



***Managing The Cost
Of Government***

***Building An Effective
Financial Management
Structure***

Comptroller General of the United States

TABLE OF CONTENTS

	Page
I. EXECUTIVE SUMMARY	
<i>The conceptual framework</i>	2
<i>The benefits</i>	4
<i>Organization of the report</i>	5
II. HISTORICAL PERSPECTIVE OF FINANCIAL MANAGEMENT	6
III. CURRENT ENVIRONMENT	
<i>Present process and responsibilities</i>	10
Problems	11
<i>Poor quality of financial management information</i>	11
<i>Poor linkages between the phases of the financial management process</i>	13
<i>Inadequate attention paid to monitoring and comparing budgeted activity with actual results</i>	13
<i>Primary emphasis on fund control</i>	13
<i>Inadequate disclosure of assets, costs, and liabilities</i>	13
<i>Antiquated and fragmented financial management systems</i>	14
IV. CONCEPTUAL FRAMEWORK	
Underlying concepts	15
<i>Use a structured planning and programming process for evaluating and choosing alternatives for achieving desired objectives</i>	15
<i>Make resource allocation decisions within a unified budget</i>	15
<i>Budget and account on the same basis</i>	16
<i>Use accounting principles which match the delivery of services with the cost of the services</i>	16
<i>Encourage financial accountability</i>	17
<i>Measure outputs as well as inputs</i>	18
<i>Prepare consolidated reports</i>	18
Scope of financial management	19
<i>The management cycle</i>	19
<i>The financial management function</i>	20
Establishing a financial foundation	24
<i>Users and their concerns</i>	24
<i>General objectives of financial information</i>	25
<i>Qualitative objectives of financial information</i>	26
<i>Concepts for developing, summarizing, and reporting financial information</i>	27
Cash basis	27
Obligation basis	28
Accrual basis	29
Conclusion	29

V. PROPOSED FINANCIAL PROCESS	
<i>Budget execution and accounting</i>	31
<i>Cost control</i>	31
Program reporting	32
Organization reporting	35
Project reporting	37
Other management reports	39
<i>Fund control</i>	39
Appropriation monitoring	40
Financial statements	41
<i>Cash control</i>	41
Payables monitoring	42
<i>Collection control</i>	43
<i>Conclusion</i>	44
<i>Budgeting</i>	44
<i>Preparation of an accrual-based budget</i>	46
<i>Resources available for application to cost</i>	48
<i>Simplifying and streamlining the federal budget process</i>	49
<i>Conclusion</i>	49
<i>Planning and programming</i>	50
<i>Planning and programming</i>	50
<i>Conclusion</i>	51
<i>Audit and evaluation</i>	52
<i>Financial audits—ensuring integrity and credibility</i>	52
<i>Evaluation</i>	52
<i>Conclusion</i>	54
VI. AUTOMATED SYSTEM CONCEPTS	
<i>Essential features</i>	55
<i>Interface provisions</i>	57
<i>Data bases</i>	58
<i>Reporting capabilities</i>	58
<i>Transaction coding</i>	59
<i>Agency-based systems</i>	60
<i>Organizational implications</i>	61
VII. IMPLEMENTATION STRATEGY	63

Executive Summary¹

Government policymakers and managers are facing formidable financial management challenges in today's complex economic, political, and social environment. Demands to fund current programs as well as to provide for new investment in national defense and capital improvements require accurate financial information for making sound resource allocation decisions. However, it has become apparent that the current federal financial management process does not adequately provide reliable, consistent information for policy formulation and management control. Although a number of problems with the current process have been well documented, those listed below dramatically demonstrate the need for improvements.

- *Poor Quality of Financial Management Information*—Today's financial reports provide a flood of information. All too often, the financial data in those reports are inconsistent, incomplete, unreliable, and untimely.
- *Poor Linkages Between the Phases of the Financial Management Process*—The budgeting phase of the financial management cycle is a formalized and stand-alone process. In effect, the budgeting phase quite often ignores decisions or "crowds out" activities of the other phases. The pervasiveness of the budgeting phase, in part, can be attributed to its lack of integration with the execution and accounting phase. As a result of this crowding out and lack of integration, the products or results of the other phases are not being used effectively.
- *Inadequate Attention Paid to Monitoring and Comparing Budgeted Activity with Actual Results*—Because budget formulation and execution systems are not fully integrated, the budget's usefulness as a management tool is considerably reduced. It is difficult to compare the budget authority granted by the Congress with actual results when data are not compatible. In addition, programming and budget decisions are frequently developed without reliable budget execution data.
- *Primary Emphasis on Fund Control*—The historical and continuing emphasis on fund control has hindered the integration of budgeting and accounting and has led to inadequate attention in other areas of federal financial management. This focus on fund control causes managers to concentrate primarily on the purchase of new assets and the obligations to be incurred during the current year rather than on the total resources used and costs applied over a longer period of time.
- *Inadequate Disclosure of Assets, Costs, and Liabilities*—Major commitments of federal resources, such as retirement benefits, are only partially recognized in the budget. Other activities, such as the loan portfolio of the Federal Financing Bank, are entirely outside the budget.
- *Antiquated and Fragmented Financial Management Systems*—The federal government is the largest and most complex operating organization in the world. However, the old financial management systems cannot support the new demands being placed on them. Many of the systems employ outdated equipment and are not designed to provide the information needed by managers, policy officials, and the Congress.

¹A shorter report that highlights selected major problem areas in the current federal government financial management process, the direction reform might take, and the steps needed to initiate reform has been developed as a companion to this report. The shorter report is entitled **Managing the Cost of Government: Building an Effective Financial Management Structure—Volume 1**.

The need for improvements will remain unabated until these and other problems have been adequately addressed. Some of the previous major improvement efforts, such as creating the President's budget; implementing the Planning, Programming and Budgeting System (PPBS) at Defense; unifying the budget; and establishing the congressional budget process are changes that have strengthened government financial management. Other reform initiatives, such as zero-base budgeting, management by objectives, and federal productivity measurement and improvement have failed or achieved only limited success.

Successful reform requires that an integrated approach be taken for developing a comprehensive financial management structure. It should be government-wide in scope, serving the needs of both the Congress and the executive branch and ensuring that consistent financial data are available across agency and department lines. Putting the new structure into place and making it work, however, will require much more. Over a period of years, new systems will have to be designed and installed implementing the concepts consistently and taking full advantage of the latest technology. To operate the new structure efficiently, financial management responsibilities within and between agencies may need adjustment. To operate effectively, even the best-designed financial management system requires able, dedicated, well-trained people and continuity of leadership from skilled executives.

The potential benefits are substantial, but only if these investments are made as part of a coordinated strategy of reform. Implementing this reform will require sustained commitment over a number of years from both the Congress and the executive branch.

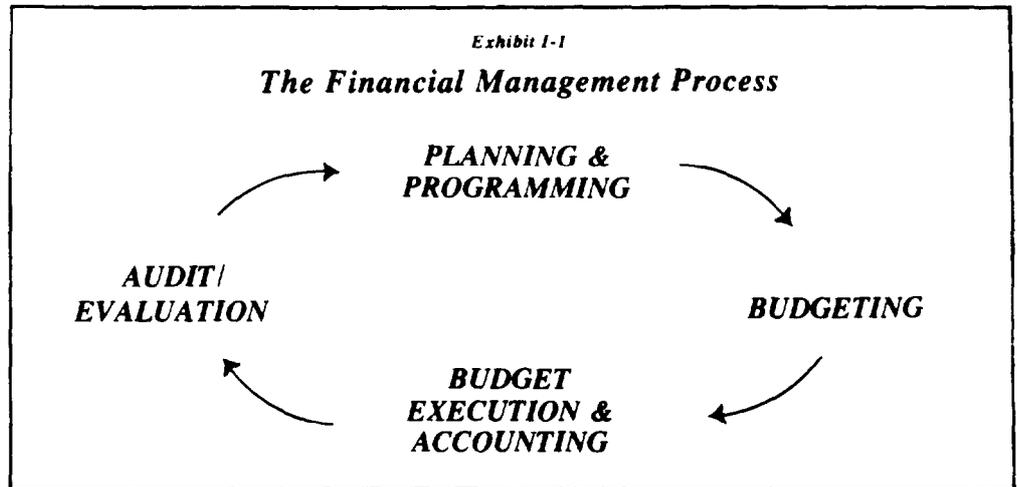
The Conceptual Framework

Financial management in the federal government encompasses all or part of the processes and functions of

- planning and programming,
- budgeting,
- budget execution and accounting, and
- audit and evaluation.

The objective of financial management in the federal government is to assure that, to the maximum practical extent, the resources entrusted to it are acquired and used lawfully, efficiently, and effectively.

The process by which the federal government carries out its functions can be simply illustrated, but the problems plaguing it are broader in perspective and more difficult to deal with. The concepts and ideas presented in this report deal specifically with the financial management process that is illustrated in exhibit I-1.



The financial management process begins with the planning and programming phase and runs through the budget formulation/presentation, budget execution and accounting, and the audit/evaluation phases, at which time the cycle begins again. The major weakness of the present financial management process lies in the very foundation upon which the overall process is dependent—sound financial information and feedback on results. The information produced in each phase of the financial management process should establish the links and fill the gaps between the other phases of the cycle. Currently, the information gaps and weak links largely result from the budget execution and accounting phase's nonintegration with the first two phases, which are the priority-setting and allocation phases of the cycle.

Planning, programming, and budgeting decisions should be based on reliable cost² information in a process that is integrated with the budget execution and accounting phase and the subsequent audit/evaluation phase. Without reliable cost data and an integrated process, the gaps and weaknesses of the overall cycle become readily apparent.

The conceptual framework presented herein has seven underlying concepts that are keys in establishing a sound financial management foundation and should guide any financial management reform. These concepts represent a combination of existing legal prescription and sound management practices. They are as follows:

- *Use a Structured Planning and Programming Process for Evaluating and Choosing Alternatives for Achieving Desired Objectives*—A planning and programming process assists policymakers in focusing on what government should be doing, how to best accomplish it, and how to measure performance based on expectations. The process provides an analytic framework for evaluating the benefits and costs of alternatives and facilitates choices among alternative goals, missions, strategies, and programs.

²Cost refers to the financial measurement of resources consumed in accomplishing a specified purpose, such as performing a service, carrying out an activity, or completing a unit of work or a specific project. All significant elements are included in the amount reported as total cost. In this context, cost is the value of goods and services used or consumed by a government agency within a given period, regardless of when they were ordered, received, or paid for.

-
- *Make Resource Allocation Decisions Within a Unified Budget*—A unified budget focuses attention on total federal expenditure and revenue requirements and provides a context for dealing with individual agency budget requests. Policymakers at all levels are aided in making informed resource allocation decisions when total requirements are known and deficits are fully disclosed.
 - *Budget and Account on the Same Basis*—Integration of budgeting and accounting provides a common set of rules by which managers make valid comparisons between planned and actual results. Timely variance detection aids corrective action.
 - *Use Accounting Principles Which Match the Delivery of Services With the Cost of the Services*—Accrual principles provide policymakers and management with consistent information to compare program/service costs between periods or agencies. Interperiod distortions are minimized, and better informed cost/benefit evaluations become possible.
 - *Encourage Financial Accountability*—A system of detailed and summary management reports identifies costs and accomplishment by the managers and organizations assigned the responsibility for controlling costs provides accurate, comprehensive information on spending decisions and aids evaluation of those decisions.
 - *Measure Outputs as Well as Inputs*—Incorporating performance measurements into the system of budget and management reporting provides the capability to relate program/project costs with output to determine if objectives are achieved at an acceptable cost. Analysis of how costs change in proportion to output assists future program planning.
 - *Prepare Consolidated Reports*—Consolidation of annually audited financial statements provides an overall picture of the federal government's financial condition. Disclosure of the cumulative financial effect of past decisions aids the public and policy formulators in analysis of resources and commitments.

To achieve the goal of sound financial management, the first step is to establish a firm financial information foundation. This step can be achieved by integrating the budgeting phase with the budget execution and accounting phase (integration of budget and accounting) and focusing on the costs of past and future decisions. A financial information foundation based on these underlying concepts is the key to establishing a sound financial management process.

The Benefits By integrating budgeting and accounting and focusing resource allocation decisions on their cost implications, the overall financial management cycle will be strengthened. For example, the planning, programming, and budgeting phases of the cycle will have the consistent and reliable financial information necessary to help focus debate on policy and program issues. With cost data related to the resource allocation decisions, management can better predict future effects of current and past decisions and better estimate program costs. This enhances fiscal control and provides better information for program and resource allocation decisions.

The integration of budgeting and accounting will provide a record of historical costs and performance data that is key to reliably estimating future costs. The budgeting phase benefits from the execution record of previous years. In addi-

tion, a budget that presents costs associated with its programmatic priorities and strategies becomes a management tool for assessing results against plans and the cost of stopping or continuing projects and programs. If costs are not associated with budget priorities and strategies, the usefulness of the budget as a management tool is considerably reduced.

Presently, the link between program and budget choices and the use of funds and the results achieved often relies on ad hoc reporting and analyses. This ad hoc process is time-consuming, manpower-intensive, and in many cases, unreliable. With the integration of budgeting and accounting, the critical link can be more easily made, and the overall management cycle will be strengthened. Exhibit I-2 contrasts the current budget and accounting system with the features of the proposed system.

Organization of the Report

Section II of this report provides an historical perspective on the evolution of financial management in the federal government. Section III briefly describes the current financial management activities of the agencies which provide guidance and oversight and the problems resulting from current practices. Section IV discusses the baseline concepts upon which the proposed conceptual framework has been developed. Section V describes the financial management processes that support the conceptual framework, and section VI describes an approach for developing automated financial information systems. Finally, section VII presents a strategy for implementing the approach. It identifies the key approvals, activities, and projects necessary to a successful implementation and suggests an appropriate time frame for accomplishing them.

Exhibit I-2

***Summary of Current and Proposed Features
Executive Branch Budget and Accounting System***

Current Systems

1. Budgeting is done primarily on an obligation basis and accounting is done on a combination obligation, cash, and accrual basis. Actual accounting data are generally ignored in developing requested budget authority for future years.
2. The accounting system emphasis is on placing orders for goods and services (obligations), and paying for goods or services received (disbursements).
Budget and accounting systems concentrate on controlling obligations (fund control).
3. Data on the cost of operations and programs is not readily available and used in most agencies.
4. Agencies report required data to OMB, Treasury, and others. Data from the different departments and agencies are often not uniform, standardized, or on a cost basis. In many cases, the reported data is not timely and is incompatible between organizations even within the same department. Agency and government-wide financial statements are not prepared on a regular basis as a part of the normal reporting process.

Proposed System

1. Budgeting and accounting will be integrated and use the cost basis. Requests for appropriations will be cost-based and use accounting data from prior years to assist in developing requested budget authority.
2. Current fund control process will continue. The new system will also record costs to show period when materials and services are used or consumed. This will improve the usefulness of the information developed and increase the amount of control managers can exercise.
3. Proposed system will provide cost data on all programs and projects. This will include data on
 - inventories and undelivered orders,
 - free services or costs paid by other appropriations or organizations (unfunded costs),
 - depreciation, and
 - unit cost.
4. Agencies will prepare monthly cost-based reports that can be consolidated into annual departmental and government-wide financial statements, audited, and an opinion rendered on their acceptability. The system will also provide immediate inquiry capability for special reports and analyses.

Historical Perspective of Financial Management

There is a long history of efforts to strengthen financial management in the federal government. The vehicles for these initiatives have included presidential and congressionally mandated commissions and committees, new offices and agencies, reorganizations, executive orders, BOB/OMB circulars, and legislation. These initiatives had in common the purpose of trying to bring order to either the organizations, processes, or systems by which the federal government manages its activities. With few exceptions, such as the Brownlow and Hoover Commissions, however, the efforts were piecemeal and partial. In many instances, for example, improvements were sought by simply layering new requirements onto old ones. This layering happened because initiatives generally have attempted to deal separately with highly interrelated organizational, procedural, and methodological financial management issues.

Before the turn of the century, a major attempt to bring order to the financial system of the government culminated in the enactment of the Dockery Act of 1894. That legislation sought to eliminate excess offices, provide for centralized auditing, institute preliminary examination of records, and simplify the accounts. The financial management system established by the Dockery Act remained substantially unchanged until the passage of the Budget and Accounting Act of 1921.

The 1921 act made several important changes in the financial management organization existing at that time. The most significant aspects of the act were

- the establishment of a national executive budget system and the creation of the Bureau of the Budget to manage that system and
- the establishment of an independent audit of executive branch expenditures through the newly created General Accounting Office (GAO).

In addition, the primary legislative mandate for management reform was incorporated in the act. It stated that the BOB, when directed by the President, should study departments and agencies to determine what changes should be made in their organization, activities, methods of business, appropriations, assignment of functions to particular organizations, or regrouping of services.

The next major step came with the 1937 report of the President's Committee on Administrative Management (Brownlow Committee), which proposed that the President take the initiative in improving management in departments and agencies. To accomplish this, the Executive Office of the President (EOP) was created in 1939. The EOP included the BOB, which had previously been located in the Treasury Department. Reflecting a continuing search for ways of improving federal management, the Congress granted the President reorganization authority.

The advent of World War II brought with it great pressure to reverse the trend toward centralized financial processes and systems. This came at a time when the federal bureaucracy had already expanded rapidly to meet the challenges of recovering from a worldwide depression. The added pressure of mobilizing the nation for war necessitated the rapid decentralization of the government's financial processes and systems. It was not possible with pre-World War II technology to maintain centralized control over rapidly expanding government activities during this period of national crisis. The decentralized systems approach to financial

management taken during this crisis period has now become part of the tradition and heritage of financial management in the federal government.

After the war, attention again turned to matters of management efficiency through the efforts of the first Hoover Commission (1947-49). In developing their recommendations regarding budgeting and accounting, the commission focused primarily on the study of organization, methods, and administration, and concentrated heavily on structural reorganization. The commission's report resulted, among other things, in the issuance by President Truman of Executive Order 10072 in 1949, providing for "continuing action to improve the management of the executive branch of the government." The Congress provided legislative support to the executive order in the Classification Act of 1949 by directing each department to systematically review its operations according to BOB's direction.

The next major piece of legislation was the Budget and Accounting Procedures Act of 1950. This legislation enacted many of the Hoover Commission's recommendations, but it also had the effect of institutionalizing the decentralized financial management structure that grew out of World War II. The act accomplished this, in part, by making the head of each executive agency responsible for establishing and maintaining an accounting system with adequate internal controls. One of the results of this act can be seen in the large number of separately developed agency accounting systems which exist in the federal government today. In addition, the requirement first established in the 1921 act that charged each agency head with the responsibility to prepare budget estimates for submission to the BOB was clarified and reemphasized in the 1950 act. This, along with the requirement to present budget requests classified on an end-purpose or performance basis, helped establish the need for each agency to have its own budgeting system as well.

The second Hoover Commission (1953-55) took a broader view by dealing more extensively with matters of policy. It was charged with investigating and making recommendations on not only organizational, methodological, and administrative matters, but also on the need for changes in federal functions and policies. This commission upheld many of the first commission's recommendations with respect to accounting and budgetary practices and methodologies. For example, it recommended the continued use of performance budgeting, in addition to agencies' formulating and administering their budgets on a cost basis. The usefulness of formulating and administering budgets on a cost basis was recognized in a 1956 amendment to the 1950 act, but it continues to be largely ignored in practice.

Other influential financial management initiatives before 1970 include the Rockefeller Committee (1953-59), BOB's Office of Management and Organization (1950's and 1960's), the Brooks Act (1965), and the President's Commission on Budget Concepts (1967). An important recommendation of the President's Commission was that the three existing federal budgets be presented within the framework of a single unified budget. The recommendation was adopted, but since its implementation in 1969 a number of exceptions have been made removing major activities from the discipline of the budget process. Thus, the lack of comprehensiveness of the budget continues to be a significant problem.

The decade of the 1970's saw several other major developments in financial management, particularly in the budgeting arena. The Legislative Reorganization Act of 1970 and the Congressional Budget and Impoundment Control Act of 1974 had major effects on the way the Congress played its part in government financial management.

Since the 1974 act, there have been numerous other initiatives aimed at improving financial management, such as

- the Civil Service Reform Act of 1978;
- the Inspector General Act of 1978;
- the Federal Managers' Financial Integrity Act of 1982;
- Reform '88;
- the President's Private Sector Survey on Cost Control;
- suggested presidential reorganization proposals;
- agency efforts, such as the Treasury Department's ongoing effort to upgrade its central systems; and
- congressional hearings on budget process reform.

The approach to developing the financial management system in this country has been quite consistent. Most initiatives have attempted to deal with discrete problems in isolation, rather than examining the system as a whole. A major exception to that pattern was the 1921 act, which produced a wholly new approach to financial management and a new set of institutions to implement the approach. Since 1921, however, government has approached financial management issues on a somewhat fragmented basis that largely segregates policy, organizational, methodological, and procedural issues. This fragmented approach happens because there has not been a general recognition of the inadequacies of the present structure nor a consensus on how a better overall structure should evolve. Each participant in the process has sought to cope with the problems as he sees them, rather than recognizing those problems as symptoms of basic weaknesses in the overall structure. Without an overall context for dealing with these highly interrelated financial management issues, reform initiatives will continue to be focused on improving specific phases of the financial management process.

The historical approach to reform, in today's highly complicated and sophisticated management environment, is unlikely to produce satisfactory results. That approach has often had unintended consequences. This can be demonstrated by examples in the budgeting area, such as the extension of the planning-programming-budgeting system to civilian agencies and the introduction of zero-base budgeting. These new budget practices were in effect layered onto already existing practices, adding significantly to the work intensity of the process. Ideas which may have been fundamentally sound were ultimately rejected in part because they were seen as redundant.

Much of the progress to date is certainly attributable to these past initiatives. However, today's sophisticated management and technological environment suggests it is time for a more integrated, comprehensive, and systematic approach for addressing existing deficiencies in federal government financial management. This report proposes such an approach. It urges that, to achieve substantive improvements in financial management in the federal government, one has to start with building consensus on what constitutes sound financial management, conceptually and in practice. Section III of this report describes the current financial management environment. Following in section IV is a description of the conceptual framework and the appropriate financial management concepts and practices chosen to support sound financial management in the federal government. Section V describes the principal features of the new financial management process being proposed. The remainder of the report (sections VI and VII) describes an approach for providing automated systems support for the conceptual framework and a plan for implementing such an approach.

What is being offered here is not a new buzzword or a panacea for financial management, but rather a pragmatic approach using proven concepts that takes advantage of the vastly improved technology now available in the area of information management.

Current Environment

Present Process and Responsibilities

In the current decentralized financial management environment, the Congress authorizes programs and projects, sets goals and targets for revenue and spending, appropriates budget authority, and reviews the results of government operations. OMB directs budget preparation, monitors budget execution, conducts some management reviews, and provides guidance to the executive branch.

The Department of the Treasury controls and manages cash, maintains the central financial records, and prepares combined financial reports based primarily on cash and obligation data received from the line agencies. GAO provides fiscal and accounting guidance, approves accounting systems, performs financial and program audits, and reports the results of its reviews to the Congress, the executive branch, and other interested parties. The line agencies execute the approved budget and carry out the detailed financial management activities with little direct supervision. They then report the results of their activities to Treasury and OMB.

More detailed information on the major financial management roles and responsibilities of the Congress, OMB, agencies, Treasury, and GAO is presented in exhibit III-1.

<i>Exhibit III-1</i> Major Financial Management Roles and Responsibilities					
	<i>Planning/ Programming</i>	<i>Budget Formulation/ Presentation</i>	<i>Budget Execution/ Accounting</i>	<i>Audit Evaluation</i>	<i>Financial Management Systems</i>
Congress	Create agencies. Authorize programs and projects. Set goals. Set out-year targets for spending and revenue levels.	Conduct hearings. Pass budget resolutions. Enact authorizations and appropriations. Act on reconciliation. Debt limit changes. Reject, approve, or modify executive budget.	Act on supplementals, deferrals, rescissions and reprogrammings. Monitor programs (ad hoc).	Establish reporting requirements. Conduct oversight. Request audits and reviews from GAO and others.	Create appropriation account structure. Enact statutes governing money, finance, and management.
OMB	Develop economic assumptions. Require agencies to develop multiyear budget data.	Issue multiyear planning estimates. Conduct spring review. Make first budget determinations. Conduct formal appeals process. Prepare budget documents. Clear agency budget-related communication with Congress.	Apportion budget authority. Initiate and process deferrals and rescission requests. Process supplementals. Monitor agency performance. Process reports of violation or authority. Project outlays.	Overnight by budget examiners. Mandate evaluations by agencies.	Approve agency regulations for administrative control of funds. Issue circulars on procurement, ADP, and current FM problems. Sit on JFMIP.
Dept./ Agency	Develop plans and programming strategies.	Prepare and defend budget submission (OMB) and justifications (Congress).	Execute budget. Monitor execution. Reports to central agencies. Manage daily operations.	Conduct internal audits and evaluations. Respond to executive and congressional inquiries.	Design and implement financial management systems. Prepare financial reports for internal and external purposes.
Treasury	Project tax revenues.	Estimate tax revenues.	Government's banker. Cash and debt management. Exercise fund control. Match agency outlays against spending authority.	None	Maintain government-wide accounting systems. Produce government-wide financial reports. Sit on JFMIP.
GAO	None	Summarize recommendations from its audits and reviews for consideration during budget cycle.	Review and report on impoundments. Conduct claims settlement.	Review federal programs and operations. Audit financial statements of government corporations and audit selected congressional business activities.	Prescribe accounting principles and standards. Approve agency accounting systems. Develop standard terms for federal fiscal, budgetary, and program-related data. Identify and specify the needs of Congress for fiscal, budgetary, and program-related information. Sit on JFMIP.

Problems Exhibit III-2 presents some of the problems, or “gaps,” that currently exist in the federal financial management processes and systems. These gaps can be summarized, for discussion purposes, into six principal areas:

- Poor quality of financial management information.
- Poor linkage between the phases of the financial management process.
- Inadequate attention paid to monitoring and comparing budgeted activity with actual results.
- Primary emphasis on fund control.
- Inadequate disclosure of assets, costs and liabilities.
- Antiquated and fragmented financial management systems.

This section’s discussion of financial management problems is not intended to be an indictment against any specific federal government financial management system. The objective is to describe some of the key obstacles that generally exist in the current financial management environment. The problems point out the difficulties in accumulating government-wide comparable, timely information when budgeting and accounting systems are not integrated.

Poor Quality of Financial Management Information

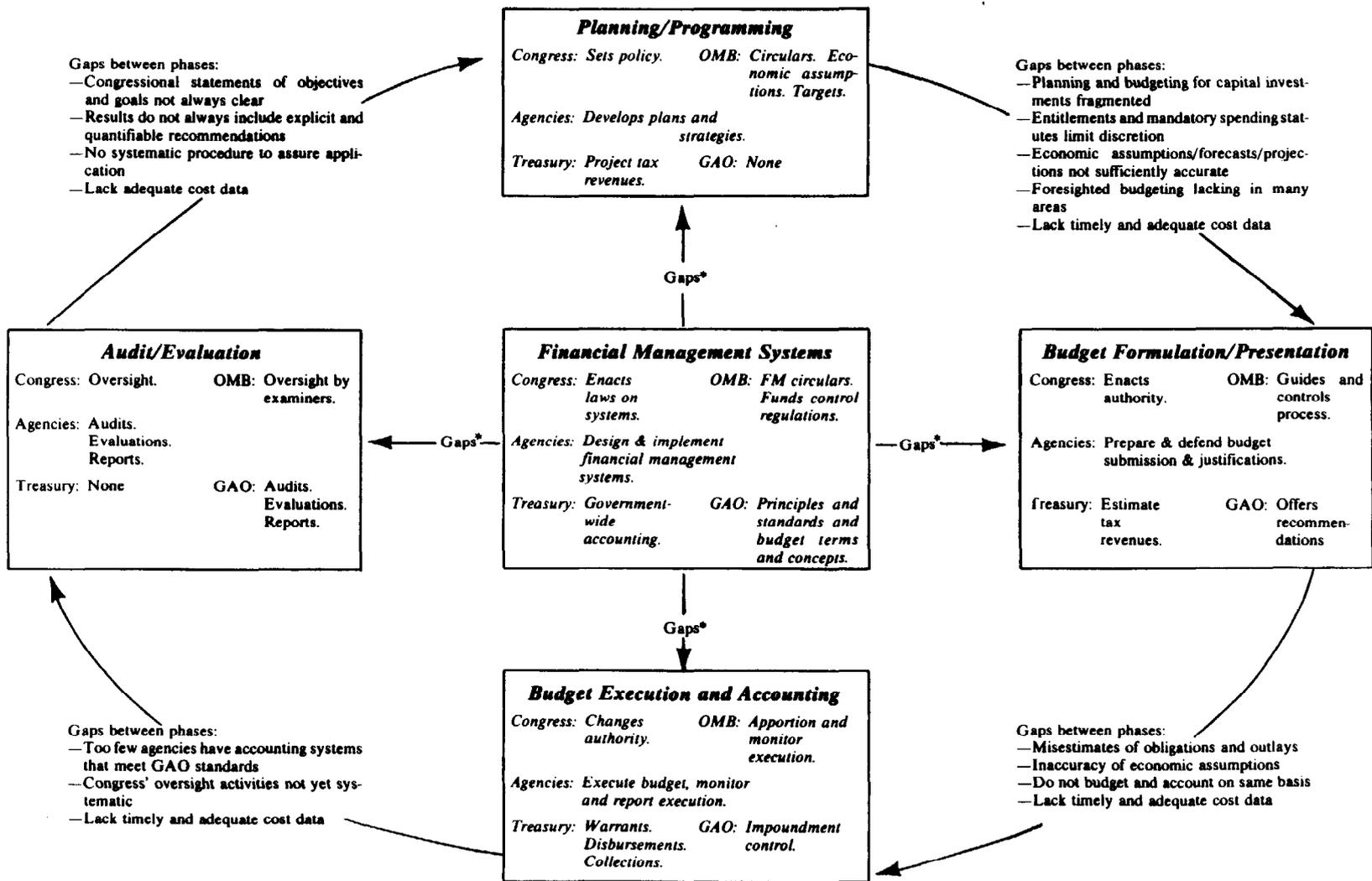
Information provided by today’s financial management systems is not always of consistent quality. For example, one bureau in a cabinet-level department lost accountability over hundreds of millions of dollars of grant, contract, and trust funds because its automated accounting system operated so poorly. The system’s reports were of little value in determining how much money was actually spent by contractors and grantees and how much they held as undisbursed advanced cash. The unexpended balance of cash advances, as recorded in the system, differed by more than 500 percent from that reported by the contractors and grantees.

In line agencies, disparities exist in the levels of direction, guidance, monitoring, and importance placed on accounting and financial reporting. Partly due to these disparities, many agencies focus primarily on getting their budget approved and then do only minimum accounting and compliance-type reporting. This situation contributes to a lack of integration of budgeting and accounting systems and makes it difficult to consolidate, match, or compare financial data among agencies or different organizations within the same department or agency.

Some knowledgeable financial management leaders believe a major reason for poor financial information is that external financial reports are not regularly prepared, audited, and issued for public scrutiny. These managers support strong central direction with a requirement for system standardization and uniformity in accounting and reporting. These concepts, coupled with a requirement to prepare and issue audited financial statements, would contribute to improving the quality of financial information.

Exhibit III-2

Government-wide Financial Management Processes and Systems Observations



*Gaps between FM systems and process phases
 - Outdated and inefficient systems
 - Lack of compatibility
 - Lack of comprehensiveness
 - Lack of reliability
 - Fragmented responsibility
 - Budget and accounting systems not integrated

Poor Linkages Between the Phases of the Financial Management Process

Planning/programming, budgeting, execution/accounting, and evaluation are separate and distinct functions. Budgeting is a formalized and stand-alone process and often operates in an information vacuum that does not use data developed in the planning/programming or accounting cycles. In effect, the budget process simply ignores decisions or "crowds out" activities of the other phases, and, as a result, the products developed in the other phases are not used well in the budgetary process. A major contributing factor to the poor integration between the phases of the overall financial management process is the inadequate link between budgeting and accounting. This link is weak and inefficient because different principles are used in the two processes. The budget is normally prepared on a program and appropriation account basis while the accounting is generally done on an organizational and object class basis. Except for fund control purposes, little management attention is paid to comparisons between budgeted and actual results and the effect variances have on current and future budgets. The links among all the phases of the financial management process would be improved if accounting and budgeting were done on a consistent basis.

Inadequate Attention Paid to Monitoring and Comparing Budgeted Activity with Actual Results

Because budget formulation and budget execution systems in the federal government are not integrated, too little attention is paid to monitoring and comparing budgeted activity with actual results. Budgeting is done on an obligation basis while the budget execution process is recorded in the accounting system on a combination obligation, cash, and accrual basis. It is difficult to compare the obligational authority granted by the Congress with actual program costs incurred when the data are not on the same basis. Because these systems are not integrated, budgets are frequently developed without reliable budget execution data. One result is inconsistencies in data from one year to the next. This decreases the usefulness of the execution data as an input to budget preparation, and, in effect, the budget's usefulness as a management tool. Inconsistencies in execution data also limit the usefulness of periodic internal management reporting.

Primary Emphasis on Fund Control

Management emphasis on fund control has hindered the integration of budgeting and accounting and has led to inadequate attention in other areas of federal financial management. In part, this happens because the Congress grants obligational authority in approving the federal budget, thus, OMB and the line agencies concentrate on getting obligational authority and then on exercising fund control. This emphasis on obligation control causes managers to concentrate primarily on the purchase of new assets and the obligations to be incurred during the current year rather than on the total resources used and costs applied over a longer period. The result of this approach is that controls in government operations are placed at the point of purchase or order placement, with little or no subsequent control over the effective use of resources or assets on hand. Also, measurements of program outputs and costs and the prices placed on goods and services suffer if the primary emphasis is on fund control rather than on the recognition of cost.

Inadequate Disclosure of Assets, Costs, and Liabilities

Today, the federal budget does not include all government activities, nor does it disclose all costs of those activities that are in the budget. In addition, financial

reports do not fully disclose the financial commitments of the government. These gaps make informed policy choices more difficult.

The government's liability for retirement benefits represents a major commitment of future federal resources. A recent report estimated the unfunded portion of retirement benefits to be several hundred billion dollars. But retirement benefits being earned by today's civilian employees are recognized only in part in the budget process, while until recently those of military personnel were not recognized at all.

The federal government and its activities have a pervasive impact on the nation's economy. Understanding the full scope of those activities and knowing the magnitude and distribution of assets and future claims on resources is an essential part of the context within which resource allocation decisions should be made.

Antiquated and Fragmented Financial Management Systems

A large number of complex financial management systems operate in the federal sector. GAO estimates that there are several hundred separate systems in operation at the present time. Each agency has generally gone its own way in designing and operating a financial management system. Further, some departments and agencies over the years have permitted the development of many unique bureau and division systems that generally are not integrated with department-level systems. The result has been that systems have become antiquated and fragmented. Strong leadership is necessary to set the direction for modernizing government financial management and guiding development of the supporting data processing systems.

The discussion in this section on the current financial management process and the principal problems that hamper current budgeting and accounting practices serves as background and support for the next section, which provides a conceptual framework for change.

The Conceptual Framework

Underlying Concepts Any reform initiative that attempts to deal forthrightly with the problems discussed in section III must have a solid base of fundamental concepts to guide it. These concepts represent the baseline assumptions upon which the initiative is developed and are important for effective implementation of the proposed solutions. The concepts represent a combination of existing legal prescription and sound management practice. They are as follows:

- Use a structured planning and programming process for evaluating and choosing alternatives for achieving desired objectives.
- Make resource allocation decisions within a unified budget.
- Budget and account on the same basis.
- Use budgeting and accounting principles which match the delivery of services with the cost of the services.
- Encourage financial accountability.
- Measure outputs as well as inputs.
- Prepare consolidated reports from annually audited financial statements.

These, then, are the basic tenets underlying the proposed approach to improve financial management. The rationale for each is presented in the following discussion.

Use a Structured Planning and Programming Process for Evaluating and Choosing Alternatives for Achieving Desired Objectives

A well-developed, modern structure of planning and programming highlights major policy and program options available, their likely benefits and costs, and how to measure performance based on expectations. At the foundation of the concept is the use of a formal analytic process for choosing rationally among alternative courses of action, with as full knowledge as possible of the implications of those alternatives. The process is one of comparison and coordination and involves

- appraisals and comparisons of various activities in terms of their contribution to objectives,
- determination of how given objectives can be achieved with minimum expenditure of resources,
- projection of activities and their costs over an adequate time horizon, and
- revision of objectives and programs in light of experience and changing circumstances.

Make Resource Allocation Decisions Within a Unified Budget

Since the establishment of the unified budget in the late 1960's, the executive branch has explicitly focused on aggregate revenue and expenditure levels in the budget, as well as the component parts. Individual budget proposals are consciously constrained by the need for the budget totals to remain generally in line with previously established fiscal policy objectives.

The Congress adopted a similar approach in the Congressional Budget Act. The budget resolution process established both the overall constraints on revenue and expenditures and the level of spending in each major functional category. The

reconciliation process provided a tool for bringing individual budget items into conformance with the desired totals.

While procedural and other changes are necessary to make the budget process more manageable, the practice of focusing on the budget totals must be retained. Indeed, that approach should be strengthened by restoring the comprehensiveness of the unified budget. Dealing with the total revenue and expenditure picture of the government, and focusing attention on the fiscal policy implications of budget actions, establishes an essential discipline for the budget process.

Budget and Account on the Same Basis

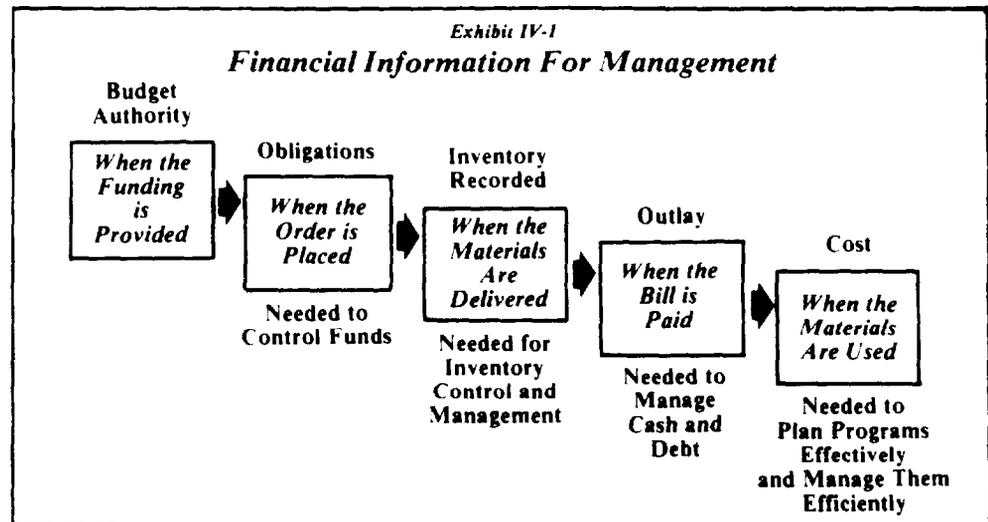
A major weakness in federal financial management systems is that the budgeting and accounting processes have not been integrated and developed to a point where they are fully useful for management control and planning purposes. Current budget practices result in allocation of resources based on incomplete economic facts. Measuring the results of government operations is limited by inconsistencies between accounting and budgeting data.

The concept of budgeting and accounting on the same basis establishes that the principles used for accounting for program costs should be consistent with those used in developing the budgets for those programs. By so doing, budgeting and accounting are conducted under the same rules and can be fully integrated. Thereafter, reliable, comparable information can be summarized and reported to assist in managing current activities as well as developing estimates of future resource requirements.

Use Budgeting and Accounting Principles Which Match the Delivery of Services with the Cost of the Services

This concept states that resources are applied to the process of delivering services (e.g., Medicare, law enforcement, conventional military forces). These resources include such things as the value of people (salaries and related fringe benefits), facilities (depreciation, rents, and utilities), materiel (supplies and ordnance), and direct payments (entitlements and grants). Orders or payment for resources does not always occur in the same period in which those resources are used. Salaries are paid basically in the same period that the individual works, but the retirement benefits earned during that period are paid years later. Utilities are paid basically in the same period in which heat, light, and water are used, but stockpiled parts and supplies may be ordered and paid for many periods prior to when they are actually used, as illustrated in exhibit IV-1. To better understand the relationship between what is delivered and its cost, the cost of the materiel or service must be recorded in the same period that the materiel is used or service provided.

By so doing, management and policymakers will be better equipped to compare the results of operations of the same service across periods, to compare similar operations performed by multiple agencies, and to make better informed cost/benefit evaluations. By showing the cost of a materiel or service in the period in which it is used, one can reduce interperiod distortions caused solely by administrative delays in processing financial transactions. The pressure to defer or accelerate obligations and outlays at the end of a fiscal year may still exist, but action taken in response to this pressure will no longer distort the reported cost of materials used or services provided in the completed fiscal year.



The use of accounting principles that are accrual-based is already a matter of law. But this reaffirmation of their importance should in no way be construed as a rejection of obligation and outlay information. The government must be able to contract and pay for goods and services in fiscal years other than the year in which the cost is recognized and must be able to control these activities. Thus, an obligation basis is essential in monitoring the extent to which agencies are making commitments for future payments. A cash basis is essential in managing fiscal, debt, and credit policies. And an accrual basis is essential in measuring and managing the cost of units of delivered service.

Encourage Financial Accountability

One of management's enduring maxims states that authority and responsibility go hand-in-hand. As authority for decisionmaking is delegated to lower levels in the organization, the managers exercising that authority are responsible for the results of their decisions. By the same token, they are accountable to their superiors for the results of their decisions. One of the factors in making such judgments is comparing the subordinate's actual accomplishments to expectations. But if subordinates are to be held responsible by their superiors for performance, the standards against which they are to be judged should be meaningful and mutually understood.

Performance measures should establish the environment for a management system which encourages financial accountability. Financial plans should be developed at the organizational level to which spending authority has been delegated. Reports of actual costs compared to the financial plan should be made periodically to the individuals having authority for spending decisions. Superiors can then receive summary reports showing how effectively subordinates have exercised their cost responsibilities. Such a management system focuses financial control at the level where financial control must start—the line manager who decides to spend. This focus promotes self-discipline and builds financial planning and decisionmaking skills. It also establishes the mechanism to report financial results through successively higher levels of the organization and helps in evaluating subordinates.

Measure Outputs as Well as Inputs

A management system that can measure only the financial resources put into a process is incomplete. A truly effective system must also measure what is produced by using those resources. For all significant administrative functions and program activities, appropriate output measures should be identified, and acceptable performance levels must be established. In some cases, performance measurement is already being done. The number of recipients for human service programs is typically understood. The number of aircraft delivered under a defense contract is known. Counting the output for the dollars spent, though, needs to be encouraged for all government services.

When output measures are identified, long-term trends can be developed, analyzed, and extrapolated to aid program planning and evaluation. Spending levels that tend to move proportionally to output can be initially developed by using estimates of output levels. Once done, variances between planned and actual spending can be analyzed by comparing differences between planned and actual output.

After the relationship between inputs and outputs has been measured, the next step is to relate that measure to program results. Relating the input/output measures to program results establishes the critical link between program and budget choices.

Prepare Consolidated Reports

From both a policy and a control perspective, it is equally important to have as complete a picture as possible of total government activities as it is to budget and account on the same basis. Yet, control can best be exercised when the whole is continually broken down until its component parts can be analyzed in some detail. However, if reporting is restricted to low levels of detail, it is only natural to lose the policy perspective that reporting on the whole can provide. "Not being able to see the forest for the trees" is an adage appropriate to this concept. The government operates many independent but often interrelated programs through numerous departments and agencies. In this environment, assets are acquired and maintained, and liabilities are incurred. Only through auditing and consolidating departmental operating results and financial positions can the complete picture of government activities be reliably portrayed. Information that compares the expenses of operations with the revenue available to fund those operations is important for effective cost analysis of government activities. Also, the total value of government-owned property and the amounts owed for unpaid goods and services can be compared to reveal the financial position of the federal government as a whole. This type of summary financial information is important to an informed electorate and to government officials who are concerned with effective administration of the government.

These key elements of the conceptual framework define the attributes of sound financial management processes and effective management practices. The remainder of this section provides further support for the proposed concepts by discussing the management cycle, information requirements, and the basic financial foundation on which the proposed solution is based.

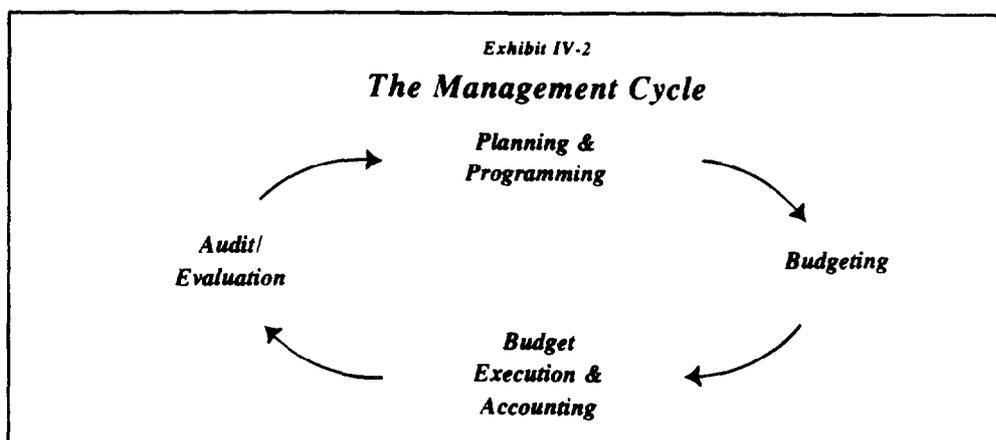
Scope of Financial Management

A systematic "management cycle" is used to aid description of the proposed financial management process. The cycle, described in greater detail below, establishes a conceptual structure for guiding management in deliberations on what actions to take, taking those actions, drawing conclusions about the results of those actions, and using those conclusions as input for subsequent deliberations.

Information is an essential ingredient for effectively executing the proposed cycle. Information appropriate for planning, decisionmaking, and communicating the results of operations integrates each phase of the management cycle with the others. Initial discussion of the proposed financial management process focuses on this cycle and supporting information dimensions.

The Management Cycle

The management cycle is illustrated in exhibit IV-2.



Briefly stated, the planning and programming phase is the process of establishing objectives and laying out the program that will achieve the objectives over time. Budgeting determines the level of resources needed to reach those objectives and sets policy for conducting the work. Budget execution and accounting consists of working the plan, directing activity toward results, and monitoring compliance of how the work is conducted in light of pre-established policies. Auditing assures discipline in the management process by confirming the accuracy and reliability of financial information. Evaluation provides information about the efficiency of operations and the effectiveness with which programs are achieving their intended objectives. Reliable financial information is a key ingredient to successful evaluations. The cycle is iterative; new plans are partially influenced by past results.

How well each of these functions is performed is management's responsibility, but in many cases, the work must be delegated to others. Information is management's source of intelligence, and management is only as intelligent as its information is relevant and reliable.

The management cycle model is independent of the particular area being managed. The model is as applicable to managing a human service program as it is to managing a major defense program or weapons system project. What is different

for each of these areas is the type of information needed to support each component of the cycle. What information, then, is appropriate for financial management?

Proposed approaches responding to this question form the majority of the discussion in later portions of this section. First, though, definitional boundaries around "financial operations" will be established. These boundaries define the scope of the financial management system and place the discussion on "information" within a common context.

The Financial Management Function

The operations of the federal government have typically been viewed from either an organization perspective or a program perspective. A less customary approach is to view the operations from an information perspective. Exhibit IV-3 is a highly summarized schematic of such a perspective.

Information about the opinions of the public (at the top of the chart) shape and influence the thinking and initiatives of both the legislative and the executive branches of the government. Communicating and reconciling the goals and objectives of the two branches eventually result in legislation that drives federal operations.

Viewed from an information perspective, these operations can be separated into program functions and administrative functions. Program functions are highly specialized and unique to the service being provided, the regulations and techniques for delivering the service, and the culture and style of the agency managers responsible for service delivery. Only in the very broadest sense can information concepts be described that have any commonality across a broad range of programs. Rule-setting authority is too decentralized to allow otherwise.

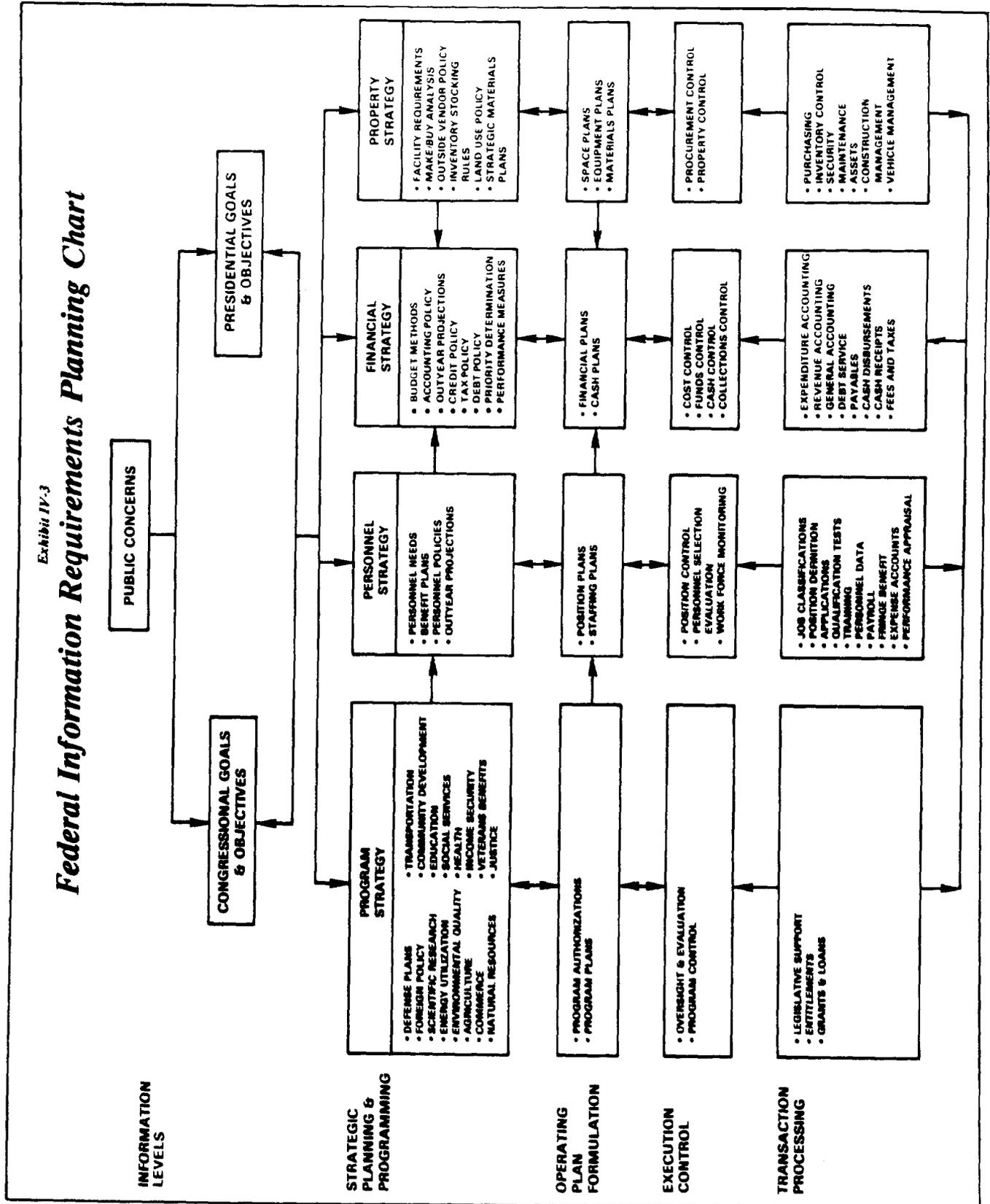
Administrative functions are somewhat different. They represent the management of resources essential to delivering services: the people, property, and money needed to operate programs. Rule-setting authority in these three areas is much more centralized. The Office of Personnel Management is the dominant influence in prescribing how agencies manage their personnel. The General Services Administration tends to dominate the management practices in property. Slightly more diverse, but nonetheless relatively centralized, OMB, Treasury, and GAO set the rules for agencies to follow in financial management.

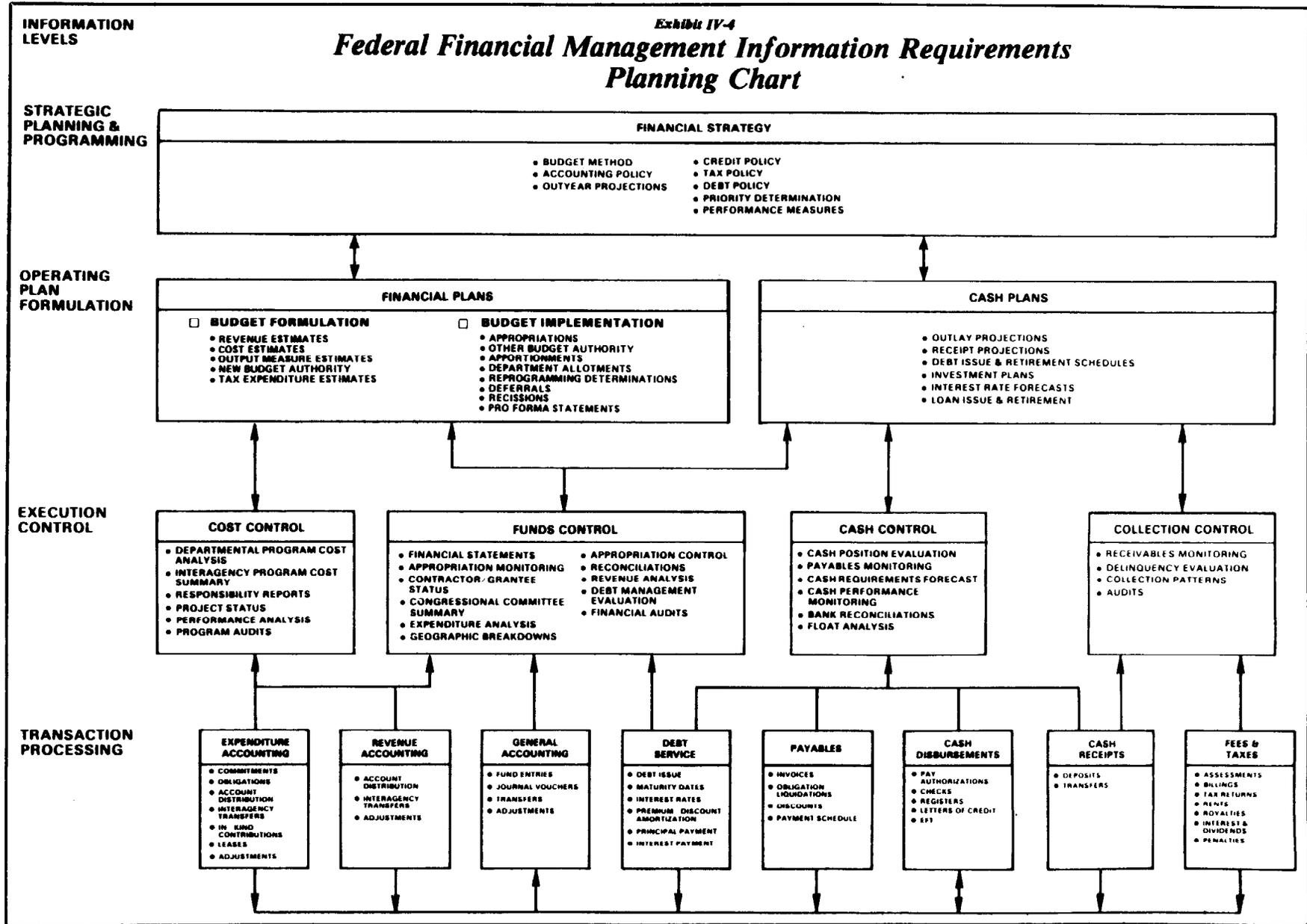
Because the rules are centrally defined for uniform application across all federal agencies, information requirements in these three administrative functions show a high degree of commonality regardless of individual agency missions. Common information requirements tend to promote the definition of common systems and processes. On that basis, then, the descriptive titles in the "Financial Strategy" column in exhibit IV-3 represent boundaries in defining the scope of financial management in the federal government.

Focusing now on the "Financial Strategy" column of exhibit IV-3, four levels of information are proposed. The first level is information to support strategic planning and programming. Consistent with the general nature of developing financial strategy, information at this level is more policy-oriented than procedural.

Federal Information Requirements Planning Chart

Exhibit IV-3





As a result, the information tends to be more approximate and highly summarized. Its horizon extends beyond the immediate and encompasses several future operating periods.

In contrast, at the second level, information to support "Operating Plan Formulation" is generally more quantitative, detailed, and specific. This level involves planning to support the immediate budget request and to allocate the appropriations once they are approved.

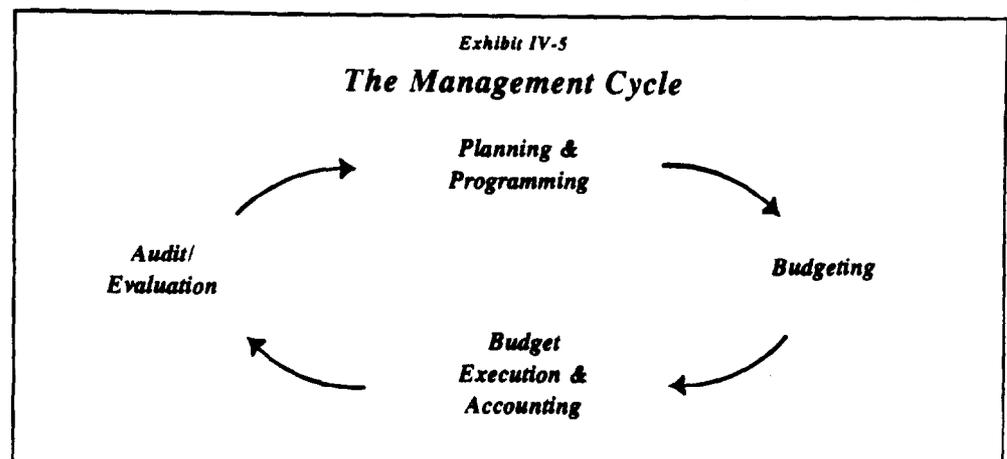
At the third level, "Execution Control," actual operating results are compared to plans, and exceptions to the plans are reported. Performance is evaluated, and appropriate action is initiated.

At the fourth level of "Transaction Processing" are the systems and information to support the day-to-day financial operations of an organization. At this level, the value (in dollars) of detailed transactions are accounted for and reported. Budget execution is recorded at this level.

Implied in the overall schematic (exhibit IV-3) is the recognition that financial plans and results are the end products of plans and operations in both the program functions as well as those in personnel and property. Also implied is the interaction of strategic and operational planning within a function and that new plans are affected by evaluating current performance. The flow of information must be integrated and unrestricted so that management can react to circumstances as they occur.

In exhibit IV-4, the financial function has been depicted at the next lower level of detail. Major information dimensions have been identified as representing the types of reporting useful in developing new financial management systems. The dimensions listed are not intended to be the definitive statement of the total requirements of the federal government. Defining all these requirements is an effort best deferred until later. The dimensions listed are intended, however, to demonstrate various concepts and to serve as a basis for illustrating the benefits that could be derived. Later in this section, several of these reporting concepts are developed in detail.

Focusing once again on the management cycle (exhibit IV-5), this cycle and the supporting information dimensions affect all levels in the governmental/political



system. The cycle operates at the level of the Congress and the President in controlling and reviewing the performance of major federal policies and programs. Within the executive branch at various agency levels, the cycle assists in control and performance reviews of agency programs, activities, operations, contracts, grants, projects, and specific tasks and assignments carried out by operating personnel.

The management cycle is the basis for beginning a more detailed discussion of the proposed financial process in section V. As indicated, this process' success depends on the information linking the phases of the cycle. Before discussing each phase, however, a sound foundation for financial information must be established.

Establishing a Financial Foundation

The financial foundation of the conceptual framework consists of the basic concepts under which financial information will be developed, summarized, and reported. To establish the concepts necessary for effective federal government operation and control, the following must first be defined:

- Who are the users of financial information?
- What are the users' concerns?
- What are the general and qualitative objectives of financial information?

Users and Their Concerns

The basic purpose of summarizing and reporting financial information is to provide useful information to persons who need it and have a right to it. The practical uses of financial information are enhanced as the information becomes more responsive to users' needs.

For purposes of this report, users have been classified into five groups:

The Legislative Branch

The Congress and its support staff and agencies are concerned with making effective decisions about using the resources for which the Congress is accountable. To make informed decisions, it needs to know the financial position of the federal government, the cost of proposed activities, and the efficiency and effectiveness of activities which have been implemented. It also needs to know of deviations from budget estimates, their causes, and their effects.

The Executive Branch

Two levels of information are necessary within the executive branch. Policy-level officials need information to evaluate alternative use of resources and establish policies and strategies to best meet the nation's needs. Department executives and agency line management are primarily concerned with implementing policy-level decisions. They need information to carry out these decisions and to monitor and manage approved programs and projects.

The General Public

Citizens are concerned about the costs incurred to provide current benefits and services and about projections of future service costs. Citizens require an overall perspective of the government's financial condition and the results of its operations if they are to hold elected representatives accountable for the power entrusted to them.

Investors

The investor group, which is a subset of the general public, is primarily concerned with the various possibilities of risk and reward associated with the efficient and effective use of resources under their control. Their decisions are influenced by how they perceive the federal government's activities will influence the national economy. They depend on complete and accurate data to assist with choices among competing investment alternatives.

Special Interest Groups

These users analyze the effects of prior decisions with a goal of predicting future events, given certain conditions. They are concerned about the effects of government policy and actions in particular topic areas and on particular segments of the population or the economy. They are also concerned about the government's ability to sustain given policies or programs over time.

Information useful to each group will differ in terms of frequency, format, level of detail, and the types of information presented. However, a single set of general objectives will respond to the needs of all users.

General Objectives of Financial Information

General objectives of financial information represent the goals that must be achieved to address the concerns and needs of users. Three general objectives of financial information have been identified for this purpose:

Making Resource Allocation Decisions

Resource allocation refers to how limited resources will be used to meet needs and accomplish objectives. Resource allocation decisions include formulation and approval of the federal budget and day-to-day operating decisions on how available resources (employees, consultants, office space, military hardware, etc.) will be used to accomplish the missions which underlie the budget.

Three types of information are required to make effective resource allocation decisions. The first is the financial position of the federal government. Financial position refers to the amount of money required to pay liabilities and the amount of resources available for that purpose. The second, cost of alternatives, refers to the amount of resources that will be consumed to accomplish an objective based on differing levels of effort and/or input. Finally, anticipated outputs are important to measure and evaluate expected results for various resource levels or between alternative program/project approaches. Taken together, these types of information permit users to evaluate the current and long-range financial effect of alternatives. Knowledge about the cost of alternatives is critical when evaluating expected service levels under each alternative in light of the resources which will be consumed to implement them.

Determining Legal Compliance

The traditional objective of federal budgeting, accounting, and financial reporting is to ensure that taxes and other revenues are collected properly and that federal resources are used according to laws and regulations. Legal com-

pliance addresses the extent of consistency between authorized activities and those which have actually occurred. Legal compliance is typically evaluated in terms of the amounts obligated and disbursed and the objectives obtained in relation to the budget plan.

Assessing Performance

The performance of federal organizations, managers, elected representatives, and appointed officials should be evaluated, in part, upon how effectively federal resources have been used in carrying out federal policies, programs, and activities. From a financial perspective, resource utilization may be evaluated by comparing resources consumed to services provided. This type of analysis tells whether value has been received for the resources invested. Another indicator of performance is the extent to which resource allocation and use decisions are consistent with expectations. For example, were resources used in a manner consistent with the budget and operating plans? Were the expected service and end-product levels achieved for the resources actually used?

Qualitative Objectives of Financial Information

Qualitative objectives define the characteristics that make financial information useful. *Financial Accounting Standards Board Concept Statement No. 2* identifies the qualitative objectives of financial information, as follows:

Comparability

The quality of information that enables users to identify similarities in and differences between two sets of economic events.

Completeness

The inclusion in reported information of everything material that is necessary for faithful representation of relevant events.

Conservatism

A prudent reaction to uncertainty to try to ensure that uncertainty and risks inherent in business situations are adequately considered.

Consistency

Conformity from period to period with unchanging policies and procedures.

Feedback Value

The quality of information that enables users to confirm or correct prior expectations.

Materiality

The magnitude of an omission or misstatement of information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement.

Neutrality

Absence in reported information of bias intended to attain a predetermined result or to induce a particular mode of behavior.

Predictive Value

The quality of information that helps users to increase the likelihood of correctly forecasting the outcome of past or present events.

Relevance

The capability of information to make a difference in a decision by helping users to form predictions about outcomes of past, present, and future events or to confirm or correct prior expectations.

Reliability

The quality of information that assures that information is reasonably free from error and bias and faithfully represents what it purports to represent.

Representational Faithfulness

Correspondence or agreement between a measure or description and the event that it purports to represent (sometimes called validity).

Timeliness

Having information available to a decisionmaker before it loses its capacity to influence decisions.

Understandability

The quality of information that enables users to perceive its significance.

Verifiability

The ability through consensus among measurers to ensure that information represents what it purports to represent or that the chosen method of measurement has been used without error or bias.

Concepts for Developing, Summarizing, and Reporting Financial Information

Financial information quantifies or measures economic events. The most fundamental decision to address when evaluating alternative financial concepts is determining when economic events will be measured. Generally, economic events may be measured on a cash, obligation, or accrual basis. The federal government currently uses all three methods for accounting purposes. The budget is on an obligation basis with estimated cash outlays for each appropriation.

The basis for determining legal compliance is established by the authorization and appropriation acts, which may define programs in terms of cash, obligations, or accrual basis amounts. Therefore, all three methods can adequately respond to users' needs in providing information to determine legal compliance. However, the cash, obligation, and accrual methods are not equally suited to providing information useful in making resource allocation decisions and in assessing performance. Types of financial information required to address these objectives include the cost of programs, periodic results of operations, financial condition, and comparisons of resources consumed to services and products provided. The three methods will be evaluated on the basis of their ability to provide these types of information.

Cash Basis

On the cash basis, economic events are measured on the basis of cash flow. Generally, results of operations are computed as the difference between cash received and disbursed, exclusive of debt transactions. For example, if operations generate \$950 billion in receipts and \$975 billion in disbursements, cash-basis measurement would indicate a \$25-billion deficit.

Cash-basis information may significantly distort current year costs because it does not consider consumption of resources paid for in prior or future years. For example, inventory purchased in one year and consumed in the following year would be reflected in the first year's operations on a cash basis. Obviously, this treatment does not present an accurate picture of the annual cost of programs or the annual results of operations.

The cash basis may also be misleading in evaluating financial condition be-

cause it does not consider promises to provide resources in future years for goods and services received currently.

Cash-basis information is obviously critical for effective cash and debt management. However, it will not necessarily provide a meaningful or objective measure of the cost of programs, results of operations, or financial condition because cash-basis measurement does not consider when revenues are earned or costs are incurred.

Obligation Basis

On an obligation basis, an economic event is measured when resources become "obligated." Obligations occur when placing orders, awarding contracts, and engaging in other activities that will consume resources when carried out. The obligation basis is applicable only to expenses. It is not used in recognizing revenue.

Like cash-basis information, obligation-basis information does not measure cost. Obligations for inventory and other resources are reflected in operations of the year in which they are ordered, even though they may not be used until a subsequent year. In addition, under the current federal obligation system, certain promises to provide resources in the future for current services are not considered in the budgetary accounts until paid.

The obligation-based budgets presented to the Congress are proposals for new spending authority. Some appropriations that have been obligated carry over until expended without any positive action by the Congress. For example, when the Navy requests a \$1 billion ship, the Congress may budget the total cost of that ship in the first year of construction. Once the Congress has passed the appropriations bill, the Navy contracts with the shipbuilder and other suppliers of materials and services. For purposes of budgetary control, the Navy could obligate the entire amount of the contracts and report the amounts as if consumed. In reality, only a portion of the cost of building the ship will be incurred in any single fiscal year. A decision at any time to cancel or stretch out completion of the unfinished portion of the project may result in saving a portion of the resources that had been obligated but not consumed.

Obligation-based information does not provide a complete financial picture of the federal government for decisionmaking purposes. The effect of the current budget process is to control government operations at the point of purchase or order placement with little or no subsequent control over the effective use of the resources acquired. Additionally, the process focuses heavily on the current effect of federal programs without regard to their long-range implications.

Obligation-based financial information can also distort the evaluation of program effectiveness and management performance. Generally, program inputs in terms of obligations are not comparable to program outputs until the program is completed or terminated. In the case of the Navy ship, if the entire \$1 billion was obligated but no construction or other activity occurred in the year the appropriation was passed, the program input would be \$1 billion, with virtually no output. This demonstrates that obligation-based input/output comparisons will be misleading and cannot provide an adequate basis for evaluating programs and program managers.

Accrual Basis

When using the accrual basis, revenues are recognized when earned, and costs are recognized when resources are consumed. For example, inventory is considered to be a program cost at the time it is used in operations, not when it is ordered (obligation basis) or paid for (cash basis). Also, accrual-based program costs reflect the cost of donated services, pension benefits as they are earned by employees, costs paid for by other appropriations, depreciation, accrued annual and sick leave, or any other unfunded costs.

The accrual basis has three major benefits that are not available with the cash-basis and obligation-basis methods.

- *Provides a Basis for Input/Output Comparisons*—The accrual basis measures inputs in terms of resources consumed to provide an output. Therefore, input/output relationships may be formulated, budgeted, and monitored in terms of actual results. This type of information is critical for accurately evaluating programs and program managers. Additionally, federal products and services cannot be accurately priced without this information.
- *Focuses Decisions in Terms of Total Resource Usage*—Under the accrual basis, the consumption of resources paid for in prior and future years is considered in annual budgeted program costs. Therefore, an annual accrual budget lays out a plan for using existing resources as well as those which will be acquired currently. This is a far more comprehensive approach to managing federal resources.
- *Measures Financial Position*—Financial position refers to the resources required to pay for past activities that have not yet been funded and the resources available for that purpose. This information is critical when evaluating the long-range effect of programs.

The accrual basis is the most comprehensive method to budget and account for federal programs. The first Hoover Commission report in 1949 indicated the desirability of shifting to the accrual concept, and the concept was reemphasized in the second Hoover Commission report in 1955. Cash-basis and obligation-basis information is also important for management of cash, debt, and outstanding orders. However, cash and obligations alone do not provide the means to monitor financial position or the use of available resources. Their use is also limited in evaluating program effectiveness and program managers in terms of service levels achieved for the dollars spent.

Conclusion The seven concepts discussed at the beginning of this section establish a baseline within which sound financial management practices may be established and maintained. The benefits of following these concepts can be summarized as follows:

- *Use a Structured Planning and Programming Process for Evaluating and Choosing Alternatives for Achieving Desired Objectives*—A planning and programming process assists policymakers in focusing on what government should be doing, how to best accomplish it, and how to measure performance based on expectations. The process provides an analytic framework for evaluating the benefits and costs of alternatives and facilitates choices among alternative goals, missions, strategies, and programs.

-
- ***Make Resource Allocation Decisions Within a Unified Budget***—A unified budget focuses attention on total federal expenditure and revenue requirements and provides a context for dealing with individual agency budget requests. Policymakers at all levels are aided in making informed resource allocation decisions when total requirements are known and deficits are fully disclosed.
 - ***Budget and Account on the Same Basis***—Integration of budgeting and accounting provides a common set of rules by which managers make valid comparisons between planned and actual results. Timely variance detection aids corrective action.
 - ***Use Budgeting and Accounting Principles Which Match the Delivery of Services with the Cost of the Services***—Accrual principles provide policymakers and management with consistent information to compare program/service costs between periods or agencies. Interperiod distortions are minimized, and better informed cost/benefit evaluations become possible.
 - ***Encourage Financial Accountability***—A system of detailed and summary management reports identifies costs and accomplishments by the managers and organizations assigned the responsibility for controlling costs provides accurate, comprehensive information on spending decisions and aids evaluation of those decisions.
 - ***Measure Outputs as Well as Inputs***—Incorporating performance measurements into the system of budgeting and management reporting provides the capability to relate program/project costs with output to determine if objectives are achieved at an acceptable cost. Analysis of how costs change in proportion to output assists future program planning.
 - ***Prepare Consolidated Reports***—Consolidation of audited financial statements provides an overall picture of the federal government's financial condition. Disclosure of the cumulative financial effect of past decisions aids the public and policy formulators in analysis of resources and commitments. In addition, annually audited statements will help maintain the integrity of the financial information by assuring that the data are consistent, comparable, and reliable.

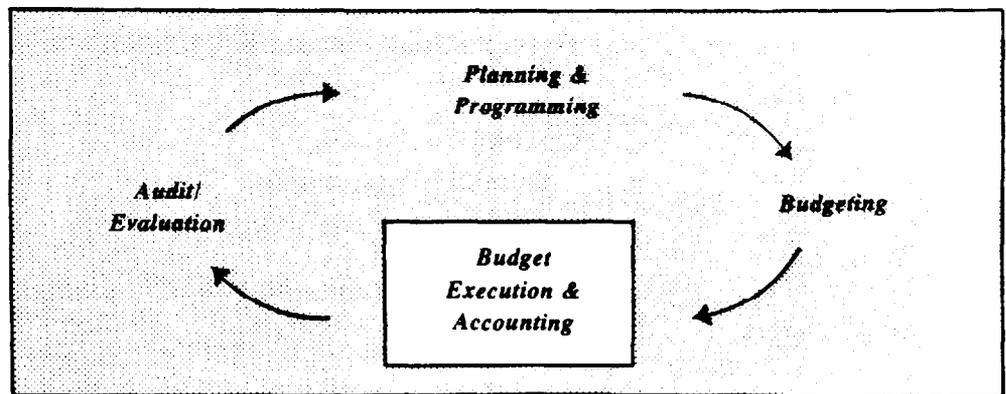
The underlying concepts are woven into the fabric of the proposed financial management process and structure presented in section V. Also essential to an understanding of the proposed new process and structure in section V is a familiarity with the management cycle, information requirements, and financial foundation upon which the proposed solution is based. This section has been devoted to laying the conceptual groundwork for the approaches to government financial management recommended in the following chapter.

Proposed Financial Process

The conceptual framework established in the last section provided the theoretical foundation to support a new federal financial process. In this section, the principal features of the new process are proposed. The process is founded on the underlying concepts discussed in section IV and is directed toward achieving their benefits.

The description of the recommended federal financial process begins with the proposed control objectives and reporting dimensions for the Budget Execution and Accounting phase. These control objectives and reporting dimensions establish a sound information base to support the other phases of the process.

Budget Execution and Accounting



As illustrated in exhibit IV-4, execution control encompasses the functions of

- cost control,
- funds control,
- cash control, and
- collections control.

The reporting dimensions listed for each function provide the information necessary for comparing actual results of government operations against the expectations established in the planning and programming and the budgeting phases of the management cycle. Integration of the cycle provides management with the means for planning and assigning specific operating objectives, which are also performance criteria, and the means for subsequent measurement of actual operating results against those criteria.

Cost Control

The federal government's activities are vast in scope. The costs of these activities range from thousands to many billions of dollars. Government activities should be planned to maximize benefits for the resources invested. Businesses and corporations use return on investment as a measure of how successfully this objective is accomplished; however, the government's main focus has been to control spending rather than to evaluate the relationships between costs and benefits (the public sector equivalent of return on investment) of federal activities.

As spending and borrowing have continued to grow (over the past 10 years the federal budget has doubled), the need to evaluate the benefits and manage the costs of government has become essential. Deficits continue each year as the President and the Congress cope with the numerous demands on our national resources. They need to know the costs and results of previous and current activities to make informed decisions concerning future federal programs.

A system of accrual-based management reporting helps to assure that program objectives are achieved and costs are controlled. Planning and reporting go hand-in-hand: without a system of management reporting, planning is ineffective since the success of programs meeting their financial objectives cannot be evaluated, and the actions of those responsible for execution cannot be easily monitored. Three reporting dimensions provide information necessary for decisionmaking and control:

- Program reporting.
- Organizational reporting.
- Project reporting.

In the following sections, examples illustrate each of the reporting dimensions. The concepts illustrated apply to all organization and program structures, whether civil or defense. The examples are highly simplified to illustrate basic concepts and do not represent actual structures or operating results.

Program Reporting

A program is generally defined as an organized set of activities directed toward a common purpose or goal undertaken or proposed by an agency to carry out its responsibilities.¹ Two key concepts are evident from this definition. Programs are made up of more than one activity, and programs are directed toward a common purpose. Any system of program reporting for the federal government must be capable of establishing relationships among overall program categories and program subcategories (activities). Program reporting also must relate program categories to the functions required for the national needs summaries, such as those presented in the President's budget. A simplified example of these relationships is shown in exhibit V-1.

Once this hierarchical relationship is established, detailed budget and accounting transactions are coded starting with the lowest program entity where meaningful management control can be exercised. In exhibit V-2, each transaction would be related to the Polaris, Poseidon, or Trident missile systems. As illustrated, detailed budget versus actual cost and performance reports would be prepared for each level of management. Each of the systems would become a line item on the undersea missile systems reports. Undersea and surface missile systems would become items on sea-launched missiles reports. This "roll-up" of budget versus actual information would continue until each of the four program categories was summarized on the national defense report.

¹General Accounting Office. *A Glossary of Terms Used in the Federal Budget Process* (Washington, D.C.: U.S. General Accounting Office, 1981), p. 71.

It is apparent from this simple example that program reporting gives policymakers and managers a tool to measure outputs as well as inputs for government programs at any and all levels in the hierarchy. Program planning is enhanced when outputs can be compared to the costs to achieve results and when "go/no go" decisions are based on current cost information. Trend analysis of unit costs permits projection of future program cost on the basis of expected activity levels.

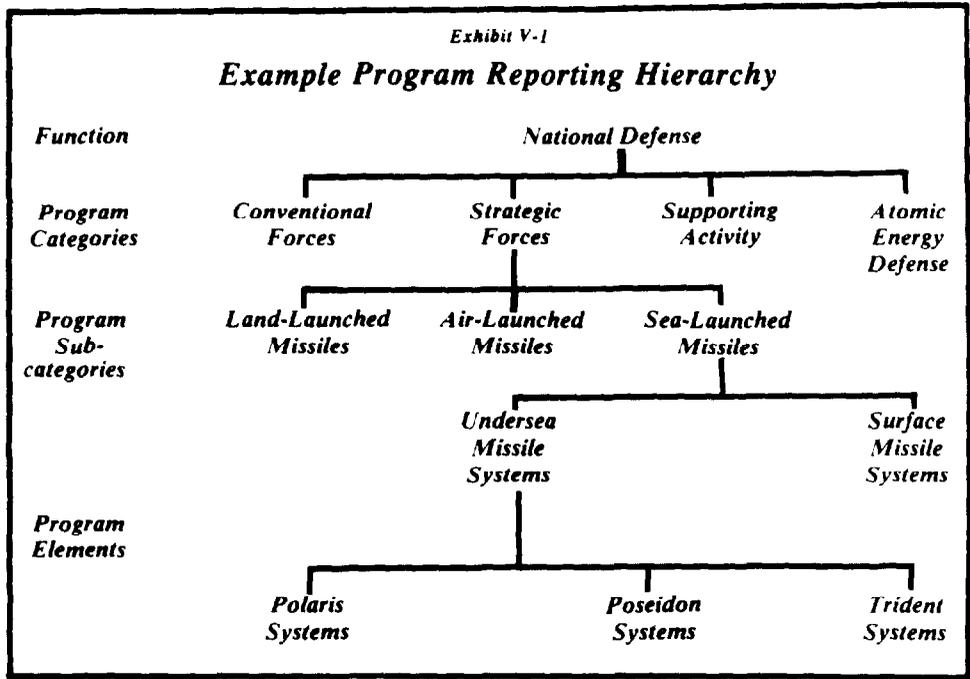


Exhibit V-2
Example
Program Reporting "Roll-up"

Program Responsibility Report
Strategic Forces
Reports to: National Defense
6/30/84

COSTS BY PROGRAM				PRODUCTIVITY MEASURES											
Total Budget	Description	Current Period			Year to Date			Total Quantities	Unit of Measure	Current Period			Year to Date		
		BUD	ACT	VAR*	BUD	ACT	VAR*			BUD	ACT	VAR*	BUD	ACT	VAR*
\$50	Land Launched Missiles	\$13	\$13		\$40	\$41	\$+1	900	Missiles Deployed	75	75		750	750	
100	Air Launched Missiles	25	25		74	74		600	Missiles Deployed	50	40	10	500	400	20
150	Sea Launched Missiles	37	38	+1	111	114	+3	1,222	Missiles Deployed	106	100	-6	1,040	1,054	-6
\$300	TOTAL	\$75	\$76	\$+1	\$225	\$229	\$+4	2,722		231	215	-16	2,310	2,284	-26

Program Responsibility Report
Sea Launched Missiles
Reports to: Strategic Forces
6/30/84

COSTS BY PROGRAM				PRODUCTIVITY MEASURES											
Total Budget	Description	Current Period			Year to Date			Total Quantities	Unit of Measure	Current Period			Year to Date		
		BUD	ACT	VAR*	BUD	ACT	VAR*			BUD	ACT	VAR*	BUD	ACT	VAR*
\$100	Undersea Missile Systems	\$25	\$26	\$+1	\$68	\$70	\$+2	672	Missiles Deployed	56	40	16	560	544	16
50	Surface Missile Systems	12	12		44	44		600	Missiles Deployed	50	40	10	500	510	+10
\$150	TOTAL	\$37	\$38	\$+1	\$111	\$114	\$+3	1,272		106	100	-6	1,040	1,054	-6

Program Responsibility Report
Undersea Missile Systems
Reports to: Sea Launched Missiles
6/30/84

COSTS BY PROGRAM				PRODUCTIVITY MEASURES											
Total Budget	Description	Current Period			Year to Date			Total Quantities	Unit of Measure	Current Period			Year to Date		
		BUD	ACT	VAR#2	BUD	ACT	VAR#2			BUD	ACT	VAR#2	BUD	ACT	VAR#2
\$40	Personnel Systems	\$10	\$10		\$30	\$30		192	Missiles Deployed	16	10	16	160	144	16
25	Passive Systems	6	6		18	18		192	Missiles Deployed	16	16		160	160	
15	Trojan Systems	9	10	+1	20	22	+2	288	Missiles Deployed	24	24		240	240	
\$80	TOTAL#	\$25	\$26	\$+1	\$68	\$70	\$+2	672		56	40	-16	560	544	-16

COSTS BY OBJECT							
Total Budget	Description	Current Period			Year to Date		
		BUD	ACT	VAR#2	BUD	ACT	VAR#2
\$60	Personnel	\$11	\$11		\$44	\$44	
22	Supplies/Materials	9	10	+1	12	14	+2
14	Utilities & Rent	4	4		10	10	
9	Depreciation	1	1		2	2	
\$100	TOTAL#	\$25	\$26	\$+1	\$68	\$70	\$+2

#Reports reflect costs (i.e. resources consumed) by program.
#Actuals - values shown by program and object class the status of budgeted versus actual costs.
#Highlights variances from planned missile deployment.
#Excludes variances from other higher level reports.

Program Responsibility Report
National Defense
6/30/84

COSTS BY PROGRAM				PRODUCTIVITY MEASURES											
Total Budget	Description	Current Period			Year to Date			Total Quantities	Unit of Measure	Current Period			Year to Date		
		BUD	ACT	VAR*	BUD	ACT	VAR*			BUD	ACT	VAR*	BUD	ACT	VAR*
\$575	Conventional Forces	\$110	\$109	\$-1	\$110	\$100	\$+10								
100	Strategic Forces	75	76	+1	225	229	+4								
375	Supporting Activities	25	25		75	76	+1								
150	Atomic Energy Defense	03	04	+1	192	192									
\$1,100	TOTAL	\$273	\$274	\$+1	\$822	\$811	\$+111								

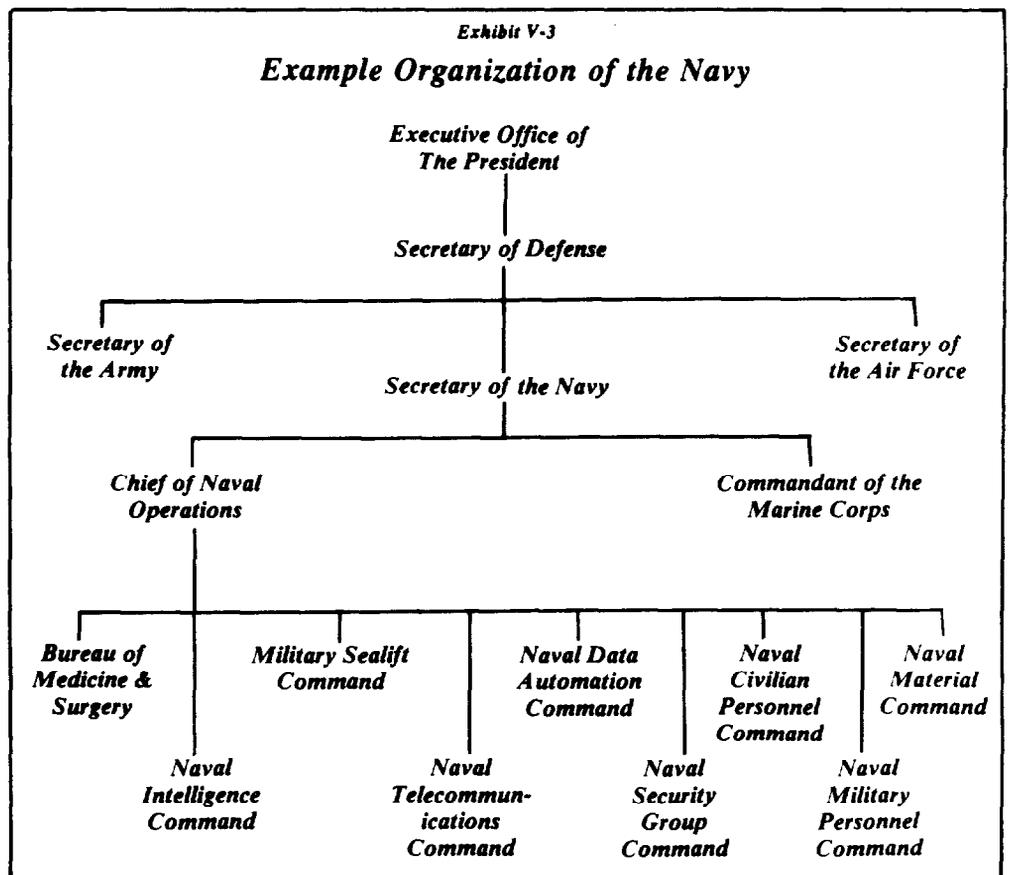
COSTS BY OBJECT							
Total Budget	Description	Current Period			Year to Date		
		BUD	ACT	VAR*	BUD	ACT	VAR*
\$650	Personnel	\$112	\$111	\$-1	\$406	\$410	\$+4
490	Supplies/Materials	91	91		180	185	+5
110	Util. & Rent	02	01	-1	194	198	+4
50	Depreciation	8	8		22	22	
\$1,300	TOTAL	\$273	\$274	\$+1	\$822	\$811	\$+111

*Variances over/under.

Organizational Reporting

Cost must be controlled within a management structure. Organizational responsibility reporting, based on the superior/subordinate relationships inherent in an organizational structure, provides the capability to monitor and control the activities of government organizations. The key to making this reporting successful lies in identifying controllable costs, assigning management responsibility, and giving managers the authority and discretion to direct the activities assigned to them. Managers are held accountable for their decisions through a series of reports that summarize budget versus actual costs along organizational lines.

A simplified example organization chart for the Navy could be as shown in exhibit V-3.



As with program reporting, detailed budget and accounting transactions must be related to the lowest organizational entity required for meaningful organization reporting. Using our simplified example (exhibit V-4), transactions would be related to one of the eight command levels (assuming, for illustrative purposes, no lower levels). The head of each command would receive management reports detailing the activities of the entities reporting to them. Each command would be line items on the Chief of Naval Operations' report. The Chief of Naval Operations and the Commandant of the Marine Corps would be line items of the Secretary of the Navy's report.

Exhibit V-4

Example Organizational Reporting "Roll-Up"

Organization Responsibility Report
Secretary of Defense
Reports to: Executive Office of the President
6/30/84

COSTS BY ORGANIZATION:

Total Budget	Description	Current Period			Year to Date		
		BUD	ACT	VAR*	BUD	ACT	VAR*
\$300	Secretary of the Army	\$90	\$92	\$+2	\$220	\$220	
400	Secretary of the Navy	100	101	+1	300	302	+2
300	Secretary of the Air Force	110	107	-3	348	350	+2
<u>\$1,200</u>	TOTAL	<u>\$300</u>	<u>\$300</u>	<u>---</u>	<u>\$868</u>	<u>\$872</u>	<u>\$+4</u>

Organization Responsibility Report
Secretary of the Navy
Reports to: Secretary of Defense
6/30/84

COSTS BY ORGANIZATION:

Total Budget	Description	Current Period			Year to Date		
		BUD	ACT	VAR*	BUD	ACT	VAR*
\$300	Chief of Naval Operations	\$75	\$77	\$+2	\$225	\$226	\$+1
100	Commandant of the Marine Corps	25	24	-1	75	76	+1
<u>\$400</u>	TOTAL	<u>\$100</u>	<u>\$101</u>	<u>\$+1</u>	<u>\$300</u>	<u>\$302</u>	<u>\$+2</u>

Organization Responsibility Report
Chief of Naval Operations
Reports to: Secretary of the Navy
6/30/84

COSTS BY ORGANIZATION:¹

Total Budget	Description	Current Period			Year to Date		
		BUD	ACT	VAR*	BUD	ACT	VAR*
\$10	Bureau of Medicine & Surgery	\$2	\$2		\$7	\$6	\$-1
10	Naval Intelligence Command	3	2	-1	6	7	+1
40	Military Sealift Command	8	9	+1	29	28	-1
6	Naval Telecommunications	1	1		4	4	
5	Naval Data Automation	2	2		4	4	
4	Naval Security Group	1	1		3	4	+1
50	Naval Civilian Personnel	12	13	+1	38	40	+2
75	Naval Military Personnel	17	20	+3	55	56	+1
100	Naval Material Command	29	27	-2	79	77	-2
<u>\$300²</u>	TOTAL	<u>\$75</u>	<u>\$77</u>	<u>\$+2²</u>	<u>\$225</u>	<u>\$226</u>	<u>\$+1²</u>

COSTS BY OBJECT:

Total Budget	Description	Current Period			Year to Date		
		BUD	ACT	VAR*	BUD	ACT	VAR*
\$110	Personnel	\$32	\$36	\$+4	\$105	\$110	\$+5
110	Supplies/Materials	25	22	-3	60	58	-2
75	Util. & Rent	17	18	+1	57	55	-2
5	Depreciation	1	1		3	3	
<u>\$300³</u>	TOTAL	<u>\$75</u>	<u>\$77</u>	<u>\$+2²</u>	<u>\$225</u>	<u>\$226</u>	<u>\$+1²</u>

*Variance is over (+)
under (-)

Year to Date

BUD	ACT	VAR*
\$300	\$302	\$+2
330	331	+1
216	217	+1
22	22	
<u>\$868</u>	<u>\$872</u>	<u>\$+4</u>

Year to Date

BUD	ACT	VAR*
\$122	\$128	\$+6
96	91	-5
75	76	+1
7	7	
<u>\$300</u>	<u>\$302</u>	<u>\$+2</u>

¹Reports reflect cost (i.e., resources consumed) by organization.
²Variance columns show by organization and object class the status of budgeted versus actual cost.
³Total line becomes a line item on the next higher level report.

Project Reporting

Project reporting is a third dimension of execution management reporting. Project reporting provides specialized reports to monitor and control specific activities, such as construction of capital assets or development of major weapon systems. Although cost thresholds may be used to determine significance, management ultimately determines what activities constitute projects requiring specialized reporting.

The current DOD Selected Acquisition Reports (SARs) are an example of project reporting. The SARs summarize estimates of technical, schedule, quantity, and cost information for major defense systems. However, the data presented in the SARs do not necessarily tie to the DOD accounting system, and the information generally is not comparable or consistent over time. Project reporting that is a product of an integrated budgeting and accounting system provides management with information on planned and actual cost and performance.

Time is a principal factor in project reporting. Unlike reporting that focuses on a month, quarter, or fiscal year, project reporting reflects information that spans the entire life of a project. That life starts with planning. The essential features of project planning include

- defined project phases, such as
research and development,
prototype construction and testing, and
final construction and testing,
- estimated resource requirements to completion,
- estimated cost of those resources for each phase,
- expected start and completion or milestone dates for each phase, and
- identified project funding sources (which may be from multiple appropriations).

Once planning has been completed and the project initiated, accounting records are kept on actual costs incurred and outputs produced by phase. Frequent reports are prepared to compare actual with planned costs and outputs. Significant variances are analyzed, and changes reflecting the revised cost and output budget can be made. However, the original "baseline" budget figures are maintained, and actual costs are compared to both the baseline and revised budgets.

Continuing the simplified example, a project within the Trident Systems program element could be the construction of two Trident submarines. Planning for this project could be as follows:

<i>Phases</i>	<i>Estimated Cost</i>	<i>Years</i>				
		<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>Research & Development</i>	<i>\$16</i>	_____				
<i>Testing & Evaluation</i>	<i>4</i>		_____			
<i>Design</i>	<i>10</i>		_____			
<i>Procurement</i>	<i>70</i>			_____		
	<u><i>\$100</i></u>					

A project report, such as exhibit V-5, could be prepared at specific intervals or on request. The report would be reviewed and explanations requested for variances from original planning. The example is simplified for illustrative purposes; however, reporting of this type gives policymakers and managers a means to identify and evaluate projects that are not meeting their original expectations. Managers can use these reports to compare original project planning with current cost estimates and funding status and then make appropriate decisions.

Exhibit V-5

Project Report
Trident Submarine Construction
10/31/83

PROJECT STATUS

Phases	Planned Cost	Actual Cost To Date	Estimate to Complete	Total Cost to Complete	Over (+) Under (-) Planned	Scheduled Completion Date	Months Under (-) Over (+)
Research and Development	\$16	\$20	\$0	\$20	\$+4	8/82	+2
Testing and Evaluation	4	3	0	3	-1	1/83	
Design	10	11	0	11	+1	9/83	+1
Procurement	70	10	65	75	+5	10/85	+2 ⁴
	<u>\$100</u> ¹	<u>\$44</u>	<u>\$65</u>	<u>\$109</u> ²	<u>\$+9</u> ³		

FUNDING STATUS

Appropriations				Obligations ⁶	
Number	Description	Date	Amount	Amount	Unobligated
XXXXXX	Research and Development Testing and Evaluation (FY82)	10/81	\$20	\$20	\$0
XXXXXX	Research and Development Testing and Evaluation (FY82 Supplemental)	2/82	3	3	0
XXXXXX	Shipbuilding and Conversion (FY83)	10/82	10	10	0
XXXXXX	Shipbuilding and Conversion (FY83 Supplemental)	4/83	1	1	0
XXXXXX	Shipbuilding and Conversion (FY84)	10/83	70	35	35
	Totals		<u>\$104</u>	<u>\$69</u>	<u>\$35</u>
	Current Estimate To Complete over (+) under (-)		<u>109</u> ² <u>\$+5</u> ⁵		

¹Planned cost to complete the project.
²Current estimate of total cost to complete the project.
³Estimate to complete exceeds planned costs by 9.
⁴Shows that the procurement phase is running two months over schedule.
⁵Shows additional budget authority is needed to complete the project.
⁶Shows status of obligations by appropriations.

Other Management Reports

In addition to the structured management reports and financial statements, the system should be able to produce other reports on a regular or ad hoc basis. These reports would provide information for special studies, congressional committees or subcommittees, or other interested parties.

Some examples of these reports are as follows:

- *Contractor/Grantee Reports*—Reports that provide information on the status of one or more contracts. Information on aggregate costs for a specific contract or group of contracts would be useful to agency management and other government organizations which develop statistics on the amount and location of government dealings with private contractors. As with project reporting, these reports can be summarized across many different lines, such as by program or organization, type of procurement, or dollar level, and may be produced at different levels of detail within the reporting hierarchy.
- *Geographical Location Reports*—Reports that provide information on programs, contracts, grants, object classes, or some other type of expenditure by geographical location, such as congressional district. Numerous users of government financial data are very interested in obtaining information on the cost of federal programs within a particular city, state, or region. Various systems currently provide some of this type of reporting; however, the data are compiled from a variety of sources and generally lack consistency. Data from a single source, such as an integrated management information system, will help assure the information's consistency and reliability.
- *Legislative Committee Reports*—Reports that provide financial data across various entities or subentities of interest to particular congressional committees. Presently, the lack of a single integrated source for financial information raises questions concerning the data's consistency and validity. Data from a single source will improve the credibility of special analyses for the Congress.

Fund Control

The proposed conceptual framework emphasizes using accrual data in both federal budgeting and accounting systems as the preferred method to monitor financial condition and the use of resources. This emphasis on accrual information meets current legislative guidance and GAO's accounting principles and standards. Although many agency accounting systems now use some accrual accounting techniques, only a few of these systems currently record the cost of operations, i.e., the total resources consumed in carrying out a specific operation. Agency budget systems are now obligation-based and pay little, if any, attention to accrual or cost data.

The attention being given to the proposed use of accrual techniques in budgeting and reporting is not meant to overshadow or eliminate the current legislative, OMB, and Treasury requirements for fund and cash controls. The conceptual framework envisions continued management emphasis and reporting on fund (obligation) control and cash management in accordance with current requirements. Using the present processes as a springboard, the objectives are to improve current procedures for managing and reporting on obligations and cash and to budget, account, and report on the same basis, using accrual data. Fund control, the

second dimension of Execution Control as illustrated in exhibit IV-4, includes two key concepts: Appropriation Monitoring and Financial Statements.

Appropriation Monitoring

The term "fund control" refers to managing congressionally appropriated funds (obligational authority) to ensure that (1) they are used only for authorized purposes, (2) they are economically and efficiently used, (3) obligations and disbursements do not exceed the amounts authorized and available, and (4) the obligation or disbursement of amounts authorized is not reserved or otherwise deferred without congressional knowledge and approval.

Every agency is required to have a system of administrative control of funds, approved by the Director of the Office of Management and Budget that will restrict obligations or expenditures for each appropriation to the amounts appropriated and apportioned or reapportioned for the current fiscal period. In addition, the system used to control funds administratively must fix responsibility for creating any obligation, incurring any expenditure, or making a disbursement in excess of an apportionment, reapportionment, or other subdivision of authority. The requirements for these systems and the fund control reporting requirements are prescribed by OMB.

Under this proposed conceptual framework, budget authority would be determined by adjusting the accrual-based budget. The budget requirements will be developed in terms of all costs to be incurred in carrying out a particular program or group of programs. From this cost figure, unfunded costs (e.g., depreciation) will be subtracted, and changes in selected resources (such as inventories and other assets) will be either added or subtracted to arrive at the actual budget authority required (appropriation).

A brief summary schedule of an accrual-based budget, required adjustments, and the budget authority to be appropriated would appear as follows:

<i>Example Accrual-Based Budget Adjustments</i>		
<i>Net Operating Costs</i>	<i>\$300</i>	<i>(Accrual basis)</i>
<i>Less: Operating Cost Not Requiring Current Budget Authority</i>	<i>(10)</i>	<i>(Depreciation expense)</i>
<i>Less: Decrease in Undelivered Orders</i>	<i>(10)</i>	<i>(Noninventoried supplies)</i>
<i>Add: Increase in Noncapital Assets</i>	<i>5</i>	<i>(Prepaid rent)</i>
<i>Equals: Budget Authority</i>	<i>\$285</i>	

The \$285 of budget authority in this example is the same figure that would be appropriated following the current obligation basis of developing the budget. A more detailed discussion of the techniques used in preparing an accrual-based budget is discussed later in this section.

Examples of management reports that combine obligation (fund control) data and accrual data are included in exhibits V-6 through V-8. All current appropriation monitoring and reporting requirements will continue undisturbed under the proposed conceptual framework.

Financial Statements

Government-wide financial statements can supplement other budgeting and accounting information by giving an overall picture of the financial health of the government that is not available elsewhere. They disclose the cumulative financial effect of decisions on the nation's resources and provide early warning signals to policy formulators and the public. The "prototype" financial reports prepared by the Treasury Department are a useful first step toward this goal. The proposed conceptual framework will improve the quality of agency and consolidated financial statements by providing more complete, reliable, and consistent information.

Cash Control

The federal government will disburse over \$900 billion in 1984. Control over this money takes place at all management levels and involves the Treasury, agencies, and the Federal Reserve. Obviously, given the amounts and volumes of transactions involved, the importance of cash control cannot be overstated. Monthly cash balances and payment and collection histories, maintained within a central management information system, may be used to oversee cash control activities. Several of these activities are illustrated in exhibit IV-4.

Exhibit V-6
Example
Department of the Navy
Summary Status of Appropriations
Operations and Maintenance, Navy¹
6/30/84

Total Appro	Description	Current Period					Year to Date					Remaining Obligation Authority
		Accrued Costs					Accrued Costs					
		Apport	Oblig	Budget	Actual	Over (+)/ Under(-) Budget	Apport	Oblig	Budget	Actual	Over (+)/ Under(-) Budget	
\$ 84	Military Sealift Command	\$25	\$20	\$22	\$22		\$ 68	\$ 61	\$ 65	\$ 65		\$23
201	Naval Material Command	54	49	\$51	52	\$+1	160	149	155	158	\$+3	52
<u>\$285</u>		<u>\$79</u>	<u>\$69</u>	<u>\$73</u>	<u>\$74</u>	<u>\$+1²</u>	<u>\$228</u>	<u>\$210</u>	<u>\$220</u>	<u>\$223</u>	<u>\$+3²</u>	<u>\$75</u>

¹For illustrative purposes, this example assumes that the Operations and Maintenance, Navy appropriation does not finance capital items.
²These sections of the report advise the reader of the fact that actual cost currently exceeds planned cost for the Operations and Maintenance Appropriation.

Exhibit V-7
Example
Department of the Navy
Status of Capital Appropriation
Shipbuilding and Conversion¹
6/30/84

Total Appro	Description	Current Period					Year to Date					Remaining Obligation Authority
		Accrued Costs					Accrued Costs					
		Apport	Oblig	Budget	Actual	Over (+1)/ Under(-) Budget	Apport	Oblig	Budget	Actual	Over (+1)/ Under(-) Budget	
\$70	Trident Construction	\$20	\$16	\$18	\$17	\$-1	\$58	\$53	\$56	\$55	\$-1	\$17
5	Cruiser Construction	1	1	1	1		3	3	3	4	+1	2
5	Carrier Construction	2	2	1	2	+1	3	3	5	5		2
<u>\$80</u>		<u>\$23</u>	<u>\$19</u>	<u>\$20</u>	<u>\$20</u>	<u>==</u>	<u>\$64</u>	<u>\$59</u>	<u>\$64</u>	<u>\$64</u>	<u>==</u>	<u>\$21</u>

¹As illustrated in Exhibit V-5, funding for construction of the Trident submarine is provided from several different year appropriations. This example illustrates only the fiscal year 1984 appropriations.

Exhibit V-8
Example
Department of the Navy
Summary Status of Appropriations¹
6/30/84

Total Appro	Description	Current Period					Year to Date					Remaining Obligation Authority
		Accrued Costs					Accrued Costs					
		Apport	Oblig	Budget	Actual	Over (+1)/ Under(-) Budget	Apport	Oblig	Budget	Actual	Over (+1)/ Under(-) Budget	
\$285	Operations and Maintenance, Navy	\$79	\$69	\$73	\$74	\$+1	\$228	\$210	\$220	\$223	\$+3	\$75
80	Shipbuilding and Conversion	23	19	20	20		64	59	64	64		21
<u>\$365</u>		<u>\$102</u>	<u>\$88</u>	<u>\$93</u>	<u>\$94</u>	<u>\$+1²</u>	<u>\$292</u>	<u>\$269</u>	<u>\$284</u>	<u>\$287</u>	<u>\$+3²</u>	<u>\$96</u>

¹For illustrative purposes, this example assumes only two appropriations in the Department of the Navy. It is also assumed that the Operations and Maintenance, Navy appropriation does not finance capital items. The report provides both obligation and accrued costs data. Reader can quickly ascertain status of obligations (fund control) or cost incurred to date.

²These sections of the report advise the reader of the fact that actual cost currently exceeds planned costs for the Operations and Maintenance Appropriation.

Payables Monitoring

This control activity supports oversight of congressional legislation mandating that payments are timely (Prompt Payment Act of 1982). Prompt payments are based on the principle that money has a time value. The best use of cash availability and interest earnings (or alternatively, reducing interest expense) is a goal of effective cash management.

Payables monitoring consists of reviewing the age of payables, assessing what accounts require attention, and ensuring timely payments. This monitoring is an agency activity that requires detailed payables information.

The proposed conceptual framework will provide summary indicators of agencies' prompt payment of bills. In preparing these indicators, payables will be grouped according to their payment terms. These terms represent the "planned" age of payables and serve as benchmarks against which to evaluate the actual age of payables. Exhibits V-9 and V-10 focus on calculating and reporting the age of payables.

The benefit of this information is to better control the availability of cash resources. These summary indicators of the average age of payables identify areas where greater attention over disbursements is needed.

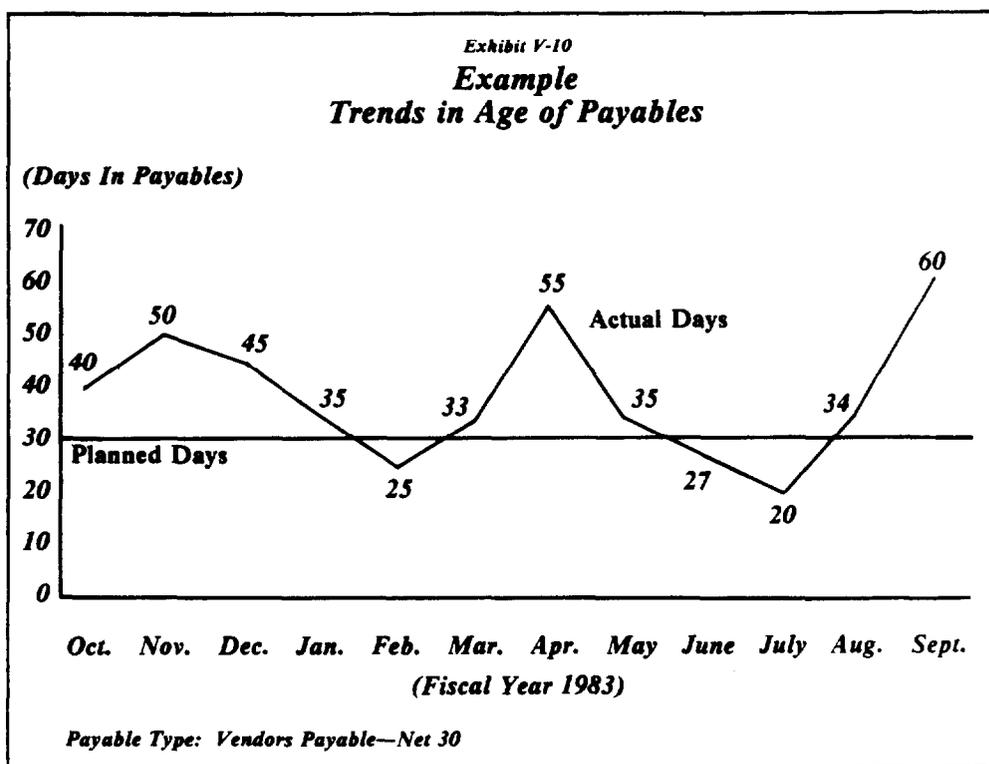
Collection Control

The final dimension under Execution Control illustrated in exhibit IV-4 is Collection Control. Collection Control refers to, in general, timely collection of amounts due the federal government. Collecting these amounts is an agency function performed with detailed loan and receivables information. The integrated budgeting and accounting system supports oversight of collection activities, in particular the implementation of the Debt Collections Act of 1982. Analyses similar to those for payables illustrated by exhibits V-9 and V-10 would assist with monitoring agency collection efforts.

Exhibit V-9

Average Age of Payables

<i>Balance in Payables (Start of Month)</i>	<i>\$ 50,000</i>
<i>New Invoices (Increases to Payables)</i>	<i>40,000</i>
<i>Payments</i>	<i><u>(20,000)</u></i>
<i>Balance in Payables (End of Month)</i>	<i><u>\$ 70,000</u></i>
<i>Average Payables Balance</i>	<i><u>\$ 60,000</u></i>
<i>Average Monthly Invoices (over 3 months)</i>	<i><u>\$ 40,000</u></i>
<i>Average Age of Payables, Expressed in Days (\$60,000/40,000 x 30 days)</i>	<i>45 days</i>

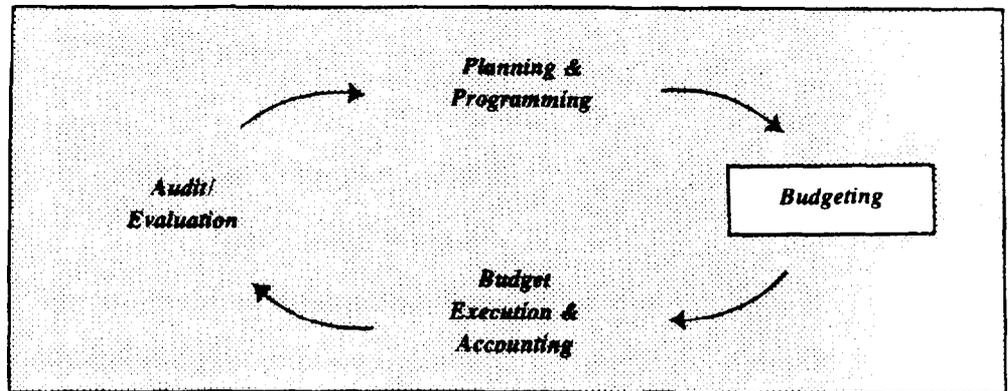


The benefits of improved collections monitoring relate to the dollar amounts involved. The House Committee on the Budget has been especially interested in improving collections as one means of reducing the cash deficit. Other benefits include better prediction of loan defaults, and, consequently, better prediction of program costs. Policymakers will be able to use information about delinquency amounts and rates to formulate credit policies.

Conclusion

Execution Control focuses attention on controlling costs, controlling funds, controlling cash, and controlling collections. All these control activities imply a comparison of actual results to expectations. Expectations are defined during the budgeting process of the management cycle, a process guided by the same principles under which actual results will be accounted for.

Budgeting



A major weakness of the federal budget system has been the failure to develop budgetary processes to be most useful for management control and planning. Decisions are made at all governmental levels without full disclosure of the associated current and future costs. Costs are not fully disclosed to decisionmakers in four respects. First, not all federal government activities and services are included in the federal budget. Second, for those activities that are included in the budget, not all costs and claims to financial resources are reported. Third, the federal budget does not systematically distinguish between spending for current operations and capital investment. And fourth, the accounting and budgeting systems are not structured to summarize the full costs of all federal programs.

- **Activities Not Included in the Federal Budget**—Programs of the federal government that use taxpayers' resources and are excluded from the normal budget review process are referred to as "off-budget" entities. In 1982, these entities had cash outlays of \$17.3 billion. The largest off-budget entity, the Federal Financing Bank, had outlays of \$14.1 billion in 1982, primarily in federal loan activities.

Excluding off-budget entities from the budget decreases the budget's value as a decisionmaking tool. The weaknesses in budgetary control among off-budget entities lie with the nature of each entity. However, the very fact of their off-budget status removes them wholly or partially from the budgetary review process.

Resource allocation decisions among many areas of national needs become fragmented when the budget does not disclose all federal spending. This fragmentation makes it difficult for policy and budget decisionmakers to allocate resources.

- *Costs and Claims to Resources Are Not Systematically Budgeted and then Reported in the Accounting Systems*—While all government activities are not included in the budget, it is also true that some on-budget activities' costs are not fully reflected in the budget process or accounting systems. An example of this type of cost is the government's liability for retirement benefits, which represents a major commitment of future resources. Retirement benefits being earned by today's civilian employees are recognized only in part, while until recently those of military personnel were not recognized at all. One of several recent reports estimated the unfunded portion of retirement benefits to be several hundred billion dollars. Because these claims have not been regularly and accurately disclosed, the financial consequences of past and current decisions are not being fully considered.
- *Budget Does Not Systematically Distinguish Between Spending for Current Operations and Capital Investment*—Federal capital investment activity is managed through numerous agencies, programs, and funding sources. Inconsistent presentation in the budget often obscures this capital activity. This, with a budgeting and accounting approach which treats capital spending as if it were the same as spending for current operations, creates what some consider to be a systematic bias against capital investment. There is no structured approach to capital investment issues and no coordinated policy mechanism for assessing capital investment priorities for the government as a whole.
- *The Failure To Disclose Full Costs Results from Structural Deficiencies in Current Budgeting and Accounting Systems*—The current systems focus primarily on avoiding obligations in excess of amounts authorized (fund control) with little regard to helping management achieve maximum efficiency (cost control). To be useful, accounting and budgeting systems should serve both purposes. The systems must be able to summarize financial transactions both by appropriation and by program. In an ideal structure, all the costs of a program would appear in a single appropriation. In the federal government, however, a program is often funded by multiple appropriations. Capital costs may appear in one appropriation, supplies in a second, and salaries in a third. At the present time, the depreciation cost of capital assets is not recorded in most budgeting and accounting systems.

A properly structured accrual-based budget would provide a means for overcoming these weaknesses. In basic terms, an accrual budget is one which is expressed in terms of costs to be incurred during a specific period rather than in funds to be obligated or spent. In this context, cost is the value of goods and services to be used or consumed by an agency within a given period, regardless of when the goods or services were ordered, received, or paid for. Thus, in any one year, the obligations incurred may be less, equal to, or greater than the costs recognized for that period. This difference is due to such things as increases or decreases in inventories, undelivered orders, or other changes in certain resources. Over the total life of a program, obligations and costs are identical. The difference lies in how these different measures of activity are distributed over time.

If used properly, accrual-based budgeting offers several advantages for management purposes:

- Accrual-based budgets provide management with a complete financial projection of proposed operations.
- Accrual-based budgets provide management with the timely information it needs to evaluate financial plans, the real cost of activities, and the use of all available resources.
- Accrual-based budgets provide a basis for using an operating plan and a standard in measuring actual performance and in determining unit costs.
- Accrual-based budgets provide a time-phased basis for controlling expenses and disclosing unfunded program costs.

The advantages of accrual-based budgeting to department and agency management should also benefit the congressional budget review process. Information on the true cost of programs and the uses being made of all resources should aid congressional decisionmaking. However, costs alone cannot be the measure used by the Congress for controlling funding. The budgeting process is keyed to budget authority and outlays, with budget authority based on obligations rather than costs. This is as it should be, given the fund control focus embedded in the Constitution. However, the decision to provide obligational authority should be made on the basis of a full picture of the agency's financial operations, including unfunded costs as well as those for which current funding is being requested. The reconciliation between a budget based on cost, and funding based on obligations, is a mechanical process that has been used by some agencies in the past with little added effort.

Preparation of an Accrual-Based Budget

The proposed accrual-based budget is based on executive branch agencies' preparation of unified budgets with two components—an operating component and a capital component. In addition, the accounting system has activity or program classifications that are consistent with the budget classifications.

If agencies account for and manage their operations on an accrual basis, it makes sense that they develop appropriation requests on an accrual basis. The Congress can then review the budget request and appropriate budget authority on the basis of consistent and accurate information. Exhibit V-11 through V-13 illustrate, on a hypothetical basis, the two components of an accrual-based budget for the Department of the Navy. The accrual-based budget is presented in the same basic format as the current obligation-based budget except that the figures represent costs.

To provide the Congress with a budget authority figure, the operating component of the budget (exhibit V-12) requires a reconciliation schedule at the bottom to convert the cost data to obligations.

Exhibit V-11

**Example
Secretary of the Navy
Budget for Fiscal Year 1984¹
10/1/83**

Budget Authority by Appropriation:²

Operations and Maintenance, Navy	\$2853
Operations and Maintenance, Marine Corps	100
Other	—
Shipbuilding and Conversion	803
Other	—
Total Budget Authority	<u>\$465</u>

¹For illustrative purposes, this example assumes two Operations and Maintenance Appropriations and one Shipbuilding and Conversion Appropriation. All other appropriations (either capital or operating) are represented by the "other" category.

²This exhibit provides data on budget authority (obligational authority).

³See exhibits V-12 and V-13 for details on these two appropriations.

Exhibit V-12

**Example
Department of the Navy
Operations and Maintenance Budget—Fiscal Year 1984**

BUDGET BY ORGANIZATION	1 Accrual Basis			2 Adjustments	3 1984 Est. Budget Authority	Productivity Measures*	
	1982 Accrual	1983 Estimated	1984 Estimated			Quantity	Unit of Measure
Military Sealift Command	\$79	\$89	\$92	\$(8)	\$84		
Naval Material Command	200	208	208	(7)	201		*To be developed by user
Other Navy Commands	—	—	—	—	—		
Total	<u>\$279</u>	<u>\$297</u>	<u>\$300</u>	<u>\$(15)</u>	<u>\$285</u>		

BUDGET BY OBJECT	1 Accrual Basis			2 Adjustments	3 1984 Est. Budget Authority	Productivity Measures*	
	1982 Accrual	1983 Estimated	1984 Estimated			Quantity	Unit of Measure
Personnel	\$110	\$118	\$119	—	\$119		
Depreciation	8	9	10	(10)	—		
Supplies/Materials	96	100	103	(10)	93		*To be developed by user
Utilities & Rent	60	64	61	5	66		
Equipment	5	6	7	—	7		
Total	<u>\$279</u>	<u>\$297</u>	<u>\$300</u>	<u>\$(15)</u>	<u>\$285</u>		

RECAP OF ADJUSTMENT FROM ACCRUAL TO OBLIGATION BASIS:

Net Operating Cost	\$300	(Accrual Basis)
Less: Operating Cost Not Requiring Current Budget Authority	(10)	(Depreciation Expense)
Less: Decrease in Undelivered Orders	(10)	(Noninventoried Supplies)
Add: Increase in Noncapital Assets	5	(Prepaid Rent)
Equals Budget Authority	<u>\$285</u>	

¹Budget is presented on a cost basis.

²Adjustments by organization and object classes necessary to convert cost-based data to obligation-based.

³Estimated budget authority (obligation-based) by organization and object class for FY 1984, after adjustments.

Example
Department of the Navy
Shipbuilding and Conversion, Navy
Capital Budget—Fiscal Year 1984

BUDGET BY PROJECT:

Project	Financial Budget				Output Budget		
	Column (1) Cumulative Prior Appropriations	+ Column (2) 1984 Requested	+ Column (3) Anticipated Future Appropriations	= Column (4) Estimated Total Appropriations	Quantity to be Produced	Unit of Measure	Unit Cost
Trident	\$34	\$70	-	\$104			
Cruiser	-	5	12	17			
Carriers	20	5	40	65			*To be developed by the user
	<u>\$54</u>	<u>\$80</u>	<u>\$52</u>	<u>\$186</u>			

BUDGET BY OBJECT:

Object	1984 Estimated
Contracts	\$40
Equipment	30
Supplies and Materials	10
Budget Authority	<u>\$80</u>

Resources Available for Application to Cost

In determining the method of financing proposed costs, the resources which can be applied to costs (other than current appropriations) must be carefully estimated because they will affect the amount of appropriation required. The common types of resources available for carryover from year to year are (1) inventories, (2) undelivered orders, (3) advances on contracts, and (4) work in process. It is just as important to account for and use resources acquired from appropriations of other years as it is to plan the use of current appropriations.

Inventories are one of the resources carried over and are common to most agencies. In agencies in which the inventory level remains relatively constant from year to year, this resource poses few problems. However, in certain agencies, inventories run into many millions of dollars and will vary greatly depending upon delivery date, issues for consumption, etc. This may be further complicated by the geographical location of inventories in this country and abroad. Under these circumstances, very careful planning is required and must include detailed information on the programs being planned, long-leadtime items to be ordered, and expected delivery dates. Changes in level of operations may also entail changes in inventory level.

Managing physical inventories, however, is an activity totally independent and unaffected by the accounting for the cost of the inventory. In agencies where good physical management exists, budgeting for the cost of inventory usage is a straightforward process.

Another major resource is undelivered orders, i.e., contracts and orders outstanding at year's end for which delivery will be made in future fiscal years. In agencies where the amount of undelivered orders is relatively constant, few problems are encountered. However, in agencies where programs are constantly changing and large undelivered orders for long-leadtime items are the rule, the problem becomes acute. There is a common misconception that, once funds are obligated, they are gone, and changes are no longer possible in the programs financed by those funds. Here again, it is necessary to know how programs operate if intelligent resource estimates and decisions are to be made. Program plans must be analyzed, and such things as delivery of materials ordered, contract completion dates, etc., must be carefully evaluated in terms of cost so that informed decisions can be made.

Other forms of resources, such as advances, work in process, and other miscellaneous resources, can be evaluated in much the same manner as inventories and undelivered orders. Budgeting resources to be carried over for future use is an important aspect of the accrual-based budget and may represent an area where there is considerable variance between estimates and actual.

Simplifying and Streamlining the Federal Budget Process

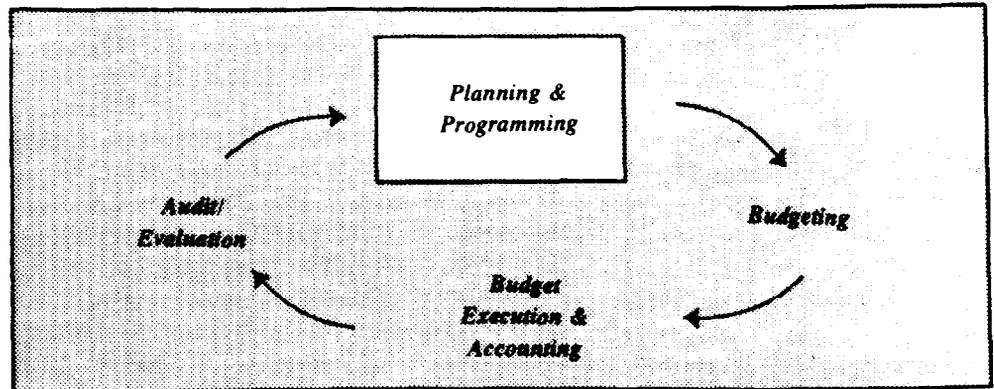
Proposals for improving the congressional budget process have come from within the Congress and from such outside groups as the Committee for Economic Development. They include selected changes in congressional organization and procedures; a biennial budget for part or all of the federal government; and the adoption of a single, omnibus budget, appropriations, and revenue bill. All these proposals have in common the goal of reducing the number of layers in the congressional budget process and/or reducing the number of budget decisions that the Congress must make each year.

The Office of Management and Budget, the National Academy of Public Administration, the Committee for Economic Development, and the Committee for a Responsible Federal Budget are among those studying ways of improving the executive branch processes. Proposals for reform in both the Congress and the executive branch should be judged against the overriding objective of making the process more manageable and understandable. Members of the Congress and top executive branch officials must be less encumbered with detail so they can give more attention to major policy issues, the long-term consequences of current budgetary decisions, and the oversight and management of government programs.

Conclusion

The process of developing an accrual-based budget is predicated on the plans and programs adopted by each agency for delivering its services. The budget is only next year's cost estimate of those services and incorporates the enactment of strategic decisions made by department management. These decisions should follow intensive analysis of program changes and alternative methods for service delivery, analysis typically conducted during the Planning and Programming phase of the management cycle.

Planning and Programming



In earlier sections of this document, several basic concepts were examined and positions taken concerning the direction of a new foundation for financial management. A brief summary follows:

- A structured planning and programming process should be used for evaluating and choosing among program alternatives.
- The accrual basis is the best method of accounting and reporting on the results of federal operations.
- The budget should be prepared on the same basis as the accounting and reporting functions to allow for meaningful comparisons between planned results and actual results in a comprehensive manner.
- Accounting and budgeting on an accrual basis does not preclude users of the system from obtaining and using cash-based and obligation-based data to comply with current management and reporting requirements.

From an information perspective, planning, programming, and budgeting decisions should be based on reliable information in a process that is integrated with budget execution and accounting. Through integration and the adoption of accrual-based concepts, each successive phase of the financial management process will have the consistent and reliable cost information needed to make better informed resource allocation decisions.

Planning and Programming

While budgeting has been a formal practice in the federal government for many years, an even more basic function—the development of programs and plans which drive the budget—is a fairly recent activity. The first agency to officially adopt an integrated Planning/Programming/Budgeting System (PPBS) was the Department of Defense.

Defense's PPBS rapidly developed into a sophisticated process with an extensive program structure, program reviews, updating procedures, and a detailed multiyear approved Five-Year Defense Program (FYDP). Other federal agencies subsequently adopted the PPBS approach with more or less success, which reflects the modest pressure exerted in favor of PPBS by several successive administrations.

Although some agencies, notably the Department of Defense, still maintain PPBS programs, the problem common to all agencies is a failure to fully inte-

grate planning and budgeting systems with financial reporting systems. In some agencies, planning and budgeting is internally consistent, but it is not consistent with the agency's accounting system. Other agencies integrate operating budgets with accounting, but programming and planning systems are generally not integrated with the budgeting and accounting systems.

While the proposed conceptual framework does not specify the design criteria for programming and planning systems, those areas have been researched with the intent to incorporate programming and planning information needs into the proposed financial foundation. In other words, the federal government should plan, program, budget, and account consistently so that actual activity can be compared with desired activity for each management function. The fundamental objectives of PPBS are sound and should be the basis for all agency planning systems, both civil and defense.

Any government-wide PPBS system must be flexible, permitting each agency to develop planning and programming techniques that fit its needs. The system must also provide the Executive Office of the President and the Congress with the information and analyses needed for sound program decisions and management of the government's long-term budget and fiscal policies.

The proposed framework envisions each agency head as responsible for ensuring that the planning and programming system is operating effectively and meeting its objectives in his or her agency. The agency head would manage the agency system on a day-to-day basis, making decisions as planning proceeds. In addition, the agency head would be responsible for preparing any materials going to the White House for review and, in most cases, would defend his or her proposals during the process of review within the Executive Office of the President.

Agency staff would, of course, do the bulk of the analytical work. Most agencies have such a staff, but in some cases, upgrading and augmenting staff would be required. This staff would oversee the process and prepare agencywide documents to do the analysis or to manage it. This work may also be done by the analysis staff or some other agency within the department. In addition, work done by others (e.g., the Inspector General, CBO, GAO, etc.) should be reflected, as appropriate, in the planning, programming, review, and decision processes. The agency budget staff will also play a key role in this effort. They should be included in a substantive way to reduce tensions among planners/programmers and budgeters, to avoid fragmenting the resource allocation process, and to make the most effective use of scarce analytic talent.

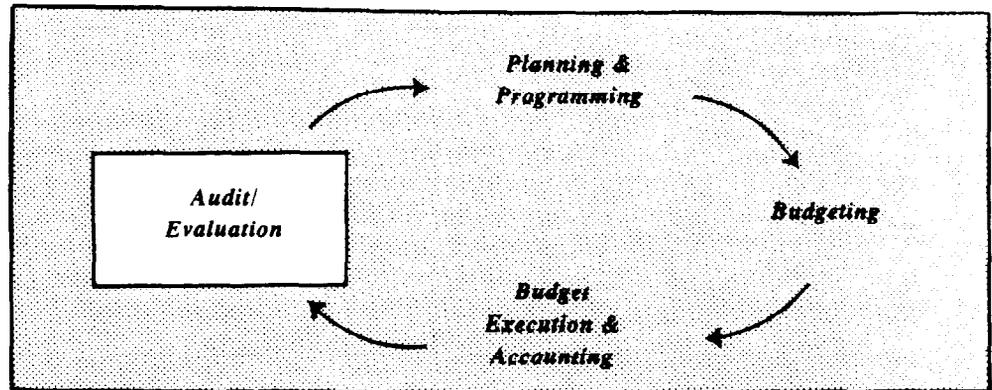
Conclusion

A well-developed, modern, government-wide structure for planning and programming would enable the Congress, the President, and agency officials to focus their policy deliberations more systematically on the nation's major issues. This structure would highlight the major policy and program options available and their likely benefits and costs.

Better-defined goals, strategies, and priorities resulting from this structure would reduce pressure on the budgeting process and should make budgeting more effective. Once the basic program and policy decisions are made in a structured way,

top officials can delegate many of the more detailed issues which now consume their time.

Audit and Evaluation



Financial Audits—Ensuring Integrity and Credibility

The usefulness of financial reports is increased when the information reported in them is consistent and reliable. The Congress, in its oversight role, is better able to deal with program and agency problems when financial information is reliable. Without reliable information, oversight decisions risk obtaining ineffective or counterproductive results. The public is generally accustomed to seeing audited, and therefore reliable, financial information in the published reports of private corporations. Financial reports of federal entities should also exhibit the same or a greater degree of reliability.

Using an integrated budgeting and accounting system for the federal government will lead to more consistent and reliable financial reporting and eventually to more consistent and reliable performance reporting. An integrated budgeting and accounting system will facilitate the conduct of financial audits to attest to this consistency and reliability.

The path to reliable information lies in effective budgeting, accounting, and related internal control systems, but the effectiveness of these systems must be assessed periodically to assure continued data reliability. Annual audits are generally regarded as the best way to accomplish this reliability.

Evaluation—Assessing Efficiency and Effectiveness

In the previous phases of the process, policy goals were debated and set, program strategies were developed, resources were allocated, and the budget was executed and monitored against operating plans. In management and program audit and evaluation, execution results are measured to determine what was accomplished with the resources used, and results are then compared to objectives (planned, expected, or desired accomplishments). Evaluation provides feedback on the effectiveness of government-financed policies, programs, organizations, projects, and activities, and on whether, how well, and how efficiently they are achieving their intended objectives. Evaluation feedback is used by government managers, policymakers, and the public to

- determine the effectiveness of a government initiative;
- judge the degree to which the government has achieved the intended objectives of its policies, organizations, programs, projects, and activities;

-
- supervise (oversee) the performance of the government and its officials and hold officials accountable for producing desired results; and
 - support future planning, programming, and budgeting decisions.

Evaluation in the federal government too often lacks clear, specific, and agreed-upon objectives for the policies, programs, organizations, projects, and activities financed by the government. The planning, programming, and budgeting components of the suggested financial management process will address this problem by using information that matches costs with the services, benefits, and accomplishments delivered. This matching will enable policymakers and managers to better understand and focus on the relationship between inputs (resources, budget levels) and outputs (services, benefits, accomplishments) when planning, programming, and budgeting. Management can then consider and set more realistic and specific objectives in the planning, programming, and budgeting phases. While these will not obviate all the measurement problems which remain to be addressed in program evaluation, they will nonetheless, provide a better basis for specifying objectives that are achievable.

Federal evaluation also is currently hampered because reliable and consistent data on the costs and outputs of all government activities are not routinely developed, summarized, and reported to management and oversight officials. An integrated budget and accounting system will routinely collect and report reliable and consistent data on the costs of government by organization, program, and project, even if the programs and projects cross organizational lines. Such an integrated system also will be capable of incorporating performance measures and indicators related to the outputs of the programs, organizations, and projects. These indicators and measures would be based on the performance expectations of policymakers and managers in the context of planning, programming, and budgeting, and while not replacing the rigorous studies needed to answer complex effectiveness questions, would provide these officials with relevant and timely feedback about performance. When output indicators and measures are added to the execution control reporting system, the system will be able to routinely develop and report both the costs and outputs. By matching costs with outputs during a given period, it will be possible to monitor outputs in terms of efficiency (input-output relationships) and unit costs. This routine reporting would enable managers and oversight officials to follow program, project, and organization performance during the budget year and would enable them to take necessary corrective action. Such routine reporting also would provide a basis for selecting programs, organizations, and projects for in-depth evaluation efforts to identify the causes of apparent performance problems and ways to improve performance.

Another deficiency in current federal evaluation efforts is the lack of integration between evaluation and the planning, programming, and budgeting processes. An accrual-based budget and associated accounting system will help address this deficiency by providing that planning, programming, and budgeting be done on a cost basis in which planned and actual cost data will be matched against planned and actual accomplishments. Policymakers and managers will be able to routinely compare past performance data with current and planned performance data in the course of planning, programming, and budgeting. Feedback on the actual performance of government activities should be useful in future planning, pro-

programming, and budgeting decisions by the Congress and the executive branch, particularly in setting more realistic, achievable, and output-oriented expectations for federal policies and programs. In cases where more refined or indepth performance information is desired, policymakers and managers could request or require special evaluation studies to be undertaken.

Conclusion

An integrated budget and accounting system that provides reliable, audited financial information along with related improvements in planning, programming, and budgeting should provide important data that have often been missing in federal evaluations. The routine development and reporting of cost-output information will not, of course, meet all the evaluation information needs of policymakers and managers. Evaluation research studies are needed particularly to measure the actual implementation, operation, and results of government policies, programs, and activities, including unintended and unanticipated results. Analytical studies, such as policy, program, and efficiency and economy analyses, are needed particularly to identify and assess options for addressing major policy issues and performance problems. The performers of such in-depth research and analyses (e.g., agency evaluation, research, policy, and audit staffs, OMB, GAO, CBO, Congressional Research Service, Office of Technology Assessment) should find the routine cost-output performance reports useful in planning and carrying out their evaluations.

Automated Systems Concepts

The federal government has hundreds of financial systems and thousands of computers supporting them. Many of these systems are antiquated and do not easily meet the recurring and special information requirements of government management. The conceptual design of an integrated budgeting and accounting system responds to the recognized need for a general upgrade of existing federal financial management practices and systems.

A framework for improving financial management practices has been proposed in previous sections of this report. This section describes an approach for providing automated systems support for the conceptual framework.

Essential Features Federal departments and agencies are responsible for administering a wide range of programs and projects to carry out government operations. The multitude of information systems (manual and automated) has been developed to aid government managers in accomplishing this complex task. However, despite the large number of potential users, the financial information requirements can be generally classified and summarized. Although not intended to be exhaustive, exhibit VI-1 categorizes the activities and information requirements of the federal government. The exhibit was described originally in section IV.

As this exhibit illustrates, there is some government-wide consistency of financial activities and requirements. The current decentralized financial systems and procedures environment has evolved to support the activities and information requirements depicted. This environment can be characterized as being highly flexible within the agency and therefore most responsive to agency management. However, this environment is less responsive to comprehensive management and control of government. The commonality of activities, information, and reporting requirements is not recognized and used to the best advantage.

A consolidated information systems approach that supports the unshaded information requirements shown in exhibit VI-1 offers several advantages over the current environment. These advantages include

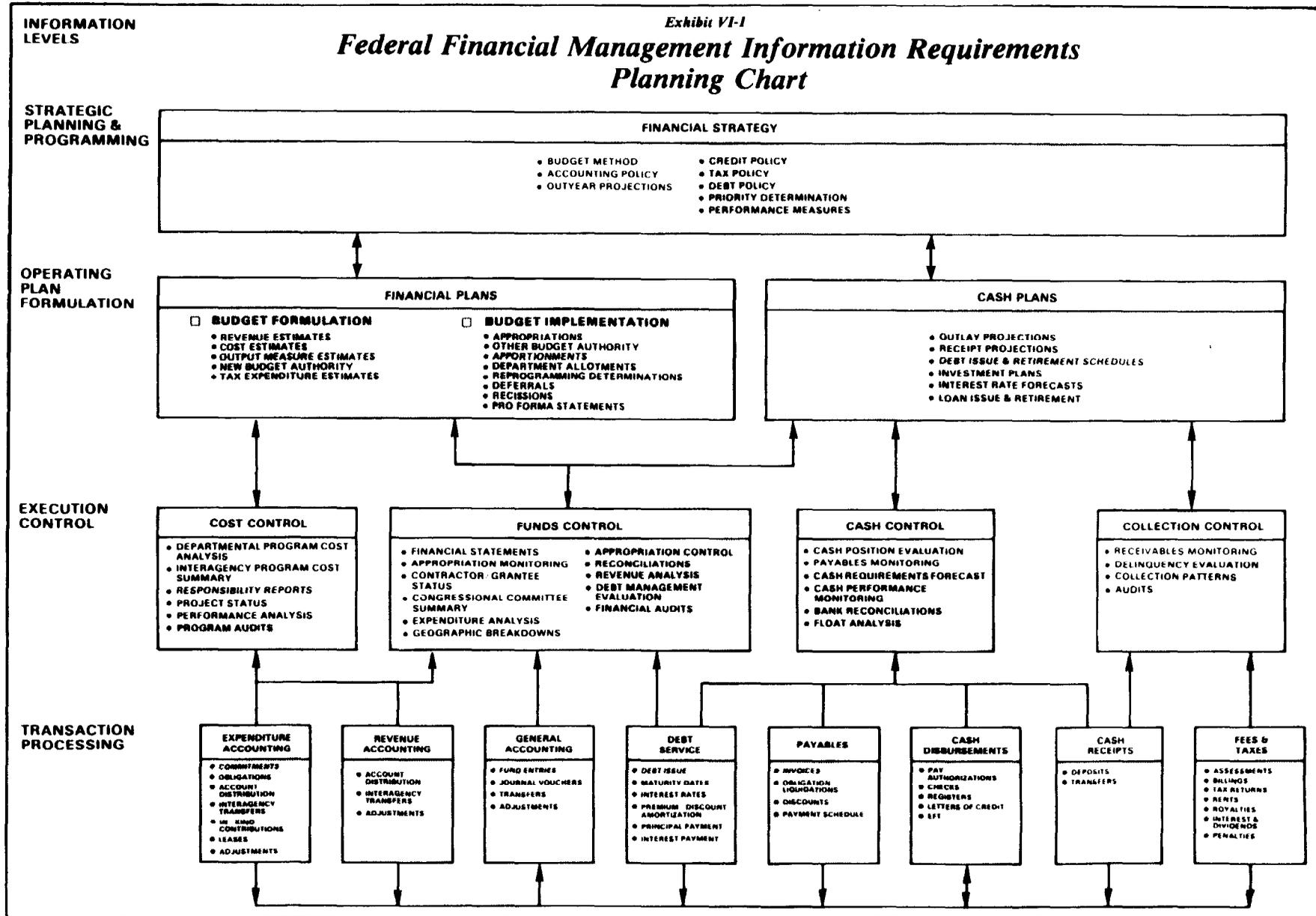
- integrating budgeting and accounting,
- ensuring reliability of financial information,
- establishing a single repository for the summarized results of agency operations,
- assisting central reporting,
- responding to the needs of high-level decisionmakers, and
- establishing standardization among agency systems.

The consolidated information systems approach supported by the technical framework illustrated in exhibit VI-2 envisions a management information system that interfaces with agency-based systems, consolidating the results. The key areas for consideration under this framework are

- interface provisions,
- data bases,
- reporting capabilities,
- transaction coding, and
- agency-based systems.

Exhibit VI-1

Federal Financial Management Information Requirements Planning Chart

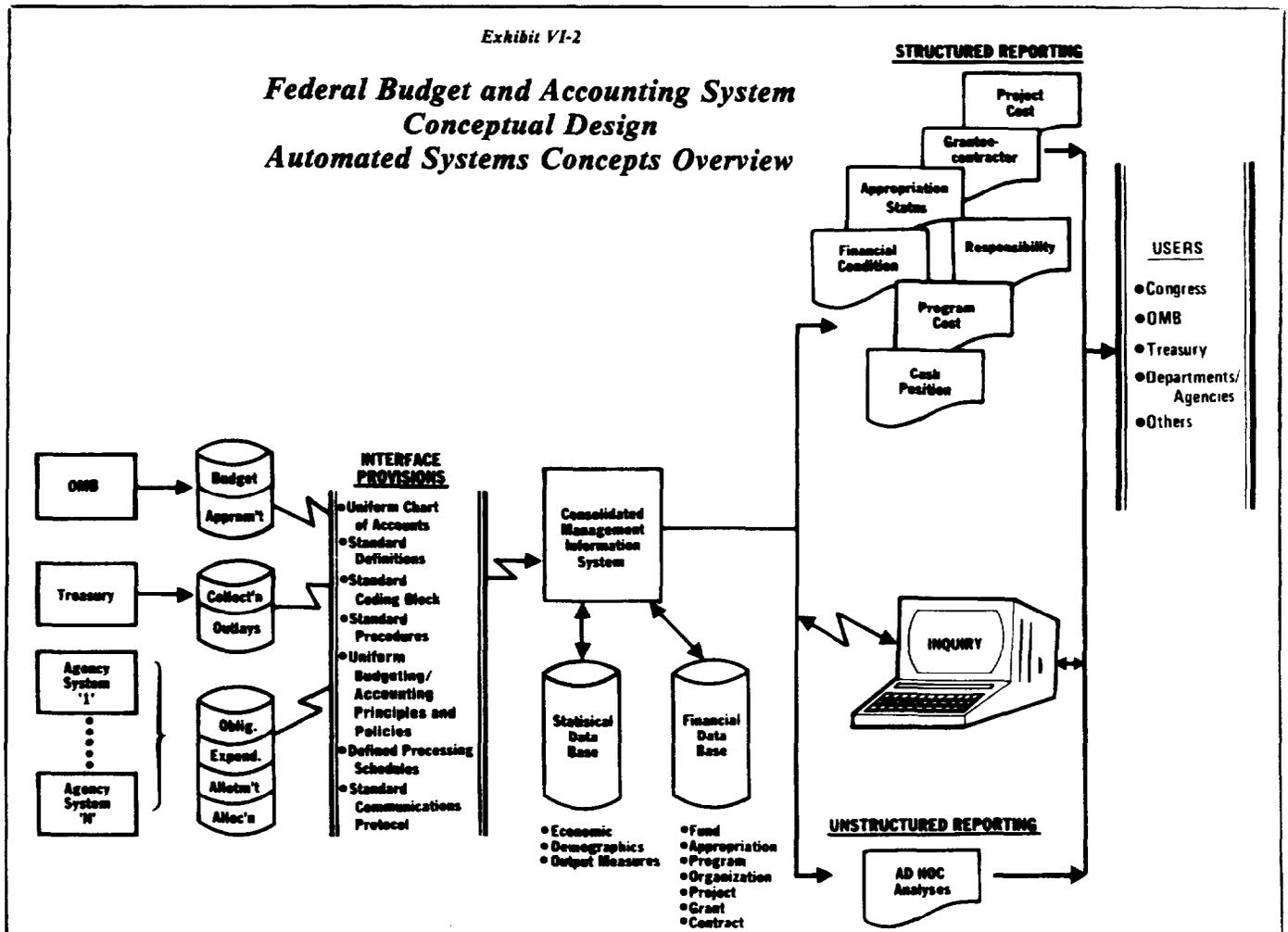


Interface Provisions

Just as integration of budgeting and accounting requires adopting and implementing certain accounting principles, the interface of agency-based accounting systems with a consolidated management information system requires using a defined set of rules. These rules prescribe how data from the agency systems will be summarized and reported to the consolidated system.

As depicted in exhibit VI-2, the rules establish the standards for interfacing all systems with the consolidated information system. The rules include

- a uniform chart of accounts,
- standard data definitions,
- a standard transaction coding block,
- standard operating procedures,
- a predefined processing schedule, and
- a standard communications protocol.



It is generally recognized that the lack of timely, compatible, and accurate management information at all levels of the government is in part attributable to the many different and incompatible agency systems. Agencies have not been guided by established standards for interfacing with central systems. To resolve these problems, the approach suggested by establishing standards for interface of agency systems would provide

- comparable, reliable, and consistent data from each agency,
- timely summarization of key management information, and
- a framework for enhancement/development of future agency financial systems.

Data Bases

A key to the success of any information system is the data available to the system. In the corporate environment, data has become just as recognized and valuable a resource as personnel and capital resources. The value of accurate data is no less important to the successful operation of the federal government than it is to large corporations.

The federal government shares with business the characteristics required of financial information to monitor and control operations. Although the technical terms and procedures may differ, information must be provided to

- predict economic conditions/events,
- establish budgets,
- monitor compliance with budgets,
- determine costs of operations, and
- compare expectations to actual performance.

However, the vastness of government operations does present some unique challenges for managing information resources. As depicted in exhibit VI-2, the conceptual design illustrates how data are summarized from the agency-based systems to a level meaningful for central management's use (the Congress, OMB, Treasury, GAO). The interface rules previously discussed establish the format, content, and timeliness of the data transferred to the consolidated system. Within the consolidated data base, information concerning future financial events, current events, and past events by entity is important for analysis and reporting.

As with any entity providing products and services, the federal government must have key statistical data to measure efficiency and effectiveness. A statistical data base provides a source of data for comparing expectations or estimating bases with actual results or outputs. Economic factors (such as program/project output estimates and actuals, GNP, inflation rates, money supply, and population demographics) are some of the key types of information required to analyze operations.

Data security becomes a major concern once data bases have been established. Unauthorized access to and misuse of sensitive financial data casts doubt on the financial information's integrity. A "need-to-know" security capability provides the best means to assure data are properly protected. Various systems techniques are currently available to assure that data are accessed and/or updated by only those authorized to do so.

Reporting Capabilities

Two types of reporting capabilities, structured and unstructured, are proposed for the consolidated management information system. Structured reporting provides

execution control reports that have a fixed format and are prepared on a scheduled basis. These reports, as illustrated in exhibit VI-2, provide information to ensure legal compliance with appropriations and monitor the costs of government operations as compared to expectations.

In addition to providing actual 'hard-copy' reports, the system has inquiry capabilities which permit users direct access to information via terminals.

Unstructured reporting permits users to determine the desired reporting dimensions. These reports are generally ad hoc in nature and are required for special purposes or analyses. The key concept of these capabilities (sometimes called decision support capabilities) is that the data relationships and presentation formats are established by the user.

Transaction Coding

The reporting concepts described above provide information to answer many government activity questions:

- How much was spent?
- Who spent it?
- Why was it spent?
- How was it spent?
- By what authority was it spent?
- What was the funding source?
- What special purpose was served?

However, to provide this information, budget and accounting transactions must indicate the organization, program, object, fund, appropriation, and project for which the transaction occurred. A simple structure must be established to accommodate these transaction coding requirements. The 'reporting entity' provides the means to accomplish this objective.

The reporting entity provides a nucleus for defining, through a single code, a series of codes that indicates the various financial reporting dimensions. Tables contained within the data processing systems and related to the reporting entity will define characteristics, such as

- the appropriation control accounts, organization unit, program, and project to be charged for expenditures and credited for revenue;
- the hierarchical relationships of organizational units, programs, locations, and objects;
- the validation rules related to processing of transactions;
- the control dates related to appropriations, grants, and projects; and
- the security rules for controlling transaction entry and access to the system.

Although simplified coding is a desirable feature, this concept offers other significant benefits:

- Consistency is enhanced since a reporting entity code will always result in the same fund, organizational unit, and program being charged.

-
- Transaction coding and computer programming are not often affected by changes in organization, program, or fund codes, since these codes are defined in tables.
 - New dimensions of analysis can be provided without affecting transaction coding.

Agency-Based Systems

Within the federal government, there has been little overall planning for the evolution of financial data processing systems. Each agency is responsible for determining its needs and developing the appropriate supporting system. However, most of the systems perform many of the same functions to meet the general requirements for financial control and reporting. It is common within the federal government that similar administrative functions among agencies are supported by different automated systems. In today's technological environment, common automated administrative systems are technically feasible and cost effective.

Two approaches can be used to achieve some uniformity in agency financial systems. Under a totally centralized approach, all transactions would be processed by a single system. This would provide maximum control and uniformity of information but would have several serious drawbacks. Different agencies do different things and are structured and managed in very different ways. It would be difficult, if not impossible, to design a single processing system which was sufficiently flexible to adapt to the widely varying internal management needs of diverse agencies.

There is also some question about how efficient a single massive system would be. There are clearly economies of scale in financial processing systems. But it is not clear that those economies continue indefinitely. Certain factors would suggest otherwise. For example, the broader the coverage of the system, the more important its adaptability becomes. But this sort of flexibility can be a very expensive commodity, particularly in a system of the size implied here. Other factors which would tend to militate against a single central system would be the requirements for security and reliability. The larger the system, the more important these become. Yet, at the same time, the larger the system, the more difficult and expensive these factors are to achieve. For a variety of reasons, therefore, a single central processing system does not appear to be appropriate. A more practical approach would be to maintain a limited number of distributed processing systems, linked to a central system for purposes of developing consolidated data. The optimum arrangement would probably involve 15 to 20 processing centers located in the cabinet departments and major independent agencies. Each of these would be large enough to take advantage of the most dramatic economies of scale and to attract and retain skilled staff. If these 15-20 major systems were well-designed and accompanied by adequate investment in hardware, software, and skilled staff, they would yield dramatically better financial information covering the vast majority of federal operations, and represent 95 percent or more of the federal budget.

In addition, however, the major processing centers would provide inexpensive services to smaller agencies in a manner similar to service bureaus in the private sector. The small agencies could discontinue their inefficient separate systems and contract with any of the major centers which would provide services most closely meeting the needs of the agency. Thus, a small agency could receive the quality of service it needed, probably at a fraction of the cost of maintaining its

own system. For the processing center approach to be effective, however, the user agencies must exhibit certain common "characteristics." These characteristics are as follows:

- *Straightforward Administrative Process*—Agencies that tend to have more centralized management and operational structures, where decisionmaking and financial analysis are less complicated, would be good candidates for sharing financial systems.
- *Commonality of Financial Requirements*—A service bureau approach would be more satisfactory in departments with agencies exhibiting similar, stable, and uncomplicated information systems requirements and relatively forgiving processing schedules.
- *Reasonable Privacy and Secrecy Requirement*—Agencies without requirements to maintain strict secrecy over their financial and other operating data would be more likely to share data processing systems.
- *Management Style*—Agencies with management support for a service bureau would benefit most from the concept.

When the above characteristics apply to an agency's individual environment, the processing center approach in a department would be appropriate. Where the inherent environment does not comply with the above characteristics, agencies would not be good candidates for a processing center arrangement. Since a "hybrid" approach is likely to exist (where some agencies use departmental centers and other agencies maintain their own systems), the consolidated system must accommodate both arrangements.

In any case, the capabilities supported by agency-based systems would focus on the shaded portions of exhibit VI-1. This includes all detail transaction processing as well as systems to support agency planning.

Organizational Implications

The proposal for a consolidated management information system raises some questions about the administration of such an approach.

- Who is responsible for the system?
- As a system user, who is contacted for information or questions, and how will training be conducted to use this new system?
- What skills are needed to support the system?
- What types of people will be needed to take full advantage of the capabilities?

The answers to these types of questions cannot be fully answered by the work completed to this point. However, some preliminary directions and approaches can be proposed for further consideration in subsequent stages of the development effort.

Organizational responsibility for the consolidated management information system is probably the most difficult issue to address. Such organizations as OMB, GAO, Treasury, and the Congress all have a substantial interest in effective and efficient federal financial systems. Each organization has its own concept of the

primary focus of government financial management. However, overall responsibility for execution and financial administration of legislative programs ultimately rests with the departments of the executive branch. Therefore, the executive branch should be responsible for operating and maintaining the consolidated management information system. The actual organizational implications of where responsibility should be placed within the executive branch must be considered in the next phase of the development efforts.

Systems as comprehensive as the proposed consolidated management information system generally are supported by a user liaison organization. This group of professionals provides a link between the nontechnical user organizations and the technical automated data processing organization. The user liaison organization responsibilities usually include

- assisting users to develop requests for ad hoc/special reports and analyses,
- maintaining a library of special requests for reuse,
- developing user instructional and operating manuals,
- providing user training,
- assuring proper distribution of user reports, and
- monitoring implementation and testing of system changes.

Three significant objectives of the proposed consolidated management information system are comprehensiveness, flexibility, and ease of use. Achieving these objectives, however, requires significant technical resources (hardware, software, and personnel) that are "transparent" to system users. As part of the overall implementation strategy, consideration must be given to recruiting, training, developing, and retaining the technical skills required to support the proposed concepts. The organization and training of each agency's personnel must also be considered before implementing the proposed concepts. Upgrading and replacing current antiquated agency systems requires competent, trained data processing and financial professionals. Agency and central financial management and operating personnel must understand the system and be trained to take full advantage of the capabilities. The success of the proposed automated systems concepts ultimately depends on the people that must make the concepts work.

Implementation Strategy

From a perspective gained by the successes and failures of past financial management initiatives, some observations can be made which should guide the further development of this initiative. If followed, these criteria or guidelines would increase the chances for meeting the overall project's objectives.

- Continuity and dedicated resources are most important when considering, planning, and implementing initiatives. Past attempts at reform generally have fallen victim to a lack of support and leadership.
- Establishing a broad consensus about what constitutes good financial management in the federal context is needed.
- Statutory authorization would be useful for sustaining financial management initiatives over time. It provides credibility and explicit congressional and presidential support for implementation.
- Adequate time is required to deal with the complexity of reform issues and to institute change in an entity as large and diverse as the federal government. Time is something most presidential and cabinet-level initiatives have not had, given the rapid turnover in executive leadership. The Congress must provide the impetus for sustaining the reform effort over time.
- After a consensus on the conceptual design is reached, a comprehensive implementation planning phase is needed prior to beginning a detailed design and implementation effort. The resulting record of past implementation problems only contributes to cynicism about government-wide improvement initiatives. This adds to the burden of building consensus for subsequent proposals.
- Linking of process issues, functional issues, and organizational issues is important. The minimal success achieved by pursuing largely incremental and uncoordinated reform initiatives should be kept in mind when engaging in any new initiative.

The first step toward a modern structure for financial management is to start developing such a consensus about the need for reform and the general outline of that reform. This consensus might best be achieved through a series of congressional hearings covering the full breadth of current and future issues surrounding federal financial management. These hearings might culminate in the passage of a bill or resolution setting forth the objectives of the long-term rebuilding effort for financial management in the federal government.

A base in statutory authorization appears to be useful for sustaining financial management initiatives over time. It provides credibility and explicit congressional and presidential support for implementation. Without the express commitment of the Congress, it would be difficult, if not impossible, to sustain this initiative which has organizational, functional, and procedural implications for the entire federal government.

Some of the areas which implementing legislation would need to address are as follows:

- Establishing the mechanism (leadership issue) for seeing the project through to completion.
- Establishing an oversight function for project development and its subsequent operations.

-
- Establishing milestones for reporting results on project development, including implementation of new governing rules and regulations.
 - Establishing the entity (ownership issue) to maintain and run the central system.
 - Specifying the role and responsibilities the new entity has in financial management.
 - Establishing a timetable for conducting financial audits.
 - Resolving the personnel issues (career series, training programs, and qualification for financial management officers to run the centralized systems). Pay scale, career path, appointment mechanism, and term for financial management officers must also be considered.
 - Consolidating pertinent financial management legislation under one act.
 - Repealing and/or amending other legislation to avoid conflict with this legislation.

Once congressional approval is given, the focus should shift to developing a much more detailed description of the future structure. Organizational and leadership issues are critical matters to resolve. Those who will be affected by the changes, including the Congress, CBO, GAO, the central financial management agencies (Treasury and OMB), and the operating departments and agencies, must be given a strong voice in designing the system. The result must be a system that serves the needs of all participants efficiently and effectively.

This effort, when completed, should produce a final report containing at least the following elements:

- A detailed description of the central financial systems.
- A detailed description of the essential features of operating agency systems.
- Draft bills to accomplish any needed legislative changes.
- Draft regulations to accomplish any needed changes in central management agency guidance.
- A proposed plan and schedule for finalizing the design and implementing the new structure.

When the report is complete, work can actually begin on building a financial management structure that will meet the present and future needs of the nation.

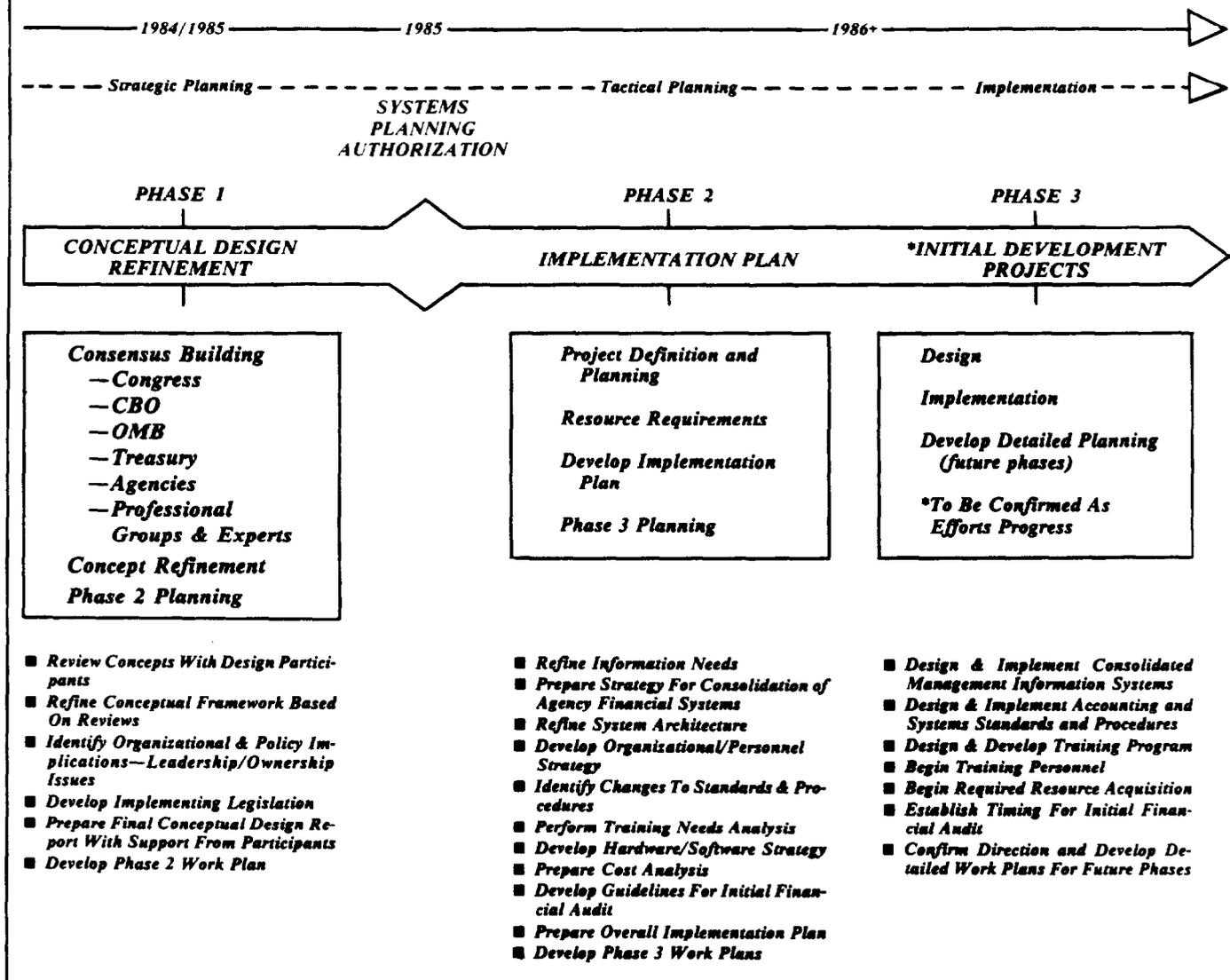
Exhibit VII-1 presents the proposed strategy for moving through the consensus-building phase and ultimately to actual implementation of the concepts and financial management structure needed to carry out those concepts.

Phase 1 is the consensus-building and conceptual design refinement stage in the overall project. Phases 2 and 3 proceed through the more specific project definition stages to actual implementation of the new financial management structure.

This strategy provides a sequential approach to accomplish the objectives of the project. As such, it can be used as a vehicle for potential project leaders in refining the strategy they choose.

Exhibit VII-1

Proposed Implementation Strategy



Request for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20760**

Telephone (202) 275-6241

The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".

Handwritten signature or scribble, possibly reading "K. J. ...".