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Before the President's Commission to Study Capital Budgeting

BUDGET ISSUES

Budgeting for Capital

Statement of Paul L. Posner
Director, Budget Issues
Accounting and Information Management Division

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Members of the Commission:

I appreciate the opportunity to appear before you to discuss our work on budgeting for capital.

In discussing this issue, it is useful to recognize two different ways to look at the federal government: it is both an operating entity and, at least partially, the custodian of the economic health of the nation. As an operating entity, the government makes expenditures on federal services to increase internal efficiency and maximize the use of scarce resources. This includes spending for physical assets that provide long-term benefits to the government’s own operations, such as federal office buildings and hospitals, land, major equipment, and information technology. We refer to these types of physical assets as federal capital.

In its role as partial custodian for the nation’s economy, the government invests in activities such as education, research and development, and infrastructure, which are intended to increase the private sector’s long-term productivity and growth. While providing long-term benefits to the nation as a whole, much of this spending does not result in assets owned by the federal government. For the most part, the federal government provides its support for these activities through federal subsidies to other levels of government or the private sector. We refer to this latter type of spending as investment. In considering the way the federal government should budget for capital, it is important to consider the underlying purposes of capital spending and these dual roles of the federal government.

Frequently, the debate on capital budgeting centers around proposals that do not fully recognize these differences, applying a one-size-fits-all treatment to spending with vastly different characteristics and federal roles. As I will discuss, the challenges faced in budgeting for a federally owned asset are different than for most of our investments where the federal role is to subsidize spending on assets, human capital, and research and development undertaken by other sectors of the economy. The debate on capital budgeting at the federal level often starts with certain concepts and models extended from state, local, and private

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1Reductions in tax liabilities that result from preferential provisions in the tax code, such as exemptions and exclusions from taxation, deductions, credits, and deferrals, are intended to encourage certain behaviors, to adjust for differences in individuals’ ability to pay taxes, or to compensate for other parts of the tax system. Some may be designed to encourage investment. Such “tax expenditures” are reflected in the mandatory portion of the budget and are not included in this testimony, which addresses discretionary spending on capital and investment.
problems with the current process,  
traditional capital budgeting proposals,  
an alternative investment framework,  
budgeting for federally owned capital assets, and  
 improving the way federal agencies plan for and manage federal capital acquisitions.

Problems With the Current Process

As a nation we have made greater strides in articulating a budget control framework to achieve our overall fiscal policy goals than in designing a framework for addressing the composition of spending. The unified budget provides information on the federal government's overall fiscal policy—the aggregate size of the government and its borrowing.

Notes:

requirements. However, the current budget does not highlight different types of spending; budget data are not presented in a way that promotes decisions to be made between spending intended to have future benefits versus spending for current consumption and improving the current quality of life. Since the current budget does not provide this type of focus on the composition of spending, it is difficult to focus on the impact various types of spending would have on the long-term potential output of the economy.

Alternative budget presentations that accompany the President's budgets provide some supplemental information to congressional decisionmakers, but they are assembled after executive budget decisions have been made. These presentations have had little effect on the level of investment undertaken by the government. The congressional budget and appropriations process allocates spending by broad mission area and by agency. These were not established to distinguish between investment and consumption spending. In the budget process there is no explicit consideration of investment versus consumption; a dollar is a dollar is a dollar.

The share of total federal budget outlays devoted to investment, defined by GAO as including research and development, human capital, and infrastructure that has a direct bearing on long-term economic growth, gradually declined about 2 percentage points from a high of just over 10 percent in 1981. Investment outlays for fiscal years 1997 to 2002 are projected to continue this downward trend. This is in part a function of the fact that most investment spending is in the part of the budget considered "discretionary"—a part that has decreased.

Traditional Capital Budgeting Proposals

Some have proposed that the challenges agencies face in budgeting for capital acquisitions can be corrected by adopting a capital budget that separates revenues and outlays for long-lived physical assets from the rest of the budget. Many proposals for capital budgeting include an associated depreciation component for capital assets that is charged to the annual operating budget. In addition, these proposals commonly envision special budgetary treatment for capital by requiring balanced operating budgets while allowing deficit financing of capital.

Capital budgeting of this nature presents several unique problems at the federal level. First, the federal government does not own many of the investments it makes that are intended to promote long-term private
sector economic growth. Accounting standards developed by the Federal Accounting Standards Advisory Board\(^9\) are consistent with this thinking—assets not owned by the government are not reported on the government's balance sheet.

Second, appropriating only annual depreciation means the budget in any given year would reflect only a fraction of the total cost of an investment. This would undermine budgetary control of expenditures by not recognizing the full cost of an asset at the time a decision is made to acquire it. Currently, the law requires agencies to have budget authority before they can obligate or spend funds on any item. If the full amount of budget authority need not be available up front, the ability to control decisions when total resources are committed to a particular use is reduced. In addition, reporting only depreciation in the budget for an asset would make it look very inexpensive relative to other spending. It might also advantage physical capital amenable to depreciation over human capital and research and development. This would create a tremendous incentive to classify as many activities as possible as capital.

Even if the fund control issues could be resolved, determining an appropriate depreciation amount would present problems. Investments in human capital would be particularly difficult to depreciate because of the complexities associated with measuring the future value and useful life of human capital. Thus, including depreciation in the budget could result in spending decisions being based on data that are not easily explained or supported.

It is also important to remember that neither states nor private enterprises budget for depreciation. States do not record annual depreciation in either their capital or operating budgets because depreciation has no effect on the flow of current financial resources. Private businesses use depreciation primarily for two purposes: (1) to match revenues with expenses in a given period for the purposes of reporting profit or loss in financial statements and (2) for tax purposes. Neither of these purposes are applicable to federal budgeting, except for federal business-type activities that consider revenues and expenses in setting user fees.

Some have proposed to deficit-finance capital and investment on the ground that such spending creates economic growth. Deficit financing of capital, however, would also create problems for the integrity of the

\(^9\)The Federal Accounting Standards Advisory Board was created by the Office of Management and Budget, the Department of the Treasury, and GAO to consider and recommend accounting principles for the federal government.
budget process. If capital assets can be deficit-financed while other types of activities cannot, there would be a significant incentive to categorize as many activities as possible as capital. In addition, the productivity-enhancing benefits of investments may be offset if these investments are financed by deficits that reduce national saving and so displace private investment for long-term growth. Deficit financing implies that public investment has a higher rate of return than the private investment it would displace, which is an arguable presumption.

Implementing an Investment Focus in the Budget

The problems discussed with these two approaches do not mean that reform in budgeting for capital is not feasible. Meaningful budget reforms can be considered to improve decision-making on investments, but they need to be tailored to the unique roles and environment of the federal government. In prior work, we have proposed an alternative approach for dealing with federal spending intended to promote the private sector's long-term economic growth. Establishing an investment component within the existing budget constraints is one promising way to encourage the Congress and the executive branch to make explicit decisions about how much spending overall should be devoted to investment. By recognizing the different impact of various types of federal spending, an investment focus within the budget would provide a valuable supplement to the unified budget’s concentration on macroeconomic issues. It would direct attention to the consequences of choices within the budget under existing caps. It would prompt a healthy debate about the overall level of public investment—a level that is now not determined explicitly by policymakers but is simply the result of numerous individual decisions. The unique budgeting problems raised by this approach are how to define investment and how to incorporate and enforce this framework within the current budget process.

Turning first to the definitional question, if an investment component within the budget is to be implemented in a meaningful fashion, it will be important to decide what activities qualify for inclusion. There are many possible definitions, but the definition used for budgetary purposes should depend on the purpose that an investment component is expected to serve. Many analysts have suggested that investment is that which increases long-term private sector economic growth. The federal government promotes long-term economic growth in two ways—through

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its broad fiscal policy and through public investment. Accordingly, we have suggested that investment spending be defined as federal spending, either direct or through grants, that is specifically intended to enhance the private sector’s long-term productivity. We recognize, however, that the Congress may choose to define this category in other ways that may highlight other spending that has long-term benefits.

Our definition of investment spending includes spending on (1) some intangible activities, such as research and development, (2) human capital designed to increase worker productivity, particularly education and training, and (3) infrastructure—physical capital—that is viewed as having a direct bearing on long-term economic growth, such as highways, water projects, and air traffic control systems. As noted above, although much of this is federally funded, it is not federally owned. Spending for many federally owned physical assets, such as for federal land, for office buildings, and for defense weapons systems, would not be included because such spending does not directly enhance long-term private sector productivity.

The current budget process embodies a system of controls set up by the Budget Enforcement Act of 1990 (BEA), which established a set of caps on discretionary spending as part of the process. Most investment spending is within this category of spending. If a target for aggregate investment spending were established within the overall discretionary caps, the budget structure and process would prompt explicit consideration of the level of support for investment within overall fiscal constraints. An investment component would direct attention to the trade-offs between investment and noninvestment activities without undermining fiscal policies and established fiscal policy paths.

This approach has the advantage of focusing budget decisionmakers on the overall level of investment supported in the budget without losing sight of the unified budget’s impact on the economy. It also has the advantage of building on the current congressional budget process as the framework for making decisions. And it does not raise the budget control problems posed by the more traditional capital budgeting proposals that use depreciation and deficit financing.

Although the investment component would be subject to budget controls, the existence of a separate component could create an incentive to categorize many proposals as investment. Any distinction in a system of restraint creates such incentives. If, however, the Congress and the
President want a separate component to work, difficult definitional issues can be resolved. Defining mandatory programs for BEA was not easy in 1990, but the Congress and the executive branch did reach agreement. Also, as part of the 1997 Balanced Budget Act, the President and the Congress were able to reach agreement on certain categories of spending, such as education, to receive favorable budget treatment.

Choosing Investments

Each type of capital we are discussing raises its own unique decision-making challenges. For investment, the definitional question discussed earlier will have to be addressed. Moreover, if the federal government is to focus on the allocation of spending between consumption and investment in order to improve long-term economic growth, then it is important that federal investments be wisely selected. Programs proposed or defended as investments should be evaluated against the criterion of improving long-term economic capacity. Such judgments are difficult, but they are not impossible.

In 1993, we developed a series of questions related to a program's economic returns, design, and performance measures that may help decisionmakers assess the relative worth of competing investments. First, is the program designed to produce long-term economic growth? Second, is it worth implementing, including whether there is really a need for federal government intervention? Third, is it well-designed, including some assurance that federal funds supplement and do not supplant nonfederal funds? And fourth, how should the program be evaluated after implementation?

Ideally, policymakers should have access to measures of relative rates of return from federal investment programs in allocating resources among programs. However, such data are scarce and further research is needed to develop additional and better information on the economic effect of various types of investment proposals.

Potential economic returns may determine whether to embark on a plan for increased federal investment. In seeking the "best" federal investment, however, decisionmakers should consider not only estimated returns, but also whether the federal government is the right entity to address that need. Alternative approaches to meeting the perceived public need should be considered before addressing the problem with federal outlays.

Program design is important to the ability of a program to contribute to private sector output and economic growth. Decisionmakers should consider design issues to promote effective program delivery, including (1) coordination with other federal programs and those of state and local governments and (2) targeting of funds to achieve the highest possible benefit. Coordination with state and local governments is particularly important when federal investments are implemented through those governments. Policymakers need to be aware of the possibility that the states and localities could use federal investment funds to supplant their own spending. We have reported on this issue⁶ and found that studies have suggested that even the prospect of additional federal grant funds can prompt states and localities to reduce their planned spending, which could trigger a decline in total overall public spending for the funded activity. Thus, even if a program is properly classified as an investment, its economic impact can be thwarted when federal funds are used to replace nonfederal funding.

It is important that all public investment programs include, at the time of their implementation, provisions for evaluating program outcomes. Policymakers should use outcome data to ensure that ongoing investment programs continue to be worthwhile and well designed under changing circumstances. Also, to improve the federal government's ability to invest wisely in the future, it is important to learn from public investments that have already been made.

Budgeting for Federally Owned Capital Assets

As federal agencies find themselves under increasing budgetary constraints and increasing demands to improve service, the importance of making the most effective capital asset acquisitions grows. Since spending by the federal government to support its own operations would not qualify for the investment component, a different approach is required. Here, the unique capital budgeting problem is the funding of assets that provide benefits over the long term but that must be paid for in one up-front sum. Capital assets often require large amounts of resources up-front and some may generate long-term efficiencies and savings.

Like investment spending, spending for most federal capital assets is provided in annual appropriations acts and therefore is categorized by BEA as discretionary spending. The total of all agencies' discretionary appropriations must remain within BEA's discretionary caps, which generally have been declining since 1991. Thus, federal capital spending,

like all discretionary spending, is being squeezed. In fiscal year 1997, the federal government spent $72.2 billion (4.5 percent of total outlays) on direct major physical capital investment. Of this, the largest portion, $52.4 billion, was spent on defense-related capital assets, while $19.7 billion was spent for nondefense capital. The President's budget estimates for spending for direct physical capital investments decrease to $64.1 billion in fiscal year 1998, and then rebound slightly to $68.8 billion in fiscal year 1999. Of these amounts, $15.4 billion and $18.5 billion are for nondefense capital in fiscal years 1998 and 1999, respectively.

For more than 100 years, the Adequacy of Appropriations Act and the Antideficiency Act have required agencies to have budget authority for any government obligation, including capital acquisitions. This is referred to as up-front funding. The requirement of full up-front funding is an essential tool in helping the Congress make trade-offs among various spending alternatives. Up-front funding helps ensure that decisionmakers are fully accountable for the budgetary and programmatic consequences of their decisions. This also ensures that the full costs of capital projects are recognized at the time the Congress and the President make the commitment to undertake them.

Agencies have not always requested or received full up-front funding for capital acquisitions, however, which has occasionally resulted in higher acquisition costs, cancellation of major projects, and inadequate funding to maintain and operate the assets. For example, our work has identified the lack of full up-front funding as one of the key factors in the high rate of cost overruns, schedule slippages, and terminations in the Department of Energy's (DOE) major acquisitions. The Office of Management and Budget's (OMB) long-term goal is to include full funding for all new capital projects, or at least economically and programmatically viable segments of new projects.

However, adherence to the up-front funding requirement also extracts a price, at least from an individual agency's viewpoint. The requirement that the full cost of a project must be absorbed in the annual budget of the agency or program combined with the effect of the tight BEA discretionary spending caps can make capital acquisitions seem prohibitively expensive. This has led some to suggest that the result is a bias against capital in budget deliberations.

\(^7\)Department of Energy: Opportunity to Improve Management of Major System Acquisitions (GAO/GGD-97-17, November 20, 1996).
Although up-front funding within the budget caps presents a challenge, a number of agencies have found ways to meet that challenge. Our work at selected federal agencies has demonstrated that more modest tools than adopting a full-scale capital budget can help accommodate up-front funding without raising the congressional or fiscal control issues of a separate capital budget. When accompanied by good financial management and appropriate congressional oversight, these tools can be useful in facilitating effective capital acquisition within the current unified budget context.

### Strategies Used by Some Agencies to Reduce the Impact of the Up-Front Funding Requirement

In a 1996 report, we identified some strategies that have been successfully used by some agencies to accommodate spending on federal capital while preserving the fiscal discipline provided by the current budget controls. To identify these strategies, we examined how selected federal agencies plan and budget for capital assets. I must emphasize that agencies must obtain authority from the Congress to undertake some of these strategies and that some, such as the revolving funds and "savings accounts" discussed as follows, work best in agencies having proven financial management and capital planning capabilities.

- **Budgeting for stand-alone stages of larger projects** - A stand-alone stage is a unit of a capital project that can be economically or programmatically useful even if the entire project is not completed. For example, the Coast Guard may structure its contract for a class of new ships to acquire a lead ship with options for additional ships. The lead ship would be useful even if the entire class of ships is not completed as planned. Budgeting for stand-alone stages means that when a decision has been made to undertake a specific capital project, funding sufficient to complete a useful segment of the project is provided in advance. This helps ensure that a single appropriation will yield a functional asset while limiting the amount of budget authority needed.

- **Using a revolving fund** - Agencies use revolving funds to accumulate, over a period of years, the resources needed for up-front funding. By charging users for the cost to replace and maintain capital assets, revolving funds can help ensure that needed funds will be available for capital acquisitions and that program budgets reflect capital as well as operating costs. The concept of depreciation is useful for revolving funds when determining the fees to be charged to users.

- **Establishing a “savings account”** - A “savings account” achieves many of the same goals sought by revolving funds; however, users make

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voluntary contributions according to an established schedule for prospective capital purchases, rather than being charged retrospectively for capital usage. The “savings account” is designed to encourage managers to do better long-range planning for capital purchases and to enable them to accumulate over time the resources needed to fund capital acquisitions up-front.

- **Contracting out and asset sharing** - Some agency functions for which capital assets are acquired can be performed by the commercial market at less expense, thus reducing the amount of funding that an agency needs to have up front. Asset sharing involves sharing the purchase and use of capital assets with external entities. Sharing assets through contracting out can be especially useful and cost-effective when asset needs are short-term or episodic and nonrecurring.

Agencies and the Congress must work together to find tools that encourage prudent capital decisions. Federal agencies should be encouraged to develop flexible budgetary mechanisms that help them accommodate the consistent application of up-front funding requirements while maintaining opportunities for appropriate congressional oversight and control.

## Improving Federal Agency Capital Decision-Making Practices

Regardless of the budget approach ultimately chosen for federal capital, it is essential that agencies take the time to properly plan for and manage their capital acquisitions. Prudent capital planning can help agencies to make the most of limited resources while failure to make timely and effective capital acquisitions can result in increased long-term costs. GAO, the Congress, and OMB have identified the need to improve federal decision-making regarding capital. Our past work has identified a variety of federal capital projects where acquisitions have yielded poor results—costing more than anticipated, falling behind schedule, and failing to meet mission needs and goals.

For example, we have monitored the Federal Aviation Administration’s (FAA) acquisitions of major systems since FAA began its program to modernize the nation’s air traffic control system in the early 1980s. This modernization program has experienced substantial cost overruns, lengthy schedule delays, and performance shortfalls. Our work pointed to technical difficulties and weaknesses in FAA’s management of the acquisition process as primary causes for FAA’s recurring cost, schedule, and performance problems. Identified weaknesses included a failure to analyze mission needs, limited analyses of alternative approaches for
achieving those needs, and poor cost estimates. As I mentioned earlier, we have also identified incremental funding as one of the causes of cost overruns, schedule slippages, and terminations in DOE's major acquisitions.

A number of laws enacted in this decade are propelling agencies toward improving their capital decision-making practices, including the Federal Acquisition Streamlining Act, the Clinger-Cohen Act, and the Government Performance and Results Act. To help agencies integrate and implement these various requirements, OMB recently developed a Capital Programming Guide—a supplement to OMB Circular A-11—which provides guidance to federal agencies on planning, budgeting, acquisition, and management of capital assets. We participated in the development of the guide and conducted extensive research to identify practices in capital decision-making used by outstanding state and local governments and private sector organizations. One federal agency, the U.S. Coast Guard, was also used as a case study.

We will soon be reporting on the results of our research and I would like to provide you a preview of our results today. We identified five general principles that are important to the capital decision-making process as a whole, which I will summarize for you.

1. Integrate Organizational Goals Into the Capital Decision-making Process

Leading organizations begin their capital decision-making process by defining their overall mission in comprehensive terms and by articulating results-oriented goals and objectives. These organizations consider a range of possible ways to achieve desired goals and objectives—examining both capital and noncapital alternatives. For example, the U.S. Coast Guard now begins its process by conducting a comprehensive needs assessment through what it calls its mission analysis process.

2. Evaluate and Select Capital Assets Using an Investment Approach

An investment approach builds on an organization's assessment of where it should invest its capital for the greatest benefit over the long term. Leading organizations use various decision-making practices and techniques to make comparisons and trade-offs between competing

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*Aviation Acquisition: A Comprehensive Strategy Is Needed for Cultural Change at FAA (GAO/RCED-95-150, August 22, 1995).*

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Page 12

GAO/T-AIMD-98-99
projects as well as to assess the strategic fit of the investment with the organization's overall goals. Leading organizations also develop long-term capital plans that allow them to establish priorities for project implementation over the long term and assist with developing current and future budgets.

3. Balance Budget Control and Managerial Flexibility When Funding Capital Projects

Officials at leading organizations agree that good budgeting requires that full costs be considered when making decisions to provide resources. At the federal level, this calls for a balance between congressional budgetary control and agency flexibility in financing capital acquisitions. As I discussed earlier, some strategies currently exist that allow agencies a certain amount of flexibility in funding capital projects without the loss of budgetary control on the part of the Congress. At the state level, one state we studied is funding the construction of a college campus in stand-alone stages—completing and occupying one building at a time.

4. Use Project Management Techniques to Optimize Project Success

Leading organizations apply a variety of project management techniques to optimize project success and enhance the likelihood of meeting project-specific as well as organizationwide goals. These techniques include developing a project management team with the right people and the right skills, monitoring project performance, and establishing incentives to meet project goals.

5. Evaluate Results and Incorporate Lessons Learned Into the Decision-making Process

Leading organizations have a common trait—a desire to assess and improve their performance. Some of the organizations in our study have implemented systematic procedures for evaluating project results, while others have taken a broader approach and reevaluated their capital decision-making processes as a whole.

Conclusion

In order to promote an efficient public sector and a healthy and growing economy, the federal government should make explicit and well thought-out decisions on national investments that will foster long-term
economic growth as well as on spending for federal capital that provides long-term benefits to the government's own operations. The creation of an investment component within the federal budget could help the Congress and the President make more informed decisions regarding an appropriate mix of spending while retaining the strengths and discipline fostered by a unified budget and the current congressional budget process.

While federal capital spending is important to efficient long-term government operations, a goal of the budget process should be to assist the Congress in allocating resources efficiently by ensuring that various spending options can be compared impartially—not necessarily to increase capital spending. The requirement of full up-front funding is an essential tool in helping the Congress make trade-offs among various spending alternatives. In an environment of constrained budgetary resources, agencies need, and some have developed, strategies and tools that can help facilitate these trade-offs and that enable them to accommodate up-front funding. Agencies have demonstrated that more modest tools than a full-scale capital budget can be developed to accommodate up-front funding within the current unified budget.

It is essential for federal agencies to improve their capital decision-making practices to ensure that the purchase of new assets and infrastructure will have the highest and most efficient returns to the government and that existing assets will be adequately repaired and maintained. Federal agencies could draw lessons from the strategies and practices used by leading federal, state, local, and private sector entities and more widely apply these practices to the federal decision-making process.

This concludes my prepared statement. I would be happy to answer any questions that you may have at this time and look forward to working with you as the Commission completes its work.
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