td>Gives Minister of Finance authority to modify, substitute or postpone execution of programs when budget evaluation demonstrate that such actions are required. Can alter levels in budget within 10% of amounts approved.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lists duties of Budget Office—among which are promulgation of guidelines, preparation of law, approval of spending plans in conjunction with National Treasury Office, and evaluation of budget implementation</td>
<td>No financial resource excluded from budget.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Revenue recognized on cash basis</td>
<td>Assigns responsibility for budget execution to the chief of the financial unit of each entity in coordination with administrative head of entity.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expenditures committed but not accrued charged to next fiscal year.</td>
<td>Exempts Comptroller General’s Office from regular budgetary process and defines that budget cannot be reduced without consent of Comptroller General.</td>
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<tr>
<td>Description</td>
<td>Bolivia</td>
<td>Argentina</td>
<td>Ecuador</td>
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<tr>
<td>Highlights of accounting system</td>
<td>Number of articles related to accounting - one</td>
<td>Number of articles related to accounting - 10.</td>
<td>Number of articles related to accounting - 32.</td>
</tr>
<tr>
<td></td>
<td>Accounting system integrates all budget, financing and equity transaction in a single, timely and reliable system.</td>
<td>System records all transactions and produces information relevant for decision-making.</td>
<td>Single, timely system comprising all transactions, which produces information for decision-making.</td>
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<td></td>
<td>Sole source of data expressed in monetary terms.</td>
<td>System capable of integrating any information generated and processed which concerns public sector.</td>
<td>Generate monthly financial reports for internal management.</td>
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<td>Requires generally accepted accounting principles.</td>
<td>Requires generally accepted accounting principles.</td>
<td>Produce reports which permit entities to perform own budget evaluations.</td>
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<td>Integ...</td>
<td>Integrates into a single and uniform common database all transactions related to public sector.</td>
<td>Each entity shall establish accounting unit.</td>
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<td>Integrates budget, treasury, asset and liability information for each entity and in turn for the national accounts.</td>
<td>Integrates budget, treasury, asset and liability information for each entity and in turn for the national accounts.</td>
<td>Accounting personnel must meet standards of professional quality and ethics.</td>
</tr>
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<td></td>
<td>Describes reports and information to be reported on each year, e.g. budget execution, movement of cash balances, financial statements.</td>
<td>Describes reports and information to be reported on each year, e.g. budget execution, movement of cash balances, financial statements.</td>
<td>Monthly financial reports submitted by entities to Comptroller General by 15th of month.</td>
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<td>Comptroller General establishes format and content of financial statements to be prepared.</td>
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<td>Description</td>
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<tr>
<td>Highlights of cash management system.</td>
<td>Number of articles related to cash management - 1 article which also includes public debt.</td>
<td>Number of articles related to cash management - 12</td>
<td>Number of articles related to cash management - 47</td>
</tr>
<tr>
<td></td>
<td>Treasury and public debt shall manage revenues, financing and public credit and schedule obligations, liabilities and payments to execute expenditure budget.</td>
<td>Treasury participates in formulation of monetary policy.</td>
<td>No special accounts can be created.</td>
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<td>Receipts centralized and distributed to jurisdictional Treasuries for payment of expenses.</td>
<td>Distribution of government resources centralized in MOF.</td>
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<td>Management of liquidity of public sector--can incur short-term debt.</td>
<td>National cash plan to be built on cash plans submitted by operating entities.</td>
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<td>Provides opinion on temporary investments</td>
<td>Checks not cashed within 3 months of issuance will not be honored.</td>
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<td>Single cash account or unified fund system</td>
<td>Single cash account maintained at Central Bank. In jurisdictions with no Central Bank office, National Development Bank office shall serve as official depository.</td>
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<td>Revolving funds can be established.</td>
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<tr>
<td>Public Debt</td>
<td>Number of articles related to public debt - 1 article which also includes cash management.</td>
<td>Number of articles related to public debt - 14. Requires opinion from Central Bank prior to contracting any debt which would increase foreign public debt. Short-term Treasury debt not considered part of public debt (see above). Debt classified as domestic or foreign, direct or indirect. No national public sector entity may initiate procedures for borrowing without approval from Central Administration. Budget law should indicate type of debt, maximum amount authorized, minimum repayment terms and use of proceeds. Executive branch can restructure debt provided terms are better. Borrowing by Central Bank exempted.</td>
<td>Number of articles related to public debt - 33. Opinion from Monetary Board part of process for obtaining approval for incurrence of debt. Contracts for debt must be recorded in the Central Bank and the MOF. Debt classified as external and internal. Approval of MOF required prior to incurring external debt. Details approval process for borrowing. Loans cannot provide resources for recurring expenditures. Processing of issuance of internal debt responsibility of MOF. Contains detailed process for issuance of internal public debt. MOF negotiates bonds issued by government.</td>
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<tr>
<td>Highlights of internal control and control.</td>
<td>Number of articles related to internal control and audit - 4</td>
<td>Number of articles related to internal control and audit - 19.</td>
<td>Number of articles related to internal control and audit - 48.</td>
</tr>
<tr>
<td>Pre-control prohibited by those responsible for internal audit or those external to the executing unit.</td>
<td>Establishes Office of National Controller which sets standards for internal control and audit, approves workplans of internal audit units in each entity. Also provides guidance and supervision of their implementation and results.</td>
<td>Internal audit performed by specialized unit within entity. Share workplan with Office of Comptroller (external audit) and coordinate efforts. (Office of Comptroller does not have approval authority.) Office of Comptroller sets standards for internal control and audit.</td>
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<td>Internal audit performed by specialized unit of the entity and report to highest governing body of entity.</td>
<td>Office of National Controller provides advice on internal controls and audits.</td>
<td>Internal audit reports directed as to authority appointing chief internal auditor.</td>
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<td>Office of Comptroller General sets internal audit standards and evaluates performance.</td>
<td></td>
<td>No internal audit staff member can be transferred, salary reduced or dismissed except for just cause and presentation to the Comptroller General.</td>
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<tr>
<td>Highlights of external audit</td>
<td>Number of articles related to external audit - 7.</td>
<td>Number of articles related to external audit - 11.</td>
<td>Number of articles related to external audit - 49.</td>
</tr>
<tr>
<td></td>
<td>Office of Comptroller General prepares budget and it is incorporated unchanged by MOF into the budget submission.</td>
<td>General Audit Office subject to oversight of Joint Congressional Committee for Account Review composed of 6 Senators and 6 Representatives.</td>
<td>Audits conducted in accordance with generally accepted auditing standards.</td>
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<td></td>
<td>Has access to audit programs and work papers of internal audit units and independent firms working with the public sector.</td>
<td>Joint Congressional Committee approves annual work plan of Office of Comptroller General and reviews budget.</td>
<td>Office of Comptroller General must be totally independent—staff may not perform audits of entities where they served as employee within last five years.</td>
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<td></td>
<td>Office of Comptroller General can examine at any time records of government entities.</td>
<td>Exercises post-control over budgetary, economic, financial, net worth and legal management and performance of national administration, decentralized agencies, public enterprises, public utility regulatory agencies, private sector contractors and the Municipality of Buenos Aires.</td>
<td>Draft audit made available to auditee for comments.</td>
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<td></td>
<td>All functions not consistent with role as Supreme Audit Agency must be transferred to other entity.</td>
<td>Quality reviews of work of internal audit staff.</td>
<td>Concedes authority to petitioning entities to utilize funds of different line item when required for urgent reasons.</td>
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</tbody>
</table>