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FAS/CAS – Why You Should Care

First Report in our "Beyond Budget Battles" Series

- Industry Overview
- Emerging Theme
- Pensions

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- **Emerging Theme: Pensions** — This is the 1st report in our "Beyond Budget Battles" series that explores emerging defense industry themes beyond well-documented budget battles. These pages focus on pension changes that could drive EPS, CF and valuation. We will hold a conference call *today at 11am ET* with a government contract accounting expert to answer any questions. Dial-in info below.

- **Why you should care about FAS/CAS** — The US government reimburses contractors for pension costs under cost accounting standards (CAS). **New pension rules passed in late December allow contractors to recover pension costs more rapidly by more closely aligning recovery rates w/ costs (harmonizing CAS w/ FAS).** With companies still waiting to recover pension costs associated w/ 2008-09 market weakness, **the new rules should translate to lower pension expense & better cash flow going forward.**

- **Potential Cash Bonanza Suggests Stocks Remain Cheap** — By our estimate, defense stocks are pricing in perpetual declines in FCF (see analysis on p. 12). However, we believe this view is misguided given a relatively flat revenue outlook for the industry & the potential benefits of FAS/CAS pension harmonization which should accelerate cash payments from the government & could lead to FCF growth. We calculate that LMT could be the biggest beneficiary with up to $4 per share in incremental FCF by 2015. Others, in order of benefit: RTN, NOC, HII, BA & GD.

- **EPS Also Heads Higher** — FAS/CAS harmonization will help drive EPS growth as contractors flow the CAS recovery through the income statement, allowing ~100 bps of industry margin expansion, by our estimate. LMT's $4 per share in incremental cash flow (by 2015) mentioned above would also translate into $4 in incremental EPS, from a 2012 base of ~$8 (a ~50% increase). RTN, NOC, and BA will benefit from this phenomenon, though to a lesser degree. Please see the note we separately published this morning detailing estimate changes.

- **Valuation Paradigm Shift** — We believe investors will increasingly use FAS / CAS adjusted EPS vs. GAAP EPS for valuation purposes in light of the recent harmonization ruling - which in our view cements the adjusted numbers as the more "normalized" earnings stream for defense companies. As such, we have increased our target prices for several defense companies as detailed in the separately published note.

- **Risks to FAS/CAS Story** — Risks to the benefits of FAS/CAS harmonization include Congressional action to overturn their own legislation allowing for harmonization, a competitive environment that erodes away the benefits, further declines in discount rates & poor asset performance in the near term & a potential decline in DoD purchasing power as a result of harmonization.

- **Conference Call at 11am ET** — Dial-in: 719-457-6856. Passcode: 242-5452. Further details, including Jim McGovern biography and replay information on page 13.

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Contents

Pension Primer

Differences between FAS and CAS create a mismatch between pension funding & cost recovery. But the rules are changing, letting defense companies recover costs more rapidly.

Most defense companies offer defined benefit pension plans, which the majority of industry employees/retirees enjoy (although that number comes down over time as plans stop allowing new entrants). Pension expense is determined under both FAS and CAS requirements. FAS governs the methodology for financial reporting, while CAS governs the allocation and recovery of pension costs on government contracts. The calculation under each method differs, resulting in a mismatch on the income statement.

Harmonization

Rule makers have been debating CAS harmonization since the PPA passed in 2006 which levied more onerous requirements on companies' approach to pension funding. The new rule impacts timing of cash recoveries, not the aggregate amount to be collected.

The Pension Protection Act (PPA), passed in 2006, created more separation between FAS and CAS conventions for pension expensing and recovery. At the time, rule makers knew the mismatch would have to be addressed because it was artificially creating expenses and cash flow headwinds for contractors. So, the relevant standards board went to work addressing the differences between FAS and CAS with the end-goal of better aligning the two. After ~5 years, the CAS harmonization rule was finally passed in late December 2011. Harmonization addresses *timing* more than anything else, as it pulls in cash collections for previously realized pension costs. The new rule does *not* change how much funding will be recovered. And contractors have funds still owed to them since over the past few years they've done a lot of funding that has yet to be recovered due to this mismatch.

What's FAS?

Financial Accounting Standards (FAS) govern GAAP earnings and GAAP pension accounting. This industry standard accounting methodology requires relatively rapid recognition of actuarial gains and losses. Under FAS, pension costs are amortized over 5-10 years and are accounted for in a company's GAAP earnings.

What's CAS?

Cost Accounting Standards (CAS) are used by the US government in determining contracts with private companies. In the same way that CAS can govern how industry books sales (i.e. contractors recognize revenue as costs are incurred against the contract), CAS also governs how companies can bill the government for "allowable" costs. Under Federal Acquisition Regulation (FAR), pension costs are "allowable" and can therefore be priced into contracts. But under CAS, pension costs are amortized over 15-20 years (~2-3x longer than under FAS). The government prefers this longer time horizon for pension cost amortization since it creates more predictability in estimating contract costs.

What does the difference between FAS & CAS mean?

Poor market performance in 2008-09 and low discount rates sent pension assets and obligations in opposite directions, creating costs for contractors which had to realize the expense on a FAS basis, but could only recover under CAS. Thus, the FAS/CAS mismatch created earnings & cash flow gaps.

The difference in amortization periods is the main driver of the difference between FAS and CAS. FAS' ~7 years requires contractors to realize costs faster than they can recover them under CAS. Sometimes this works to contractors' advantage as the pension can generate earnings in strong markets. However, pension costs in 2008-09 were so great that most defense companies have been reporting net pension expense over the last few years as the FAS costs outstrip CAS recovery. In addition to the earnings headwind, the mismatch also negatively impacts cash flow as funding requirements outstrip reimbursements.

What's changing?

To address the mismatch, the PPA required the CAS board to more closely "harmonize" CAS costs to the PPA required funding. After some years of delay, the board finally agreed and passed harmonized CAS rules on December 27 2011.

The new rules are largely positive for industry as they allow contractors to more rapidly recognize pension costs in contracts.

The new rules are largely positive for the industry. The most important change is the amortization period. The new CAS rules amortize actuarial gains and losses over 10 years, whereas the previous regime required 15-20 year amortization. This change allows contractors to more rapidly recognize pension costs in contracts.

The new 10-yr smoothing convention still exceeds the PPA which uses a 5-10 year convention since the rule makers felt that a persistent mismatch would help ease pressure on government spending and make cost estimates more viable. Thus, the new rules do not fully align methodologies, but the recovery speed picks up (important given the reimbursements contractors have coming their way).

The new rules are applicable beginning January 1, 2013, with the first noticeable benefits occurring in 2014 and beyond.

The effective start-date is January 1, 2013 for most contractors, with the impacts taking hold primarily in 2014 and beyond. Contractors began incorporating higher pension costs into their contracts as of February 27 2012 to reflect the new rules. The 2 year waiting period (i.e. between 2012 and 2014) gives companies time to recalibrate their overhead rates as opposed to immediately adding additional cost to fixed-price contracts that were negotiated without the new rules in mind (immediate implementation would impact margins). There is also a transition period over which a higher percentage of the difference between FAS/CAS is realized: 0% in 2013, 25% in 2014, 50% in 2015, 75% in 2016, and 100% in 2017.

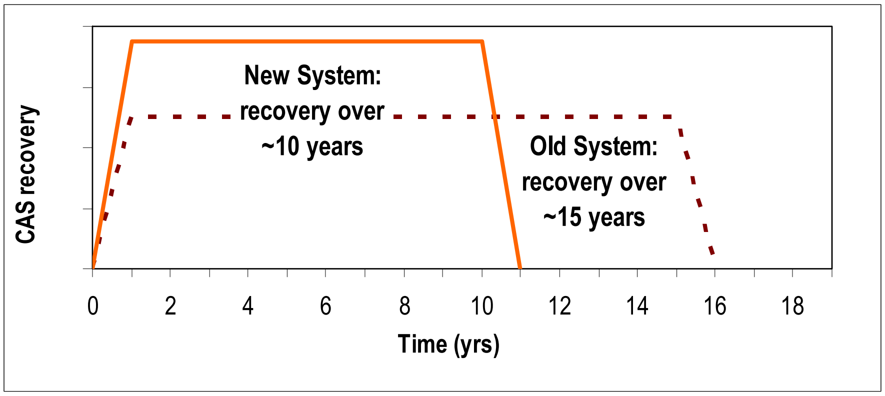
Impacts of the new rules

- **Earnings improve** as CAS income picks up on faster recovery, which decreases FAS/CAS pension expense on the income statement. Assuming that asset returns and discount rates are in line with expectations, CAS recovery eventually increases beyond FAS expense, creating net pension income on the P&L.
- **Cash flow improves** as companies are able to bill previous pension costs to the customer at a faster rate, contributing to increased cash collection.
- **New pricing** on contracts (began February 27) has contractors incorporate new, higher, CAS rates into their contracts.

The new rules allow for faster recovery of pension costs, likely allowing for more resilient cash flows than expected.

The new rule impacts timing of recoveries, *not* the recovery amount. Under the new regime, companies can recover the same amount, but faster.

Figure 1. Cash Recovery under FAS / CAS Harmonization



Source: Citi Investment Research and Analysis

Other Factors

Looming Requirements

The Pension Protection Act (PPA) was passed in 2006, amending ERISA, and became applicable to US defense contractors beginning in 2011. The PPA had the effect of accelerating annual pension plan contributions, requiring that companies fully fund pension plans over a rolling 7-year period determined annually based upon the funded status at the beginning of each year. The funding target is 100% on a GAAP basis with requirements to true up the plan if funding falls below 80% (calculated on a different basis). There will be higher pension funding requirements in the future, but these requirements are generally well understood by industry (Figure 2). We note that Boeing's required contribution in 2012-13 is "minimal," but could grow into the billions in 2014 (so the company will likely make discretionary contributions over coming years, including $1.5b in 2012).

Figure 2. Required Pension Contributions

$m	2011	2012E	2013E
BA	14	Minimal	Minimal
GD	51	500	500+
LMT	1,000	1,100	2,100
NOC	100	65	300
RTN	1,093	1,183	1,415

Source: Citi Investment Research and Analysis

Discretionary Contributions

As has been the case over the last 2 years, companies are using large cash balances (and/or cheap debt) to make sizeable discretionary contributions into their pension plan in order to offset negative performance in pension plan assets and offset pension expense. We expect this to continue.

Improved Discount Rate

Discount rates are at historic lows and most market observers believe they can only go in one direction (up). Higher discount rate assumptions would improve FAS expense and further benefit companies' earnings. However, the new rules introduce a discount rate impact on CAS (similar to FAS), so the CAS recovery would diminish as well if discount rates pick up. If discount rates came up, then, companies would see diminished CAS recovery, but also lower FAS expense. At this point, however, we're staying conservative and assuming persistently low discount rates given the Fed's commitment to keep rates near zero through 2014.

Figure 3. Discount Rate (1995-Present)

Source: Citigroup Pension Discount Curve (CPDC)

Government Perspectives

The recently submitted FY13 budget does not contemplate the heightened costs associated with the new rule. But despite the pressured fiscal environment, there aren't many ways to avoid the bill.

The Government is still in a fiscal crunch but the FY13 budget (myopically) doesn't account for increased costs associated with the new pension rules. The new rules likely cost billions, a bill we're sure the government would prefer to avoid. However, the new law has been passed and only through an act of Congress can it be altered. We see two options:

1. **Delay harmonization:** Congress could vote to delay implementation of the law even though it has been debated for ~5 years and was recently passed.

2. **Reduce funding requirements:** Congress could reduce funding requirements for government contractors in order to reduce the government's reimbursement bill. In fact, the Senate highway bill includes a provision that would let companies put less money into their pension funds by extending the discount rate window so companies are not as exposed to short-term swings in interest rates (it would keep the discount rate within 15% of an average of corporate bond rates over the trailing 10 years). The outcome of the legislation is still unclear, but the Wall Street Journal points out that it could be an attractive way to fund the new highway bill since companies pay more taxes if they set less aside for pensions.[1] While this change is not aimed at the defense industry, it could also have the effect of reducing government reimbursement costs (since companies wouldn't have to spend as much). Some also argue that the change would help the economy, since it would let companies invest more in the business as opposed to sitting on large cash balances in anticipation of required pension contributions.

Given these options, we wouldn't be surprised to see the pension debate pick up steam over the coming months, although options still seem limited.

[1] Peterson, Kristina. "Companies' Pension Plea." The Wall Street Journal. 6 March 2012.

Company Perspectives

Companies are now pricing new contracts with the new rates. We expect different companies to have different pension costs assumptions given varying pension positions.

Companies are now including new rates for CAS harmonization in their forward pricing for new contracts, since the new rules will be layered in over several years. The new, higher, costs apply across the industry with those enjoying a better pension position potentially enjoying a cost advantage (i.e. they don't have to build in as much of the new, higher cost). Indeed, the biggest advantage would be had by new entrants that don't already have a defined benefit overhead structure. Thus, on competitive programs where there can be multiple bidders (such as certain services contracts), it will be difficult to recapture pension costs at the increased rate and stay competitive. This is part of the reason we see pressured services margins going forward.

- **Raytheon:** Expects CAS recovery on P&L to improve by $400m between 2012 and 2014, with total FAS/CAS adjustment turning positive in 2014. This assumes that all actuarial assumptions and regulatory environments are held equal, including discount rate (5%) and asset return (8.75%) assumptions. At the end of 2011, the pension was $6b underfunded vs. a $21b projected benefit obligation.

- **Lockheed Martin:** Expects to see $1.4b of incremental cash between 2012 and 2015 due to higher recovery of pension costs. But pension is still a net expense through 2015 all else being equal (discount rate of 4.75%, asset return 8%). Overall, LMT expects a slow recovery in its net pension expense which should approach breakeven in mid-decade. At the end of 2011, the pension was $13b underfunded vs. a $40b projected benefit obligation.

- **Northrop Grumman:** The company considers itself to be starting from a stronger position due to a change it made in 2011 that capped payouts. NOC expects this to be a competitive advantage as it will not have to price in as much CAS recovery over the next few years. At the end of 2011, the pension was $2.8b underfunded vs. a projected obligation of $24b.

- **Boeing**: Only ~30% of the pension liability is covered by the government (due to Boeing's large commercial workforce). The company does not see any notable required contributions through 2013 for ERISA purposes, but it might consider making contributions in 2012 in order to protect cash flow in 2013-14 (required contributions in 2014 could be several billions of dollars). At the end of 2011, the pension was $16.6b underfunded vs. a $67b projected benefit obligation.

- **General Dynamics:** GD treats their pension differently vs. the other primes as it capitalizes the difference between FAS & CAS on the balance sheet in "contracts in process." The company will draw down on the balance and generate cash as the new rules are implemented, but there is no real impact on earnings and the impact on cash flow is still TBD given rising PPA contributions. At the end of 2011, the pension was $3.9b underfunded vs. a $10b projected benefit obligation.

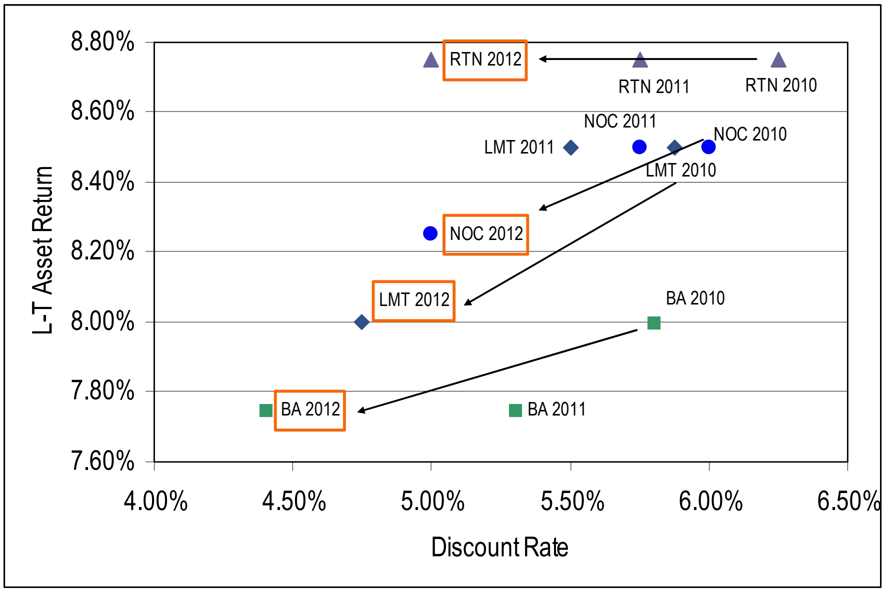
- **Huntington Ingalls:** We're expecting HII's pension expense to deteriorate in 2012E due to a y/y reduction in discount rate and asset return assumptions. HII reports its 4Q11 results on March 28 at which point we expect the company to release its pension estimates for 2012, and to provide further color for 2013.

Lower pension assumptions

Companies have been reeling in discount rate and asset return assumptions of late in reaction to market realities.

Company assumptions for discount rate and asset return have come down of late, adding to net pension expense. We note that companies' 2012 pension assumptions are at 3-year lows in terms of L-T asset return, discount rate, or both.

Figure 4. Pension Assumptions



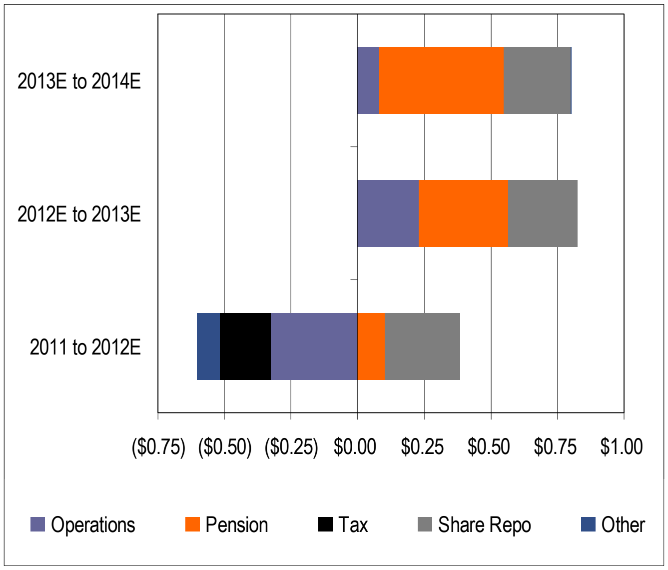
Source: Citi Investment Research and Analysis

Pension Driving GAAP Earnings

We expect defense companies to benefit from y/y pension expense improvements through 2014 even excluding the impact of CAS harmonization.

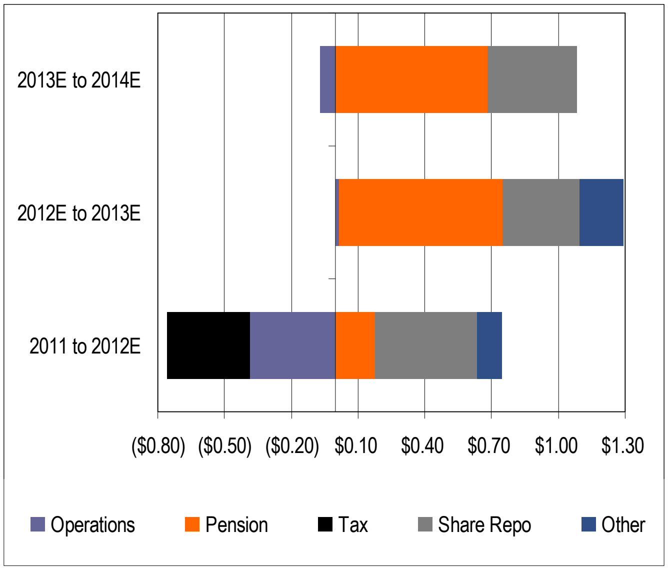
Although CAS harmonization isn't felt until 2014 and more significantly thereafter, we still expect companies to benefit from less punitive pension expense through 2014 as the costs from 2008-09 amortize and drive up CAS recoveries, helping earnings. Also helping this process are lower pension assumptions (see section on page 8) which in our mind make for an easier hurdle. For RTN and LMT, we actually expect y/y pension tailwinds to contribute materially to y/y EPS improvements (see orange bars below).

Figure 5. RTN EPS Growth (2011-2014E)



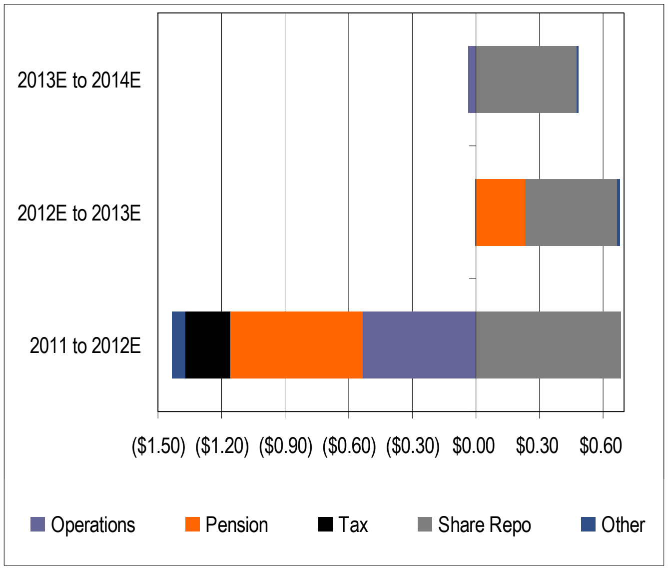
Source: Citi Investment Research and Analysis

Figure 6. LMT EPS Growth (2011-2014E)



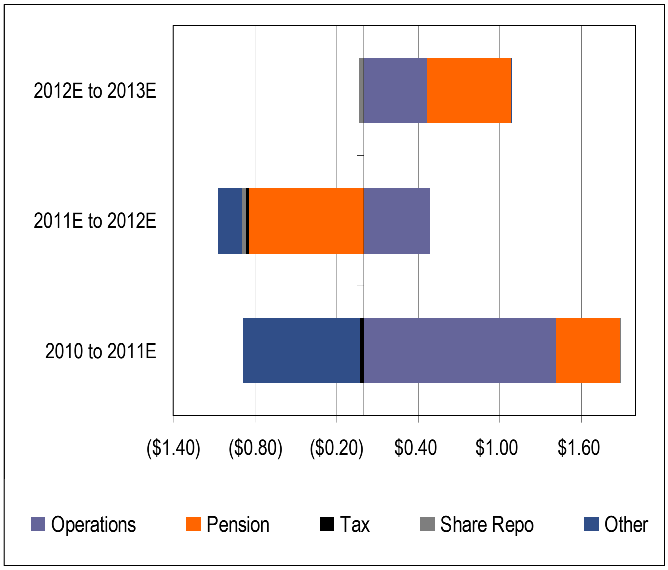
Source: Citi Investment Research and Analysis

Figure 7. NOC EPS Growth (2011-2014E)



Source: Citi Investment Research and Analysis

Figure 8. HII EPS Growth (2010-2013E)



Source: Citi Investment Research and Analysis

Risk to the Harmonization Story

There are several risks to the CAS harmonization story playing out.

- **Congress:** Congress can overturn laws and politicians could pick a fight on the pension issue given fiscal austerity. However, the changes have been contemplated since 2006 and the final law is actually less beneficial than that which was originally intended.

- **Competition:** Contractors have to actively recover the costs by building them into new contracts (contractors aren't just handed a check) and it is possible that some might be motivated to forego pension reimbursement owed to them in order to be more competitive. However, we do not think this will necessarily happen since companies are unlikely to pass up cash owed to them based on already expenses items (once foregone on a contract it is never again recoverable). Also, there are likely more effective costs to attack in order to stay competitive outside of pension (in other words, a company is unlikely to rely on pension to push it over the finish line).

- **Bad discount rate and asset return environment:** The new rules aren't all that drives pension expense; it'll also depend on discount rates & asset returns – which could underperform expectations in the near-term and dampen the benefits of harmonization. However, discount rates are at historic lows and unable to head much lower (see Figure 3 on page 5). Meanwhile, contractors are reeling in their discount rate assumptions (see Figure 4 on page 8).

- **Where to find the money:** It's still TBD where DoD will find the money to pay for implanting harmonization. In the worst case, it seems DoD purchasing power will be eroded (investment account dollars remain the same but mix shifts toward paying for pensions vs. buying weapons) and in the best case DoD finds money in the Operations and Maintenance (O&M) and/or Military Personnel accounts to pay for increased pension costs - thereby maintaining its own purchasing power. At this point, we expect DoD to try to maintain purchasing power and for the O&M accounts to help pay for harmonization.

Valuation Paradigm Shift

We expect investors to begin valuing defense stocks using FAS / CAS adjusted EPS given the recent accounting ruling to harmonize industry and government pension schemes.

In our view, investors have been valuing defense stocks using GAAP EPS and EBITDA given the uncertainty surrounding the timing of FAS / CAS harmonization and its potential impacts. However, the unknown is now known, and we know that the gap between FAS expense and CAS recovery will close over the next five years. As such, we expect investors to increasingly use FAS / CAS adjusted EPS and EBITDA to value defense companies as these numbers better represent "normalized" earnings streams.

In essence, we believe we are on the cusp of a paradigm shift in the way these companies are valued. And from a practical perspective, this paradigm shift should lead to higher share prices over time as FAS / CAS adjusted numbers are, for the most part, higher than GAAP numbers (Figure 9).

GD capitalizes its pension (so adjusted EPS equals GAAP EPS), but a better mkt. multiple boosts PT

HII & LMT price targets are boosted by exclusion of pension expense & a better mkt. multiple

NOC likely sees pension *income* in 2013E, so adjusted EPS is below GAAP, offset by better mkt. multiple & our expectation of better margins

RTN's pension impact improves in 2013E (driving GAAP EPS), but adj. EPS falls due to our reduced sales outlook

Figure 9. EPS & Price Target Changes

	2013E GAAP EPS		2013E Adj. EPS		Target P/E Multiple		Price Target	
	Old	New	Old	New	Old	New	Old	New
GD	$7.71	$7.71	$7.71	$7.71	11.0x	11.4x	$85	$88
HII	$4.21	$4.21	$4.59	$4.59	9.0x	9.9x	$36	$45
LMT	$9.09	$9.09	$10.22	$10.22	10.1x	10.6x	$92	$108
NOC	$7.34	$7.54	$6.73	$6.92	9.4x	9.9x	$69	$69
RTN	$5.89	$5.97	$6.14	$6.07	10.1x	10.6x	$59	$64

Source: Citi Investment Research and Analysis

Relative Valuation: Lockheed is not expensive

Excluding pension impacts, LMT, RTN, and HII are cheaper than they appear since sell-side estimates generally include FAS/CAS expense. For instance, 2012 P/E is 1-3 turns lower for these names excluding pension headwind in 2012 (Figure 10). We note that this is not applicable to NOC which likely sees pension income in 2012E-2013E.

Broadly speaking, 2012 defense valuation is attractive from an adjusted basis as the primes are trading at an average discount of 29% to the market on an adjusted basis vs. our expectation that defense names should trade at 20-25% given the environment. We exclude BA in this analysis because of its higher commercial multiple. Please Note that we use street estimates for EPS and Citi estimates for the FAS/CAS impact to arrive at Adjusted EPS.

Figure 10. Defense Prime Comp Table

	2012				2013			
	EPS	**Adj. EPS**	**P/E**	**Adj. P/E**	**EPS**	**Adj. EPS**	**P/E**	**Adj. P/E**
GD	$7.32	$7.32	10.0x	10.0x	$7.70	$7.70	9.5x	9.5x
HII	$2.92	$3.92	12.7x	9.5x	$3.88	$4.27	9.6x	8.7x
LMT	$7.87	$9.70	11.5x	9.3x	$8.49	$9.62	10.7x	9.4x
NOC	$6.57	$6.23	9.5x	10.0x	$6.76	$6.14	9.2x	10.1x
RTN	$5.05	$5.63	10.4x	9.3x	$5.54	$5.63	9.5x	9.3x
Average			**10.8x**	**9.6x**			**9.7x**	**9.4x**
SPX			**13.5x**	**13.5x**			**12.2x**	**12.2x**
Discount			20%	29%			21%	23%

Source: Citi Investment Research and Analysis, FactSet, Thomson
Note: Uses Street estimates for EPS and Citi estimate for FAS/CAS impact to arrive at Adjusted EPS.
We have yet to publish 2014 estimates for HII (reports 4Q11 March 28).

Another way to look at what's priced into shares today

In our view, the market's assumption of perpetual negative free cash flow growth is overly punitive given the spending environment & imminent pension accounting changes.

In our view, the market is pricing perpetual declines in free cash flow into defense stocks (Figure 11). We base this analysis on a reverse DCF, of sorts, that measures the share of the market cap tied to a zero-growth scenario. The zero-growth scenario is derived by dividing 2011 UFCF by the WACC less a growth rate of zero.

We consider the view of perpetual FCF declines as overly pessimistic since DoD accounts invariably grow over time (5% CAGR between 1960 and 2010, and 3% CAGR between 1960 and 2000). Budgets are pressured in the near-term, but expectations of perpetual reductions in defense free cash flows appears overly pessimistic to us. We note that GD screens better in this analysis due to the growth opportunities associated with its Gulfstream business.

Figure 11. Zero-Growth Scenarios

	Zero-Growth Mkt Value ($m)	Current Mkt Value ($m)	Mkt Value Attributable to Zero Growth	Mkt-Implied Perpetual FCF Growth Rate
GD	$26,947	$26,084	103.3%	(0.3%)
LMT	$44,454	$29,396	151.2%	(3.3%)
NOC	$23,685	$15,678	151.1%	(4.5%)
RTN	$26,621	$18,170	146.5%	(3.6%)

Source: Citi Investment Research and Analysis, Bloomberg, FactSet

Conference Call Details

Citi is hosting a conference call with government contract accounting expert Jim McGovern.

Details:

Date: Friday, March 16
Time: 11:00 AM ET - 12:00 PM ET. Please dial in 5 minutes early.
Hosted by: Jason Gursky, Citigroup, Aerospace & Defense Senior Analyst
Guest speaker: Jim McGovern CPA, Partner, McGovern & Greene LLP
Dial-in: 719-457-6856
Passcode: 242-5452

Replay available for 3 weeks:
US/CAN toll free: 888-203-1112
Intl toll: 719-457-0820
Passcode: 242-5452

Biography:
Jim McGovern, CPA, is a Partner at McGovern & Greene LLP. Mr. McGovern regularly consults with clients and their attorneys on damages, contract accounting, and cost recovery issues, including economic damages, intellectual property infringement, lost earnings, termination settlements, equitable adjustments, government cost principles, cost accounting standards, and cost accounting systems. His experience includes litigation support, deposition, and expert witness testimony. He has been accepted as an expert witness in both federal and state court and has been appointed to the American Arbitration Association Construction Arbitration Panel. Mr. McGovern also has extensive experience in forensic accounting engagements and subcontractor / vendor audits. He is a past National President of the National Contract Management Association and currently serves as the Treasurer for the Village of Oak Lawn, IL.

Companies mentioned in this report include:

Boeing Co. (BA.N; US$75.43; 1);

General Dynamics Corp. (GD.N; US$73.34; 1);

Huntington Ingalls Industries (HII.N; US$37.50; 1);

Lockheed Martin Corp. (LMT.N; US$90.30; 1);

Northrop Grumman Corp. (NOC.N; US$61.97; 1);

Raytheon Co. (RTN.N; US$52.27; 1)

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

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	12 Month Rating			*Relative Rating*		
Data current as of 31 Dec 2011	**Buy**	**Hold**	**Sell**	**Buy**	**Hold**	**Sell**
Citi Investment Research & Analysis Global Fundamental Coverage	57%	34%	9%	10%	79%	10%
% of companies in each rating category that are investment banking clients	45%	41%	40%	49%	43%	41%

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Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.
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