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Evaluating the Impacts of Federal Improvement and Audit Readiness (FIAR) Compliance

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Abstract

Over the last 30 years, the Department of Defense (DoD) slowly became compliant with the Chief Financial Officers Act of 1990, which required federal agencies to undergo an annual financial audit. In 2018, the DoD finally completed its first audit and continued this trend in 2019. This paper seeks to understand the benefits of producing auditable financial statements, their costs, and any impacts on the DoD's acquisition system. We describe the several forms of accounting and review the academic accounting literature that examines the value of audits. We describe the DoD's preparation for and analyze the results of the two completed audits to look more broadly at the benefits. These include uncovering previously unaccounted inventory and improvements to internal accounting systems, even as no instances of massive waste or fraud were identified. Finally, the utility of management cost accounting is discussed.

Introduction

In September 2018, the Department of Defense (DoD) completed its first full audit, which analyzed over $2.7 trillion in assets, about 70% of the federal government's assets (DoD, 2018a). The audit was the synthesis of 24 separate audits of the DoD's components and was monitored by the Office of the Secretary of Defense's Financial Improvement and Audit Readiness (FIAR) Directorate, which was established by the DoD comptroller over a decade ago. The FIAR Directorate was created to improve the department's accounting practices and to plan for the successful audit of the DoD as a whole. This move was in response to the Chief Financial Officers (CFO) Act of 1990, which required that all executive agencies have their financial statements independently audited. Since 2011, the DoD was the sole agency that continually failed to audit its financial statements in their entirety (Miller, 2011).

The first DoD audit cost taxpayers between $918 million and $972 million, accounting for direct costs to independent auditors, indirect costs of government support during the audit process, and remediation costs to improve errors uncovered by the audit (Browne & Starr, 2018; Fine, 2019). Additional costs not accounted for in the $900+ million are compliance costs associated with changing internal DoD processes, hiring additional labor, and other changes to become ready for a complete audit.

Analyzing the costs and benefits will provide a fuller understanding of the value of auditing the DoD. FIAR compliance costs are likely made up of fixed and variable costs. Initial costs to hire and change processes will incur large start-up, fixed costs during the first few audits. For example, over $500 million was spent in remediation following the first audit. This number will likely decrease as accounting and cost reporting processes improve, but the number of improvements required is currently growing faster than the DoD can remediate them. The cost of maintaining FIAR compliance will likely fluctuate, requiring a reallocation of scarce DoD resources.

As the DoD continues to update its financial management practices and alters its cost reporting processes in hopes of receiving an unqualified opinion, this report seeks to answer the questions:

- What are the impacts associated with FIAR?
- What are the benefits to taxpayers of government entities producing financial statements?

Further, we hope to identify the broader implications of FIAR compliance on the DoD.

Other important questions considered relate to the effectiveness of public audits: Do public audits provide valuable information to agency executives to improve processes? More generally, what are the benefits of auditing the DoD?

At large, this report seeks to better understand the value provided to the DoD and its stakeholders. After the completion of the second DoD audit in November 2019, over $2 billion dollars were spent in hopes of improving the financial management of the DoD. While this amount is a drop in the bucket relative to the DoD budget, it is important to constantly question and improve the way the federal government is spending taxpayer money. Further, we will examine impact may have on DoD's acquisition system.

Background

For the past several decades, Congress has struggled to obtain better visibility into the government's financial position. A Government Accountability Office (GAO) report in 1985 put a spotlight on the problems; it concluded that these were numerous issues that called for an overhaul of the government's financial management system (Bowsher, 1985). The GAO believed that successful reform would require a major initiative with a comprehensive, integrated approach (Bowsher, 1985). As a result, Congress—in its oversight role of federal agencies and programs—passed a series of laws and mandates designed to improve the accountability and management of appropriated resources and to form the conceptual foundation of a new financial management structure, as well as additional conditions, requirements, and due dates for the DoD's efforts to become auditable. These included the CFO Act, the Government Performance and Results Act (GPRA), the Government Management Reform Act (GMRA), the Federal Financial Management Improvement Act (FFMIA), and a series of provisions in the National Defense Authorization Acts (NDAA) of Fiscal Years (FY) 2010, 2014, 2016, and 2018.

Perhaps the most impactful of these was the CFO Act of 1990, described by the GAO as "the most comprehensive and far-reaching financial management improvement legislation … since 1950. [It] will lay a foundation for comprehensive reform of federal financial management" (Bowsher, 1991). The most noteworthy part of the act was the requirement for every executive agency to be audited annually.

Prior to the CFO Act, "Government reports found that agencies lost billions of dollars through fraud, waste, abuse, and mismanagement" (GAO, 2020b, p. 3) These concerns continued to grow as Americans and congressmen began to doubt the government's ability to properly manage programs, protect its assets, or wisely use taxpayer dollars in an effective and efficient manner (GAO, 2020b). In 1988, the GAO reported numerous internal control problems, specifically in the DoD, which resulted in hundreds of millions of dollars unaccounted for. In response to these growing concerns, the CFO Act hoped to introduce some accountability for, and effective tracking of, how the federal government spent money.

The CFO Act enjoyed widespread congressional support. Within 2 months of its introduction in the House, the act was amended, voted on by both chambers, and signed into law in late October 1990. Thirty years later, the Senate Committee on the Budget held a hearing looking at the impacts of the CFO Act of 1990. In a show of bipartisanship, members complimented the effectiveness of the act, anticipating continued and improved federal financial management (Dodaro, 2019). Unfortunately, while anecdotal evidence was used throughout the hearing to support the act, quantitative evidence of its effects was absent.

In 1991, the Federal Accounting Standards Advisory Board (FASAB) was created by the GAO, the Treasury Department, and the Office of Management and Budget (OMB) to develop the necessary accounting systems. The GMRA of 1994 required the FASAB to develop a system that would produce government-wide financial statements and required the first statements to be published for FY1997 (Anthony, 2005).

As a result, FASAB developed and published its standards in the FASAB Handbook of Accounting Standards (FASAB Handbook). The FASAB Handbook outlines the objectives for producing the federal government's financial statements and their audits and is the most authoritative source of generally accepted accounting principles (GAAP)[1] for federal entities. Federal government agencies, contractors working with federal government agencies, and accounting firms auditing federal government agencies all consult the FASAB standards on a regular basis. The FFMIA of 1996 strengthened the requirements of the 1994 act.

By FY2003, 20 of the 24 federal CFO Act agencies had been able to produce financial statements backed up with unqualified opinions from auditors. However, the DoD was not one of them. There was increasing significant pressure from the President, the OMB, and Congress for DoD to achieve auditability (Candreva, 2004).

The CFO Act and the other associated legislation ushered in an era of improved financial management of the federal government. Today, however, it may be that the CFO Act of 1990 was too wide-reaching, causing the DoD to spend nearly a billion dollars annually without any fraud, waste, or abuse found. While the exact effects of the large-scale changes imposed are next to impossible to quantify, it is important to understand the value of continuing this process.

Types of Accounting

The CFO Act of 1990 requires executive agencies to conduct financial audits based on financial accounting procedures. The DoD maintains the position that financial auditing is improving their internal business processes and saving money (Cronk, 2019c). Although the government generally uses budgetary accounting, and in some cases managerial accounting, it is important to understand the differences between the accounting types when considering the value of the DoD audit.

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[1] GAAP refers to a common set of accounting principles, standards, and procedures issued by the Financial Accounting Standards Board (FASB). Public companies in the United States must follow GAAP.

Financial accounting is required to produce the statements needed to comply with the CFO Act. Widely used in the private sector, it is the type of accounting used to produce a corporation's annual report: balance sheets, income statements, and statements of cash flow and owner's equity. It accounts for assets, liabilities, and cash flows. With financial accounting, revenue is recognized when realized, and expenses are recognized when incurred; this is known as accrual basis (Gibson, 2011). With private sector corporations, the audience is potential lenders and investors (i.e., the capital market). On the other hand, the audience for audits of government agencies is legislators and taxpayers—stakeholders with a financial interest (Candreva, 2004).

The objective of financial accounting is to capture and accurately present past events. There are strict rules, and the statements produced have governmental oversight. Public companies will publish results of their financial audits to comply with regulations but also to assure the public—beyond managements' own assertions—that a company's financial statements are accurate and can be relied upon. Financial accounting, therefore, looks at the big picture of a company or organization over the last year or more. This distinction makes financial accounting backward-looking. Critics of financial accounting argue that the backward-looking nature of financial accounting makes it inadequate to inform and support future decisions. Finally, financial accounting must follow GAAP, which is a combination of standards that are commonly accepted for presenting financial information.

Although financial accounting is required to produce auditable financial statements, government agencies primarily use *budgetary accounting* to manage their finances. Budgetary accounting is used to justify and account for appropriations; this type of accounting is not used in the private sector. There are rigid rules stipulated in laws and guidance from the comptroller general. The objective is to ensure that the government spending complies with the associated restrictions; there is significant oversight to ensure this is the case. The focus is on ensuring that appropriated funds have been spent in accordance with the purpose, time, and amount to meet the terms of the restrictions attached to the appropriation and is used by both internal and external audiences (Candreva, 2004).

Finally, there is *managerial-cost accounting*, sometimes referred to as cost accounting. This type of accounting is used for internal analysis conducted by corporations to evaluate different options, such as whether to lease or buy a facility. Managerial-cost accounting is intended for internal stakeholders. Moreover, the forward-looking nature of managerial-cost accounting makes it attractive to managers looking to make real-time decisions. For example, managerial-cost accounting may have current information on the cost of production for a certain good to determine if continued production is worthwhile, whereas financial counting may have more accurate data but would only be able to look at the historical cost of production during a past time span. Finally, since the focus is on internal management decisions about the organization's mission and scope of operations, there are no set rules or government oversight; consequently, the management decides what to count and the basis for accounting. This type of accounting enables DoD's working capital fund activities to set their rates based on unit cost (Candreva, 2004).

Auditor Opinions

When an organization's financial statement is audited, a formal report is provided by the auditing entity. This auditor's report is a formal assessment of the financial statement, resulting from their independent examination of the information provided, using a formal set of rules (Gibson, 2011). The audits of federal agencies are conducted using generally accepted government auditing standards (GAGAS; Comptroller General, 2018). When the audit is complete, the auditors can render one of four opinions; these are summarized below (Gibson, 2011).

- **Unqualified:** This opinion states that the financial statements represent fairly, in all material respects, the financial position of the organization and are in keeping with the appropriate principles (Gibson, 2011). Within the federal government, these are sometimes referred to as unmodified opinions.
- **Qualified:** This opinion states that—except for the effect of matters pertaining to qualifiers—the financial statements represent fairly, in all material respects, the financial position of the organization and are in keeping with the appropriate principles (Gibson, 2011).
- **Adverse:** This opinion states that the financial statements *do not* represent fairly the financial position of the organization due to nonconformance with appropriate principles (Gibson, 2011).
- **Disclaimer of opinion:** When the scope of the audit is not sufficient to provide enough information to render an opinion, this opinion is rendered (i.e., the auditor does not express an opinion on the examined financial statements; Gibson, 2011).

Audits can also identify weaknesses and inefficiencies in the financial management and control systems based on the severity of the weakness; these classifications include material weakness and significant deficiency (Public Company Accounting Oversight Board [PCAOB], 2004),

Literature Review

The value of audits within the private sector is long established and well documented. Some of the benefits often cited are increased accountability to stakeholders and investors, feedback to improve business processes, and ensured compliance with financial regulations. While there are other benefits, these three encapsulate much of the benefit auditing has for public companies. Similarly, private companies also benefit from auditing.

First, auditing may reduce the likelihood of fraud by management and others because it introduces additional accountability to management. Second, auditing may reduce agency conflict between owners, managers, and banks. Third, audits may be used to evaluate managerial performance given the lack of market measures to the firm's and manager's performance (Van Tendeloo & Vanstraelen, 2008; Vanstraelen & Schelleman, 2017). Perhaps most importantly, audits may reduce the cost of capital for companies being audited by anywhere between 1% and 3% (Elliot, 1994). Other empirical studies suggest that this number may be overstated, but the general effect does exist (Hay & Cordery, 2018). Additional benefits include reducing the likelihood of fraud by management and others because it introduces additional accountability to management, and it may be used to evaluate managerial performance (Vanstraelen & Schelleman, 2017).

While there are numerous benefits for public and private businesses, it may be that auditing government organizations includes different calculations between costs and benefits. Research on public sector accounting is now also a well-established field with publications in numerous academic journals (Goddard, 2010; Hay & Cordery, 2018). Even though government bureaucracies are not accountable to investors or stakeholders, audits of government organizations have also been examined by looking at different principal–agent relationships present between the legislature, the government, and the electorate. Principal–agent relationships are defined by the agent's ability to take actions on behalf of the principal that ultimately affect the principal. In the case of the DoD, the legislature (Congress) is the principal, and the government is the agent (Streim, 1994). Streim argues that auditing can help improve these principal–agent relationships because external accountability is introduced. With this new external accountability, the agent is discouraged from acting in a self-interested way and instead works in a manner more in line with the objectives of the principal (i.e., the legislature). Auditing can also reduce the associated agency costs. Based on this analysis, requiring an annual DoD audit could incentivize the DoD to be more transparent and communicative with Congress.

Within the private sector, as the complexity of business transactions and accounting standards grows, the potential of audits to add value increases (DeFond & Zhang, 2014). It may be that the legislation requiring audits saves money for some agencies but increases costs for others. Accordingly, the DoD's complexity makes it likely that auditing could save money. Its large and multifaceted environment increases "auditing's potential to add value" (DeFond & Zhang, 2014, p. 275) because it protects against possible financial mistakes that can quickly add up. As DoD Comptroller David Norquist often mentions, the first DoD audit was likely the largest audit in history, making it a prime example for possible cost savings (DoD, 2018b).

Studies also suggest that auditing and other financial reporting requirements help add credibility to the organization. In the case of the DoD, credibility may be valuable to both Congress and the public. With numerous anecdotal cases of valuable DoD equipment going missing, improved public trust surrounding how the DoD spends taxpayer dollars could be incredibly valuable (Hay & Cordery, 2018). Additionally, although regulations may already protect against fraud and mismanagement of money, a recent study finds that U.S. municipalities that conduct audits are associated with fewer internal control problems (Rich & Zhang, 2014).

Challenges with DoD's financial management, and the federal government at large, are not new. Former DoD Comptroller and Harvard professor Robert N. Anthony[2] reviewed the history of the federal government's accounting practices, which originally developed with a focus on obligations that aligned with the budgeting and appropriation process rather than on expenses (used for financial statements), which he believed would provide more useful for both planning and control purposes (Anthony, 2000). Anthony described the tension between these two approaches, since both systems are used to some degree in federal departments and agencies. Anthony believed that neither accountants nor managers would pay attention to the information in the expense-based accounts and, consequently, that system would simply atrophy (Anthony, 2000, 2005).

On the other hand, others also question the benefits of financial accounting. Robert Kaplan and Robin Cooper, Harvard University professors, have asserted that financial accounting systems are "completely inadequate" for either "estimating the costs of activities and business processes" or for "providing useful feedback to improve business processes" (Kaplan & Cooper, 1998, p. 14). Further, they argue that financial statements are used primarily to demonstrate to shareholders that a firm is operating profitably. In the case of a government agency, which is neither a business nor does it earn a profit, one may question the value of an audit.

Finally, it is important to understand the limitations of any audit. Soon after the first DoD audit in 2018, numerous articles claimed the audit was a failure due to the DoD's disclaimer of opinion. While the DoD quickly refuted this claim, the DoD did have to deal with numerous questions about the benefits of any such audit (Cronk, 2019b). The public generally has a different expectation of the results of audits. There is a widespread belief that "a person who has any interest in a company … should be able to rely on its audited accounts as a guarantee of its solvency, propriety and business viability" (Koh & Woo, 1998, p. 147). Consequently, when

[2] Anthony was a Harvard faculty member from 1940 to 1982. When requested by Defense Secretary Robert S. McNamara, he took public service leave from the school in 1965 to serve as the DoD comptroller (Hevesi, 2006).

the public has different beliefs about the auditors' duties and responsibilities and what the audit reports really mean, a gap in understanding is created. Koh and Woo refer to this gap between the limitations of an audit and the public expectation of auditing as the "expectation gap" (Koh & Woo, 1998). This gap may still persistent today, and it is important to recognize it when contextualizing the usefulness of the DoD audit.

The DoD Prepares

The DoD is significantly different from the other executive agencies. The DoD is a large, complex organization with annual budgets approaching $700 billion in FY2021 and total assets that exceeded $2.7 trillion in FY2018 (House Committee on Appropriations, 2020; Office of the Under Secretary of Defense [Comptroller; OUSD(C)], 2019). In FY2010, for example, the DoD processed more that 11 million commercial invoices and approximately 198 million payment-related transactions, disbursing over $578 billion (Khan, 2011).

Financial management reform has been an issue the DoD has struggled with for many years. While the audit looks at the department as a whole, the DoD is made up of 24 component parts. Most of these had been audited at different times and at different frequencies due to a variety of factors. Therefore, the DoD had not been ignoring the mandate from the CFO Act of 1990 for 30 years. Instead, its component parts made progress toward fulfilling the audit requirement, but the sheer size of the organization made progress slow. The DoD audit discussed in this paper refers to the complete DoD audit, or a compilation of all component audits.

The NDAA FY2010[3] required the DoD to have a financial statement audit-ready no later than September 30, 2017. The minimum requirements for audits of federal financial statements are contained in OMB Bulletin No. 07-04; it implements audit provisions from the CFO Act of 1990, the GMRA of 1994, and the FFMIA of 1996. OMB Bulletin No. 07-04 requirements include performing an audit annually (Office of Management and Budget [OMB], 2007).

Additionally, the NDAA FY2010 also contained a requirement for the DoD to develop a FIAR Plan; the DoD Comptroller established the FIAR Directorate to lead that effort and manage and integrate department-wide financial improvement efforts and help the DoD get audit-ready. The Office of the Undersecretary of Defense (Comptroller; OUSD[C]) developed and revised the FIAR Guidance. This handbook was intended to serve as a guide for all the organizations involved in the department's audit readiness initiatives. It is updated periodically to ensure it aligns with all applicable federal and departmental financial management requirements. The guide outlined the FIAR strategy, developed to serve as the roadmap for the department to become audit-ready. The guide also defined audit readiness "as having the capabilities in place to allow an auditor to scope and perform a full financial statement audit that results in actionable feedback" (OUSD[C], 2017).

The guide presented a phased methodology for the DoD to become audit-ready by FY2018. The initial three waves were performed concurrently, focused on OUSD(C)'s initial priorities, that is, budgetary information and mission critical asset information. For Wave 4, the DoD's components incorporated the expanded priorities, proprietary information, and valuation into their audit readiness efforts and focused on full financial statement audits. This methodology defined the key tasks, the underlying activities, and the work products required from reporting organizations to become audit-ready. It considered the methods financial statement auditors use to assess financial statement accuracy in accordance with auditing

[3] Section 1003 of the FY2010 NDAA required the DoD's chief management officer, in consultation with the Under Secretary of Defense (Comptroller), to develop and maintain a plan to be known as the "Financial Improvement and Audit Readiness Plan" (NDAA, 2010).

standards, in order to maximize the potential for successful financial statement audits (OUSD[C], 2017).

The FIAR Plan also described specific corrective actions to achieve reliable, accurate, and complete financial data for use in key management decisions. It focused on problems such as weak internal controls, incomplete or inaccurate information, and systems that cannot properly process data and information. By establishing and monitoring critical milestones for resolving these problems, the FIAR Plan gave decision-makers better information and more options. Implementing this plan, after decades-long changes to internal processes, the DoD became compliant with the requirement of the CFO Act in September 2018 and had become audit-ready. The audit, however, returned a disclaimer of opinion.

On November 14, 2018, the DoD released its audit-ready Agency Financial Report for FY2018 (DoD, 2019), which presented the consolidated financial information for 63 DoD entities. The DoD report contained the following major sections:

- **Management's Discussion and Analysis:** This section summarized the DoD's mission and structure and the current state of financial management systems. This section also included a discussion regarding the DoD's compliance with certain laws and regulations. There was also a short discussion of improvements to internal controls that resulted in cost savings and increases in efficiency and effectiveness.
- **Financial Statements:** This section provided consolidated financial information on the DoD's financial operations, condition, and position for all DoD entities. Note 1 acknowledged that, due to the limitations of financial and nonfinancial processes and systems, the department was unable to fully comply with all of the required elements of U.S. GAAP and OMB Circular No. A-136. Many of the reported values for major asset and liability categories were derived largely from nonfinancial systems, such as inventory and logistics systems.
- **Required Supplementary Stewardship Information:** This section identified significant DoD investments that have long-term benefits to the public, such as investments in research and development, which may include the development and testing of prototypes for weapon systems.
- **Required Supplementary Information:** This section provided information on other topics to improve the understanding of the DoD's financial operations, condition, and position, such as delayed or deferred maintenance on real property.
- **DoD OIG Audit Report:** This report includes the DoD OIG's overall audit opinion on the basic financial statements.

The FY2019 Agency Financial Report for FY2019 was released on schedule, on November 14, 2019 (DoD, 2019).

The Audits

FY2018

The audit of the DoD Financial Statement for FY2018, which identified $2.8 trillion in total assets, is almost certainly one of the largest and most complex financial statement audits ever undertaken. The comprehensive audit included 24 standalone audits that were conducted by independent public accounting firms; the DoD OIG performed the overarching consolidated audit. More than 1,200 auditors were involved in the effort. The results were mixed; six organizations received the highest grade—unmodified audit opinions—and two received qualified opinions. All of the other organizations received a disclaimer of opinion. Perhaps the most reassuring finding was that no fraud was identified, and no organization received an adverse opinion (Fine, 2019).

For the issues identified, the auditors issued more than 2,300 Notices of Findings and Recommendations (NFRs) and identified 20 material weaknesses. Almost half of these addressed findings with departments' financial management systems and information technology. To track and respond to the identified NFRs, DoD established a NFR database to capture, prioritize, assign responsibility for, and develop corrective action plans for the audit findings (OUSD[C], 2019).

The direct audit-related costs exceeded $973 million, which includes supporting the audits and responding to auditor requests; achieving an auditable systems environment; and the cost of remediating audit findings. The remediation cost,[4] approximately $559 million of the total, included government and contractor costs for correcting findings and the costs of achieving and sustaining an auditable systems environment (OUSD[C], 2019).

FY2019

The audit of the DoD's FY2019 Financial Statement was completed in November 2019, the second full financial audit. Although some progress was made, no audit opinions changed from FY2018 for the 23 DoD reporting entities that received audits overseen by the DoD OIG. The overall result, a disclaimer of opinion on the Agency-Wide Basic Financial Statement, also remained unchanged (Fine, 2020). The cost of the FY2019 DoD audit once again approached $1 billion, which included the costs of the DoD personnel who prepared for the audit and remediated deficiencies identified during the previous audit (about $770 million) and about $190 million for the five independent public accounting firms that performed stand-alone audits of DoD components (CSPAN, 2019). Between 2018 and 2019, the DoD made progress in many areas, even while auditors found additional issues elsewhere.

Summary of Material Weaknesses and NFRs

Material weaknesses are the largest issues that need to be addressed, defined as "weaknesses in internal controls that result in a reasonable possibility that management will not prevent, detect or correct, a material misstatement in the financial statements in a timely manner" (Fine, 2020). In 2018, auditors identified 20 material weaknesses, which subsequently increased to 25 in the 2019 audit. This uptick is mostly due to the auditors being able to conduct a deeper financial analysis of the DoD during the second audit. Hopefully, uncovering issues like this will help improve long-term financial management within the DoD.

The material weaknesses are large, systemic financial management issues. Thus, the DoD prioritizes only a few of them annually (Fine, 2020). In 2018, the DoD prioritized six different material weaknesses. Of the six, all saw significant progress, and only two of them were reissued during the 2019 audit. Further, reissuing of any material weakness does not mean progress was not made. Any reissuing or the addition of new material weaknesses simply means that additional progress is needed before it is at a satisfactory level for the auditors.

Two examples of material weaknesses are General Property, Plant, & Equipment and Fund Balance With Treasury. The first material weakness means that the DoD could not accurately value its property, plant, and equipment in accordance with GAAP. Second, the DoD has an ineffective process for reconciling its fund balance with the Treasury Department. In 2019, there were 23 other material weaknesses. These examples are given to the scope and seriousness of different material weaknesses. It will take the DoD many years to improve the

[4] The remediation cost totals do not include enterprise resource planning deployment or maintenance costs.

existing material weaknesses, and that is not accounting for additional findings by auditors. Given all this information, material weaknesses will likely be a helpful metric for defining the success or failure of the audits in the long-term.

Looking at a more granular level, an important metric for improvement of the DoD's financial management is the NFRs published in each audit. In 2018, auditors found a total of 2,595 NFRs; of these, 23% were closed by the FY2019 audit. The acting DoD comptroller, Elaine McCusker, remarked that this was "solid progress for our first year" and that the NFR number will grow as the auditors continue to delve into DoD's systems and processes (Mehta & Judson, 2019). In 2019, a total of 3,472 NFRs were identified (1,300 were new), showing a significant uptick (Fine, 2020). McCusker believed that this increase was not all bad news. With each audit, auditors can better understand and analyze the DoD, which is reflected through the uptick in NFRs (Mehta & Judson, 2019). In a larger context, this improvement and constantly uncovering problems has nothing to do with managerial decisions. The issues the NFRs identified were generally limited to problems of financial management and reporting issues. Fixing these problems shows movement toward improved financial management but are significantly smaller in nature compared to material weaknesses. Therefore, positive movement in both material weaknesses and NFRs will be a good predictor of the progress of DoD's financial management.

Analysis

> *All business systems have a balance sheet; therefore, the government should have one. I think this assumption is unfortunate.* (Anthony, 2005, p. 9)

It took 30 years after the enactment of the CFO Act of 1990 for the DoD to finally become compliant. As previously stated, both audits received disclaimers of opinion (i.e., no opinion could be given due to the financial statements not providing adequate information). Elaine McCusker, the Pentagon's acting comptroller, reassured reporters that the overall disclaimer of opinion was expected (Mehta & Judson, 2019), and she expected that the DoD will likely continue to receive disclaimers of opinion for some time to come.

If the first two audits are any signal for what lies ahead, then the DoD will spend billions within the next decade for a very slow, steady progress toward achieving an unqualified opinion on its audit. While many of the identified NFRs and material weaknesses from the first audit were improved, with the second audit the auditors found far more issues, often dwarfing the improvements. There is no sign that this trend will slow down; the next few years will help give a clearer idea of the depth of financial management problems within the department.

Supporters of the CFO Act of 1990 anticipated numerous benefits would result from the audits. First, since the act was in response to numerous wasteful spending problems that were uncovered in the 1980s, auditing promised a way for the DoD to reduce waste, fraud, and abuse of taxpayer dollars. Another anticipated benefit was improved taxpayer transparency for how their money was being spent. Finally, many supporters argued that the information gained from the audit would help inform decisions made by managers in the DoD to improve processes (Hanks, 2009).

Benefits

Deputy Secretary of Defense David Norquist, the former DoD comptroller, oversaw the initial audit and constantly emphasized numerous benefits associated with improving the financial management of the DoD at large. He believed the most important benefit was accountability to the taxpayer, to ensure that their money was spent appropriately, without any going missing. While the audits finally meant that the DoD was compliant with a specific regulation, it did not mean that the work was finished. During multiple trips to congressional committees, Norquist defended the value of the audit and gave examples of different benefits and cost savings that the DoD already recognized. However, even with these savings, there is no clear evidence that the recognized benefits of the audit have outweighed the annual costs.

The principal supporter within the government of the CFO Act of 1990, however, is the GAO. The GAO cites five areas that have improved since its inception, including leadership, financial reporting, federal workforce, internal control, and financial management systems (GAO, 2020b). All these benefits were realized as executive agencies became audit-ready. Further, the GAO often uses issues within the DoD to highlight the problems that can be attributed, in part, to not being able to be audited successfully. While the GAO discusses the benefits of the CFO Act broadly, the implication is that similar benefits are likely to be realized by the DoD.

Despite the failure to receive an unqualified opinion, the supporters of the financial audits believe that the effort and expense will, in the end, be beneficial. The DoD's auditable financial statements have already made progress and have produced some benefits. The audits have provided insight into areas where processes and procedures are working well, as well as areas that need to improvements. As these improvements are made, the cost of the audits should decrease. The DoD comptroller testified that "we don't have to wait for a clean opinion to see the benefits of the audit. The financial statement audit helps drive enterprise-wide improvements to standardize our business processes and improve the quality of our data" (*Testimony*, 2018). The benefits include improved internal control, financial management, and inventory control. These are summarized below.

Improved Internal Control

Internal control is a policy or procedure put in place by management to safeguard assets, stop fraudulent behavior, promote accountability, and increase efficiency. One of the key objectives is to put in place a process to prevent employees from misappropriating assets or committing fraud. Effective internal control also provides reasonable assurance that an organization is complying with all the applicable laws and regulations and can perform its mission efficiently and report its finances reliably (which requires cybersecurity). Effective internal controls are essential to achieving and sustaining an efficient and effective organization. As previously stated, the two audits found no indications of fraud or abuse.

During the FY2019 audit, 20 agency-wide material weaknesses in internal controls were identified. These errors created the potential for errors in the financial statement to not be detected (Fine, 2020). As a result of the audits, the DoD initiated remediation efforts that have resulted in significant improvements. For example, enhanced internal controls in the U.S. Pacific fleet resulted in freeing up purchasing power to fund the $4.4 million repair costs of the USS *Paul Hamilton* (DoD, 2019).

Moreover, a significant part of the audit involves reviewing information technology and cyber security. Since many of the same systems used for financial management are also used for operational purposes, identifying vulnerabilities in these systems will also result in recommendations that improve the DoD's overall cybersecurity posture across different networks and systems (Fine, 2019). Mitigation for these shortfalls is underway with the transition to cloud architecture with the ongoing Joint Enterprise Defense Infrastructure procurement (Williams, 2018). The DoD will also work to improve cybersecurity by updating the policy on shared file and drive protection to include encryption use, authentication, and minimum password protection requirements and stringent password protection (Williams, 2018). The audits also identified five instances of noncompliance with laws and regulations across the DoD.[5]

Improved Financial Management

Within the DoD's complex structure, financial transactions often involve several information technology (IT) reporting systems to go from the initial transaction to the point where they are captured in the component's financial statement; often the components do not own and operate all of the IT systems that are used to process these transactions. In 2016, 400 separate IT systems were used to process the DoD's accounting data. The audits identified wide-ranging weaknesses in these systems that prevented the accurate, reliable, and timely reporting of financial data (Fine, 2019). Some of these were identified years prior (Williams, 2018).

A significant benefit is the savings generated from improved efficiencies and better financial operations since real-time improvements were made. For example, in response to the FY2018 audit, the Army implemented a new automated solution for data entry into the U.S. Standard General Ledger, saving 15,500 labor hours (Mehta & Judson, 2019).

Another benefit from the audit requirement is the initiation of financial management improvements that would otherwise take longer or not occur at all. Then the subsequent public reporting enables the tracking by both management and oversight agencies (Brook, 2011). As a result of the audits, several initiatives are being pursued by the DoD to address the weaknesses related to the IT systems. For example, the DoD has plans to eliminate 26 legacy IT systems by FY2022. Additionally, the DoD has established a database to identify IT applications that impact DoD financial statement audits and to track the auditor feedback regarding the system controls (Fine, 2019). During the FY2019 financial statement audits, additional improvements were made by the DoD's components. They were to provide more segments of transactions for testing, along with better supporting documentation for those selected for testing. This meant auditors were able to expand testing to new areas (Fine, 2020).

For example, for the first time ever, the Army was able to provide auditors with transactions for Army Working Capital Fund inventory work in progress, which consists of raw materials that are used to make a finished product, valued at $952 million. Auditors were able to reconcile these transactions to the balances in the accounting system and will also be able to test these in the FY2020 audit. Auditors also found the Army's IT controls over its Logistics Modernization Program system to be effective; no exceptions were identified by the auditors during testing (Buble, 2019). In another case, the Army created a computer application to store and analyze its transactional data for audit, increasing its visibility into its cost drivers and enabling its leadership to commit resources to the highest priority programs (Fine, 2020).

In response to the issues identified, other improvements are planned. The DoD will develop and implement a plan for an integrated pay and personnel system to report financial management data, capture and store key documentation, and determine pay and benefits (Williams, 2018).

Improved Inventory and Property Management

The military services and other DoD components own $291.5 billion in Inventory and Related Property Inventory, which then must be reported on their financial statements. The auditors identified material weakness related to Inventory and Related Property in both audits. Auditors found that numerous DoD components were unable to provide assurance over the existence, completeness, and valuation of inventory. For example, items may have been moved

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[5] Specifically, the audits identified that the DoD did not comply with the Federal Managers' Financial Integrity Act of 1982, the FFMIA of 1996, the Antideficiency Act, the Federal Information Security Modernization Act of 2014, and the Debt Collection Improvement Act of 1996 (Fine, 2019).

or used but were still in the inventory records; other items were found in the warehouse but not listed in the inventory records; and some items were recorded as in good condition but were unserviceable (Fine, 2020). An accurate accounting is necessary. For example, it is important that the number of spare parts in inventory is accurate to ensure the ability to support operational requirements, as well as to preclude the ordering of unnecessary inventory.

As a result of the FY2018 audit, the Air Force redesigned the process for validating the condition of assets in property systems at Hill Air Force Base in Utah, enabling the accurate capture of approximately $53 million in assets that would have otherwise been misstated. In another example, $280 million of items that were not properly tracked were at Naval Air Station Jacksonville. As a result, $81 million of material, that the service had no idea it had on hand, was identified as available for immediate use. Additionally, the inefficient use of assets was identified, and getting rid of old, unusable material freed up approximately 200,000 square feet of storage space (Mehta & Judson, 2019). With the FY2020 audit, the Navy was able to complete a full inventory of real property assets, resulting in a 98% accuracy rate; and the Air Force completed floor-to-book and book-to-floor inventories of over 96% of its buildings (Buble, 2019).

Audit Opponents

However, this effort is not without its detractors. Challengers of the benefits of auditing DoD's financial statements contest the value of financial statements and the audits, citing numerous issues. Some have argued that the DoD's financial accounting processes have been flawed from their inception. Others argue that financial audits will incur significant costs but do not provide the information necessary to effectively make better managerial decisions. They believe the DoD would be better served with a shift toward managerial-cost accounting. These positions are reviewed below.

Once the FASAB developed the federal governments accounting processes and standards, Professor Anthony was one of the earliest critics. He assessed that "few managers in the executive branch and few legislators or their staffs will use the accounting information developed in the new system" (Anthony, 2005). Since there is little evidence, they used information provided by previous systems.

As discussed previously, the accounting system, as developed by FASAB, was composed of two "separate, uncoordinated systems" for budgeting and accounting in the federal government. The House Appropriations Committee makes its appropriations on an obligation basis, and most other committees also accept the obligation format. The Senate Governmental Affairs Committee, on the other hand, mandated an expense-based format; however, this is in addition to, rather than instead of, the obligation basis. Anthony believed the obligation system could be easily manipulated. When an obligation authority exists, contracts can be charged to it, even if the goods or services are not actually needed. Since funds continued to be appropriated on an obligation basis, government leaders and managers would not pay much attention to the expense-based financial information. He concluded that since the FASAB system continued this separation, the financial management systems would not assist managers and other decision makers in making decisions the way a good accounting system should (Anthony, 2000).

A 2011 Institute for Defense Analyses (IDA) assessment of the DoD's Enterprise Resource Planning (ERP) Business Systems judged that making the department an auditable enterprise was a "wicked problem."[6] When it comes to financial statements, the IDA highlighted

[6] The term *wicked problem* was coined by Rittel and Webber. In their paper, they detail 10 characteristics that describe a wicked problem (Rittel & Webber, 1973)—these complex policy and planning problems

the differences between the DoD and those of commercial businesses, the principal users of audited financial statements. The DoD's primary stakeholders are not shareholders, but taxpayers. Moreover, the DoD is not concerned with making a profit, remaining solvent, limiting risk/liability, and developing tax incentive-based strategies involving the valuation and depreciation of assets, since these have minimal operational value. The IDA concluded that the DoD should discontinue their attempt to achieve comprehensive financial statement audits, and the operational value of audit readiness activities should be assessed before additional resources were expended. The IDA believed that a much more meaningful accounting of the DoD would be a managerial-cost accounting approach (Ketrick et al., 2012).

Many other critics of the DoD's financial statement audit believe that managerial-cost accounting would better provide many of the benefits promised by the supporters of the auditing of DoD financial statements. Consequently, the differences between financial and managerial accounting are important for understanding the value of the DoD audit and the CFO Act of 1990.

As describe above, financial accounting is concerned with income statements, balance sheets, and journal entries. Financial accounting is used to serve external stakeholders. For example, public companies will publish results of their financial audits to comply with regulations but also to assure the public—beyond management's own assertions—that a company's financial statements are accurate and can be relied upon. Financial accounting, therefore, looks at the big picture of a company or organization over the last year or more. This distinction makes financial accounting backward-looking. Critics of financial accounting argue that the backward-looking nature of financial accounting makes it inadequate to inform future decisions. Finally, financial accounting must follow GAAP, which are commonly accepted standards for presenting financial information. Managerial-cost accounting, on the other hand, is intended for internal stakeholders. Additionally, the forward-looking nature of managerial accounting makes it attractive to managers looking to make real-time decisions, and the forward-looking nature would greatly help the DoD plan, rather than recounting the past like financial accounting.

It is important to note that many experts consider managerial-cost accounting the best way to improve businesses practices. While both play an important role, managerial accounting provides the information necessary to create the change that is intended by auditing the DoD, according to many experts. David Norquist, the DoD comptroller who oversaw the first consolidated DoD audit, consistently used language similar to supporters of managerial accounting, even though the DoD is conducting a financial audit. It is unclear who is correct. Experts expect financial audits to affect business decisions little, but Norquist consistently reported improvements in the DoD's business practices.

Consequently, improving financial accounting practices within the DoD may not achieve the accountability that Congress often espouses in support of the CFO Act of 1990 and the DoD audit. Given their rhetoric, it seems that managerial accounting may be more in line with their objectives. Financial accounting is central to an audit, but audits only certify the organization's financial statements are accurate. Managerial-cost accounting, on the other hand, uses financial information to inform internal managerial decisions. If Congress is concerned with the wastefulness of the DoD at large, shifting focus to managerial-cost accounting may provide senior leader managers with information needed to make better decisions.

Resolving this conflict will be central to understanding the costs and impacts of financially auditing the DoD. In October 2019, the GAO released a report discussing the progress in financial management for the federal government (GAO, 2020b). One of the

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lack clarity in both their goals and solutions. IDA concluded that achieving auditability in the DoD meets most or all of the 10 characteristics of wicked problems.

recommendations moving forward was that the executive agencies still needed to "better link performance and cost information for decision-making." This recommendation suggests that the DoD may be improving internal financial management systems, along with other executive agencies, but struggling to monitor program performance and implement appropriate changes.

Finally, the cost to achieve DoD auditability may be understated. A major part of the DoD's strategy to achieve auditability has been to modernize its business systems. The GAO has designated the department's business systems modernization efforts as high-risk since 1995 and continues to find weaknesses in the DoD's implementation of business systems. Since 2005, the GAO has issued 12 reports and has made 29 recommendations, and as of June 2019, only 15 of the 29 recommendations contained in the 12 reports have been implemented by the DoD (GAO, 2020a). As part of its business modernization efforts, the DoD has fully implemented several new ERP systems, while others have been cancelled by the DoD or the military service after multibillion-dollar investments, and other projects have been plagued with delays and cost overruns. In FY2012, the DoD invested almost $18 billion to operate and modernize its business systems (Crawford, 2015). The DoD continues to make investments in its business systems; in FY2019 the figure was almost $9 billion (GAO, 2020a). It may not be unreasonable to question if these investments have produced the envisioned value.

Does Auditing the DoD Increase Costs to the Contract Acquisition System?

There was some concern that FIAR requirements would increase the cost of goods and services that the DoD procures. By default, these the financial management requirements flow down to vendors selling to the DoD. To adequately support the DoD requirements, the vendor must have a system of record in place capable of maintaining appropriate controls and processes and be able to produce the necessary supporting documentation to validate the cost charged to the DoD. However, the DoD already had in place an extensive financial management regulation regime prior to the CFO Act of 1990, which already imposed a significant additional cost on contractors.

In 1994, the accounting firm Coopers & Lybrand (now PricewaterhouseCoopers, or PwC) completed the most authoritative study of the costs associated with the DoD regulatory burden contractors' costs. They analyzed over 100 different regulations that increased costs to contractors. Out of the 100 regulations analyzed, three of the top 10 that drive costs were related to finance and accounting (see the inset). Specifically, these three accounted for a 2.9% increase in costs for DoD contractors. Property and equipment management added another 1.2%, for a total of 3.4% of the total 23% cost burden, or approximately one-fourth of total compliance costs. These costs may have a type of spillover effect and mask any small cost that may come from providing any additional financial data, not already required, to comply with FIAR.

Cost Accounting Standards. Directed the establishment of cost accounting standards required. FAR Part 30 outlines policies and procedures for applying the Cost Accounting Standards Board (CASB) rules and regulations (48 CFR Chapter 99) to negotiated contracts and subcontracts. DFARS 252.242-7006(a)(1) further defines an acceptable accounting system.

Cost/Schedule Control Systems. The DoD established use of EVM as a requirement for periodically measuring linear programs with firm baselines established prior to starting development.

The Truthful Cost or Pricing Data Act. Commonly referred to by its historical name, the Truth in Negotiations Act (TINA) requires contractors to submit certified cost or pricing data if a procurement's value exceeds the specified threshold and no exceptions apply.

A nonfinancial requirement imposed on contractors by the DoD that trickles down costs, in part to improve the DoD's audit readiness, is the DoD's item unique identification (IUID) system, which requires businesses to provide a unique identification of all delivered end items with a unit acquisition cost of $5,000 or more (DFARS 252.211-7003, 2020). Although this policy increased the cost for contractors, OEMs have presented data to show that identification technology reduces costs through improved data quality and enhanced quality control during product planning, development, life cycle, and inventory control, and the Aerospace Industry Association developed a common supplier flow-down requirement to further expand IUID use as the single identification across industry and the DoD for supply-chain management. IUID was identified as the single best practice for item management across the corporate spectrum for both commercial and government business by industry groups (Bradford, 2012).

Finally, there is no evidence directly linking the nearly $1 billion annual investment in the financial audits to increased costs to contractors. Based on the data collection and reporting requirements already in place, it is unlikely that auditing the DoD increases costs to the contract acquisition system. Further, while there does not seem to be any direct connection between FIAR compliance and increased acquisition costs to the contract system, there is, however, an opportunity cost. Any monies devoted to audit readiness and compliance are not available to fund other initiatives.

Conclusion

The DoD has spent billions in meeting the congressional mandate to have audit-ready financial statements by September 30, 2017 and must now continue to produce annual financial statements and undergo audits as required by law. With two audits completed, the DoD has identified many shortcomings in the process and has corrected some of these. It will take some time to tell if an unqualified opinion can ever be achieved. In the interim, the DoD's interest and commitment may fade, since within the department, financial management will always cede priority to the operational mission.

The DoD has recognized some benefits as a result of the audits, primarily uncovering inventory that was previously unaccounted for, including helicopters, buildings, and munitions (Cronk, 2019a). Uncovering this additional inventory can help managers be better informed about resources on hand, but it is unlikely that these discoveries will continue beyond the first few audits. More importantly, the DoD is also improving internal accounting systems so that they will represent the state of their finances more accurately and is strengthening these systems against cyberattacks. These improved accounting and financial management systems will be able to provide better financial information to decision-makers and may reduce the cost of future audits. Even though no instances of massive waste or fraud have been identified, the audits will potentially provide a political benefit; they can help provide the desired transparency and demonstrate that the DoD is exercising sound financial management.

Finally, although one of the objectives for the audits is to improve management decisions, the financial accounting and auditing literature rarely, if ever, mentions a connection to these. As could be expected, the information derived from the audits has not impacted the rationale for, or the management of, any major DoD program. Since financial accounting and auditing has demonstrated little practical value in making future decisions, it is unlikely that the DoD will be able to improve its decision-making concerning its programs with financial accounting and audits alone. Greater emphasis on improved managerial-cost accounting would provide longer-term benefits in this regard, by better informing future decisions. In this challenging budgetary and national security environment, the nation and its leaders need help to ensure that they do the right things, and not only do things right.[7]

[7] "Leadership is doing the right things; management is doing things right," is a quote often attributed to Peter Drucker.

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