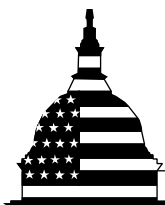


January 2013

PENSION COSTS ON DOD CONTRACTS

Additional Guidance Needed to Ensure Costs Are Consistent and Reasonable



G A O

Accountability * Integrity * Reliability

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE JAN 2013		2. REPORT TYPE		3. DATES COVERED 00-00-2013 to 00-00-2013	
4. TITLE AND SUBTITLE Pension Costs on DOD Contracts: Additional Guidance Needed to Ensure Costs Are Consistent and Reasonable				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Government Accountability Office, 441 G Street NW, Washington, DC, 20548				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 62	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Highlights of [GAO-13-158](#), a report to congressional requesters

Why GAO Did This Study

DOD contractors are among the largest sponsors of defined benefit pension plans in the United States and factor pension costs into the price of DOD contracts. Since the 2008 market downturn, these pension costs have grown—thereby increasing DOD contract costs—and recent changes in rules for calculating pension costs have raised the prospect of further cost increases. Given this possibility, GAO assessed how (1) contractor pension costs are determined; (2) DOD ensures the contractor pension costs it pays are appropriate; (3) DOD contractors' defined benefit pension plans compare with plans sponsored by similar companies; (4) pension costs have affected DOD contract costs and the factors that contributed to these pension costs; and (5) the harmonization of CAS with ERISA will affect the amounts DOD will pay in pension costs in coming years. To do this, GAO analyzed defined benefit pension plans for the largest contractors; interviewed contractor and DOD officials; and reviewed relevant laws and regulations, including changes made to harmonize CAS with ERISA.

What GAO Recommends

GAO recommends that the Secretary of Defense clarify responsibility for and guidance on assessing pension reasonableness and determining discount rates for pension cost projections. GAO recommends that the CAS Board set a schedule for revising the parts of CAS that address the settlement of plan curtailments. DOD agreed with the recommendations to the Secretary of Defense, and OMB said that when the CAS Board meets it will consider a schedule for revision.

View [GAO-13-158](#). For more information, contact Cristina Chaplain at (202) 512-4841 or chaplainc@gao.gov; or Charles Jeszeck at (202) 512-7215 or jeszeckc@gao.gov.

January 2013

PENSION COSTS ON DOD CONTRACTS

Additional Guidance Needed to Ensure Costs Are Consistent and Reasonable

What GAO Found

Labor costs are included in the prices contractors negotiate with the Department of Defense (DOD), and include pension costs as these are a normal element of employee compensation. Contractors make two sets of calculations for their defined benefit pension plans, following two sets of standards: (1) Cost Accounting Standards (CAS), which determine how pension costs are allocated to government contracts; and (2) Employee Retirement Income Security Act of 1974 (ERISA), which establishes the minimum contribution required to fund plans. In 2008, revised ERISA rules altered the minimum funding requirements, causing CAS costs and ERISA contributions to diverge further apart. ERISA contributions have therefore greatly exceeded CAS pension costs reflected in contract prices. In December 2011, almost 4 years after ERISA changes took effect, the CAS Board, which is part of the Office of Management and Budget (OMB), made changes to CAS that harmonized them to ERISA in order to gradually reduce the difference between the two calculation methods.

DOD centralizes its technical expertise for management and oversight of defined benefit pension plans. DOD contracting officers at the corporate level negotiate pension costs with contractors and receive technical support from a team of DOD actuaries. DOD audits projected and actual costs for contracts, including pension costs, to ensure they are allowable, allocable, and reasonable. The Federal Acquisition Regulation requires that employee compensation, including pensions, be reasonable. However, the pension costs used for compensation reviews can be affected not only by the value of benefits earned by employees, but also by factors such as asset returns and interest rates. Also, oversight processes do not clearly assign responsibility for assessing the reasonableness of pension benefits, including those for executives.

GAO analyzed the defined benefit plans of the 10 largest DOD contractors and found that nearly all of the contractors—as well as a peer group of companies—maintain some sort of tax-qualified, defined benefit plan for their employees. The largest contractors invest in similar types of pension plan assets as their peer group, and do so somewhat more conservatively. GAO also found that CAS pension costs reported by the contractors grew considerably over the last decade, from less than \$500 million in 2002 to almost \$5 billion in 2011, although not all of these costs were allocated to DOD contracts. Contractor CAS pension costs grew as the market downturn increased unfunded liabilities.

Although pension cost projections are highly sensitive to economic assumptions, both contractors and DOD officials expect CAS pension costs to increase starting in 2014 due to harmonization. The CAS discount rates used to value liabilities will now be tied to the more volatile ERISA-based rates, making it harder to forecast future CAS pension costs and reducing the consistency of cost projections used in contract pricing. DOD issued limited guidance on projecting ERISA-based discount rates for CAS calculations, but lack of specificity in the guidance can lead to great variation among the rates contractors use. Moreover, when a contractor curtails a plan, DOD and the contractor must settle pension costs; however, the discount rates used for settlements were not updated as part of harmonization, meaning liabilities will be calculated differently under CAS and ERISA rules. A schedule has not been set for addressing this issue.

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Abbreviations

CAS	Cost Accounting Standards
CIPR	Contractor Insurance/Pension Review
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DOD	Department of Defense
ERISA	Employee Retirement Income Security Act of 1974
FAR	Federal Acquisition Regulation
MAP-21	Moving Ahead for Progress in the 21st Century Act
OMB	Office of Management and Budget
PBGC	Pension Benefit Guaranty Corporation
PPA	Pension Protection Act of 2006

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United States Government Accountability Office
Washington, DC 20548

January 22, 2013

Congressional Requesters

Department of Defense (DOD) contractors are among the largest sponsors of defined benefit pension plans in the United States, with more than \$100 billion in pension assets.¹ Contractors factor the cost of employee wages and fringe benefits, including defined benefit pension costs, into the price of contracts with DOD. These pension costs had been relatively low for a number of years, principally because of strong returns on pension assets. However, over the last decade, and particularly since the financial market decline of 2008 and 2009 reduced the value of major assets, these costs have grown—almost 90 percent from 2008 to 2011 for the largest contractors—and increased DOD contract costs. Concerns have been raised that recent changes in the government’s rules for calculating pension costs may lead to further cost increases in coming years.

Given the possibility of increased contractor pension costs for DOD, you asked us to review contractor pension costs. As agreed, we assessed how (1) contractor pension costs are determined; (2) DOD ensures the contractor pension costs it pays are appropriate; (3) DOD contractors’ defined benefit pension plans compare with plans sponsored by similar companies that are not among the largest DOD contractors; (4) pension costs have affected DOD contract costs and the factors that contributed to these pension costs; and (5) the December 2011 harmonization of Cost Accounting Standards (CAS) with the Employee Retirement Income Security Act of 1974 (ERISA)² will affect the amounts DOD will pay in pension costs in coming years.³

¹Defined benefit plans typically provide a specific retirement benefit often based on salary or years of service.

²29 U.S.C. § 1001 note.

³CAS is a set of rules designed to ensure contractors consistently apply cost accounting practices to contracts with the government. ERISA sets certain protections for participants in defined benefit pension plans and minimum funding standards for pension plans sponsored by private employers.

To conduct analysis across all objectives, we analyzed defined benefit pension plans for the 10 largest contractors based on DOD contract obligations for fiscal year 2011, selecting for deeper analysis the 35 defined benefit plans that together covered at least 90 percent of each contractor's pension liabilities.⁴ At the 10 largest contractors, we interviewed officials whose responsibilities included benefits management and government accounting, as well as Defense Contract Management Agency (DCMA) and Defense Contract Audit Agency (DCAA) officials. We reviewed relevant laws, regulations, and DOD policy documents, in addition to reports written by the DCMA Contractor Insurance/Pension Review (CIPR) Center and DCAA that address contractor pension costs.

Further, to understand how DOD oversees pension costs at smaller contractors, we reviewed seven publicly traded contractors that met criteria we set for DOD contract obligations, level of defined benefit pension plan assets, and amount of DOD business relative to non-DOD sales. To compare the pension plans of contractors to those sponsored by similar companies, we selected a peer group of 15 companies not among the largest DOD contractors and analyzed the peers' and contractors' audited financial statements for 2011. To identify trends in CAS pension costs, for the nine largest contractors we reviewed pension plan documents such as CAS valuation reports (generally certified by qualified and credentialed actuaries) and collected contractor data on incurred CAS pension costs from 2002 to 2011. To understand how pension costs make their way onto DOD contracts, we selected divisions at the five largest contractors and at each division selected a weapon system program, which together represent a mix of military services and platform types. For the five divisions and programs we collected contractor data on incurred pension costs from 2005 to 2011. To demonstrate the potential impact on CAS pension costs of CAS/ERISA harmonization and changing economic assumptions, we developed a model of an illustrative contractor defined benefit plan, based on a review of the model DOD uses, and reviewed by the Chief Actuary of the GAO for actuarial soundness. We also gathered contractor projections of CAS pension costs for 2012 to 2016. See appendix I for additional details on our scope and methodology.

⁴Of the 10 largest DOD contractors, one does not sponsor defined benefit pension plans for employees. Throughout this report when we refer to the "largest DOD contractors", unless otherwise specified, we are referring to the nine largest DOD contractors based on DOD contract obligations for 2011 that also sponsor defined benefit pension plans.

We conducted this performance audit from December 2011 to January 2013 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.

Background

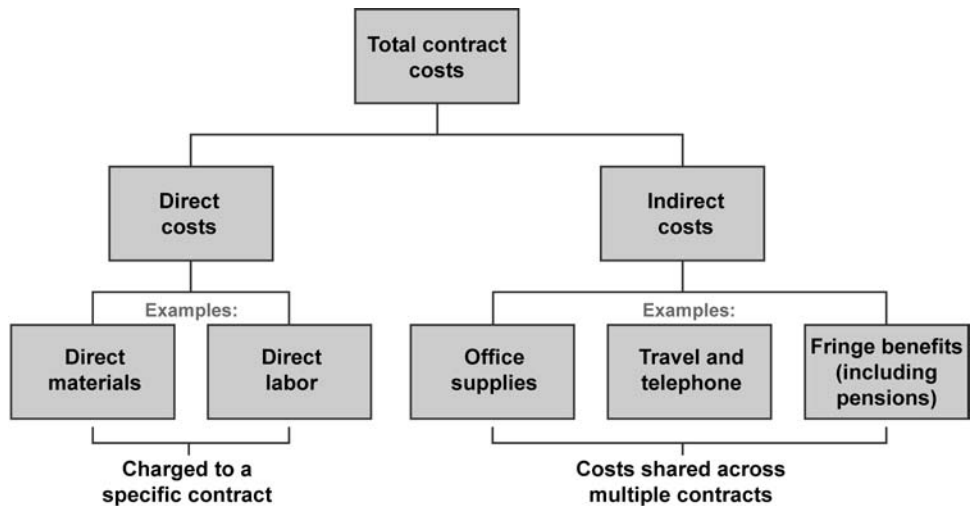
Pension Costs Are Captured on DOD Contracts as Indirect Costs

DOD frequently purchases products that are not available in the commercial marketplace. For example, DOD awards contracts for the development or production of weapon systems including fighter aircraft, submarines, and radars. In these situations, DOD typically negotiates the price it will pay based on the cost to deliver the desired product. In negotiating prices, DOD seeks insight into contractors' costs such as for salaries, wages, and benefits, the last of which includes pensions. When a purchase occurs in the commercial marketplace, the price for a commercial product will include the sellers' costs for materials and labor (including salaries, wages, and benefits) but the buyer has little insight into these costs.

Contractors' labor costs include pension benefits, since such benefits are a normal part of compensation. These pension costs are an indirect cost spread across multiple contracts at a particular contractor business division, as opposed to direct costs such as those labor and material costs that can be associated with a specific contract (see figure 1). They are typically allocated to contracts based on direct labor costs. Pension costs are generally considered a fringe benefit, a category that includes costs associated with health benefits, group insurance, and other forms of nonwage compensation. In previous work, we found that of the three main types of employee benefits (health insurance, paid leave, and retirement benefits), health insurance is generally the most expensive, and retirement benefits the least.⁵

⁵See GAO, *Employee Compensation: Employer Spending on Benefits Has Grown Faster Than Wages, Due Largely to Rising Costs for Health Insurance and Retirement Benefits*, [GAO-06-285](#) (Washington, D.C.: Feb. 24, 2006).

Figure 1: Types of Contract Cost



Source: Defense Systems Management College.

Oversight of DOD contracts is primarily provided by two agencies:

1. Defense Contract Management Agency (DCMA), which includes contracting officers who, as part of their duties, negotiate and agree upon indirect costs applied to contracts awarded by DOD acquisition commands and other buying offices.
2. Defense Contract Audit Agency (DCAA), which audits projected and actual costs associated with DOD contracts to ensure they are allowable, allocable, and reasonable in accordance with CAS and Federal Acquisition Regulation (FAR) rules.

These indirect cost oversight processes are not limited to DOD, but apply to U.S. government contracts more broadly. DCMA and DCAA provide assistance related to indirect cost oversight for non-DOD agencies, such as the National Aeronautics and Space Administration (NASA) and the Department of Homeland Security. When DCMA, as the cognizant contract administration office, reaches an agreement on indirect costs, the agreement is applicable to all U.S. government contracts performed by that business unit.

DOD Contractors Sponsor Different Types of Retirement Plans

DOD contractors, like other private sector companies, may sponsor traditional defined benefit plans, or defined contribution plans (such as 401(k) plans) which provide individual accounts for employees and allow for employer and employee contributions.⁶ They may sponsor multiple defined benefit plans, which typically cover different business lines or employee populations, such as salaried or hourly employees. Many defined benefit and defined contribution plans sponsored by DOD contractors are “tax-qualified” under the Internal Revenue Code.⁷ Tax qualification means the plans meet certain rules in the Internal Revenue Code, and have certain tax advantages. Minimum funding rules—that is, the amount required to be held in the trust fund to finance future benefit payments—are contained in the Internal Revenue Code and mirrored in ERISA, and apply to private sector “tax-qualified” defined benefit plans.⁸ Note that sponsor contributions to these plans are not the benefit payments themselves, but contributions that go into a trust fund, grow with investment returns, and eventually are paid out as benefits at a later date. These contributions are tax-deductible to the sponsoring company, investment returns on the trust fund is tax-deferred, and plan participants pay tax only as they receive benefits in retirement.⁹

DOD contractors also sponsor “nonqualified plans.”¹⁰ These plans do not meet the applicable requirements for tax-qualification under the Internal Revenue Code. Sponsors of these plans typically do not have to satisfy laws and regulations capping maximum benefits or requiring a minimum level of contributions to the plan. They also do not have to meet certain reporting, disclosure, bookkeeping, and core fiduciary requirements.

⁶Defined benefit formulas vary widely, but in 2005 GAO found that a typical defined benefit plan gave participants 1.5 percent of their final average pay, multiplied by years of service, as a lifetime benefit. See GAO, *Private Pensions: Information on Cash Balance Pension Plans*, [GAO-06-42](#) (Washington, D.C.: Nov. 3, 2005). Note that this finding could change if a similar survey were undertaken today, because of plan freezes and benefit formula reductions in recent years. Note further that a plan participant’s actual benefit would often be lower than what this base formula would produce, because of such factors as partial offsets for Social Security benefits and reduction for early retirement.

⁷26 U.S.C. § 401-436.

⁸26 U.S.C. § 430 and 29 U.S.C. § 1082, respectively.

⁹Participants do not have to pay income tax on the employer’s contribution to the plan on their behalf or on the earnings to those contributions until benefits are received. 26 U.S.C. § 404(a)(1) & (2).

¹⁰26 U.S.C. § 409 A.

Nonqualified plans are typically designed for highly compensated employees or selected company executives. Nonqualified plans may be operated on a pay-as-you-go basis or may be prefunded. Nonqualified plans do not have a minimum ERISA contribution, and, for pay-as-you-go plans, the CAS pension cost will be the cost of the benefit payments to the participants.

Defined contribution plans shift investment risk away from the employer and onto employees, meaning that these plans have much more predictable yearly costs for the employer. While defined contribution plans often have employer matches which generally require annual contributions, we reported that from 1995 to 2002, very few sponsors of large defined benefit plans were required to make cash contributions to their plans.¹¹ In terms of sponsor contributions, neither type of plan—defined benefit or defined contribution—is inherently more or less expensive to a plan sponsor, nor more or less generous to plan participants, than the other. Expense and generosity depend on the particular provisions of the plan, among other factors. Costs associated with defined contribution plans are typically more straightforward for sponsors to calculate and project than defined benefit plan costs. Defined benefit plans require actuarial support and management of sponsor contributions and invested assets in order to fund liabilities. These considerations do not apply to sponsors of defined contribution plans.

¹¹GAO, *Private Pensions. Recent Experiences of Large Defined Benefit Plans Illustrate Weakness in Funding Rules*, [GAO-05-294](#) (Washington, D.C.: May 31, 2005).

CAS and ERISA Rules Determine Pension Calculations but Have Diverged Over Recent Years

CAS Rules Define How Much Pension Cost Can Be Allocated to Contracts While ERISA Rules Determine Required Pension Contributions

DOD contractors make two sets of calculations for each of their defined benefit pension plans, following two sets of standards. They calculate a CAS pension cost, which is the cost that serves as a basis for calculating what pension costs can be charged to contracts. This cost is allocated to contracts based on CAS rules. Like all plan sponsors, they also calculate the contribution they are required to make, or otherwise face penalties, under ERISA. Because the rules are different, the CAS pension cost is likely to be different from the required ERISA contribution.

A contractor's total pension cost may also include costs that are not allocated to DOD or other U.S. government contracts, but instead allocated to commercial activities. Several large DOD contractors have significant commercial operations. For example, less than 20 percent of United Technologies Corporation's sales are to the U.S. government, and approximately half of Boeing's sales come from its commercial aircraft business.

Cost Accounting Standards for Pensions

The FAR requires that costs be allowable, allocable, and reasonable. When contract costs are established through negotiation, the CAS provides the framework contractors use to determine allocable costs. In particular, pension costs for DOD contracts are measured, assigned, and allocated to contracts according to rules in CAS 412 and 413. CAS rules are set by the CAS Board, part of the Office of Federal Procurement Policy within the Office of Management and Budget (OMB), which includes members from government and industry. CAS is designed to ensure uniformity across contractors in how they allocate costs on government contracts, linking the costs incurred on contracts to the benefits the government receives as a result of those costs.¹² CAS also

¹²CAS rules for determining federal contract costs and ERISA rules for determining pension contributions are distinct from generally accepted accounting principles (GAAP) and related standards that apply to public financial reporting by pension plans and their sponsors.

provides a framework for assigning costs to discrete cost periods and aims to minimize the volatility of pension costs in the pricing of government contracts.

In addition to using CAS rules to measure pension costs incurred in a given year, contractors also use CAS rules to determine expected future pension costs, called “forward pricing projections.” Contractors use these projections when they negotiate contracts covering multiple years. These contracts may be firm fixed priced—with no adjustment to reflect actual costs under normal circumstances—or flexibly priced. Flexibly priced contracts provide for price adjustment.¹³ When a regulatory change occurs—such as a change in the CAS—both fixed and flexibly priced contracts may be eligible for adjustments (also known as equitable price adjustments) to reflect the impact of the change.

CAS 412 provides guidance to contractors and the government on how to determine and measure the components of pension cost for defined benefit plans in a given year. For most defined benefit plans, the components include:

1. Normal cost: pension cost attributable to the employee’s work in the given year.
2. Other pension costs: the costs that include payment for part of any shortfall in assets required to pay for pension costs that are attributable to past service (the shortfall is known as the unfunded liability).

Both of these components reflect actuarial present values, today, of benefits projected to be paid in the future, and not the actual benefits being paid today to plan participants.

Sources of any shortfall may include: differences between actuarial assumptions and actual experience such as worse-than-expected asset performance in a given year (the difference is known as an actuarial loss); changes in actuarial assumptions that increase liabilities such as projections of inflation, mortality, and retirement age; and changes in the rules used for benefit computation or other plan amendments that

¹³Such contracts include fixed price incentive contracts, cost plus incentive fee contracts, and cost plus fixed fee contracts.

How Contractors Pay for Gains and Losses under CAS

Each year, contractors measure whether their existing assets have grown as fast as their existing liabilities. If these assets have grown faster than liabilities because assets performed better than expected or because liabilities were not as high as estimated, contractors record an actuarial gain. In the opposite case, contractors record an actuarial loss. Gains and losses are amortized over 10 years with interest (similar to a level payment on a mortgage), and the sum of these annual installments is a component of each year's CAS cost.

Allocation of CAS Pension Costs to Contracts

increase liabilities. Plans with unfunded liabilities make installment payments to reduce these unfunded liabilities over a period of time that depends on the sources of the unfunded liabilities.

If a plan has more assets than liabilities in a given year, then the normal cost is offset by extra plan assets, and so overall CAS cost to the government is reduced by the excess assets, and can even be reduced to zero. Plans might have more assets than liabilities if, for example, assets perform more strongly than expected (the difference is known as an actuarial gain) or if changes in actuarial assumptions reduce liabilities, or if the plan sponsor reduces liabilities through plan amendments. Both actuarial gains and losses are incorporated into CAS pension cost in installments over a number of years.

Supported by in-house or external actuaries, DOD contractors calculate their CAS pension costs at least annually, and produce CAS valuation reports for plans.¹⁴ The calculations provide the basis for projections of future CAS pension costs for use in forward pricing. These costs are then allocated to the various divisions of the contractor. Contractors use a range of methods such as payroll dollars or number of active participants to allocate CAS pension costs across divisions for application to contracts. Allocation methods are explained in required CAS disclosure statements, prepared at the corporate and division levels by contractors, and provided to DOD for review. At the division level, the combined cost of pension benefits with other employee benefit costs including health benefits and group insurance, is frequently referred to as the fringe benefit cost. The fringe benefit cost is projected over one or more future years based on factors such as estimated labor costs and the expected amount of future business. Projected fringe benefit costs are then submitted to DCMA officials at the division level for review.

While forward pricing projects future costs for use in contract pricing, contractors also develop annual proposals for incurred costs including CAS pension costs. These are actual costs incurred by the contractor, which may differ from the projected costs used in the forward pricing process. These proposals are submitted to DOD and used as the basis

¹⁴CAS valuation reports reflect an actuarial valuation, as of the start of the plan year, of a contractor pension plan. They contain details of the plan's CAS pension cost, assets and liabilities, as well as the plan's actuarial assumptions. They are typically produced by actuaries, whether in-house or external.

for negotiating settlement of any cost differences when closing out flexibly priced contracts.

ERISA Rules for Pensions

Congress enacted ERISA in 1974 to set certain protections for plan participants and minimum funding standards for pension plans sponsored by private employers.¹⁵ ERISA is designed to protect the interests of participants (and their beneficiaries).¹⁶ The administration of ERISA is divided among the Department of Labor, the Internal Revenue Service of the Department of the Treasury, and the Pension Benefit Guaranty Corporation (PBGC). According to PBGC, if sponsors are no longer able to fund or administer their plans, PBGC makes sure participants will get some or all of their promised benefits.¹⁷

Setting the Discount Rate Is a Key Decision in Calculation of Pension Contributions and Costs

The discount rate is a key part of determining both CAS pension costs and ERISA-required contributions.¹⁸ Pensions are promises to make a future stream of payments, and the discount rate determines the estimate of the present value of promises to pay a future benefit. As shown in figure 2, the higher the discount rate, the lower the liability today.

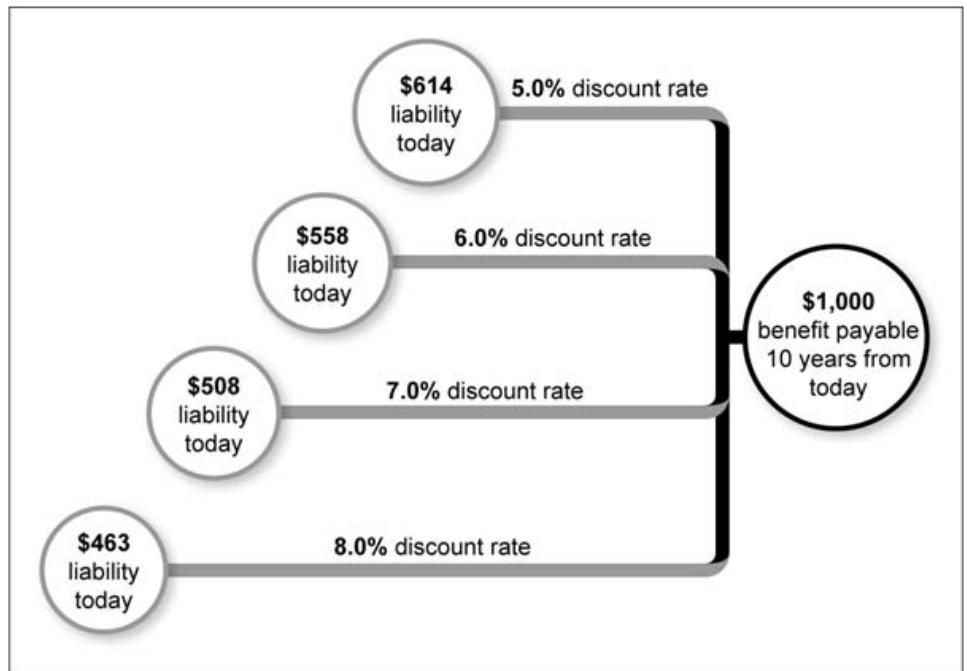
¹⁵29 U.S.C. § 1001 note.

¹⁶29 U.S.C. § 1001, 1001a and 1001b.

¹⁷29 U.S.C. § 1301-1461.

¹⁸DOD actuaries also refer to the discount rate as the valuation rate.

Figure 2: Effect of Different Discount Rates on the Current Value of a Future Payment



Source: GAO analysis.

Basic approaches to setting a plan's discount rate include: (1) basing the discount rate on the expected long-term return on plan assets (which includes expected long-term stock market returns to the extent plan assets are so invested, and which, in recent years, often would produce discount rates between 7.0 and 8.0 percent), or (2) basing the discount rate on relevant interest rates in the bond market (which, in turn, could be based on either current market interest rates, or an historical average over some period, and which, in recent years, often would produce discount rates around 4.0 percent).¹⁹ The first approach will more often produce a higher discount rate than the latter approach.

The Pension Protection Act of 2006 (PPA), effective 2008, changed ERISA, strengthening the minimum funding requirements for defined

¹⁹Use of the latter approach with short or no smoothing would have typically produced discount rates of around 4.0 percent in recent years.

benefit plans (although its provisions were altered by subsequent legislation).²⁰ These changes required sponsors to use a measure of corporate bond interest rates to calculate their defined benefit plan liabilities instead of a discount rate based on the expected long-term rate of return on plan assets, which generally increased contributions.²¹ In contrast, CAS rules continued to use the expected long-term rate of return assumption as the discount rate, which would typically be higher than corporate bond interest rates. PPA mandated certain changes to CAS pension rules while delaying implementation of the new ERISA funding rules for several large DOD contractors until 2011.²²

Growing Divergence between CAS Costs and ERISA Contributions Has Generated Over \$26 Billion in CAS Prepayment Credits

The recent changes in the ERISA discount rate basis meant major differences in the methodology for CAS cost and ERISA contribution calculations, but CAS and ERISA rules were not fully aligned even before these changes. CAS pension cost rules were once similar to the rules for determining minimum ERISA contributions. However, as Congress amended ERISA over the years, the CAS Board did not make changes as frequently. For example, prior to PPA taking effect in 2008, ERISA rules imposed additional funding charges for underfunded plans, which were not accounted for by the CAS rules. Table 1 summarizes recent changes to discount rates used for CAS and ERISA calculations, including the most recent changes enacted in the 2012 Moving Ahead for Progress in the 21st Century Act (MAP-21).

²⁰Pub. L. No. 109-280.

²¹PPA requires plan sponsors to discount expected benefit payments based on a corporate bond interest rate yield curve. This means that liabilities are discounted at different rates, depending on when a plan expects to make a given benefit payment.

²²Until that time those contractors calculated liabilities under ERISA using a long-term rate of return assumption regardless of when benefit payments would be due. Companies required to delay implementation of the new funding rules were those whose primary source of revenue was derived from contracts with the U.S. government and whose revenue from such business in the previous fiscal year exceeded \$5 billion. Several companies we reviewed delayed implementation under this provision (Section 106 of PPA) including BAE Systems, L-3 Communications, Lockheed Martin, Northrop Grumman, Raytheon, and General Dynamics.

Table 1: Changes Affecting ERISA and CAS Discount Rates for Liabilities

	Before 2008	After 2008	After February 2012	After July 2012
ERISA	Equal to assumed long-term rate of return on plan assets. ^a	Tied to recent corporate bond interest rates, per PPA; plans use rates that vary depending on when the actuary estimates the benefit payments will be made.	No change.	Bounded recent bond interest rates by a longer-term historical average, expected to temporarily increase discount rates to provide funding relief to plan sponsors, per MAP-21.
CAS	Equal to assumed long-term rate of return on plan assets.	No change.	ERISA-based measures phase in gradually from 2014 until 2017; new rates will only be used to extent they produce higher measures than under traditional CAS measures.	Change as ERISA discount rates change.

Source: GAO analysis of ERISA and CAS.

^aAlso contained an alternate calculation, tied since 2004 to recent corporate bond interest rates, that imposed an additional funding charge for underfunded plans.

For a qualified pension cost to be recognized under CAS, a contractor must make a contribution in a given year to a plan's trust fund. However, the past divergence of CAS and ERISA approaches is a driver of contractors contributing more to their pension plans than has been recognized under CAS and reflected in contract prices. This has generated CAS prepayment credits. In the future, the contractor can apply its CAS prepayment credits in lieu of a cash contribution to the plan in a given year. The largest DOD contractors had at least \$26.5 billion in CAS prepayment credits as of the beginning of 2011. Figure 3 provides a hypothetical example of how a prepayment credit is generated and discharged.

Figure 3: Hypothetical Development and Discharge of Prepayment Credits



Source: GAO analysis of Cost Accounting Standards rules.

^aThe CAS prepayment credit would grow with the assumed rate of return on plan assets until 2013, after which time, it would grow with the actual rate of return on plan assets.

Prepayment credits affect how contractors calculate their unfunded liabilities. When comparing assets to liabilities, prepayment credits are subtracted from CAS assets. This creates a higher unfunded liability and thus a higher CAS cost.

Harmonization of CAS to ERISA Aims to Gradually Reduce Differences between the Two Methodologies

PPA required the CAS Board to harmonize CAS to ERISA by January 1, 2010.²³ The changes made by the CAS Board became effective in February 2012. However, the CAS Board did not make CAS rules exactly match ERISA, stating that this was not congressional intent, and recognizing that the two different systems have different goals. The CAS Board's final rule phased in the liability calculated with the ERISA-based discount rate—from 25 percent in 2014 to 100 percent in 2017.²⁴ This means that closer alignment between CAS pension costs and ERISA

²³Pub. L. No. 109-280 § 106(d).

²⁴For example, in 2014 the liability would be a weighted average equal to 25 percent of the liability calculated under the current ERISA rules and 75 percent of the liability calculated under the traditional (pre-harmonization) CAS rules. Alternatively, if corporate bond interest rates rise high enough (the exact amount would vary by plan), there could be no additional harmonization-related cost because, per CAS rules, the ERISA-based discount rate calculation would not be applicable.

contributions will take several years. In addition to changes to the discount rate, the CAS Board also reduced the schedule of time to pay for actuarial losses (or get credit for actuarial gains) from 15 to 10 years, starting in 2013. This change aligns the CAS amortization schedule more closely with the 7-year amortization schedule mandated in the PPA. The CAS Board also designed harmonization so that if the cost calculation is lower under the new rules than the traditional rules, then the traditional rules would continue to apply.

The most recent change to ERISA minimum contribution requirements can also affect CAS pension cost. Congress effectively increased, on a temporary basis, the ERISA-mandated discount rate by applying a new methodology for calculating it via the MAP-21 legislation. Because the CAS harmonization rules say the ERISA discount rate is an automatically acceptable (“safe harbor”) rate, contractors that use the ERISA discount rate will see a matching change in their CAS discount rate.

CAS rules (CAS 413) specify that the contractor and the government must “settle up” under certain circumstances. For example, a settlement would be triggered if a contractor curtails a plan, meaning that no new benefits can accrue for participants.²⁵ This means that DOD and the contractors calculate whether the government has over- or underpaid for CAS pension costs over the years, with the balance being settled via payment by the government or the contractor. These CAS settlement rules use the traditional long-term rate of return discount rate, instead of the ERISA-based corporate bond interest rates. This means that the CAS liability for settling up would be similar to the old CAS liability and would not reflect changes from the harmonization rule.

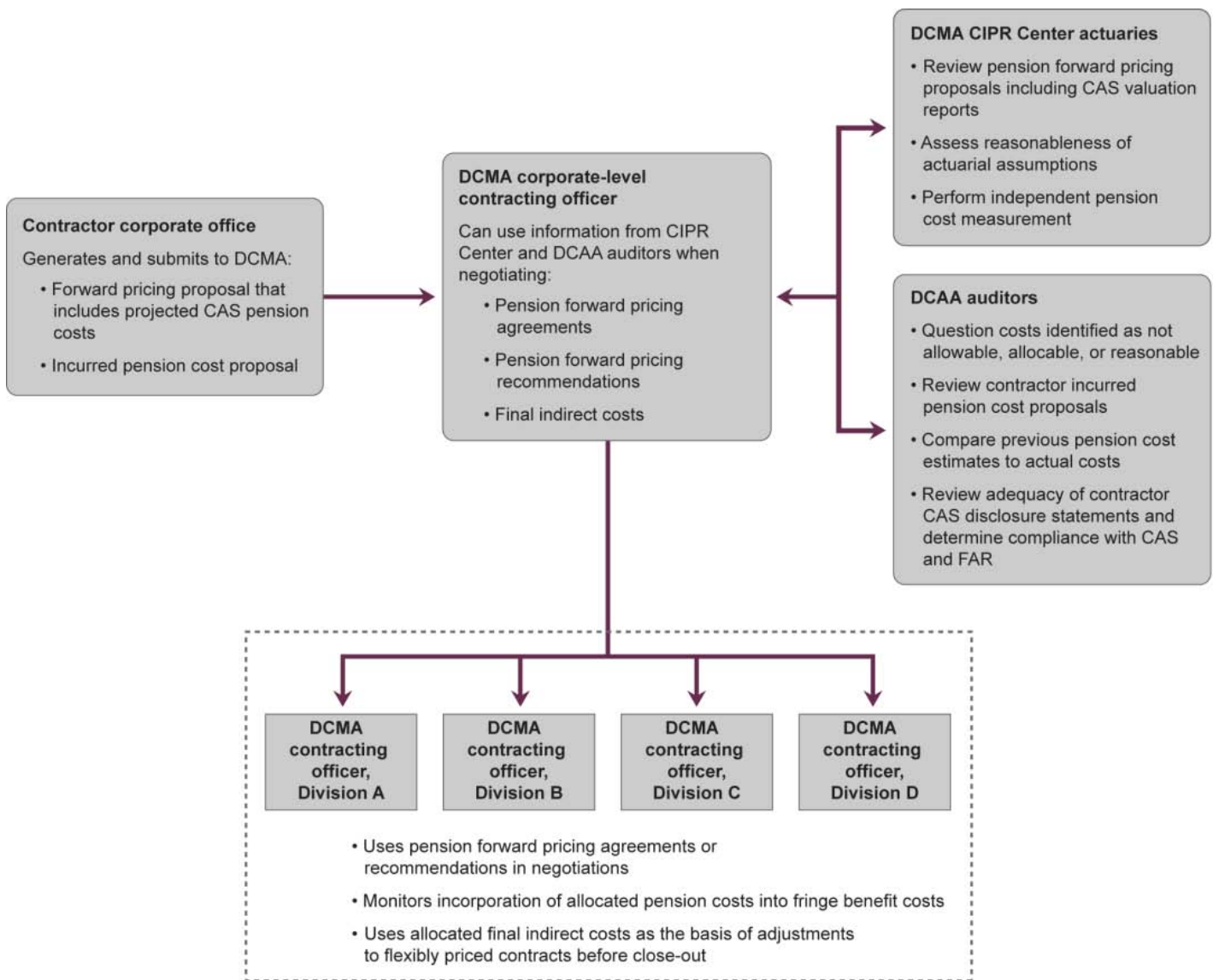
²⁵CAS rules would also trigger a settlement for a business segment closure or a pension plan termination. For a pension plan termination, the liability is simply the amount needed to settle all benefit obligations. In the case of a curtailment, a company would retain the liability and assets.

**DOD Leverages
Centralized Expertise
Necessary to Provide
Oversight but Lacks
Full Picture of
Defined Benefit Plan
Reasonableness**

**DOD Relies on Centralized
Expertise for Management
and Oversight of Defined
Benefit Pensions**

Like contractors, DOD centralizes its technical expertise for management and oversight of defined benefit pension plans. DOD negotiates CAS pension costs with contractors at the corporate level. Figure 4 illustrates the range of interactions and information flows between large DOD contractors and those parts of DOD involved in pension cost oversight.

Figure 4: Interactions and Information Flows between DOD Contractors and Providers of Pension Cost Oversight at DOD



Source: DOD instructions and guidance.

DOD oversight of CAS pension costs parallels the central management of these costs by the largest DOD contractors at the corporate level. The corporate-level DCMA contracting officer receives contractor submissions such as pension forward pricing and incurred pension cost proposals. The corporate-level contracting officer negotiates CAS pension costs and either comes to agreement with the contractor or recommends an amount

of CAS pension cost that DCMA contracting officers at the division level can use in negotiations.

To monitor possible cost changes during contract performance, DCMA requires establishment of cost monitoring programs at contractor locations that meet certain government contracting cost and sales criteria. As contractors bill the government after contracts are awarded, DCMA cost monitors at the corporate level compare proposed costs with actual costs incurred. If actual costs diverge from the proposed costs, the cost monitor may recommend that an agreement be modified or even cancelled. This can affect the cost of fixed-price contracts awarded in the future and existing flexibly priced contracts.

The corporate-level contracting officer has two primary sources of technical expertise available to assist in determining that the contractor's CAS pension costs meet CAS and FAR requirements that they be allowable, allocable, reasonable, and compliant: the DCMA CIPR Center and auditors from DCAA. The corporate-level contracting officer can use information from these two sources in negotiations with the contractor that result in either pension forward pricing agreements or recommendations.

The CIPR Center represents a key element in DOD's oversight process, giving recognition to the complexity and highly technical nature of defined benefit pension plans. As DOD's centralized source of actuarial expertise, it advises DCMA contracting officers on pensions as well as insurance, including review of forward pricing proposals. The CIPR Center assesses the reasonableness of actuarial assumptions, including the discount rates used to calculate liabilities. It also provides an independent measurement for projected pension costs. To test a contractor's estimate of pension costs for future years, the CIPR Center has developed a model that generates an independent projection of the contractor's CAS pension costs, which according to a CIPR Center official, is based on data and actuarial assumptions in CAS valuation reports. The CIPR Center compares the model's output with the contractor's proposal to evaluate whether the contractor's projections are reasonable, and then issues a report that includes the CIPR Center's methodology, calculations, and evaluation of reasonableness. For example, the CIPR Center has issued a recent report noting that a contractor's assumed rates of return used to project CAS pension costs were unreasonable.

The CIPR Center is more likely to review proposed CAS pension costs annually for large contractors than for smaller contractors that also have significant defined benefit plans. From 2007 to 2011, the CIPR Center

reviewed proposed pension costs for six of the nine largest contractors with defined benefit plans at least annually. Two other large contractors were reviewed in 4 of the 5 years from 2007 to 2011. The ninth large contractor, with relatively low CAS pension costs, had not been reviewed within the last 5 years. Four of the seven smaller contractors included in our review received CIPR Center reviews of proposed pension costs at least once between 2007 and 2011. Corporate-level contracting officers have the discretion to determine if the potential risk associated with CAS pension costs merits specialized review by the CIPR Center. One contracting officer at a smaller contractor noted that over recent years he had requested and received regular CIPR Center reviews of the contractor's projected pension costs. Another contracting officer at a contractor whose pension plans have not received a recent CIPR Center review noted that he relied primarily on DCAA audits for insight into CAS pension cost issues, unless there had been significant pension plan changes such as a curtailment of benefits.

DCAA auditors at the contractor's corporate office are responsible for reviewing other aspects of proposed pension forward pricing, such as previous CAS pension cost estimates to assess how close they were to actual CAS pension costs for those periods. DCAA employs technical specialists who provide auditors with additional support on pension issues. DCAA audits may question costs that they identify as not allowable, allocable or reasonable, which the contracting officer may incorporate into negotiations with the contractor. For example, DCAA audits have questioned costs in forward pricing proposals because estimated CAS pension costs were higher than the contractor's historical cost trends or the calculation methods were not compliant with CAS.

Corporate-level contracting officers rely primarily on DCAA, and to a lesser extent the CIPR Center, to review contractors' annual proposals representing actual corporate-managed costs incurred in the previous year, including CAS pension costs. DCAA audits incurred CAS pension costs reported by the contractor to determine whether they are allowable, allocable, and reasonable, as well as compliant with CAS. According to a CIPR Center official, contracting officers may also request additional support from the CIPR Center to ensure information in the incurred cost proposal reflects what is in the corresponding CAS valuation reports. They usually respond to these requests for support in a less formal manner than is the case with proposed forward-pricing requests, generally not issuing detailed reports. As with the forward-pricing process, the contracting officer may use the information from DCAA audits and CIPR Center reviews, including any questioned costs, when negotiating

final indirect costs with the contractor. Once established, these costs are allocated to the divisions to form the basis of adjustments to flexibly priced contracts that can then be closed out.

Paralleling the contractor's process, DCMA officials at the division monitor the incorporation of allocated pension costs into fringe benefit costs. Fringe benefit costs can also include defined contribution plan costs. Contractor and DOD officials we spoke with noted that it could be challenging to fully determine CAS pension costs applied to or incurred on a specific contract. For example, some CAS pension costs are captured among other indirect costs (such as shared service or corporate office costs).

DCAA is also responsible for reviewing the adequacy of contractors' CAS disclosure statements at the corporate and division levels and determining their compliance with CAS and FAR. These statements contain information regarding how costs are allocated, and the corporate-level disclosure statement in particular contains many details about allocation of the contractor's pension plans.

DCAA and the CIPR Center Provide Additional Support for Contracting Officers during Settlement of CAS Pension Costs When a Pension Plan Is Curtailed

In addition to overseeing CAS pension costs through the forward pricing and incurred cost processes, corporate-level contracting officers manage the process required by CAS for pension cost settlement when a contractor curtails a defined benefit pension plan. Curtailment under CAS means any situation where no new benefits can accrue for plan participants. When such a curtailment occurs, corporate-level contracting officers can receive assistance from the CIPR Center and DCAA to ensure that the related proposals submitted by the contractor are compliant with CAS.

When a contractor initiates a curtailment, it calculates the affected plan's CAS pension costs to determine whether the plan is under- or overfunded and whether the government has over- or underpaid for CAS pension costs over the years. Based on the result of the calculation, one party may owe the other the balance of the difference in order to "settle up" the plan. The contractor submits a proposed settlement to the contracting officer, and the CIPR Center and DCAA provide support by reviewing the proposal in order to evaluate whether the calculations are correct and compliant with CAS. Both can issue reports which will help the contracting officer to negotiate a final settlement with the contractor. The resulting payment, whether from the contractor or the government, may either be

immediately charged or, when the contractor has other government contracts, amortized as pension costs over future years.

Settlements that resulted in potential payments to the contractor have resulted in litigation and long delays. According to DOD officials, three of the largest DOD contractors have pending settlements. Two of the smaller DOD contractors included in our review have settled cases within the last 4 years that resulted in payments to the government. DOD officials we met with noted that part of the reason for delayed settlements is the complicated nature of determining the appropriate government share of CAS pension costs, given that CAS rules on allocation of pension costs to contracts have changed over time. In response to court cases on the matter, DCAA and DCMA have issued joint guidance to address related issues.

Pension Oversight Processes Do Not Address Reasonableness of Value of Defined Benefit Pension Plans

The FAR requires that total employee compensation, which includes many components such as salaries and bonuses, fringe benefits like retirement benefits and health insurance, and other nonwage compensation, must be reasonable in order to be claimed by the contractor as a contract cost. However, as part of assessing the reasonableness of total compensation, DOD's oversight processes do not clearly assign responsibility for assessing the reasonableness of the value of pension benefits to plan participants, focusing instead on the reasonableness of actuarial assumptions or fringe benefits as a whole.

Fringe benefits are examined as part of compensation reviews that DCAA auditors perform to determine reasonableness, often as part of incurred cost audits or reviews of compensation system internal controls. DCAA guidance for compensation reviews states that all cost components of employee compensation—including the value of fringe benefits, bonuses, and stock options as well as salary—are considered to be reasonable if they do not exceed the comparative value of those costs from market survey data by more than 10 percent.²⁶ Defined benefit pensions are generally part of that fringe benefit cost component, along with other benefits such as health and life insurance. Only if these collectively exceed the reasonableness threshold is an auditor instructed to review

²⁶Compensation costs established under "arm's length" labor-management agreements negotiated under certain statutes are generally considered reasonable if they are otherwise allowable.

the individual cost components, such as pensions. In instances where questions arise about the reasonableness of pension costs, the auditor is instructed to turn to the CIPR Center as a resource for pension-related matters. Several auditors and DCMA contracting officers we spoke with also noted that if they had questions regarding the reasonableness of defined benefit plans, they would seek assistance from groups such as the CIPR Center or a centralized DCAA team that specializes in compensation issues, particularly those related to executive compensation.

Auditors are instructed to review fringe benefit costs as a whole when determining their reasonableness, but CAS costs for defined benefit pensions are an imperfect measure of the value of pension benefits participants earned in a year as part of their total compensation. Multiple factors drive CAS pension costs. For example, the pension cost could be zero in a given year due to strong asset returns, and this pension cost would not capture any of the value of the benefits earned that year by employees. Conversely, the pension cost could be higher in a given year than the value of the benefits earned that year by employees as a result of actuarial losses. While they may be aware of the CAS costs of defined benefit pensions, auditors do not know the value of these benefits to an employee in a given year. They lack guidance on how to measure this value (containing, for example, acceptable methodologies, assumptions, or data sources), and therefore are unable to get a complete picture of the reasonableness of total compensation for contractor employees.

Neither the CIPR Center nor DCAA's compensation team currently assess the reasonableness of benefits offered through defined benefit plans. While officials stated that the CIPR Center did perform reviews of employee benefit offerings more than a decade ago, to the extent that the CIPR Center does evaluate reasonableness today, it does so only in terms of the measurements and actuarial assumptions used by contractors to calculate their CAS pension costs. It does not consider the relative value of benefits offered. For non-executive employees, the DCAA compensation team only reviews the reasonableness of salaries for direct labor. In essence, DOD assesses whether the CAS cost is appropriate from a regulatory and actuarial standpoint. Whether the

liability reflected in the CAS cost stems from a generous pension plan is not considered.²⁷

GAO reviewed the most prevalent final average pay formulas among the contractors that have these plans and found that contractors offer a wide range of benefit formulas and plan designs. This means that employees' defined benefits can differ greatly from contractor to contractor. Plans offered by contractors include final average pay plans, which use a formula that considers a participant's final average pay and years of service, as well as cash balance plans that use a hypothetical individual account to calculate benefits based on a percentage of a participant's pay and a plan-specified rate of interest to be applied to a participant's hypothetical account. The final average pay plans generally had a "base" accrual rate that granted between 1 percent and 2 percent of final average pay for each year of service with the company.²⁸ For example, two employees may have the same final average pay of \$50,000 and the same 30 years of service. However, the employee with the "base" accrual rate of 2 percent would have an annual base benefit of \$30,000 in retirement, whereas the employee with the "base" accrual rate of 1 percent would have an annual base benefit of \$15,000.

In addition, these plans had a variety of features which affect a participant's retirement benefit. For example, some plan formulas have the effect of reducing the base benefit by taking into account Social Security benefits to be received in the future. We noted other plan features, such as the presence or absence of a cost of living adjustment, which annually increases the benefit in retirement by a measure of inflation. Thus there was wide variation of plan designs across contractors and in the potential value of benefits to participants in different plans. However, neither DCAA corporate-level officials, the CIPR Center, nor the DCAA compensation team assessed the reasonableness of individual plans.

²⁷A possible method to assess pension plan reasonableness would be to examine the present value of future benefits, with similar assumptions mandated across contractors.

²⁸"Base" accrual rate refers to the fact that the accrual rate may be different for certain years of service; we use the term base to refer to the earliest years of service. Actual benefits could be reduced by taking into account Social Security benefits as well as for early retirement.

Reasonableness
Assessments of Executive
Compensation Are Not
Required to Include
Defined Benefit Pensions

DCAA is responsible for reviewing executive compensation packages separately from compensation offered to other employees in order to evaluate whether these packages meet the FAR standard for reasonableness and do not exceed the dollar limitation specified in the FAR. However, defined benefit pension plans for contractor executives are not required to be included in these assessments.

Executive compensation reviews are usually done as part of incurred cost audits, although they can also be performed on audits of forward pricing proposals. DCAA auditors at contractor corporate offices have access to the DCAA compensation team for assistance with such reviews. While this team has developed a methodology for determining executive compensation reasonableness, it does not require examination of defined benefit pensions in the determinations, similar to its approach to pension plans in general. Compensation team officials told us they analyze the total cost of fringe benefits, and only look at individual benefits such as pensions if they deem the total fringe benefit cost to exceed that indicated by market survey data by more than 10 percent. In addition, the defined benefit components of the market surveys used by the team do not specify the use of CAS for their calculations, and thus may not be directly comparable to CAS-based pension cost. Compensation team officials noted that the most recent survey they use for this purpose was issued in 2008, and only included self-reported pension cost. Executive compensation reviews we analyzed that addressed the reasonableness of total compensation and fringe benefits did not discuss the details of defined benefit pension plans.

To the extent that the compensation team does look specifically at defined benefit pensions, team officials told us that they evaluate the relative CAS cost of the pension. They do not examine the source of this cost, and therefore cannot identify whether, for example, a high relative CAS pension cost was largely driven by the generosity of pension plans or weak asset performance.

The FAR also contains a dollar limitation on the allowable annual compensation for certain contractor personnel, currently set at \$763,029. The FAR describes the elements of executive compensation that should be considered against this limit. These include salary, bonuses, deferred compensation other than pensions, and employer contributions to defined contribution pension plans. However, the FAR does not include defined benefit pension plans as an element of compensation that should be considered against the limit.

Accurately applying the cost of a defined benefit pension to an individual employee's total compensation package is challenging due to the complexity and annual volatility of costs even if the value of the ultimate benefit does not change. DCAA compensation team officials noted that it is not clear how costs of a defined benefit plan should be evaluated. In addition, they lack current market survey data for defined benefit plans, and team officials noted that companies participating in these surveys do not consistently calculate and report their compensation costs.

The Largest DOD Contractors Maintain Their Defined Benefit Plans in Similar Ways to Peer Companies

Many of the Largest DOD Contractors Have Frozen Defined Benefit Plans, As Have Companies in Their Peer Group

Nearly all of the largest DOD contractors—as well as the peer group of companies we examined—maintain some sort of tax-qualified, defined benefit pension plan for their employees. As noted previously, the benefit designs of these plans can differ greatly, and we found variations among certain contractors' final average pay plans. However, we were unable to compare the full range of plan designs across both contractors and their peer group.²⁹

More generally, all of the largest contractors with defined benefit plans—and the majority of their peer group—have frozen at least one of their plans in some way. A plan freeze is a plan amendment that closes the plan to new entrants and may limit future benefit accruals for some or all

²⁹Due, in part, to a lack of available data, we were unable to evaluate plan designs across both contractors and their peer group. As noted previously, the contractor "base" accrual rates for the final average pay plans we analyzed ranged between 1 percent and 2 percent of participants' final average pay multiplied by years of service as a lifetime benefit. Also as noted, a previous GAO report from 2005 found that a typical defined benefit plan gave participants a "base" accrual rate of 1.5 percent of final average pay multiplied by years of service as a lifetime benefit. Note that this finding could change if a similar survey were undertaken today, because of plan freezes and benefit formula reductions in recent years. Note further that a plan participant's actual benefit would often be lower than what this base formula would produce, because of such factors as partial offsets for Social Security benefits and reduction for early retirement.

employees that are active in the plan. Under a freeze, the plan continues to be maintained by the sponsor.³⁰ Specifically, a majority of the largest contractors and their peer group have “soft frozen” plans, that is, closed at least one of their plans to new entrants, while allowing existing participants to continue to accrue benefits.³¹ Furthermore, over 75 percent of the contractors’ largest defined benefit plans were frozen in some way.

Some DOD contractors reported that when they froze their defined benefit plans they had either established a new defined contribution plan or changed the terms of an existing defined contribution plan for those employees who were no longer eligible to accrue benefits in a defined benefit plan. For example, one DOD contractor noted that employees not eligible for a defined benefit plan may receive a matching contribution under a defined contribution plan, whereas employees who are eligible for a defined benefit plan would not be eligible for such a match. In the short term, transitioning new employees to defined contribution plans may raise total costs since defined benefit plans generally are least expensive for young and new participants.

Defined benefit plans that remained open to new participants often included collectively bargained participants, and all but one of the largest DOD contractors had at least one plan that remained open to new participants. Open plans with collectively bargained participants were generally among the contractors’ smaller plans. Further, some DOD contractors said that they intended to close all of their defined benefit plans to new entrants and, subject to negotiation, they also expected plans with collectively bargained participants to be closed to new entrants in the future. For example, one DOD contractor noted that a number of its open plans were already “partially frozen,” or open only for certain bargaining units, while some, but not all, bargaining units had agreed to close the plan to new entrants going forward.

³⁰A freeze should not be confused with a termination whereby a plan sponsor ceases maintaining the plan.

³¹In prior work, GAO defined a soft freeze as one which, at a minimum, closes the plan to new entrants. A soft freeze could include other changes that affect current participants. Throughout this report we use the term soft freeze to refer exclusively to the closing of a plan to new entrants. See *Defined Benefit Pensions: Plan Freezes Affect Millions of Participants and May Pose Retirement Income Challenges*, [GAO-08-817](#) (Washington, D.C.: July 21, 2008).

Generally, the number of private-sector companies sponsoring defined benefit plans has declined substantially over the last 20 years or so. A prior GAO survey of 94 of the largest firms sponsoring defined benefit plans showed that many firms made revisions to their plan offerings over that last 10 years.³² For example, large sponsors have changed benefit formulas, converted to hybrid plans, or frozen some defined benefit plans.³³ Moreover, in another GAO survey among a broader population of sponsors that included all plan sponsors with 100 or more total participants, 51 percent of those sponsors had one or more frozen defined benefit plans.³⁴ A 2011 Aon Hewitt study of Fortune 500 companies found largely similar results over time.³⁵ For example, the study noted that 80 percent of Fortune 500 companies sponsored an open, defined benefit plan for salaried employees in 1995. However, as of 2011, only 31 percent sponsored an open, defined benefit plan.

Based on their fiscal year 2011 annual reports, members of the peer group were more likely than the largest DOD contractors to have instituted or planned to institute a “hard freeze” for one or more plans. With a hard freeze, the plan is closed to new entrants and also ceases accruals for existing participants. According to fiscal year 2011 annual reports, none of the contractors had reported current or planned hard freezes, whereas 4 of the 15 peers did. In interviews, however, one contractor told us that they implemented a hard freeze on December 31, 2012, but none of the other large contractors told us they had hard frozen any of their largest plans.³⁶ According to several DOD contractors, hard freezing pension plans can present challenges such as triggering CAS rules, discussed previously, that require settlement between the contractor and the government. This may result in the government owing

³²See GAO, *Defined Benefit Pensions: Survey Results of the Nation's Largest Private Defined Benefit Sponsors*, [GAO-09-291](#) (Washington, D.C.: Mar. 30, 2009).

³³Hybrid plans include cash balance plans, which are defined benefit plans that contain certain plan features that resemble defined contribution plans.

³⁴[GAO-08-817](#).

³⁵Aon Hewitt provides companies with services including retirement plan consulting.

³⁶Other large DOD contractors had hard frozen smaller plans but not plans that were among the contractors' largest plans (i.e., those that together covered at least 90 percent of each contractor's pension liabilities). DOD contractors reported that these plans were “legacy” plans which had been replaced by another plan, or plans that were hard frozen prior to the contractor's acquisition of the business divisions with those plans.

the contractor or vice versa.³⁷ For example, according to a representative of one large contractor, one of the contractor's plans that was settled in the late 1990s was determined to be overfunded on a CAS basis, but underfunded on an ERISA basis. This meant that the contractor owed the government money for settlement despite the fact that the plan was underfunded on an ongoing ERISA basis.

However, the settlement-related challenges may not be the sole reason that a DOD contractor would avoid instituting a hard freeze. Indeed, one DOD contractor noted that instituting a hard freeze could damage employee relations and that in general with employees it is easier to justify closure of plans to new entrants. Other DOD contractors told us they continually evaluate their pension offerings against those of peers, and the competitiveness of their plans compared to those of peers is a driver of pension management decisions. A few DOD contractors noted that they want to provide pension plans that allow them to attract skilled employees, while remaining cost-competitive.

Nearly all of the largest DOD contractors and their peer group offer nonqualified defined benefit plans in addition to their tax-qualified defined benefit plans. In fact, all but one DOD contractor and one peer we reviewed maintained at least one nonqualified defined benefit plan.³⁸ While the provisions of each nonqualified plan vary, in general, the most prevalent type that we found were "restoration" (or "excess benefit") plans. These are plans that typically extend the benefits provided by a tax-qualified defined benefit plan by supplementing the portion of benefits that are in excess of limits prescribed by the Internal Revenue Code.³⁹ For example, one contractor noted that its restoration plans could include

³⁷48 C.F.R. 9904.413-50(c)(12). Because interest rates used to calculate liabilities under ERISA funding calculations are currently lower than interest rates for CAS settlements, contractors may calculate lower liabilities under a CAS settlement than if the plan was ongoing on an ERISA basis. Thus, contractors' plan liabilities and any recoveries from the government could be lower than under an ERISA valuation—leaving contractors responsible for what they may consider to be an inequitable share of any settlement. According to PBGC officials, CAS settlement would likely result in a significant underfunded liability for many plans on a PBGC termination basis, which could result in significant underfunded liability for the PBGC should it become trustee of the plan.

³⁸All large DOD contractors that maintain tax-qualified defined benefit plans also maintain nonqualified defined benefit plans.

³⁹26 U.S.C. §§ 401(a)17 and 415. For defined benefit plans, these limits relate to the maximum annual compensation that may be counted towards benefit accruals and the maximum annual benefit that may be earned.

certain highly-paid engineers. Some types of nonqualified plans we reviewed appeared to be offered only to certain senior executives.

The Largest DOD Contractors Invest in Similar Types of Assets as Their Peer Group and Generally Invest More Conservatively

Our review of the financial reports of the largest DOD contractors and their peer group shows that the DOD contractors invest in similar types of assets relative to their peer group. However, DOD contractors and their peer group employed a wide range of pension investment allocations between equities and fixed-income assets.⁴⁰ For example, DOD contractors allocated as much as 64 percent or as little as 26 percent of pension investments to equity assets (i.e., stocks), while their peer group allocated as much as 74 percent or as little as 26 percent of pension investments to such assets. Similarly, DOD contractors allocated as much as 46 percent or as little as 32 percent of pension investments to fixed-income assets (i.e., bonds), while their peer group companies allocated as much as 51 percent or as little as 25 percent of pension investments to such assets.⁴¹

The DOD contractors' pension investment allocations appear to be somewhat more conservative than those of their peer group when analyzed in the aggregate.⁴² Aggregating the year-end 2011 pension investment allocations of the DOD contractors and their peer group shows that contractors have allocated about 7 percentage points more of their investments to generally conservative assets, namely cash and fixed-income assets, than is the case with their peer group, as illustrated in figure 5. This means that, in the aggregate, the DOD contractors have a lower percentage of pension investments allocated to equities and

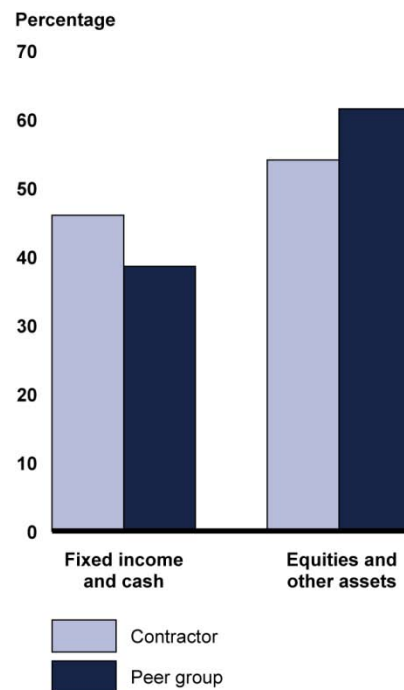
⁴⁰Asset allocations are from reported asset categories in 2011 annual financial reports and are for U.S. plans only. Also note that financial reports list investments of all funded U.S. pension plans in aggregate. For sponsors that maintain multiple plans, each plan may select a unique investment policy and set of allocations for each plan. Alternatively, sponsors may maintain a common trust, called a master trust, which may employ a common set of investment allocations across all sponsored plans.

⁴¹The DOD contractors' cash allocations ranged from 0 to 10 percent, while the peer group allocated from 0 to 12 percent. "Other" asset allocations ranged from 0 to 24 percent for the largest DOD contractors, while peer group allocations for such assets ranged from 0 to 38 percent. "Other" assets are assets that are not equities, fixed-income (i.e., bonds) or cash (or equivalents). Each contractor or peer may have different assets in the "other" category, but key asset classes in "other" include private equity, real estate, hedge funds, and commodities.

⁴²This could alternatively be referred to as the asset-weighted average allocation.

“other” assets compared to their peer group. Equities and “other” assets, such as private equity, hedge funds, real estate, and commodities, are generally considered to be riskier than cash and fixed-income assets.⁴³

Figure 5: Asset-Weighted Year-End 2011 Pension Investment Allocations of Large DOD Contractors and Their Peer Group



Source: GAO analysis of fiscal year 2011 company annual reports.

Note: “Other” assets include private equity, hedge funds, real estate, and commodities.

⁴³Our analysis categorized and analyzed reported asset categories in 2011 annual financial reports. However, sponsors define their asset categories in a variety of ways, and each asset category may encompass a wide range of risk.

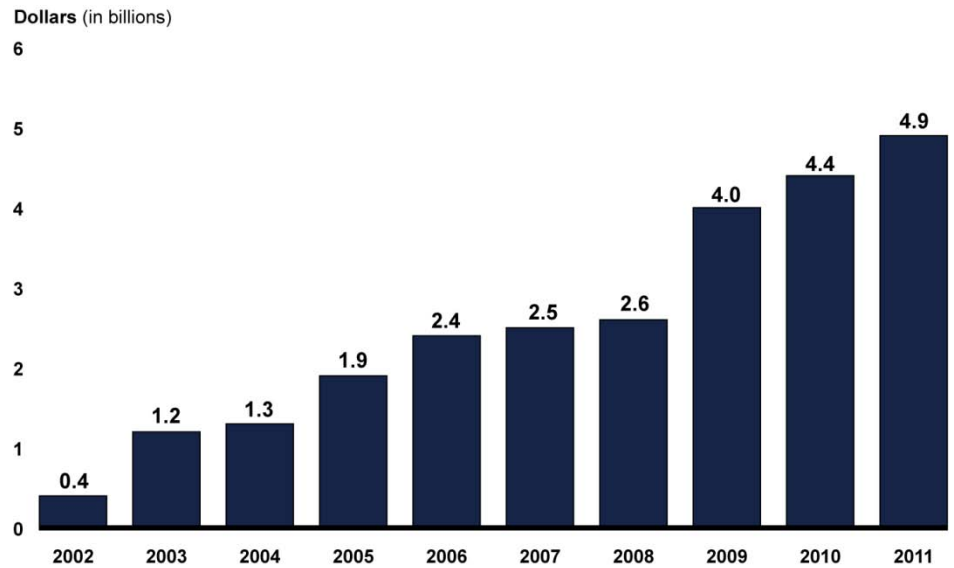
CAS Pension Costs for Large DOD Contractors Have Increased in Recent Years Due to the Market Downturn

CAS Pension Costs Started Relatively Low and Rose Significantly over the Last Decade

CAS pension costs for the largest DOD contractors grew considerably over the last decade. Costs went from less than \$420 million dollars in 2002 (when most contractors reported at least one plan with zero costs, after a period when some plans were fully funded) to almost \$5 billion dollars in 2011.⁴⁴ While growth in total CAS pension costs was relatively small and gradual until 2008, as shown in figure 6, costs jumped by almost \$1.5 billion from 2008 to 2009. They increased almost 90 percent in nominal dollars from 2008 to 2011, a substantial share of which was allocable to DOD contracts.

⁴⁴A contractor's total pension cost may also include costs that are not allocated to DOD or other U.S. government contracts, but instead allocated to commercial activities.

Figure 6: Total CAS Pension Costs for Largest DOD Contractors with Defined Benefit Plans



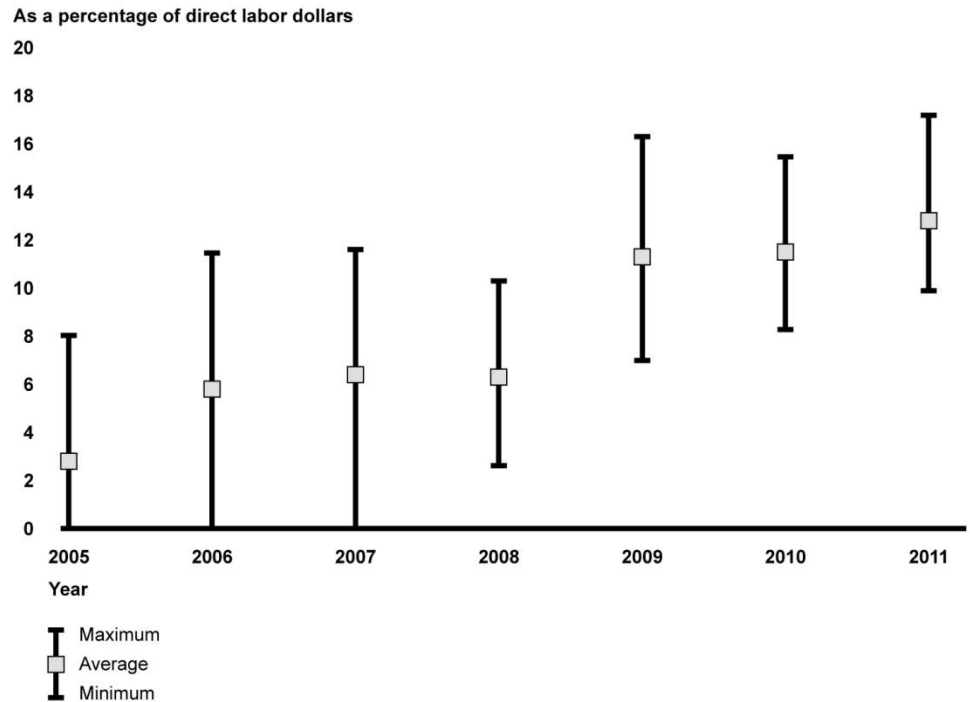
Source: GAO analysis of contractor data.

CAS Pension Costs at the Program Level

CAS pension costs are likely spread over thousands of contracts. All five weapon systems we analyzed showed an increase in defined benefit pension cost relative to labor cost from 2005 to 2011, as illustrated in figure 7.⁴⁵

⁴⁵For this analysis of CAS pension costs as a percentage of total direct labor cost, we included only defined benefit pension costs associated with direct labor on program contracts since this allowed for more comparability across programs.

Figure 7: Defined Benefit Plan Costs Relative to Direct Labor for Selected Weapon Systems Programs



Source: GAO analysis of contractor data.

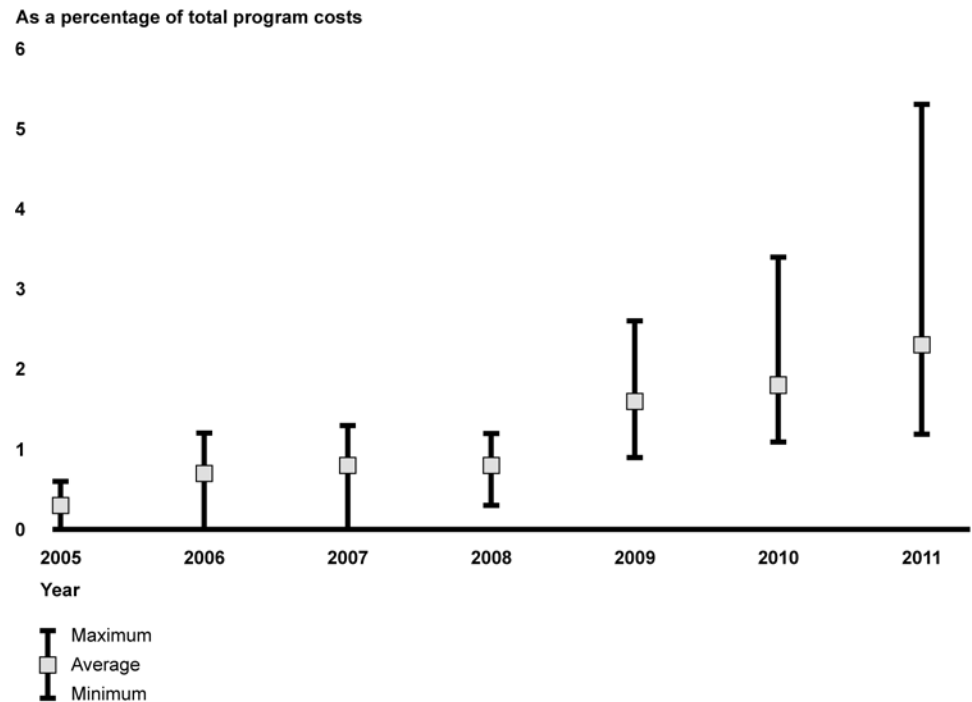
For the five weapon systems programs, CAS pension costs as a percentage of direct labor showed the most growth from 2008 to 2009, corresponding to trends seen in aggregate costs across the largest DOD contractors. As these costs increased, contractors took several actions to control them. For example, as previously discussed, contractors were closing a number of defined benefit plans to new entrants and several adjusted benefit formulas.

CAS pension costs have also grown relative to total contract cost for the selected weapon systems programs. As shown in figure 8, average pension costs never exceeded 3 percent in any year—although this is still a significant dollar amount on large weapon systems contracts.⁴⁶ Until 2009, average pension costs never exceeded 1 percent. However, note

⁴⁶We included pension costs for both direct and indirect labor that was associated with each program, as the total program cost includes some indirect labor.

that this figure understates the impact of pension costs on programs since material costs—including the complex subsystems and components bought from subcontractors—may also include pension costs. Material costs for the systems we reviewed were as much as 81 percent of total program costs.

Figure 8: Defined Benefit Plan Costs Relative to Total Costs for Selected Weapon Systems Programs



Source: GAO analysis of contractor data.

Across this period, the trend for defined contribution plans differed. Defined contribution costs as a percentage of direct labor on the selected programs grew only slightly, and remained much steadier than the CAS pension costs for defined benefit plans. In 2005, defined contribution costs ranged between 0 and 6.9 percent for the five programs we examined. In 2011, the range was 0.6 percent to 7.0 percent.⁴⁷ Defined

⁴⁷To the extent that contractor defined contribution plans are largely either supplemental to defined benefit plans or cover relatively new employees, we would expect that defined contribution costs would generally represent a lower percentage of total program cost.

contribution plan costs will generally be higher than defined benefit plan costs when defined benefit plan assets perform well, and gains offset a plan's normal cost. Defined benefit plans will likely cost more than defined contribution plans when assets perform poorly, as the employer bears the investment risk. As demonstrated, defined contribution plan costs are generally more stable than defined benefit plan costs.

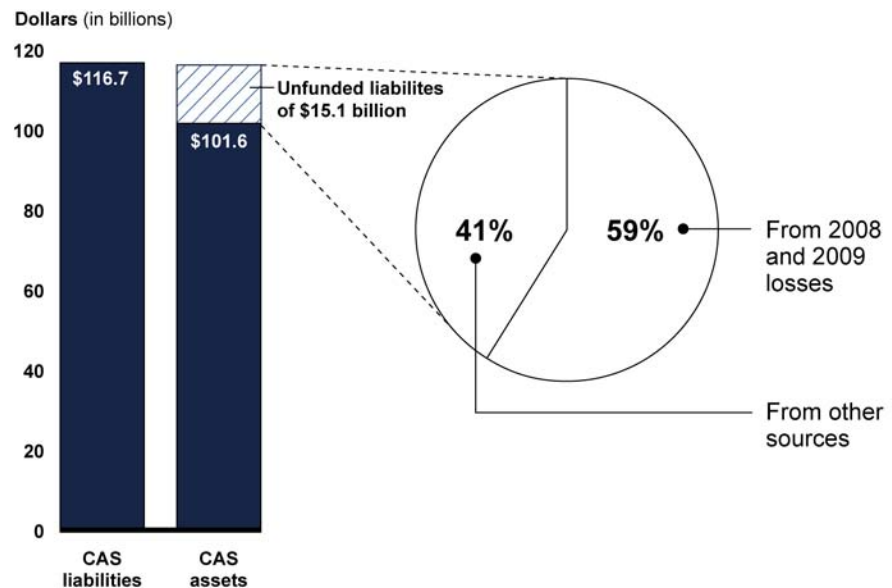
CAS Pension Costs Grew as the Market Downturn Increased CAS Unfunded Liabilities

On a CAS basis (excluding prepayment credits), contractors' plan assets at the beginning of 2011 were approximately \$15.1 billion less than would be needed to pay their pension liabilities.⁴⁸ This gap, known as the unfunded liability, is largely a result of losses incurred during the market downturn in 2008 and 2009.⁴⁹ Indeed, as illustrated in figure 9, 59 percent of this unfunded liability is attributed to losses from just those 2 years. The remainder of the unfunded liability came from other sources, such as changes in the contractors' actuarial assumptions, other investment losses, and plan amendments (e.g., changes in rules for benefits computation).

⁴⁸If certain plans are less than 80 percent funded on an ERISA basis (and if they are also less than 70 percent funded using a different set of assumptions), they are considered "at risk." While this review did not include analysis of ERISA funding reports, according to CIPR Center officials, no large contractors' defined benefit plans were less than 80 percent funded on an ERISA basis.

⁴⁹Investment losses are measured relative to the assumed rate of return. Thus, if the assumed rate of return was 8 percent, and assets actually lost 10 percent of their value, the loss would be approximately 18 percent.

Figure 9: Sources of Current Unfunded Liabilities for the Largest DOD Contractors (as of Beginning of 2011)



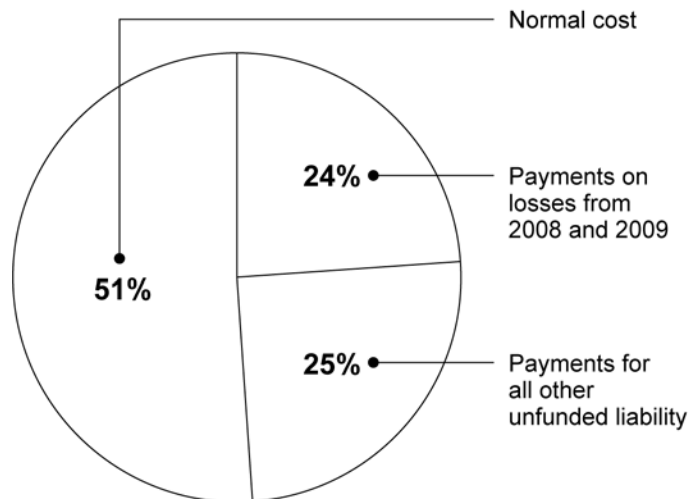
Source: GAO analysis of contractor CAS valuation reports.

The largest DOD contractors' plans were, as of the beginning of 2011, about 87 percent funded in aggregate, based on how CAS directs contractors to calculate the level of plan funding; funded ratios ranged from 59 to 96 percent. The funded ratio (or percentage) is calculated by dividing plan actuarial assets by plan actuarial liabilities. CAS calculations subtract CAS prepayment credits from assets. When prepayment credits are included, the largest DOD contractors' pension plans were 110 percent funded at the beginning of 2011, in aggregate, with funded ratios ranging between 84 and 127 percent.

In aggregate, about half of the contractors' CAS pension costs at the beginning of 2011 were a result of the need to pay installments on unfunded liabilities while half went to pay normal costs, which are the costs attributable to employees working an additional year. As shown in figure 10, about 24 percent of total 2011 CAS pension cost was payment on unfunded liabilities attributable specifically to plan losses in 2008 and 2009, and approximately 25 percent was to pay for unfunded liabilities from all other sources such as plan amendments, investment losses from

other years, and changes in actuarial assumptions. The remaining 51 percent of CAS pension cost for 2011 was to pay normal costs.⁵⁰

Figure 10: Breakdown of 2011 CAS Pension Costs for the Largest DOD Contractors (as of Beginning of 2011)



Source: GAO analysis of contractor CAS valuation reports.

Note: Contractors calculated interest cost for the year (an adjustment to account for the fact that contributions are not made all at once on the valuation date) differently, and we included these adjustments exactly as the contractor included them. One contractor also had a small adjustment for a CAS curtailment, which was included in assets.

Under CAS rules, contractors have traditionally paid for incurred pension plan losses over the course of 15 years. As a result, the losses from 2008 may contribute to plan costs until 2023 unless those losses are offset by future gains. Additionally, changes in actuarial assumptions and plan amendments can be recognized over many more years, which could potentially affect CAS pension costs for up to 30 years into the future, as contractors may elect to pay off these types of unfunded liabilities across as many as 30 years.

⁵⁰Also included are any unusual adjustments or extraordinary payments that are paid for all at once instead of on a longer-term schedule.

Harmonization Will Likely Increase the Magnitude and Volatility of Contractor Pension Costs

Projected Pension Costs Are Sensitive to Economic Assumptions

Both contractors and DOD officials expect CAS pension costs to increase as discount rates used for CAS calculations fall to match the rates used for ERISA funding calculations. Indeed, in their 5-year pension cost forward pricing projections issued immediately following harmonization, large DOD contractors had estimated that CAS discount rates would fall by between 2.2 and 4.1 percentage points in 2014, depending on the demographics of the plan.⁵¹ This drop would, in turn, increase costs because decreases in the discount rate raise pension liabilities and the normal cost. Increases in unfunded liabilities also increase CAS pension costs because of the need to pay down those unfunded liabilities in installments.

Harmonization ties the CAS discount rate to ERISA rules, making it harder to project future CAS pension costs. On July 6, 2012, a few months after harmonization went into effect, Congress enacted MAP-21, which changed the methodology for calculating ERISA discount rates.⁵² Before MAP-21, ERISA discount rates were based on a 2-year average of corporate bond interest rates. Now, this 2-year average is bounded by a 25-year average of corporate bond interest rates, and as a result, contractors now project their CAS discount rates will drop only 1.5 to 3.1

⁵¹The effective discount rate contractors will use is based on three segment rates published by the Department of the Treasury for benefit payments due in less than 5 years, 5 to 20 years, and 20 years or more. These segment rates reflect 2-year averaging and the maximum and minimum segment rate as required by MAP-21. These durations reflect actuarial predictions about when plan participants will claim benefits based on participant demographics. We excluded one contractor from this summary because its assumptions and demographics lead to only a very slight decline in the discount rate, which was atypical.

⁵²See § 40211(a) of MAP-21, Pub. L. No. 112-141, which adds § 430(h)(2)(C)(iv) to the Internal Revenue Code. This legislation also increased premiums that plan sponsors must pay to the PBGC.

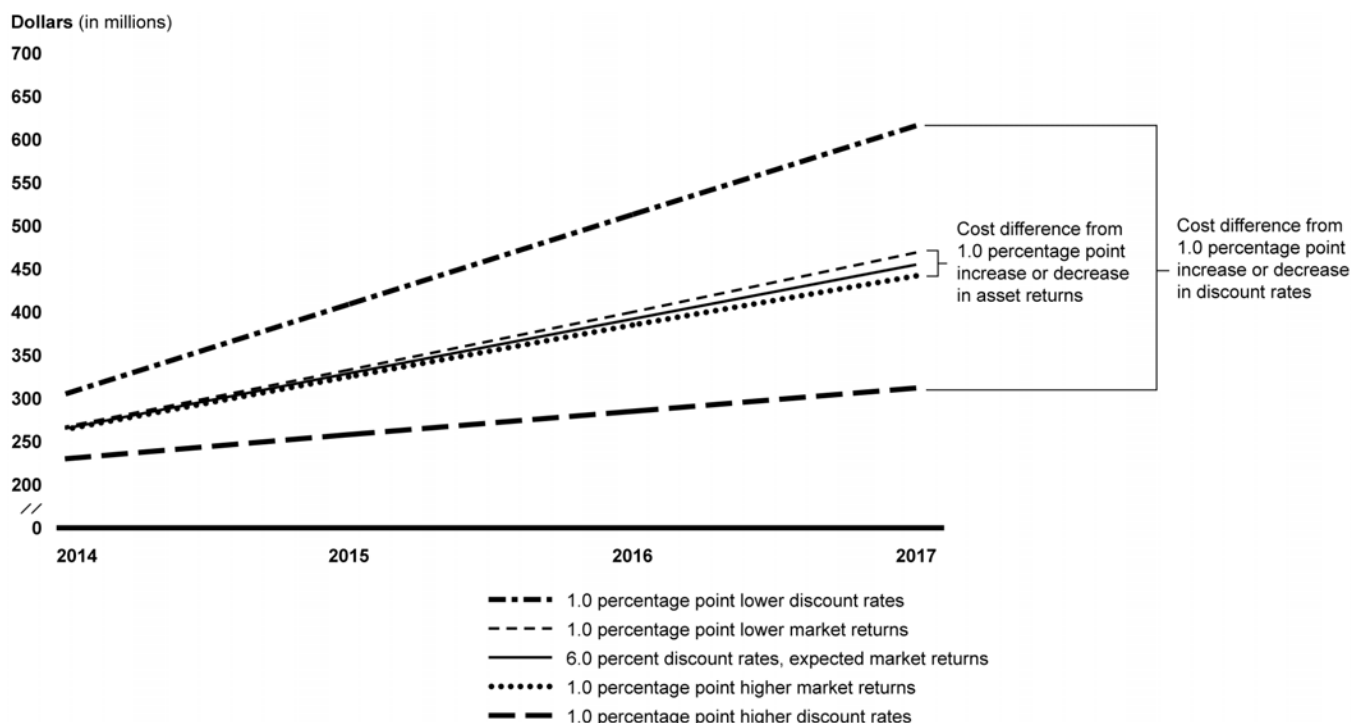
percentage points, starting in 2014, to harmonize with ERISA.⁵³ However, the effects of MAP-21's ERISA funding relief are expected to have the greatest impact in the near term, and to diminish after 2015. Therefore, contractors still expect their CAS discount rates to be 2.0 to 4.0 percentage points lower in 2016 than their pre-harmonization 2012 CAS discount rates.

Costs under the new, harmonized CAS pension rules can vary dramatically based on small changes in the corporate bond interest rates used to discount liabilities. We modeled an illustrative pension plan's CAS pension costs from 2014 to 2017, the period over which the new CAS discount rate rules will be phased-in. In our model, a 1.0 percentage point decrease in the discount rate (as determined by a measure of corporate bond interest rates) could increase CAS pension costs by 35 percent once the rule is fully implemented, and a 2.0 percentage point decrease could almost double CAS pension costs, as shown in figure 11. Furthermore, changes in this rate can have a greater effect on CAS pension costs than similar changes in plan asset returns.⁵⁴

⁵³Note that CAS rules give contractors the option to use the ERISA interest rates for CAS calculations, but contractors could pick a different measure of the rate and use it consistently. None of the largest DOD contractors we spoke with used a rate other than the ERISA rates.

⁵⁴For example, even if a plan's assets outperformed expectations by as much as 5.0 percentage points a year from 2014 to 2017, the reduction in cost would still be lower than a 1.0 percentage point increase in the discount rate using our illustrative model over the same period.

Figure 11: Effect of Different Discount Rates and Different Asset Returns on Plan Costs for an Illustrative Plan

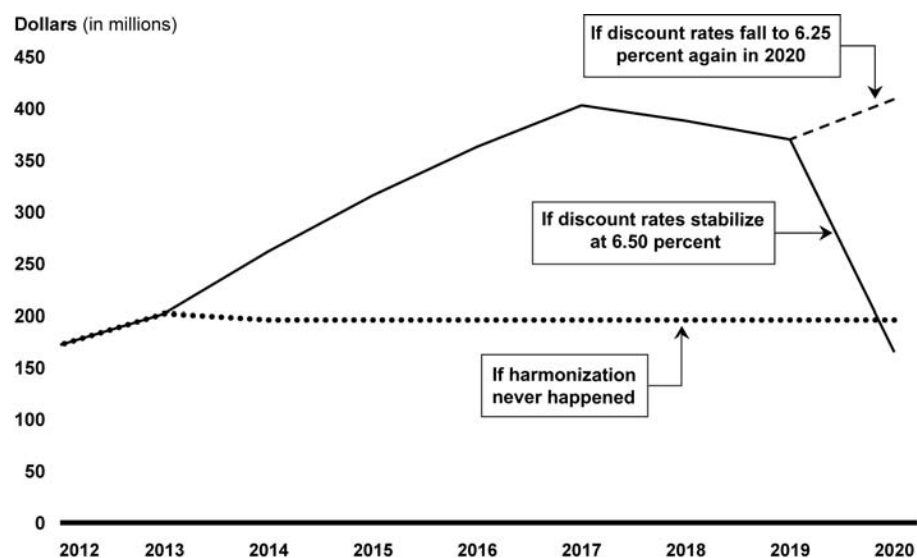


Source: GAO analysis of contractor CAS valuation reports and DOD's pension forward pricing model.

Note: This plan is intended to illustrate the effect of changes in asset and liability returns. The starting discount rate is based on GAO analysis of expected effective rates following MAP-21. This illustrative plan has about \$6 billion in liabilities and \$5 billion in assets in 2014. The plan is also 90 percent funded in 2010 to show some costs from actuarial losses. The increases or decreases in asset returns are repeated for 2013 to 2017.

Under certain scenarios, CAS pension costs could begin to decline back to previous levels over the next decade, but the outcome is sensitive to what actually happens in the economy. For example, as shown in figure 12, projected CAS pension costs would begin to decline by the end of the decade and approach what they would have been under pre-harmonization CAS rules if discount rates rise to 6.5 percent by 2017 and stabilize at that level. However, if corporate bond interest rates do not stabilize and instead started to fall again after 2019, the discount rate would fall as well and CAS pension costs would then continue to rise. This example does not account for any asset gains or losses which could further raise or lower CAS pension costs.

Figure 12: Long-Term Cost Projections for an Illustrative Plan under Different Discount Rate Scenarios



Source: GAO analysis of contractor CAS valuation reports and DOD's pension forward pricing model.

Note: This plan is intended to illustrate how future discount rates can affect costs. The starting discount rate is based on GAO analysis of expected effective rates following MAP-21. This illustrative plan is 90 percent funded in 2010 to show some costs from actuarial losses. For the first CAS pension cost projection, we gradually increased the discount rate from 6.0 to 6.5 percent from 2014 to 2019 to model the effects of an increase in corporate bond interest rates and then kept the discount rate at 6.5 percent. For the alternative, we modeled cost if corporate bond interest rates fell such that the discount rate declined to 6.25 percent in 2020. We picked 6.5 percent based on our judgment of a discount rate between recent traditional CAS discount rates and what post-harmonization CAS discount rates would be based on recent corporate bond interest rates.

Even with Temporary Funding Relief, Contractors Anticipate That CAS Pension Costs Will Rise Due to Harmonization Starting in 2014

As noted earlier, after harmonization went into effect in February 2012, the largest DOD contractors submitted new pension forward pricing proposals to DOD and projected significant rises in CAS pension costs by 2016. Overall, these updated projections showed large increases in CAS pension costs when compared to the pre-harmonization projections for the 2012 to 2016 period. Most contractors' projections for 2012 and 2013 showed little or no change but all contractors projected increases from 2014 through 2016 as harmonization takes effect.⁵⁵ After excluding the impact of changes such as changes to plan benefits to isolate the effects

⁵⁵A few DOD contractors projected decreases in CAS pension costs in 2012 or 2013 due to changes separate from harmonization, such as changes to plan benefits.

of harmonization, these CAS pension cost increases for individual contractors ranged from 10 percent to 55 percent for 2014, relative to their proposals that do not reflect the impact of harmonization.

All of the large DOD contractors that submitted an updated pension forward pricing proposal after the enactment of MAP-21 still showed an increase in projected CAS pension costs, despite the temporary relief from ERISA funding requirements provided by the law. While MAP-21 dampened the initial projected effect of harmonization, a few large DOD contractors noted that the impact of MAP-21 is likely to be temporary and that its long-term effect on discount rates and future CAS pension costs remain unknown. After taking into account MAP-21, projected CAS pension cost increases for individual contractors ranged from 7 percent to 37 percent for 2014, due solely to harmonization, relative to their proposals that do not reflect the impact of harmonization. In aggregate, that represents a projected increase for 2014 of nearly \$1.2 billion across the six contractors that submitted forward pricing proposals reflecting MAP-21. By contrast, the increase projected by those contractors in proposals prior to MAP-21 was almost \$2 billion.

CAS pension costs for defined benefit plans at the divisions we reviewed are expected to rise as a percentage of direct labor costs. At all five divisions, post-harmonization projections that were the basis of negotiations for most of 2012 showed a rise in CAS defined benefit pension costs as a percentage of projected direct labor costs of between 8 and 21 percentage points from 2012 to 2016.⁵⁶ For those divisions, defined contribution costs stayed largely stable across the same period.

Harmonization Presents Challenges to Projection of CAS Pension Costs for Forward Pricing

CAS rules are intended to provide consistent cost data for forward pricing of government contracts over future years for contracts implemented over multiple years. However, harmonization tied CAS discount rates to the more volatile ERISA-based discount rate, which can make CAS less consistent as a standard for generating pricing projections. DOD issued limited guidance to its acquisition organizations in March 2012 on projecting ERISA-based discount rates for CAS calculations, which indicates that contractors should increase their current ERISA-based

⁵⁶For four of the five divisions included in this review, these projections did not account for MAP-21 or changes in interest rates since submission of initial post-harmonization projections.

rates for forward pricing to approach a 4- to 6-year historical average rate.⁵⁷ The guidance is not clear on the source for these rates or how quickly they should rise to historical averages. This lack of clarity can lead to great variation among the forward pricing rates of contractors, even if they have similar participant demographics, because small changes in the projected discount rate can create large changes in projected CAS pension cost.

Additionally, DOD indicated that in its final guidance, yet to be issued, forward discount rates would approach average rates drawn from 15 to 20 years of historical data. Rates based on long-term averages would ensure more consistency in pricing because these rates would change less year-to-year than rates based on short-term historical averages. In the near-term, rates for forward pricing based on a long-term historical average would also very likely increase the contractors' discount rates, reducing CAS pension costs. This final guidance may provide greater clarity about discount rates contractors could use to calculate pension costs for forward pricing purposes. However, in the absence of this guidance, there is likely to be a broad range of discount rates in use and thus large variation in forward pricing rates, even if contractors have similar participant demographics.

Adjustments to Pre-Harmonization Contracts Are Expected but Cost Impact Is Uncertain

Since harmonization was a mandatory regulatory change, contractors can ask for a contract adjustment to reflect the cost impact of the change. Although a general procedure exists that contractors can follow to seek any kind of adjustment, a March 2012 DOD memorandum stated that contracts would be eligible for adjustment if they were signed prior to February 27, 2012 and if their period of performance continues into 2014 or later, when use of the ERISA-based discount rate begins to phase in. The memorandum indicated that DOD would eventually release more guidance on the matter but did not specify a timeline for completing the negotiation of contract adjustments. As of November 2012, DOD had not yet issued additional guidance.

The amount of additional CAS pension cost for DOD due to harmonization adjustments will depend, in part, on the number of

⁵⁷ Department of Defense, Office of the Under Secretary of Defense, Memorandum: Subject: Guidance on Cost Accounting Standards Board (CASB) Final Rule to Harmonize CAS 412 and 413 with the Pension Protection Act (PPA) of 2006: March 27, 2012.

contracts submitted by contractors for consideration, and this is yet to be determined. Some contractors said that a number of their contracts may be complete or no longer incurring costs by the time harmonization noticeably increases CAS pension costs. We reviewed four programs that have production or construction contracts that were both awarded before February 2012, and for which deliveries are scheduled in 2014 or beyond. These include large platforms with small quantities, such as Wideband Global SATCOM and Virginia Class Submarine; because satellites and submarines take several years to build, all the units on these contracts will be delivered in 2014 or later (as late as 2018 for the submarine). Therefore, substantial costs could be incurred in 2014 and beyond. In contrast, the bulk of costs on relevant contracts for F-35 Joint Strike Fighter aircraft and Tactical Tomahawk missiles will be incurred before 2014 when the main provisions of harmonization take effect. Over 80 percent of F-35 deliveries, and almost 60 percent of Tactical Tomahawk deliveries, are scheduled to take place before 2014. Several contractors stated that they were waiting for DOD to issue additional guidance before submitting their requests for adjustment and one contractor commented that it could be beneficial for DOD to wait for interest rates to rise, as that could negate the effect of harmonization and the need for adjustment on some contracts.

The CAS Board Did Not Update Rules for Settlement of Plan Curtailments as Part of Harmonization

The CAS Board did not harmonize the discount rates used for settling up if a contractor curtails a pension plan, meaning that liabilities could be calculated differently under ERISA and CAS rules if a contractor terminates a plan or freezes new benefit accruals for all participants. In such an event, the liability would be calculated using the old (likely higher) assumed long-term rate of return, instead of the new (likely lower) corporate bond interest rates. In the current environment, that would make the measurement of liabilities lower for a plan being curtailed than would be the case if the plan continued with new benefits accruing.

According to CAS Board officials, the Board intends to begin a case on CAS 413 in the near future, although a schedule for such rule-making has not been created. The process of changing CAS rules can be time-consuming. For example, while PPA, enacted in 2006, established a deadline for harmonization of January 1, 2010, the final ruling was not issued until December 2011, and not effective until February 2012.

Conclusions

DOD faces new challenges as a result of changes to rules governing contractor pension costs and the growth in these costs, especially since

the market downturn that started in 2008. The regulatory structure for government contracting generally allows contractors to receive payment for normal business costs incurred while working on government contracts, including employees' salaries and benefits such as pensions. DOD recognizes that understanding and overseeing pension costs requires highly specialized expertise, and has therefore centralized its pension oversight functions. However, while DOD processes ensure that contractors' CAS pension costs have been calculated correctly and that actuarial assumptions are reasonable, these processes do not assign responsibility for reviewing and valuing the benefits that participants will receive. Additionally, CAS pension cost is an imperfect measure of the value of pension benefits participants earned in a given year. As a result, DOD has an incomplete picture of the reasonableness of the total compensation offered by contractors. Further, DOD's assessment of executive compensation does not require inclusion of defined benefit pensions, and the assessment that does take place does not consider the value of benefits earned by participants. This could hamper DOD's efforts to ensure the reasonableness of the total compensation offered to contractor executives.

CAS pension costs associated with defined benefit plans have grown substantially over the past decade, and can be expected to grow larger and more volatile with the harmonization of CAS to ERISA. We found that in this environment, DOD contractors, like their peer group, have limited employee entry to defined benefit plans. Defined benefit pension costs are highly sensitive to economic assumptions, and even a small change in conditions can have significant consequences. Increased volatility due to harmonization challenges the consistency of contract forward pricing. Under the previous rules, CAS discount rates were more stable and predictable, and therefore effective for consistent forward pricing. DOD has recognized the desirability of using long-term average rates in CAS calculations in order to smooth the impact of pension cost swings over time, and the need to provide more guidance to its acquisition organizations on the discount rates contractors should use. While DOD has stated that this guidance would be forthcoming, details are yet to emerge, and the longer it takes to issue the guidance, the longer DOD is likely to see a broad range of discount rates and large variation in forward pricing rates. Further, while harmonization changed how contractors will calculate their CAS pension costs, it did not update CAS 413 to harmonize the discount rates used for settling up in the event of a plan curtailment. The current interest rate environment means that a plan being curtailed would have significantly lower liabilities than if it had

continued accruing new benefits, complicating settlements between contractors and the government.

Recommendations for Executive Action

We recommend that the Secretary of Defense take the following four actions:

- Assign responsibility for oversight of the reasonableness of pension plans offered by contractors, specifically the value of benefits earned by participants;
- Provide guidance on how to measure the value of pension benefits that participants earn in a given year to get a complete picture of total compensation for contractor employees;
- Provide guidance on the extent to which defined benefit plans should be included in assessments of the reasonableness of executive compensation packages; and
- Provide specific guidance to acquisition organizations, including DCMA and DCAA, on the discount rate or rates that would be acceptable for contractors to use in calculating pension costs for forward pricing purposes.

In order to better align with the harmonized CAS 412, we recommend that the CAS Board set a schedule for revising the parts of CAS 413 dealing with settlement of pension plan curtailments.

Agency and Third-Party Comments

We provided a draft of this report to DOD, OMB, PBGC, the Department of the Treasury, and the 10 large DOD contractors covered by our review. We received formal written comments from DOD. DOD agreed with all four recommendations made to the Secretary of Defense. DOD also provided technical comments which were incorporated as appropriate. DOD comments are reproduced in appendix II.

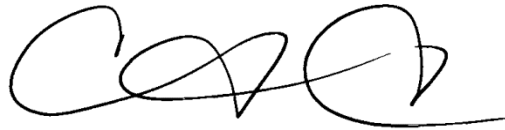
OMB provided comments stating that the CAS Board, when it meets, will consider a schedule for a case to revise the parts of CAS 412 and CAS 413 relating to defined benefit plan segment closings and curtailments. OMB also offered technical comments which were incorporated as appropriate.

We received comments from six contractors, who said that the report captures the complexities involved in determining pension costs. Four contractors indicated that they had no comments. Contractors also offered technical comments which were incorporated as appropriate.

Both the Department of the Treasury and PBGC provided technical comments which were incorporated as appropriate.

We are sending copies of this report to appropriate congressional committees; the Secretary of Defense; the Acting Director, Office of Management and Budget; and other interested parties. In addition, this report will be available at no charge on the GAO website at <http://www.gao.gov>.

If you have any questions about this report, please contact Cristina Chaplain at (202) 512-4841 or chaplainc@gao.gov, or Charles Jeszeck at (202) 512-7215 or jeszeckc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report are found in appendix III.



Cristina T. Chaplain
Director
Acquisition and Sourcing Management



Charles A. Jeszeck
Director
Education, Workforce, and Income Security

List of Requesters

The Honorable Carl Levin
Chairman
Committee on Armed Services
United States Senate

The Honorable Kelly Ayotte
United States Senate

The Honorable John McCain
United States Senate

The Honorable Claire McCaskill
United States Senate

Appendix I: Objectives, Scope, and Methodology

Our objectives were to assess how (1) contractor pension costs are determined; (2) the Department of Defense (DOD) ensures the contractor pension costs it pays are appropriate; (3) DOD contractors' defined benefit pension plans compare with plans sponsored by similar companies that are not among the largest DOD contractors; (4) pension costs have affected DOD contract costs and the factors that contributed to these pension costs; and (5) the December 2011 harmonization of Cost Accounting Standards (CAS) with the Employee Retirement Income Security Act of 1974 (ERISA) will affect the amounts DOD will pay in pension costs in coming years.

To conduct analysis across all objectives, we analyzed defined benefit pension plans for the 10 largest contractors based on DOD contract obligations for fiscal year 2011. Those contractors were:

- BAE Systems plc
- The Boeing Company
- General Dynamics Corporation
- L-3 Communications Holdings, Inc.
- Lockheed Martin Corporation
- Northrop Grumman Corporation
- Oshkosh Corporation
- Raytheon Company
- SAIC, Inc.
- United Technologies Corporation

For these contractors (with the exception of one that does not offer defined benefit plans), we selected for deeper analysis defined benefit plans that together covered at least 90 percent of each contractor's pension liabilities (35 plans in total).

At the 10 largest contractors, we interviewed officials whose responsibilities included benefits management and government accounting, as well as a number of actuaries supporting those contractors. We also interviewed Defense Contract Management Agency (DCMA) and Defense Contract Audit Agency (DCAA) officials with responsibilities covering contractor costs at headquarters, and at a number of specialized centers such as the DCMA Contractor Insurance/Pension Review (CIPR) Center and Contract Disputes Resolution Center, and the DCAA Compensation Team. We also interviewed DOD officials with cognizance for negotiation and oversight of pension costs at the corporate level for each of the 10 selected large contractors, including the DCMA Corporate Administrative Contracting

Officer (CACO), and DCAA officials including regional audit managers, resident auditors, and pension technical specialists. We interviewed a representative of the American Academy of Actuaries, and also met with representatives of the Pension Benefit Guaranty Corporation (PBGC) and the Department of the Treasury.

We reviewed various federal laws (e.g., the Pension Protection Act of 2006). We also reviewed key rules and regulations, such as relevant sections of the Federal Acquisition Regulation (FAR) (e.g., FAR section 31.205-6, Compensation for Personal Services), the Defense Federal Acquisition Regulation Supplement (DFARS) (e.g., DFARS Subpart 242.73, Contractor Insurance/Pension Review), and CAS (e.g., CAS 412, Cost Accounting Standard for Composition and Measurement of Pension Cost, and CAS 413, Adjustment and Allocation of Pension Cost). We reviewed DCMA documentation including guidance on forward pricing rates and final overhead rates, and reports written by the DCMA CIPR Center. We reviewed DCAA documentation such as relevant sections of the DCAA Contract Audit Manual (e.g., Chapter 8, Cost Accounting Standards), and audit reports that address contractor pension costs. We also reviewed prior GAO work concerning pensions.

Further, to understand how DOD oversees pension costs at smaller contractors, we selected publicly traded contractors that: fell between the 11th and 50th places in terms of DOD contract obligations for fiscal year 2011; had total defined benefit pension plan assets of at least \$1 billion; and had fiscal year 2011 DOD contract obligations representing at least 4 percent of total 2011 net sales.¹ The following seven contractors met these criteria:

- Alliant Techsystems Inc.
- Computer Sciences Corporation
- Honeywell International Inc.
- ITT Exelis
- Navistar International Corporation
- Rockwell Collins, Inc.
- Textron Inc.

¹Selection of 4 percent as a minimum level of DOD business relative to total sales excludes companies that, while large contractors in terms of total contract obligations, are overwhelmingly engaged in commercial business.

At the seven smaller contractors we interviewed officials with pension management responsibilities. We also interviewed corporate-level DCMA officials with cognizance for the seven smaller contractors, and where available collected recent DCAA audit reports and CIPR Center reports related to pensions at those contractors.

To compare the defined benefit pension plans of large DOD contractors to those sponsored by similar companies, we selected a peer group of 15 companies not among the largest DOD contractors based on analysis of contractor audited financial statements. Many of the contractors list a peer group they use to benchmark executive compensation in their financial statements. These peer companies may be selected for generally comparability in terms of company size, industry, or operations as well as their overall competitiveness with respect to similar employee skill sets and talent. Eight of the largest DOD contractors publish lists of their peers and we selected the 15 most prevalent companies (not including the DOD contractors themselves) that appeared across all eight lists. For both the contractors and the peer group, we analyzed annual reports and proxy statements for fiscal year 2011 to identify the status of pension plans and understand how pension plan assets are allocated.

To identify trends in CAS pension costs, for the nine largest contractors with defined benefit plans we reviewed pension plan documents such as CAS valuation reports (generally certified by qualified and credentialed actuaries), summary plan descriptions, and CAS disclosure statements. We collected contractor data on incurred CAS pension costs from 2002 to 2011. Our analysis of CAS valuation reports identified sources of current unfunded liabilities and CAS pension cost, as well as the difference between ERISA-required contributions and what the contractors have calculated as CAS pension cost. Note that for one large contractor, we excluded most pension data associated with a business that was recently spun off, in which the transaction included parts of several defined benefit pension plans. This was done in order to make the contractor's past and projected pension cost data more comparable. CAS pension costs provided by contractors may or may not reflect their PBGC premiums. Where we were able to identify the premiums separately from other pension costs, their relative size was insignificant.

To understand how pension costs make their way onto DOD contracts, we selected divisions at the five largest contractors based on DOD contract obligations for fiscal year 2011, and at each division selected a weapon system program, which together represent a mix of military services and platform types. This selection was a nonprobability sample,

and the findings from these programs are not generalizable to all programs. Those divisions and programs were:

- Boeing Space and Intelligence Systems—Wideband Global SATCOM
- General Dynamics Electric Boat—SSN 774 Virginia Class Submarine
- Lockheed Martin Aeronautics—F-35 Joint Strike Fighter
- Northrop Grumman Electronic Systems—AN/PED-1 Lightweight Laser Designator Rangefinder
- Raytheon Missile Systems—Tactical Tomahawk R/UGM-109E

At the divisions, we interviewed contractor officials whose responsibilities included contracting and development of forward pricing rates. We were also briefed on how pension costs are incorporated into rates at each division. We interviewed DOD officials with cognizance at the division-level for the five selected divisions, including the DCMA Divisional Administrative Contracting Officer (DACO) and local auditors.² For the five divisions, where available we collected contractor data on each division's incurred pension costs from 2005 to 2011, and within each division, the individual programs' incurred costs from 2005 to 2011. This period represents years for which data was generally available across selected programs.

To demonstrate the potential impact on CAS pension costs of CAS/ERISA harmonization and changing economic assumptions, we developed a model of an illustrative contractor defined benefit plan, based on a review of the model DOD uses, and reviewed by the Chief Actuary of the GAO for actuarial soundness. For additional insight into the potential impact of harmonization, we gathered from the nine largest contractors projections (prior to and following harmonization and the Moving Ahead for Progress in the 21st Century Act (MAP-21)) of CAS pension costs for 2012 to 2016, where available. For the five selected divisions, we also gathered projections of pension costs for 2012 to 2016. We also interviewed the Project Director detailed to the CAS Board to lead the team that harmonized CAS with ERISA. We reviewed changes made to the CAS in December 2011 to harmonize it with ERISA. We also reviewed DOD policies related to CAS/ERISA harmonization, such as the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics memorandum providing guidance on harmonization.

²For one division, duties similar to those of DCMA at other contractors were performed by the Supervisor of Shipbuilding, Conversion and Repair.

We conducted this performance audit from December 2011 to January 2013 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.

Appendix II: Comments from the Department of Defense



ACQUISITION,
TECHNOLOGY
AND LOGISTICS

OFFICE OF THE UNDER SECRETARY OF DEFENSE

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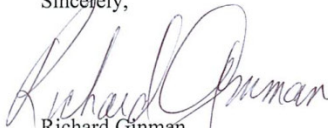
JAN - 4 2013

Ms. Cristina T. Chaplain
Director, Acquisition and Sourcing Management
U.S. Government Accountability Office
441 G Street, N.W.
Washington, DC 20548

Dear Ms. Chaplain:

This is the Department of Defense (DoD) response to the GAO Draft Report, GAO-13-158, "PENSION COSTS ON DOD CONTRACTS: Additional Guidance Needed to Ensure Costs Are Consistent and Reasonable," dated December 6, 2012 (GAO Code 121028). DoD concurs with the recommendations of the report. Detailed comments on the report recommendations are enclosed.

Sincerely,


Richard Ginman
Director, Defense Procurement
and Acquisition Policy

Enclosure:
As stated

**GAO Draft Report Dated JANUARY, 2013
GAO-13-158 (GAO CODE 121028)**

**“PENSION COSTS ON DOD CONTRACTS ADDITIONAL GUIDANCE IS NEEDED TO
ENSURE COSTS ARE CONSISTENT AND REASONABLE”**

**DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATIONS**

RECOMMENDATION 1: GAO recommends that the Secretary of Defense assign responsibility for oversight of the reasonableness of pension plans offered by contractors, specifically the value of benefits earned by participants.

DoD RESPONSE: Concur. DCAA will be responsible for evaluating the reasonableness of pension plans offered by contractors. DCAA will review its current policy to ensure it assesses the value of benefits earned by participants. As specified in current DCAA policy, if an evaluation requires technical assistance, DCAA will request such assistance from DCMA’s CIPR team. If an initial review of the pension plan offered by the contractor indicates a potential for unreasonable compensation, the policy will require an evaluation of other parts of compensation to determine if total compensation is unreasonable as required by FAR 31.205-6(b)(2). As with any reasonableness determination, DCMA CACOs would ultimately render judgment on a plan’s reasonableness and determine cost allowability.

RECOMMENDATION 2: GAO recommends that the Secretary of Defense provide guidance on how to measure the value of pension benefits that participants earn in a given year to get a complete picture of total compensation for contractor employees.

DoD RESPONSE: Concur. DCAA and DCMA will jointly develop guidance on how to measure pension benefits that participants earn in a given year. The guidance on measuring the value of pension benefits will require a joint DCAA/DCMA effort to ensure reasonable, understandable guidelines are issued that allow auditors to develop consistent audit programs and also ultimately link to actuarial principles used to develop CAS pension costs.

RECOMMENDATION 3: GAO recommends that the Secretary of Defense provide guidance on the extent to which defined benefit plans should be included in assessments of the reasonableness of executive compensation packages.

DoD RESPONSE: Concur. DCAA will reassess its guidance covering the evaluation of defined benefit pension plans as part of the assessment of reasonableness of executive compensation. If an initial review of the pension plan offered to executives indicates a potential for unreasonable compensation, the policy will require an evaluation of other parts of compensation to determine if total compensation is unreasonable as required by FAR 31.205-6(b)(2).

RECOMMENDATION 4: GAO recommends that the Secretary of Defense provide specific guidance to acquisition organizations, including DCMA and DCAA, on the discount rate or rates that would be acceptable for contractors to use in calculating pension costs for forward pricing purposes.

DoD RESPONSE: Concur. The USD AT&L is currently working on this guidance. DCMA and DCAA have been coordinating with USD AT&L in the development of this guidance.

Appendix III: GAO Contacts and Staff Acknowledgments

GAO Contacts

Cristina T. Chaplain, (202) 512-4841 or chaplainc@gao.gov; Charles A. Jeszeck, (202) 512-7215 or jeszeckc@gao.gov.

Staff Acknowledgments

In addition to the contacts named above, Karen Zuckerstein, Assistant Director; Kimberley Granger, Assistant Director; Robert Bullock; Robert Dacey; Charles Ford; Laura Greifner; John Krump; Gene Kuehneman; Kenneth Patton; David Reed; Matthew Shaffer; Roxanna Sun; Daren Sweeney; Aron Szapiro; Roger Thomas; Frank Todisco; and Jocelyn Yin made key contributions to this report.

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