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GAO

Report to Subcommittee on Financial Services and General Government, Committee on Appropriations, U.S. Senate

September 2008

INFORMATION TECHNOLOGY

Treasury Needs to Better Define and Implement Its Earned Value Management Policy

G A O
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Why GAO Did This Study

In 2008, the Department of Treasury (Treasury) plans to spend approximately $3 billion on information technology (IT) investments—the third largest planned IT expenditure among civilian agencies. To more effectively manage such investments, in 2005 the Office of Management and Budget required agencies to use earned value management (EVM). EVM is a project management approach that, if implemented appropriately, provides objective reports of project status, produces early warning signs of impending schedule delays and cost overruns, and provides unbiased estimates of a program's total costs.

GAO was asked to assess whether the department and its key component agencies (1) have the policies in place to effectively implement EVM and (2) are adequately using EVM techniques to manage critical system investments. GAO compared agency policies to best practices identified in the *Cost Assessment Guide* and reviewed the implementation of key EVM practices for several investments.

What GAO Recommends

GAO is recommending that the Secretary of Treasury define a comprehensive EVM policy consistent with best practices and establish a process for ensuring effective EVM implementation. In written comments on a draft of the report, Treasury agreed with the report findings and recommendations.

To view the full product, including the scope and methodology, click on GAO-08-951. For more information, contact David Powner at 202-512-9286 or PownerD@gao.gov.

What GAO Found

The Department of Treasury's EVM policy is not fully consistent with best practices. Specifically, of seven best practices that leading organizations address in their policies, Treasury's policy fully addresses three, partially addresses three, and does not address the training component (see table below). According to the Director for Capital Planning and Investment Control, the department is currently working on revising its policy and according to Deputy Assistant Secretary for Information Systems and Chief Information Officer expects to finalize it by October 2008. Until Treasury develops a comprehensive policy to guide its efforts, it will be difficult for the department to optimize the effectiveness of EVM as a management tool.

The department and its bureaus are not fully implementing key EVM practices needed to effectively manage their critical system investments. Specifically, the six programs at Treasury that GAO reviewed were not consistently implementing practices needed for establishing a comprehensive EVM system, ensuring that data from the system are reliable, and using the data to help manage the program. For example, when executing work plans and recording actual costs, a key practice for ensuring that the data resulting from the EVM system are reliable, only two of the six investments reviewed incorporated government costs with contractor costs. These weaknesses exist in part because Treasury's policy is not comprehensive and because the department does not have a process for ensuring effective EVM implementation. Unless the department consistently implements fundamental EVM practices, it may not be able to effectively manage its critical programs.

Table: Seven Key Components of an Effective EVM Policy

Policy component	Assessment of Treasury policy
Establish clear criteria for which programs are to use EVM	Fully addressed
Require programs to comply with national standards	Partially addressed
Require programs to use a standard structure for defining the work products that enables managers to track cost and schedule by defined deliverables (e.g., hardware or software component)	Partially addressed
Require programs to conduct detailed reviews of expected costs, schedules, and deliverables (called an integrated baseline review)	Fully addressed
Require and enforce EVM training	Not addressed
Define when programs may revise cost and schedule baselines (called rebaselining)	Fully addressed
Require system surveillance—routine validation checks to ensure that major acquisitions continue to comply with agency policies and standards	Partially addressed

Source: GAO *Cost Guide: Exposure Draft* (GAO-07-1134SP) and analysis of Treasury data.

United States Government Accountability Office

Contents

September 22, 2008

The Honorable Richard J. Durbin
Chairman
The Honorable Sam Brownback
Ranking Member
Subcommittee on Financial Services
    and General Government
Committee on Appropriations
United States Senate

The Department of the Treasury (Treasury) and its nine bureaus rely
extensively on information technology (IT) to carry out the responsibility
of promoting the economic and financial prosperity and security of the
United States. In fiscal year 2008, the department plans to spend
approximately $3.0 billion for IT investments. This is the third largest
planned IT expenditure among civilian agencies.[1]

To help federal departments more effectively manage their IT investments,
in 2005 the Office of Management and Budget (OMB) issued a memo that
requires departments to implement earned value management (EVM).[2]
EVM is a project management approach that, if implemented
appropriately, provides objective reports of project status, produces early
warning signs of impending schedule delays and cost overruns, and
provides unbiased estimates of anticipated costs at completion. Given the
size and significance of Treasury's IT investments, you asked us to
determine whether the department and its key component agencies
(1) have the policies in place to effectively implement EVM and (2) are
adequately using EVM techniques to manage critical system investments.

To address our objectives, we reviewed agency documentation including
Treasury-wide and bureau-level policies and plans governing the use of
EVM on IT acquisitions, documented EVM practices and performance
reports for six programs, and interviewed key agency officials. We
compared the department's policies and practices to federal standards and

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[1]Office of Management and Budget, *Report on Information Technology (IT) Spending for
the Federal Government for Fiscal Years 2007, 2008, 2009* (Washington, D.C.: April 2008).

[2]OMB Memorandum, M-05-23 (Aug. 4, 2005).

best practices identified in the *Cost Assessment Guide*[3] to determine the effectiveness of Treasury's use of earned value data in managing its IT investments.

We conducted this performance audit from August 2007 to July 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Further details on our objectives, scope, and methodology are provided in appendix II.

Results In Brief

The Department of Treasury's EVM policy does not fully address best practices that leading organizations include in their policies. Leading organizations establish EVM policies consisting of seven key components:

- establishing clear criteria defining which programs are to use EVM;

- requiring programs to comply with a national standard (called the ANSI standard[4]);

- requiring programs to use a standard structure for defining work products;

- requiring programs to conduct detailed reviews of expected costs, schedules, and deliverables (called an integrated baseline review);

- requiring and enforcing EVM training;

- defining when programs may revise cost and schedule baselines (called rebaselining); and

- requiring system surveillance—routine validation checks to ensure that major acquisitions are complying with agency policies and standards.

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[3]GAO, *Cost Assessment Guide: Best Practices for Estimating and Managing Program Costs, Exposure Draft,* GAO-07-1134SP (Washington, D.C.: July 2007).

[4]American National Standards Institute/Electronic Industries Alliance Standard, Earned Value Management Systems, ANSI/EIA-748-B-2007 approved July 9, 2007.

Treasury's EVM policy fully addresses three of these components, partially addresses three, and does not address the training requirement. However, the department is working on revising its policy. Until Treasury develops a comprehensive policy to guide its efforts, it will be difficult for the department to optimize the effectiveness of EVM as a management tool.

The department and its bureaus are not fully implementing key EVM practices to manage their critical system investments. Specifically, the six programs at Treasury that we reviewed were not consistently implementing practices needed for establishing a comprehensive EVM system, ensuring that data from the system are reliable, and using the data to help manage the program. For example, when executing work plans and recording actual costs, a key practice for ensuring that the data resulting from the system are reliable, four of six investments we reviewed did not incorporate government costs with contractor costs. In addition, five out of six did not adequately analyze performance data and record the variances from the baseline. These weaknesses exist partly due to the weaknesses in Treasury's policy and because the department does not have a process for ensuring effective EVM implementation. Unless the department consistently implements fundamental EVM practices, it may not be able to manage its programs effectively.

We are making recommendations to the Secretary of Treasury to direct the Assistant Secretary for Management and Chief Financial Officer, in collaboration with the Chief Information Officer, to define a policy that is fully consistent with best practices and ensure effective EVM implementation such that all eligible investments address the practices associated with establishing a comprehensive EVM system, ensuring data reliability, and effectively making decisions using the data.

In written comments on a draft of this report, the Department of Treasury's Deputy Assistant Secretary for Information Systems and Chief Information Officer generally agreed with our findings. He stated that Treasury will issue a revised version of the EVM policy that will address our nine recommendations by October 2008, and will work with the bureaus to establish mechanisms and tools to ensure compliance with the policy. Treasury also provided technical comments which we have addressed as appropriate.

Background

Treasury is the primary federal agency responsible for the economic and financial prosperity and security of the United States, and as such is responsible for a wide range of activities, including advising the President on economic and financial issues, promoting the President's growth agenda, and enhancing corporate governance in financial institutions.

To accomplish its mission, Treasury is organized into departmental offices and operating bureaus. The departmental offices are primarily responsible for the formulation of policy and management of the department as a whole, while the nine operating bureaus—including the Internal Revenue Service and the Bureau of Public Debt—carry out specific functions assigned to Treasury. Figure 1 shows the organizational structure of the department.
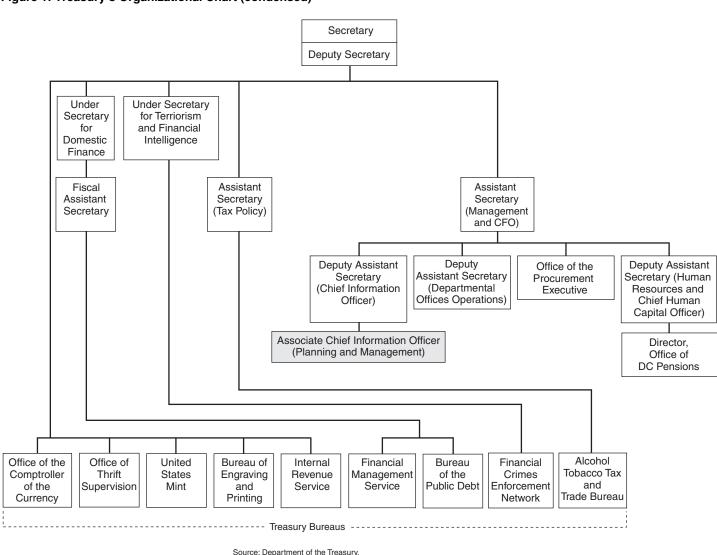
Figure 1: Treasury's Organizational Chart (condensed)

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                              ┌─────────────────┐
                              │    Secretary    │
                              ├─────────────────┤
                              │ Deputy Secretary│
                              └─────────────────┘
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Under Secretary for Domestic Finance

Under Secretary for Terriorism and Financial Intelligence

Fiscal Assistant Secretary

Assistant Secretary (Tax Policy)

Assistant Secretary (Management and CFO)

Deputy Assistant Secretary (Chief Information Officer)

Deputy Assistant Secretary (Departmental Offices Operations)

Office of the Procurement Executive

Deputy Assistant Secretary (Human Resources and Chief Human Capital Officer)

Associate Chief Information Officer (Planning and Management)

Director, Office of DC Pensions

Office of the Comptroller of the Currency

Office of Thrift Supervision

United States Mint

Bureau of Engraving and Printing

Internal Revenue Service

Financial Management Service

Bureau of the Public Debt

Financial Crimes Enforcement Network

Alcohol Tobacco Tax and Trade Bureau

-- Treasury Bureaus --

Source: Department of the Treasury.

Treasury Relies on Information Technology to Carry Out Its Mission

Information technology plays a critical role in helping Treasury meet its mission. For example, the Internal Revenue Service relies on a number of information systems to process tax returns, account for tax revenues collected, send bills for taxes owed, issue refunds, assist in the selection of tax returns for audit, and provide telecommunications services for business activities, including the public's toll-free access to tax information. To assist with delinquent debt collections, Treasury is

engaged in the development of the FedDebt system. In fiscal year 2008, Treasury plans to spend approximately $3 billion for 234 IT investments—including about $2 billion (about 71 percent) for 60 major investments.

Prior Reviews of IT Management Issues at Treasury Identified Weaknesses

In 2004,[5] we identified weaknesses in Treasury's IT investment management processes. For example, Treasury did not describe or document work and decision-making processes for agencywide board(s). Additionally, it did not use the IT asset inventory as part of managerial decision making. As a result of these and the other identified weaknesses, we made recommendations to the Secretary of the Treasury to improve the department's IT investment management processes.

In 2007,[6] we reported that Treasury had made progress in establishing many of the practices needed to build an investment foundation and manage its products as a portfolio. However, we identified additional investment management weaknesses. Specifically, the department lacked an executive investment review board that was actively engaged in the investment management process. As a result of these weaknesses, we made recommendations to Treasury for strengthening their investment management capability. In response, Treasury stated that it would take steps to strengthen its investment board operations and oversight of IT resources and programs. For example, the department recently established an executive-level investment review board.

In July 2008, we reported that Treasury's rebaselining policy fully addressed one of five practices leading organizations include in their policies and partially addressed the remaining practices.[7] Since the time of our review, Treasury has improved its rebaselining policies and procedures to be more consistent with those of leading organizations.

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[5]GAO, *Information Technology Management: Governmentwide Strategic Planning, Performance Measurement, and Investment Management Can Be Further Improved*, GAO-04-49 (Washington, D.C.: January 2004).

[6]GAO, *Information Technology: Treasury Needs to Strengthen Its Investment Board Operations and Oversight*, GAO-07-865 (Washington, D.C.: July 2007).

[7]GAO, *Information Technology: Agencies Need to Establish Comprehensive Policies to Address Changes to Projects' Cost, Schedule, and Performance Goals*, GAO-08-925 (Washington, D.C.: July 31, 2008).

Several of Treasury's projects have been deemed to be poorly planned and managed by the OMB and have warranted inclusion on OMB's Management Watch and High Risk Lists. In recent testimony summarizing our analysis of projects on these lists,[8] we reported that Treasury had 4 projects on the Management Watch List as of July 2008, including one on the list for the fourth consecutive year. We also reported that the department had 21 high-risk projects determined to be poorly performing, most of them because of cost and schedule variances exceeding 10 percent.

Earned Value Management Provides Insight on Program Cost and Schedule

Pulling together essential cost, schedule, and technical information in a meaningful, coherent fashion is a challenge for most programs. In addition to comparing budgeted to actual costs, EVM measures the value of work accomplished in a given period. This technique compares the earned value with the planned value of work scheduled and with the actual cost of work accomplished for that period.

Differences in these values are measured in both cost and schedule variances. Cost variances compare the earned value of the completed work with the actual cost of the work performed. For example, if a contractor completed $5 million worth of work and the work actually cost $6.7 million, there would be a –$1.7 million cost variance. Schedule variances are also measured in dollars, but they compare the earned value of the work completed with the value of work that was expected to be completed. For example, if a contractor completed $5 million worth of work at the end of the month but was budgeted to complete $10 million worth of work, there would be a –$5 million schedule variance. Positive variances indicate that activities are costing less or are completed ahead of schedule, whereas negative variances indicate activities are costing more or are falling behind schedule. These cost and schedule variances can be used to estimate the cost and time needed to complete a program.

Without knowing the planned cost of completed work (that is, the earned value), it is difficult to determine a program's true status. Earned value provides information necessary for understanding the health of a program; it provides an objective view of program status. As such, it can alert

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[8]GAO, *Information Technology: OMB and Agencies Need to Improve Planning, Management, and Oversight of Projects Totaling Billions of Dollars*, GAO-08-1051T (Washington, D.C.: July 31, 2008).

program managers to potential problems sooner than expenditures alone can, thereby reducing the chance and magnitude of cost overruns and schedule delays. Moreover, EVM directly supports the institutionalization of key processes for acquiring and developing systems and the ability to effectively manage investments—areas which are often found to be inadequate based on our assessments of major IT investments.

Because of the importance of ensuring quality earned value data, in May 1998 the American National Standards Institute (ANSI) and the Electronics Industries Alliance (EIA) jointly established a national standard for EVM systems. This standard delineates 32 guidelines on how to establish a sound EVM system, ensure that the data coming from the system are reliable, and use the earned value data to manage the program. See appendix III for details on the 32 guidelines.

Federal Guidance Calls for Using Earned Value Management to Improve IT Management

In June 2002, OMB's Circular A-11 included the requirement that agencies use a performance-based acquisition management system based on the May 1998 ANSI/EIA Standard to obtain timely information regarding the progress of capital investments.

This requirement was restated in subsequent versions of the circular and, in August 2005, OMB issued a memorandum[9] that outlined steps that agencies must take for all major and high-risk development projects to better ensure improved execution and performance and to promote more effective oversight through the implementation of EVM. Specifically, this guidance directs agencies to:

1. develop comprehensive policies to ensure that agencies are using EVM to plan and manage development activities for major IT investments,

2. include a provision and clause in major acquisition contracts or agency in-house project charters directing the use of an EVM system that is compliant with the ANSI standard,

3. provide documentation demonstrating the EVM system complies with the national standard,

4. conduct periodic surveillance reviews, and

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[9]OMB Memorandum, M-05-23 (Aug. 4, 2005).

5. conduct integrated baseline reviews[10] on individual programs to finalize the cost, schedule, and performance goals.

Building on OMB's guidance, in July 2007, we issued an exposure draft on best practices for estimating and managing program costs.[11] This draft highlights policies and practices adopted by leading organizations to implement an effective EVM program. Specifically, the guidance identifies the need for organizational policies to require clear criteria for which programs are required to use EVM, compliance with the ANSI standard, a standard product-oriented structure for defining work products, integrated baseline reviews, specialized training, criteria and conditions for rebaselining programs, and an ongoing surveillance function. In addition, the guidance identifies key practices that individual programs can use to ensure that they establish a sound EVM system, that the earned value data are reliable, and that they are used to support decision making. OMB refers to this guide as a key reference manual for agencies in its 2006 *Capital Programming Guide.*[12]

Treasury's Approach to Earned Value Management

Treasury's approach to EVM involves several entities, including the Office of the Chief Information Officer (OCIO), the Office of the Procurement Executive—both of which are under the Assistant Secretary for Management and Chief Financial Officer, and Capital Planning and Investment Control (CPIC) desk officers. Responsibility for the administration and maintenance of Treasury's EVM policy lies with the OCIO. Specifically, the CPIC group within that office supports the department's investment management oversight process.[13] CPIC desk officers are responsible for oversight of one or more bureaus and serve as the bureau CPIC coordinator's primary point of contact, responsible for

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[10]An integrated baseline review is an evaluation of a program's baseline plan to determine whether all program requirements have been addressed, risks have been identified, mitigation plans are in place, and available and planned resources are sufficient to complete the work.

[11]GAO-07-1134SP.

[12]OMB, *Capital Programming Guide, Supplement to Circular A-11, Part 7,* version 2.0 (June 2006).

[13]The Director for the CPIC group reports to the Associate Chief Information Officer for Planning and Management, which in turn reports to the Chief Information Officer.

scoring exhibit 300s[14] and coordinating information sharing with the departmental budget office and other critical partners. Further, they develop bureau-level IT portfolio expertise and provide input and recommendations to the bureaus, Treasury's CIO, and Treasury's Investment Review Board.

Working with the OCIO to identify acquisitions which require earned value management, the Office of the Procurement Executive is responsible for ensuring that the identified acquisitions throughout Treasury and its bureaus contain EVM requirements that are consistent with the Federal Acquisition Regulation. According to agency officials, 40 investments are currently using EVM.

Project managers and contractors are required to gather the monthly costs and progress associated with each of their investments. The information gathered includes the planned value, actual costs, and earned value. This information is analyzed and used for corrective actions at the bureau level. Quarterly, the bureaus forward investment performance reports to the OCIO's CPIC office, which reviews them and forwards summaries to Treasury's Technical Investment Review Board.

In January 2008, Treasury convened an EVM working group, which has representation from every bureau. According to the CPIC Director, the working group has several objectives including establishing (1) level of reporting for contractors and government employees based on thresholds; (2) rule sets, processes, and procedures for the development of work breakdown structures, integrated baselines, standard roll-up into milestones, and the use of EVM systems at the bureaus; (3) bureau monthly recordkeeping requirements; (4) standard procedures for quarterly uploading of data from the bureaus into Treasury's automated investment management tool; and (5) requirements for maintaining documentation to support the project manager validations and bureau CIO certifications of cost, schedule, and performance data for major and nonmajor investments. According to the CPIC Director, the working group is also working on revising the department's EVM policy.

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[14]OMB requires agencies to submit justification packages for major IT investments on an annual basis. This justification package is called the exhibit 300.

Treasury's EVM Policy Is Not Fully Consistent with Best Practices

While Treasury has established policy to guide its implementation of EVM, key components of this policy are not fully consistent with best practices. Without a comprehensive policy, the department risks implementing policies inconsistently and using inaccurate cost and schedule performance data.

We recently reported[15] that leading organizations establish EVM policies that:

- establish clear criteria defining which programs are to use EVM;

- require programs to comply with a national ANSI standard;

- require programs to use a standard structure for defining work products;

- require programs to conduct detailed reviews of expected costs, schedules, and deliverables (called an integrated baseline review);

- require and enforce EVM training;

- define when programs may revise cost and schedule baselines (called rebaselining); and

- require system surveillance—routine validation checks to ensure that major acquisitions are complying with agency policies and standards.

Table 1 further describes these seven key components of an effective EVM policy.

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[15]GAO-07-1134SP.

Table 1: Key Components of an Effective EVM Policy

Component	Description
Criteria for implementing EVM on all major investments	OMB requires agencies to implement EVM on all major IT investments and to ensure that the corresponding contracts include provisions for using EVM systems. Each agency is responsible for establishing its own definition of a "major" IT investment and clearly defining the conditions under which a new or ongoing acquisition program is required to implement EVM.
Compliance with the ANSI standard	OMB requires agencies to use EVM systems that are compliant with a national standard developed by ANSI and the EIA (ANSI/EIA 748-B). This standard consists of 32 guidelines that an organization can use to establish a sound EVM system, ensure that the data resulting from the EVM system are reliable, and use earned value data for decision-making purposes (see app. III).
Standard structure for defining the work products	The work breakdown structure defines the work necessary to accomplish a program's objectives. It is the first criterion stated in the ANSI standard and the basis for planning the program baseline and assigning responsibility for the work. It is a best practice to establish a product-oriented work breakdown structure because it allows a program to track cost and schedule by defined deliverables, such as a hardware or software component. This allows a program manager to more precisely identify which components are causing cost or schedule overruns and to more effectively mitigate the root cause of the overruns. Standardizing the work breakdown structure is also considered a best practice because it enables an organization to collect and share data among programs.
Integrated baseline review	An integrated baseline review is an evaluation of the performance measurement baseline—the foundation for an EVM system—to determine whether all program requirements have been addressed, risks have been identified, mitigation plans are in place, and available and planned resources are sufficient to complete the work. The main goal of an integrated baseline review is to identify potential program risks, including risks associated with costs, management processes, resources, schedules, and technical issues.
Training requirements	EVM training should be provided and enforced for all personnel with investment oversight and program management responsibilities. Executive personnel with oversight responsibilities need to understand EVM terms and analysis products in order to make sound investment decisions. Program managers and staff need to be able to interpret and validate earned value data to effectively manage deliverables, costs, and schedules.
Rebaselining criteria	At times, management may conclude that the remaining budget and schedule targets for completing a program (including the contract) are significantly insufficient and that the current baseline is no longer valid for realistic performance measurement. They may decide that a revised baseline for the program is needed to restore management's control of the remaining work effort. An agency's rebaselining criteria should define acceptable reasons for rebaselining and require programs to explain why the current plan is no longer feasible and what measures will be implemented to prevent recurrence, and develop a realistic cost and schedule estimate for remaining work that has been validated and spread over time to the new plan.
System surveillance	Surveillance is the process of reviewing a program's (including contractor's) EVM system as it is applied to one or more programs. The purpose of surveillance is to focus on how well a program is using its EVM system to manage cost, schedule, and technical performance. Two goals are associated with EVM system surveillance: to ensure that the program is following corporate processes and procedures, and to confirm that the program's processes and procedures continue to satisfy ANSI guidelines.

In December 2005, Treasury developed the *EVM Policy Guide*, which provides an approach for implementing EVM requirements for the department's major investments.[16] The policy currently in place fully addresses three of the seven components, partially addresses three, and does not address one (see table 2).

Table 2: Assessment of Treasury's EVM Policies, as of May 2008

Policy component	Assessment of Treasury policy
Criteria for implementing EVM on all major investments	Fully addressed
Compliance with the ANSI standard	Partially addressed
Standard structure for defining the work products	Partially addressed
Integrated baseline review	Fully addressed
Training requirements	Not addressed
Rebaselining criteria	Fully addressed
System surveillance	Partially addressed

Source: GAO analysis of Treasury data.

Specifically, Treasury has policies and guidance that fully address criteria for implementing EVM on all major investments, for the conduct of integrated baseline reviews, and for rebaselining.

- **Criteria for implementing EVM on all major investments:** The department's policy requires all of its major development, modernization, and enhancement investments to use EVM. Investments in steady-state (i.e., those with no development, modernization, or enhancement milestones) and those ending prior to September 2007 were not required by the department to implement the EVM requirement.

- **Integrated baseline review:** In order to verify whether the performance measurement baseline is realistic and to ensure that the government and contractor mutually understand program scope, schedule, and risks, Treasury's policy calls for an integrated baseline review. According to the policy, this review should be completed as soon as possible but no later than 6 months after the contract is awarded. Furthermore, another review may be required following any significant contract modifications.

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[16]Four bureaus (the Internal Revenue Service, Departmental Offices, Financial Management Services, and the Office of the Comptroller of the Currency) also have EVM policies supplementing the department's policy.

- **Rebaselining criteria:** Treasury developed a rebaselining policy which specifies that a valid reason for requesting a new baseline must be clearly understood and documented. The policy also specifies acceptable reasons for an investment team to request a rebaseline. Further, to submit a rebaseline request, investment teams are required to explain why the current plan is no longer feasible and develop realistic cost and schedule estimates for remaining work that has been validated and spread over time to the new plan.

  However, Treasury's policy and guidance do not fully address the best practices represented by the following three key components: addressing compliance with the ANSI standard, defining a meaningful structure for defining work products, and conducting system surveillance reviews. Training is not addressed by the Treasury policy.

- **Compliance with the ANSI standard:** Treasury policy states that major investments are to comply with ANSI standards. Further, it outlines processes and guidelines to assist its bureau in achieving ANSI-compliant processes. However, the policy lacks sufficient detail for addressing some of the criteria defined in the standard, including the use of standard methods for EVM data collection across the department and cost performance reporting. For example, the policy does not discuss the use of templates or tools to help ensure that EVM data are collected consistently and reliably. Furthermore, the policy does not discuss what cost performance report formats are to be used. Until Treasury's policy includes a methodology that standardizes data collection and reporting, data integrity and reliability may be in jeopardy and management may not be able to make informed decisions regarding the investments and its next steps.

- **Standard structure for defining the work products:** Treasury's EVM policy calls for a product-oriented work breakdown structure that identifies and documents all activities associated with the investment. However, it does not require the use of common elements[17] in its development. According to the CPIC Director, Treasury's EVM working group plans to establish rule sets, processes, and procedures for the development of work breakdown structures. Until Treasury's policy

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[17]The *Cost Assessment Guide* identifies 11 common elements that apply to all programs and should be included in every work breakdown structure. These elements include: (1) integration, assembly, test, and checkout; (2) system engineering; (3) program management; (4) training; (5) data; (6) system test and evaluation; (7) peculiar support equipment; (8) common support equipment; (9) operational and site activation; (10) facilities; and (11) initial spares and repair parts.

provides more guidance on the systematic development and documentation of work breakdown structures including the incorporation of standardized common elements, it will be difficult to ensure that the entire effort is consistently included in the work structure and that investments will be planned and managed appropriately.

- **System surveillance:** According to Treasury's policy, the contractor's EVM system is to be validated using the industry surveillance approach identified by the National Defense Industrial Association's *Surveillance Guide.*[18] Additionally, Treasury is to require clear evidence that the system continues to remain compliant or that the contractor has brought the system back into compliance. However, the policy lacks guidance on conducting surveillance reviews on the government's (i.e., the department's) EVM system. Until Treasury's policy specifies reviews of the government's systems, Treasury risks not being able to effectively manage cost, schedule, and technical performance of its major investments.

- **Training requirements:** Treasury's policy does not specify EVM training requirements for program management team members or senior executives. Furthermore, the policy does not require the agency to maintain training logs confirming that all relevant staff have been appropriately trained. Until the department establishes policy for EVM training requirements for relevant personnel, it cannot effectively ensure that its program staff have the appropriate skills to validate and interpret EVM data and that its executives fully understand the data they are given in order to ask the right questions and make informed decisions.

According to the CPIC Director, Treasury's EVM working group, which was established in January 2008, is working on the development of a revised EVM policy, which, according to Deputy Assistant Secretary for Information Systems and Chief Information Officer, is expected to be finalized by October 2008. Addressing these weaknesses could help Treasury optimize the effective use of EVM.

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[18]National Defense Industrial Association, *Surveillance Guide* (October 2004).

Treasury Is Not Fully Implementing Key Earned Value Management Techniques to Manage Critical System Investments

While the six programs we reviewed were all using EVM, none had fully implemented any of the practices for establishing a comprehensive EVM system, ensuring that the data resulting from the system are reliable, or using earned value data for decision-making purposes. These weaknesses exist in part because, as previously noted, Treasury's policy does not fully address key elements and because the department does not have a mechanism to enforce its implementation. Until Treasury adequately implements EVM, it faces an increased risk that some programs will experience cost and schedule overruns or deliver less capability than planned.

In our work on best practices, we identified three key management areas that leading organizations use to manage their acquisitions: establishing a comprehensive EVM system, ensuring reliable data, and using earned value data to manage the investment (see table 3).

Table 3: Key EVM Practices for System Acquisition Programs

Program management area	EVM practice
Establish a comprehensive EVM system	Define the scope of effort using a work breakdown structure
	Identify who in the organization will perform the work
	Schedule the work
	Estimate the labor and material required to perform the work and authorize the budgets, including management reserve
	Determine objective measure of earned value
	Develop the performance measurement baseline
Ensure that the data resulting from the EVM system are reliable	Execute the work plan and record all costs
	Analyze EVM performance data and record variances from the performance measurement baseline plan
	Forecast estimates at completion
Ensure that the program management team is using earned value data for decision-making purposes	Take management action to mitigate risks
	Update the performance measurement baseline as changes occur

Source: GAO, *Cost Assessment Guide*.

Table 4 provides a summary of how each investment is using EVM in the key practices areas and is followed by our analysis of these areas. The investments we reviewed are the Financial Management Service's FedDebt and Financial Information and Reporting Standardization (FIRST); the Departmental Office's DC Pension System to Administer Retirement (STAR); the Bureau of Public Debt's Treasury Automated Auction

Processing System (TAAPS); and the Internal Revenue Service's Integrated Financial System/Core Financial System (IFS) and Enterprise Data Access Strategy (EDAS). These investments were identified by the department as major investments and all had milestones in development, modernization, or enhancement at the time of our review. Appendix II includes information regarding the selection of these investments and appendix IV provides a description of each.

Table 4: Assessment of EVM Use to Manage Treasury Investments

Program management key practices	EDAS	FedDebt	FIRST	IFS	STAR	TAAPS
Establish a comprehensive EVM system	partially implemented	partially implemented	partially implemented	partially implemented	partially implemented	partially implemented
Ensure that the data resulting from the EVM system are reliable	not implemented	partially implemented	partially implemented	partially implemented	partially implemented	partially implemented
Ensure that the program management team is using earned value data for decision-making	not implemented	partially implemented	partially implemented	partially implemented	partially implemented	partially implemented

Source: GAO analysis of Treasury data.

Key:

Fully implemented: The investment addresses all of the practices identified in the corresponding program management area.

Partially implemented: The investment addresses some, but not all, of the practices identified in the corresponding program management area.

Not implemented: The investment does not address any of the practices identified in the corresponding program management area.

Investments All Partially Established a Comprehensive Earned Value Management System

Comprehensive EVM systems were not consistently established to manage the six investments. Although aspects of a comprehensive system were present, none of the investments fully met all the best practices comprising this management area.

For example, of the six investments, only IFS and STAR adequately defined the scope of effort using a work breakdown structure. Three investments developed a work breakdown structure; however, the work packages could not be traced back to EVM project management documents, such as the project management baseline, the work breakdown structure, and the statement of work or project charter. For example, although EDAS had detailed work breakdown structures, correlation could not be established among the work breakdown structure elements, the contract deliverables, and the elements being reported in the

contract performance reports. Officials for the remaining investment—TAAPS—stated that there was a documented work structure; however, they did not provide evidence of this.

As another example, performance measurement baselines were developed for five of six investments. However, the baselines had noted weaknesses. Specifically, four investments—FIRST, IFS, STAR, and TAAPS—had a baseline, but some elements were not included, such as planned costs for STAR. Further, for TAAPS, independent validation of the investment's baseline was not conducted. FedDebt had a performance measurement baseline which underwent integrated baseline validation in March 2006. However, the validation indicated that there was no time-phased planned value at the individual contract level, nor was there a roll-up at the program level. No explanation was provided of how the monthly performance data on individual FedDebt projects were rolled up to the investment level as required by OMB.[19] Further, EDAS did not have a time-phased budget baseline or a performance measurement baseline.

Investments Did Not Fully Implement Steps to Ensure Data Reliability

None of the six investments fully implemented the steps to ensure data reliability from their EVM systems. Five partially implemented the steps, and one investment—EDAS—did not meet any of the steps.

When executing work plans and recording actual costs, two of the six investments incorporated government costs with contractor costs. For example, FedDebt included both government and contractor costs in their quarterly reporting. However, while IFS had a mechanism for recording monthly government costs, it did not have a method that combined both contractor and government costs for review on a monthly basis. Also, few if any checks are performed to measure the quality of EVM data and, according to agency officials, Treasury currently focuses more on reporting the data than on their reliability.

In addition, five of the six investments did not adequately analyze performance data and record the variances from the baseline. The IFS investment included monthly reviews of performance reports and included cost and schedule variances. The remaining investments conducted analyses of performance data, but did not all provide documentation to show cost and schedule updates and variances. For example, according to

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[19]As part of their exhibit 300 budget submissions to OMB, agencies must provide investment-level EVM data, including cost and schedule baselines.

officials, TAAPS' cost and schedule variances were calculated at the project and program levels, but evidence of this could not be provided. Further, as part of its performance reporting, STAR did not calculate the cost variance and incorrectly calculated the schedule variance.

Most Investments Did Not Fully Implement Practices for Using Earned Value Data for Decision Making

None of the six investments fully implemented the two practices needed to ensure the use of EVM data for decision-making purposes. Specifically, EDAS did not take management action to mitigate risks identified through their EVM performance data, or update the performance measurement baseline as changes occurred; IFS addressed one of these practices, and the remaining investments only partially addressed them.

In order to support management action to mitigate risks identified through EVM performance data—variance analysis, corrective action planning, and reviewing estimates at completion—the IFS project manager was provided with monthly performance report that indicated when cost and/or schedule variances exceeded acceptable tolerances. Further, investment-level status was provided to bureau-level and agency-level management to allow them to make capital planning and investment control decisions. However, the remaining five investments did not fully take action to mitigate risks for a variety of reasons. For example, for FedDebt, although some monthly EVM data were included in quarterly reports, no documentation was provided on how such data were being used to manage at the project or investment level. A similar situation exists for the TAAPS investment where, although agency officials stated that meetings were routinely held to discuss performance issues, no evidence was provided that a systematic method existed to use EVM metrics for decision-making purposes.

Regarding the update of performance measurement baselines as changes occur, one investment team stated that it did not have any baseline changes; however, documentation showed that the schedule for the investment had been changed three times. In addition, although IFS maintained a log for tracking changes, we could not determine that these changes had been incorporated into the baseline. Further, according to officials, EDAS had a scope change in fiscal year 2007; however, the investment team was not able to provide documentation reflecting the corresponding change in the performance measurement baseline.

Inconsistent Implementation Is Due in Part to Weaknesses in Policy and Level of Oversight

The inconsistent application of EVM across investments exists in part because the department does not have a policy that fully addresses key components including training and system surveillance and because the department is leaving the implementation of the policy largely up to bureaus. For example, project management staff had not consistently received training, an item which is not addressed in the policy, and surveillance reviews, which are partially addressed in the policy, had not been performed for any of the investments.

Furthermore, the department does not have a process for ensuring effective EVM implementation. However, in comments on a draft of this report, the Deputy Assistant Secretary for Information Systems and Chief Information Officer stated that the department is working with the bureaus to establish mechanisms and tools to ensure full compliance with the provisions of the updated EVM policy, which is to be finalized by October 2008. These mechanisms and tools would help address the implementation gaps we have identified.

Conclusions

Treasury has established a policy that addresses criteria for implementing EVM, integrated baseline reviews, and project rebaselining consistent with best practices. However, it does not fully address other elements including compliance with the ANSI standard and system surveillance, which are necessary for effective implementation. In regards to implementation, the department is not fully addressing key practices needed to effectively manage its critical investments. Specifically, none of the six programs we reviewed were fully implementing any of the practices associated with establishing a comprehensive EVM system, ensuring the reliability of the data resulting from the system, or using earned value data to make decisions. The gaps in implementation are due in part to the weaknesses with the policy and to the low level of oversight provided by the department. Until the department defines a comprehensive policy and establishes a process for ensuring effective EVM implementation, it will be difficult for Treasury to optimize the effectiveness of EVM as a management tool and consistently implement the fundamental practices needed to effectively manage its critical programs.

Recommendations for Executive Action

To improve Treasury's ability to effectively implement EVM on its IT acquisition programs, we recommend that the Secretary of Treasury direct the Assistant Secretary for Management, in collaboration with the Chief Information Officer, to take the following nine actions:

Define a comprehensive EVM policy that specifies

- a methodology that standardizes EVM data collection and reporting compliant with the ANSI standard;

- a systematic approach to the development and documentation of work breakdown structures including the incorporation of standardized common elements;

- guidance on conducting surveillance reviews on the government's EVM system; and

- training requirements for relevant personnel.

Implement a process for ensuring effective implementation of EVM throughout the department by

- establishing a comprehensive EVM system by, among other things,
  - defining the scope of effort using a work breakdown structure that allows for traceability across EVM project management documents;
  - ensuring the development of validated performance measurement baselines that includes planned costs and schedules;
- ensuring that the data resulting from the EVM system are reliable, including
  - executing the work plan and recording both government and contractor costs;
- ensuring that the program management team is using earned value data for decision-making by
  - systematically using EVM performance metrics in making the ongoing monthly decisions required to effectively manage the investment; and
  - properly documenting updates to the performance measurement baseline as changes to the cost and schedule occur.

Agency Comments and Our Evaluation

In written comments on a draft of this report, the Department of Treasury's Deputy Assistant Secretary for Information Systems and Chief Information Officer generally agreed with our findings and stated that the department will issue a revised version of the EVM policy that will address our nine recommendations by October 2008. He also noted that the department is working with the bureaus to establish mechanisms and tools including processes for conducting system surveillance and monitoring of EVM data to ensure compliance with the policy. Treasury also provided technical comments which we have addressed as appropriate. Treasury's written comments are reprinted in appendix I.

We will be sending copies of this report to interested congressional committees, the Secretary of Treasury, and other interested parties. In addition, the report will be available at no charge on our Web site at http://www.gao.gov. If you or your staffs have any questions on matters discussed in this report, please contact me at (202) 512-9286 or by e-mail at pownerd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix V.

David A. Powner
Director, Information Technology
Management Issues

Appendix I: Comments from the Department of Treasury

![Department of the Treasury seal]

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

SEP 1 6 2008

Mr. David A. Powner
Director, Information Technology Management Issues
United States Government Accountability Office
Washington, DC 20548

Dear Mr. Powner:

The Department of the Treasury has reviewed the draft Government Accountability Office (GAO) report and is in general agreement with its findings and appreciates the opportunity to review this Report. We respectfully request that the GAO consider our specific comments and clarifications in the attached prior to finalizing the report.

The Department is committed to ensuring that our information technology investments are properly managed and appropriately follow prescribed Earned Value Management (EVM) principles and best practices. We appreciate GAO's view that successful application and management use of EVM in the Department of the Treasury requires comprehensive policy guidance, and we recognize there are areas within our current EVM policy that need clarification and more detailed description of procedures.

The Office of the Chief Information Officer (OCIO) is working closely with the Treasury Bureaus to finalize a revised version of the EVM policy that will address the nine recommendations included in the draft GAO report. We anticipate this guidance will be issued in final form by October 2008.

Beyond providing expanded policy guidance, OCIO is also focusing on ensuring Departmental and Bureau staffs receive adequate training for program and project managers including the use of EVM. Training is already completed or underway in several Treasury components, including the Bureau of Public Debt, the Financial Management Service, and the Internal Revenue Service. Treasury is also actively implementing the Federal Acquisition Council's Program and Project Management certification requirements as required by the Office of Federal Procurement Policy (OFPP) Memorandum for Chief Acquisition Officers of April 25, 2007. The review of qualifications for approximately 60 program and project managers was conducted in August 2008. It is anticipated that certifications or waivers (for new Program/Project Managers) will be issued before the end of Fiscal Year 2008.

The OCIO is also working closely with our procurement office and the Bureaus to establish mechanisms and tools to ensure full compliance with the provisions of the updated EVM policy. Such measures include specification of processes for conducting system surveillance and monitoring of EVM data.

If you have any additional questions, please let me know, or contact Diane Litman, Associate CIO for Planning and Management on 202-622-7704.

Sincerely,

Michael D. Duffy
Deputy Assistant Secretary for Information Systems
and Chief Information Officer

Attachment

Appendix II: Objectives, Scope, and Methodology

Our objectives were to determine whether the Department of the Treasury and its key component agencies (1) have the policies in place to effectively implement earned value management (EVM) and (2) are adequately using EVM techniques to manage critical system investments.

To assess whether Treasury has policies in place to effectively implement EVM, we analyzed Treasury and its component bureaus' policies and guidance that support EVM implementation departmentwide as well as on capital planning and investment control guidance. Specifically, we compared these policies and guidance documents to both Office of Management and Budget requirements and key best practices recognized within the federal government and industry for the implementation of EVM. These best practices are contained in an exposure draft version of our cost guide.[1] We also interviewed key agency officials, including the Director for Capital Planning and Investment Control, to obtain information on the agency's ongoing and future EVM plans.

To determine whether Treasury is adequately using EVM techniques to manage critical system investments, we reviewed 6 of the 40 systems the department required to use EVM. Specifically, we selected investments from each of the four component agencies identified as having eligible investments. We selected one investment from the Bureau of Public Debt, another from Departmental Offices, and two from the Financial Management Service and the Internal Revenue Service since they had a greater percentage of investments using EVM. With the exception of the Bureau of Public Debt which had only one major investment, we selected investments based on (1) size, (2) EVM history (i.e., use of EVM for a long enough period of time to have some history of EVM data), and (3) completion date (i.e., those that would not end during the course of our review). The 6 projects selected were FedDebt and Financial Information and Reporting Standardization from the Financial Management Service, DC Pension System to Administer Retirement (STAR) from the Departmental Offices, Treasury Automated Auction Processing System (TAAPS) from the Bureau of Public Debt, and Integrated Financial System/Core Financial System and Enterprise Data Access Strategy from the Internal Revenue Service. Our review was not intended to be generalizable, but instead to illustrate the status of a variety of programs.

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[1]GAO, *Cost Assessment Guide: Best Practices for Estimating and Managing Program Costs*, *Exposure Draft*, GAO-07-1134SP (Washington, D.C.: July 2007).

To determine the extent of each program's implementation of sound EVM, we compared program documentation to the 11 fundamental EVM practices implemented on acquisition programs of leading organizations, as identified in the *Cost Assessment Guide*.[2] We determined whether the program fully implemented, partially implemented, or did not implement each of the practices.[3] Finally, we interviewed program officials to obtain clarification on how EVM practices are implemented and how the data are validated and used for decision-making purposes. Regarding the reliability of cost data, we did not test the adequacy of agency or contractor cost-accounting systems. Our evaluation of these cost data was based on what we were told by the agency and the information they could provide.

We conducted this performance audit from August 2007 to July 2008 in Washington, D.C., in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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[2]GAO-07-1134SP.

[3]The program was considered to have fully implemented each program management area if it addressed all EVM practices identified in the corresponding program management area. It partially implemented each program management area if the investment addressed some EVM practices identified in the corresponding program management area, but not all. Further, the investment was deemed as not implemented if it did not address any EVM practices identified in the corresponding program management area.

Appendix III: Overview of Industry Guidelines that Support Sound Earned Value Management

Organizations must be able to evaluate the quality of an EVM system in order to determine the extent to which the cost, schedule, and technical performance data can be relied on for program management purposes. In recognition of this, the American National Standards Institute (ANSI) and the Electronics Industries Alliance (EIA) jointly established a national standard for EVM systems—ANSI/EIA 748-B (commonly referred to as the ANSI standard). This standard consists of 32 guidelines addressing organizational structure; planning, scheduling, and budgeting; accounting considerations; analysis and management reports; and revisions and data maintenance. These standards comprise three fundamental management functions for effectively using EVM: establishing a sound earned value management system, ensuring that the EVM data are reliable, and using earned value data for decision-making purposes. Table 5 lists the management functions and the guidelines.

Table 5: Management Functions Addressed by ANSI Guidance on Earned Value Management Systems

Management function	ANSI guideline
Establish a sound EVM system	1. Define the authorized work elements for the program. A work breakdown structure, tailored for effective internal management control, is commonly used in this process.
	2. Identify the program organizational structure including the major subcontractors responsible for accomplishing the authorized work, and define the organizational elements in which work will be planned and controlled.
	3. Provide for the integration of the planning, scheduling, budgeting, work authorization, and cost accumulation processes with each other and, as appropriate, with the program work breakdown structure and the program organizational structure.
	4. Identify the organization or function responsible for controlling overhead (indirect costs).
	5. Provide for integration of the program work breakdown structure and the program organizational structure in a manner that permits cost and schedule performance measurement by elements of either or both structures as needed.
	6. Schedule the authorized work in a manner that describes the sequence of work and identifies significant task interdependencies required to meet the requirements of the program.
	7. Identify physical products, milestones, technical performance goals, or other indicators that will be used to measure progress.
	8. Establish and maintain a time-phased budget baseline, at the control account level, against which program performance can be measured. Initial budgets established for performance measurement will be based on either internal management goals or the external customer negotiated target cost, including estimates for authorized but undefinitized work. Budget for far-term efforts may be held in higher level accounts until an appropriate time for allocation at the control account level. If an over target baseline is used for performance measurement reporting, prior notification must be provided to the customer.

Management function	ANSI guideline
	9. Establish budgets for authorized work with identification of significant cost elements (labor, material, etc.) as needed for internal management and for control of subcontractors.
	10. To the extent it is practicable to identify the authorized work in discrete work packages, establish budgets for this work in terms of dollars, hours, or other measurable units. Where the entire control account is not subdivided into work packages, identify the far-term effort in larger planning packages for budget and scheduling purposes.
	11. Provide that the sum of all work package budgets plus planning package budgets within a control account equals the control account budget.
	12. Identify and control "level of effort" activities by time-phased budgets established for this purpose. Only efforts that are unmeasurable or for which measurement is impractical may be classified as "level of effort" activities.
	13. Establish overhead budgets for each significant organizational component of the company for expenses that will become indirect costs. Reflect in the program budgets, at the appropriate level, the amounts in overhead pools that are planned to be allocated to the program as indirect costs.
	14. Identify management reserves and undistributed budget.
	15. Provide that the program target cost goal is reconciled with the sum of all internal program budgets and management reserves.
Ensure that the EVM data are reliable	16. Record direct costs in a manner consistent with the budgets in a formal system controlled by the general books of account.
	17. When a work breakdown structure is used, summarize direct costs from control accounts into the work breakdown structure without allocation of a single control account to two or more work breakdown structure elements.
	18. Summarize direct costs from the control accounts into the contractor's organizational elements without allocation of a single control account to two or more organizational elements.
	19. Record all indirect costs that will be allocated to the program consistent with the overhead budgets.
	20. Identify unit costs, equivalent units costs, or lot costs when needed.
	21. For the earned value management system, the material accounting system will provide for (1) accurate cost accumulation and assignment of costs to control accounts in a manner consistent with the budgets using recognized, acceptable, costing techniques; (2) cost recorded for accomplishing work performed in the same period that earned value is measured and at the point in time most suitable for the category of material involved, but no earlier than the actual receipt of material; and (3) full accountability of all material purchased for the program including the residual inventory.
	22. At least on a monthly basis, generate the following information at the control account and other levels as necessary for management control using actual cost data from, or reconcilable with, the accounting system: (1) Comparison of the amount of planned budget and the amount of budget earned for work accomplished. This comparison provides the schedule variance. (2) Comparison of the amount of the budget earned and the actual (applied where appropriate) direct costs for the same work. This comparison provides the cost variance.

Management function	ANSI guideline
	23. Identify, at least monthly, the significant differences between both planned and actual schedule performance and planned and actual cost performance, and provide the reasons for the variances in the detail needed by program management.
	24. Identify budgeted and applied (or actual) indirect costs at the level and frequency needed by management for effective control, along with the reasons for any significant variances.
	25. Summarize the data elements and associated variances through the program organization and/or work breakdown structure to support management needs and any customer reporting specified in the contract.
Ensure that the program management team is using earned value data for decision-making purposes	26. Implement managerial actions taken as the result of earned value information.
	27. Develop revised estimates of cost at completion based on performance to date, commitment values for material, and estimates of future conditions. Compare this information with the performance measurement baseline to identify variances at completion important to company management and any applicable customer reporting requirements including statements of funding requirements.
	28. Incorporate authorized changes in a timely manner, recording the effects of such changes in budgets and schedules. In the directed effort before negotiation of a change, base such revisions on the amount estimated and budgeted to the program organizations.
	29. Reconcile current budgets to prior budgets in terms of changes to the authorized work and internal replanning in the detail needed by management for effective control.
	30. Control retroactive changes to records pertaining to work performed that would change previously reported amounts for actual costs, earned value, or budgets. Adjustments should be made only for correction of errors, routine accounting adjustments, and effects of customer or management directed changes, or to improve the baseline integrity and accuracy of performance measurement data.
	31. Prevent revisions to the program budget except for authorized changes.
	32. Document changes to the performance measurement baseline.

Source: Excerpts from "Earned Value Management Systems" (ANSI/EIA 748-B) ©2007, Information Technology Association of America. All Rights Reserved. Reprinted by permission; GAO analysis.

Appendix IV: Description of Selected Investments

Below is a description of the six investments we reviewed to assess whether the department is adequately using EVM techniques to manage critical system investments.

Investment Name	Investment Description
FedDebt	FedDebt supports the federal government's delinquent debt collection programs, which were centralized in the Financial Management Service (FMS) pursuant to the Debt Collection Improvement Act of 1996. FedDebt also supports Treasury's strategic goal to manage the U.S. Government's finances effectively and the FMS strategic goal to maximize collection of government delinquent debt by providing efficient and effective centralized debt collection services. FedDebt plans to integrate the collection services that FMS provides to Federal Program Agencies through its other programs.
Financial Information and Reporting Standardization (FIRST)	FIRST is intended to automate the maintenance and distribution of the U.S. Standard General Ledger accounting rules and guidance. It also plans to integrate the general ledger guidance with the collection of all accounting trail balance data, thus providing a standardized method of collecting, storing, reporting, and analyzing such data. Furthermore, the investment is expected to facilitate accounting validations of the agency trial balance data to provide better feedback to agencies concerning the accuracy and consistency of these data.
DC Pension System to Administer Retirement (STAR)	STAR is to assist Treasury and the District of Columbia Government by automating the determination of eligibility, calculating pension benefits, and delivery of payments, therefore allowing for (1) increased accuracy of pension benefit calculations and (2) improved customer service. Key functionality for this investment includes serving annuitants and survivors of the Judges Pension Plan; making benefit payments to 11,000 teachers, police, and firefighters who retired before July 1997, as well as their survivors; and automatically calculating the gross annuity and split benefit payment for teachers, police, and firefighters, to service those annuitants who retired after June 1997.
Treasury Automated Auction Processing System (TAAPS)	TAAPS is intended to ensure that all auction-related operations are carried out flawlessly and securely. Key among auction activities are the announcement of upcoming Treasury auctions; bid submission and processing; calculation of awards; publication of results; creation and dissemination of settlement wires; creation of accounting reports and reports needed for auctions analysis; and the storage of all securities-, bidder-, and auction-related information. TAAPS is expected to make numerous intersystem interfaces and manual processes obsolete by consolidating auction processing requirements into one system and providing appropriate backup and disaster recovery systems and services.
Integrated Financial System/Core Financial System (IFS)	IFS is intended to operate as the Internal Revenue Services' (IRS) new accounting system of record, replacing IRS's core financial systems, including expenditure controls, accounts payable, accounts receivable, general ledger, budget formulation, and purchasing controls. IRS intends to upgrade to software that provides federal accounting functionality. By migrating to federal accounting practices, IFS is to provide benefits, such as eliminating current work-around processes, improving project management capability, and enhancing budget reports.
Enterprise Data Access Strategy (EDAS)	EDAS is intended to consolidate data from multiple Business Systems Modernization applications and produce a consolidated data repository source to be used for issue detection and case selection. The goal is to develop integrated data solutions that allow IRS to retire duplicative and costly data extracts. The first major project is to develop an Integrated Production Model as a central repository for corporate data and make those data available to projects currently in development. Long-term benefits include the retirement of multiple systems and efficiency gains from improved processes.

Source: GAO Analysis of Treasury Data.

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

David A. Powner, (202) 512-9286 or pownerd@gao.gov

Staff Acknowledgments

In addition to the contact named above, Sabine Paul, Assistant Director; Neil Doherty; Mary D. Fike; Nancy Glover; Sairah R. Ijaz; Rebecca LaPaze; and Paul B. Middleton made key contributions to this report.