

Fiscal Cliff Update Post-Election

Bungee jumping toward a flat 10Y DoD budget

■ Industry Overview

- **What's New** – We're reiterating our defense spending outlook after an election that preserved the status quo (split Congress and an Obama White House) and we're reiterating our constructive stance on defense stocks given investor expectations for negative growth and what we see as an environment that supports modest levels of free cash growth and s/h friendly deployment. Our outlook hasn't changed as our [Election Preview](#) argued that budget realities trump electoral outcomes.
- **Sequester Implementation Not Likely** – Neither Party wants sequester that forces a 10% budget reduction in only a year. In our view, Congress and the White House will spend the lame duck session coming up with a deal to delay or disarm the mechanism, though it might not be enough to avoid a temporary bungee jump over the cliff in January. That said, the White House and DoD have already told industry they won't cancel programs on Day 1 and we believe a grand bargain will be reached in early 2013 averting sequester altogether. At this week's Citi Credit Conference, Erskine Bowles and former OMB head Peter Orszag sounded a relatively positive tone about Congress being able to at least delay the cliff during the lame duck.
- **Grand Bargain Likely Flat-lines DoD Spending** – When the dust settles, we expect a 10Y deal that flat-lines defense spending, making the same \$-amount of cuts as the sequester, but spread more evenly over the 10Y period. In our view, this will be a positive outcome for defense stocks as it will add clarity to the trajectory of future budgets. Furthermore, this outcome would likely remove DoD's budget from the political agenda as the military will be able to claim \$1T in cuts to its 10-year budget outlook since mid-2011, a number that's in line with the most draconian DoD proposals we've heard to date, including Simpson Bowles.
- **Sources of Strength** – Another Obama term likely continues its focus on Asia and a security strategy benefitting things that fly and float vs. things that crawl on the ground. In our view, YTD performance reflects some of this difference, with HII up 29%, LMT/NOC up 8%, and RTN up 12% YTD vs. GD down 6%. We also expect growing international markets to alleviate some of the domestic pressure, likely leading to a flattish growth outlook for the industry. The US Govt. likely remains the world's biggest arms dealer as the US looks to allies to pay for their own security.
- **What's Priced In?** – The market expects defense prime FCF to decrease in perpetuity by an average of 4% annually. We believe this is overly negative since DoD weapons spending grows an average of 5% over the long term.
- **Still Like Defense** – We're constructive on defense stocks given our outlook for 10-12% cash returns to s/h through dividends and repurchases. In our view, this outlook is supported by a flattish top-line, resilient/modestly improving margins driven by mix, higher levels of pension cash recovery and balance sheet flexibility given low leverage levels. We reiterate our Buys on GD, HII, LMT, NOC & RTN. Going forward, execution and cash deployment are likely the differentiating factors.

Jason Gursky

+1-415-951-1672

jason.gursky@citi.com

Jonathan Raviv

jonathan.raviv@citi.com

Related Reports

[Doing More Without More - New Better Buying Power Guidelines Support Margins](#)

[Making a List and Checking it Twice - Sequester Details are Coming to Town](#)

[Sequester Playbook & the Way Forward - There's Still Value in Defense Despite the Damoclean Sword](#)

[FAS/CAS – Why You Should Care](#)

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

Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Contents

Defense Demand Isn't Falling off a Cliff	3
Nominally Flat US budgets	3
The Asia Pivot	3
Strong International Demand	4
Resilient Margins	4
Structural Shift in DoD Buying Behavior	4
Lower Headcount	5
Pension Outlook to Help EPS and Cash Flow	6
Pension Adjusted Valuation Looks Attractive	7
Shareholder Cash Deployment	7
Attractive Dividend Policies	8
Leveraged Buybacks	8
What's Priced In?	10
Defense Performance	11
Appendix A-1	12

Defense Demand Isn't Falling off a Cliff

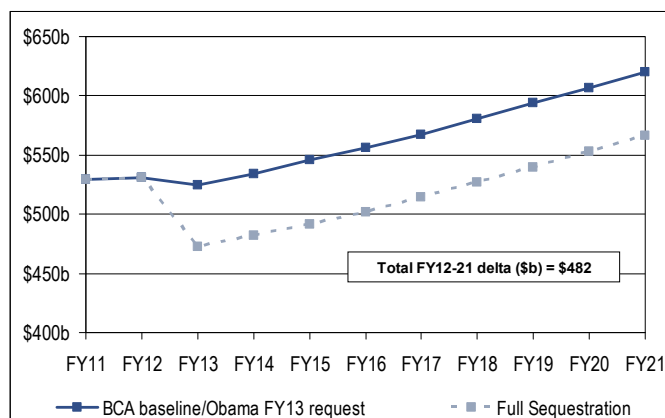
In our view, there's still value in defense as sales and margins are unlikely to be as weak as expected.

We're relatively constructive on defense sales and margins, neither of which we expect to fall precipitously in the near-term.

Nominally Flat US budgets

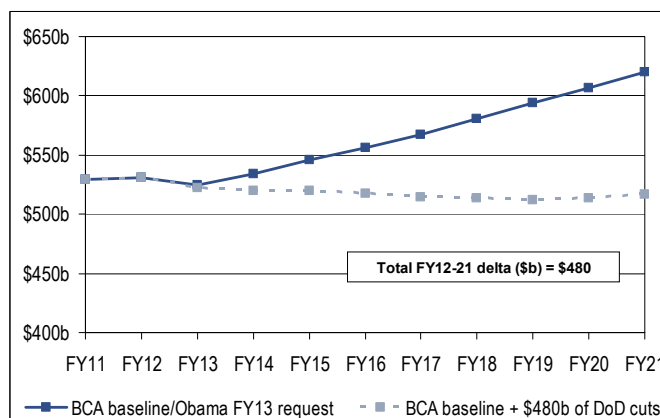
As we've described in the previous pages, we expect a debt deal that essentially flattens the US defense budget for 10Y. While no one knows what the future holds in store from a strategic/threat perspective, we do not see many opportunities for significant upside or downside movement over the horizon.

Figure 1. We don't expect: front-loaded ~\$480b over 10Y (sequester)



Source: Citi Research

Figure 2. We do expect: more manageable back-loaded ~\$480b



Source: Citi Research

The Asia Pivot

After a decade marked by two tough ground wars, the Administration and DoD are focused on pivoting away from land wars and toward air/sea capabilities with a specific focus on Asia and countering anti-access/area-denial capabilities in the region. In our view, this bodes relatively well for companies making things that fly and float vs. things that roll around on the ground.

Figure 3. Budget Priorities

Things that fly				Things that float				Things that roll				Space / Advanced Tech			
Program	FY13 (\$m)	y/y %	Ticker	Program	FY13 (\$m)	y/y %	Ticker	Program	FY13 (\$m)	y/y %	Ticker	Program	FY13 (\$m)	y/y %	Ticker
F-35	9,171	(1%)	LMT, NOC	VA-Class	4,258	(11%)	HII, GD	JTRS	1,053	(15%)	GD, COL	BMD	9,721	(7%)	BA, LMT, NOC, RTN
P-8A	3,258	11%	BA	DDG-51	3,515	69%	GD, HII	FMTV	377	(14%)	OSK	EELV	1,688	(2%)	LMT, BA
F/A-18	2,182	(11%)	BA, NOC	LCS	2,246	6%	LMT, Austal	Stryker	332	(57%)	GD	Aegis	1,382	(11%)	LMT, RTN
V-22	1,955	(30%)	TXT, BA	CVN RCOH	1,613	213%	HII	JLTV	117	(13%)	In development	GPS	1,264	(14%)	LMT, RTN
MQ-1/9	1,910	(8%)	General Atomics	New CVN	967	(10%)	HII	Javelin	86	(50%)	RTN, LMT	WIN-T	1,226	15%	GD, LMT
KC-46A	1,816	107%	BA					Abrams	74	(84%)	GD	SBIRS	950	(5%)	LMT
CH-47	1,462	4%	BA					FHTV	58	(91%)	OSK	AEHF	786	(17%)	LMT
C-5	1,280	10%	LMT									THAAD	778	(22%)	LMT, RTN
RQ-4	1,251	(14%)	NOC									MEADS	401	3%	LMT
AH-64	1,180	56%	BA, NOC, LMT									MUOS	167	(65%)	LMT
E-2D	1,159	(4%)	NOC									WGS	37	(95%)	BA
EA-18G	1,075	3%	BA												
H-1	852	6%	TXT												
C-130	835	(42%)	LMT												
F-22	809	(12%)	LMT												

Source: Citi Research, DoD

Strong International Demand

Foreigners continue to modernize their militaries in response to regional threats. In November alone, DoD has announced \$23b of potential deals for Qatar and Saudi Arabia.

We expect healthy international demand, although the market is far smaller than the US. But the Middle East and Asia likely drive continued demand for fighter jets, missile defense, and advanced electronics. Coupled with the US' push to liberalize exports, and expect growth in direct commercial (DCS) and foreign military sales (FMS). The State Department reported that it approved \$44.3b of export licenses in FY11 (+30% y/y), driven in large part by increases in DCS requests for India and Brazil. Meanwhile, the Defense Department expects almost \$60b of FMS agreements in 2012 (+71% y/y), driven by the \$29b Saudi package. Middle East nations have stepped up big-time over the last year in line with the Iran threat, with countries like UAE, Oman, Qatar, and Kuwait modernizing their fighter jet and missile defense capabilities. In fact, in November alone DoD has announced a slew of potential deals: a \$6.5b THAAD deal for Qatar, a \$9.9b Patriot deal for Qatar, a \$6.7b C-130 deal for Saudi Arabia.

Resilient Margins

We expect resilient margins as fiscal pressures are offset by a positive sales mix-shift.

We expect margins to remain resilient as fiscal pressures are offset by a positive mix-shift in sales (more procurement and more international). In our view, companies have also had time to anticipate the coming drawdown, so in some respects they are busy "out-cutting" the DoD by reducing headcount and closing facilities.

Structural Shift in DoD Buying Behavior

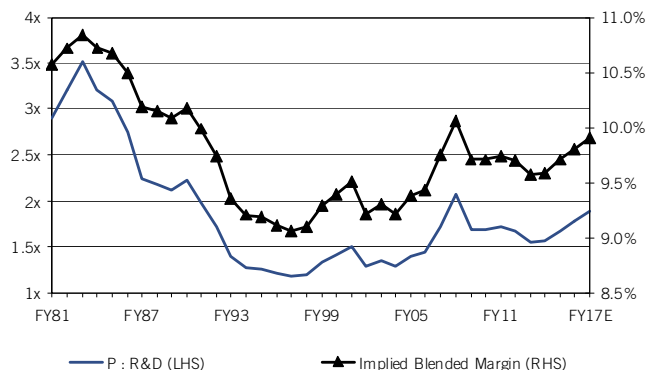
An increase in the procurement-to-R&D spending ratio likely benefits defense company margins as DoD buys more mature products to focus on today's needs vs. developing new weapons with uncertain benefits. Since defense companies typically earn higher margins on production vs. development, we see a higher margin revenue mix for defense companies going forward. We note that the FY13 Procurement to R&D spending ratio (P:R&D) is ~1.6x, but DoD forecasts it to grow to 1.89x by FY17E (was as high as 3.5x in the mid-1980s). In our view, each turn in the ratio can create 50-100 bps margin expansion.

Figure 4. Typical Defense Margin Stack

More Emphasis Here	International Production	15%+
	Domestic Production	10% to 15%
Less Emphasis Here	Low-Rate Initial Production	5% to 10%
	RDT&E	0% to 5%

Source: Citi Research

Figure 5. P:R&D Implied Defense Margin

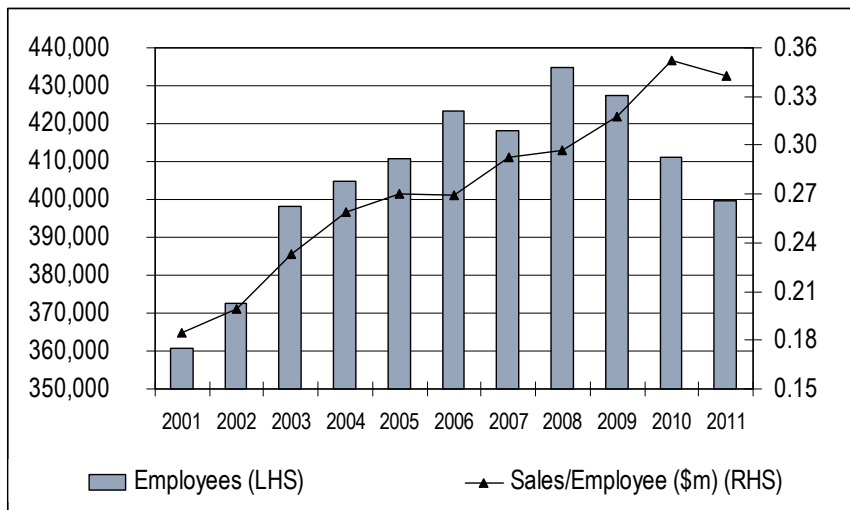


Source: Citi Research

Lower Headcount

We note that the US defense industry has been steadily shedding employees since peaking in 2008. As headcount has come down, sales efficiency has increased which we expect to help support resilient margins.

Figure 6. Defense Industry Headcount



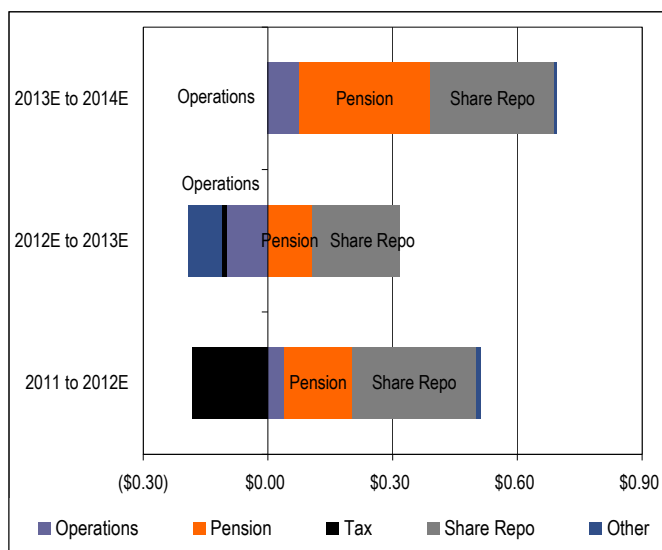
Source: Citi Research

Note: Includes LMT, RTN, NOC, HII, GD

Pension Outlook to Help EPS and Cash Flow

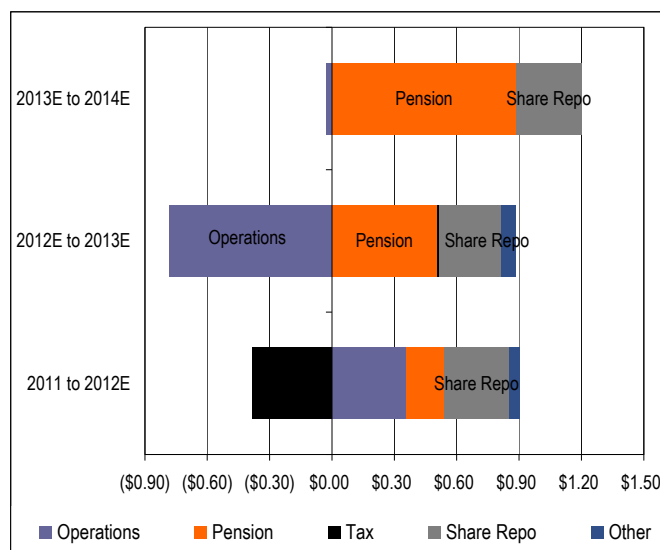
The US government reimburses contractors for pension costs under cost accounting standards (CAS). New pension rules passed in late December 2011 allow contractors to recover pension costs more rapidly by more closely aligning recovery rates w/ costs (harmonizing CAS w/ FAS). With companies still waiting to recover pension costs associated w/ 2008-09 market weakness, the new rules should translate to lower pension expense and better cash flow going forward.

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



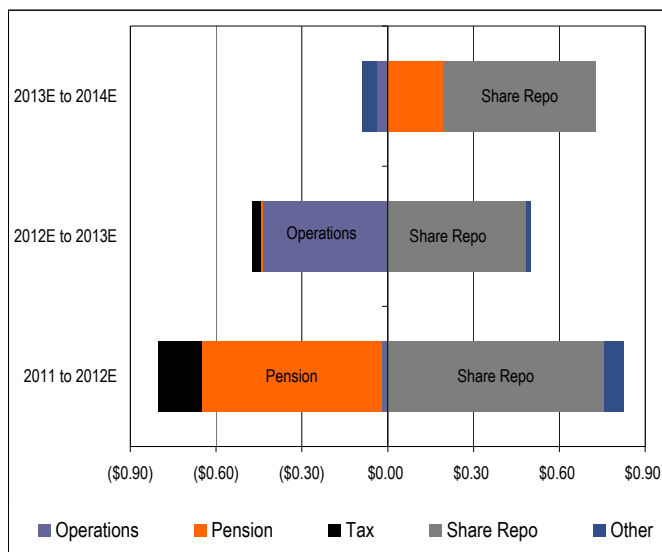
Source: Citi Research

Figure 8. LMT EPS Growth (2011-2014E)



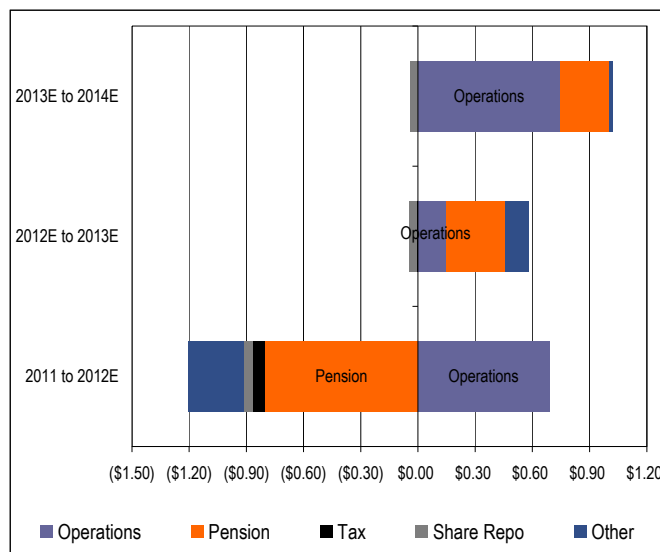
Source: Citi Research

Figure 9. NOC EPS Growth (2011-2014E)



Source: Citi Research

Figure 10. HII EPS Growth (2010-2013E)



Source: Citi Research

Pension Adjusted Valuation Looks Attractive

From a valuation perspective, defense primes are cheaper than they appear since most sell-side estimates include FAS/CAS expense, which is mostly reimbursable. For instance, 2012 P/E is 1-3 turns lower for these names excluding pension headwind in 2012 (Figure 11). We note that this is not applicable to NOC which likely sees pension income in 2012E-2013E. Broadly speaking, 2012 defense valuation is attractive with the primes are trading at an average discount of 30% to the market on an adjusted basis vs. our expectation that defense names should trade at 20-25% given the budget environment. We note that 2013 valuation is beginning to solidify at around a 25% discount on an adjusted basis.

Figure 11. Defense Prime Comp Table

	2012				2013				2014			
	EPS	Adj. EPS	P/E	Adj. P/E	EPS	Adj. EPS	P/E	Adj. P/E	EPS	Adj. EPS	P/E	Adj. P/E
GD	\$7.01	\$7.01	8.9x	8.9x	\$7.31	\$7.31	8.5x	8.5x	\$7.61	\$7.61	8.2x	8.2x
HII	\$2.91	\$3.80	13.8x	10.5x	\$3.78	\$4.92	10.6x	8.1x	\$4.83	\$5.36	8.3x	7.4x
LMT	\$8.40	\$10.18	10.5x	8.7x	\$8.20	\$9.53	10.8x	9.2x	\$8.75	\$9.21	10.1x	9.6x
NOC	\$7.41	\$7.06	8.6x	9.0x	\$6.97	\$6.61	9.1x	9.6x	\$7.18	\$6.59	8.9x	9.7x
RTN	\$5.53	\$6.02	9.9x	9.1x	\$5.40	\$5.82	10.1x	9.4x	\$5.81	\$5.92	9.4x	9.2x
Average			10.3x	9.2x			9.8x	9.0x			8.9x	8.8x
SPX			13.2x	13.2x			12.1x	12.1x			10.6x	10.6x
Discount			22%	30%			19%	26%			15%	17%

Source: Citi Research, Thomson

Note: We use Consensus (Thomson) estimates for EPS and Citi estimates for the FAS/CAS impact to arrive at Adjusted EPS.

Shareholder Cash Deployment

In our view, resilient sales and margins combine with FAS/CAS harmonization to generate resilient cash flows.

We expect defense companies to continue generating robust cash levels due to resilient sales/margins, no material change in the cash-heavy nature of the business, and FAS/CAS harmonization (for more on FAS/CAS see: [FAS/CAS – Why You Should Care](#)). We do note, however, that there will likely be some near-term pressure from pension funding requirements driven by low discount rates. However, we see rising dividends and falling share counts driving returns during the coming slowdown. In fact, we posit that most companies are, or will be targeting ~10-12% cash returns to shareholders through a combination of dividends and share repurchases this year.

Since 2006, defense primes (GD, LMT, NOC, RTN) have returned 71% of operating cash flow to shareholders via dividends and share repurchases (50% toward repos, 21% toward dividends) (Figure 12). We expect the primes to continue returning ~60%+ of operating cash flow to shareholders through 2014E (Figure 13).

Figure 12. Defense Prime Cash Deployment (2006-11)

	GD	LMT	NOC	RTN	Total
OCF	\$17,268	\$23,377	\$14,558	\$12,782	\$67,984
Dividends	3,218	4,862	3,058	2,917	14,055
Share repos	4,776	13,909	8,127	7,594	34,406
Returned to s/h	\$7,994	\$18,771	\$11,185	\$10,511	\$48,461
as % of OCF	46%	80%	77%	82%	71%

Source: Citi Research, FactSet

Figure 13. Defense Prime Cash Deployment (2011-14E)

	2011	2012E	2013E	2014E
OCF	\$11,749	\$11,439	\$11,520	\$11,557
Dividends	2,899	3,245	3,564	3,902
Share repos	7,280	3,286	3,849	3,495
Returned to s/h	\$10,179	\$6,530	\$7,413	\$7,397
as % of OCF	87%	57%	64%	64%

Source: Citi Research, FactSet

In our view, shareholder friendly cash deployment is underpinned by our resilient OCF estimates set against relatively modest capex requirements, driving high single-digit FCF yields vs. current share prices (Figure 14).

Figure 14. Cash Flow Comp Sheet

	Dividends		Free Cash Flow						Operating Cash Flow		
	Dividends / quarter (\$)	Dividend Yield (%)	FY12E CIRA (\$m)	FY12E FCF Yield	FY13E CIRA (\$m)	FY13E FCF Yield	FY14E CIRA (\$m)	FY14E FCF Yield	FY12E (\$m)	FY13E (\$m)	FY14E (\$m)
General Dynamics Corp.	0.51	3.28%	2,268.3	10.2%	2,951.8	13.3%	2,697.9	12.2%	2,673	3,379	3,128
Lockheed Martin Corp.	1.15	5.22%	3,372.8	11.7%	2,712.0	9.4%	2,927.6	10.2%	4,137	3,712	3,928
Northrop Grumman Corp.	0.55	3.46%	2,323.8	14.4%	1,921.6	11.9%	1,898.8	11.8%	2,710	2,322	2,299
Raytheon Co.	0.50	3.67%	1,504.4	8.2%	1,707.8	9.4%	1,802.7	9.9%	1,919	2,108	2,203
A&D Average		2.17%		8.1%		8.6%		10.0%			
Defense Prime Avg.		3.91%		11.2%		11.0%		11.0%			
S&P 500		2.38%									
10Y UST		1.59%									

Source: Citi Research, FactSet

Attractive Dividend Policies

The defense primes in our coverage universe consistently increase their dividends, helping drive market-beating yields. We consider LMT the most aggressive, with its most recent increase of 15% sending the yield toward 5%. We'll have to wait until March for GD and/or RTN to raise their dividend, but see yields of 3.5-4% within reach for both.

Figure 15. Defense Dividends

	GD	LMT	NOC	RTN
Current Dvd Yield	3.28%	5.22%	3.46%	3.67%
Standard Deviations from 10Y Avg Dvd Yield	2.21	2.92	1.50	2.15
Announced Quarterly DPS	\$0.51	\$1.15	\$0.55	\$0.50
Typical Dvd Raise Timing	March	September	April / May	March
Previous Increase %	8.5%	15.0%	10.0%	16.3%
Previous Increase Date	7-Mar-12	27-Sep-12	16-May-12	21-Mar-12
Consecutive Annual Dvd Increases	15	10	9	8
7Y Avg Dvd Increase	14%	21%	11%	13%
Potential New Dividend	\$0.58	\$1.40	\$0.61	\$0.56
Potential New Yield vs. Current Px	3.75%	6.34%	3.86%	4.13%

Source: Citi Research, FactSet

Leveraged Buybacks

Strong balance sheets and a focus on share repurchases are a potentially potent combination as defense primes ratchet up their debt levels and reduce their share counts. For the purposes of this simulation, the target leverage ratio of 2.8x is based on the DoD-sanctioned ratio HII was allowed when it spun off from NOC last spring. We see an average accretion opportunity of 6% among the primes when running this simulation, with NOC leading the way with a 90%+ accretion opportunity (Figure 16). General Dynamics (GD), Rockwell Collins (COL), and Lockheed Martin (LMT) have already pursued a leveraged buyback strategy to various degrees, but we see the accretion opportunities for the defense primes given historically low debt rates.

Figure 16. Leveraged Buyback Simulation (based on our coverage universe)

	GD	LMT	NOC	RTN	BA	TXT	COL	DGI
Net Debt (Cash)	1,051	1,872	406	1,577	4,604	2,911	714	326
LTM EBITDA	4,300	5,313	3,633	3,551	8,192	1,134	1,054	178
Current Net Debt/EBITDA	0.2x	0.4x	0.1x	0.4x	0.6x	2.6x	0.7x	1.8x
Target Net Debt/EBITDA	2.8x	2.8x	2.8x	2.8x	2.8x	2.8x	2.8x	2.8x
Potential Additional Debt (\$m)	10,989	13,004	9,766	8,366	18,334	264	2,237	172
Potential Shares Repurchased (m)	177	148	154	154	257	11	42	7
% of Float	50.4%	46.8%	64.9%	47.6%	34.4%	0	30.7%	15.2%
Share Repo Accretion	\$7.76	\$7.44	\$13.80	\$5.21	\$2.78	\$0.09	\$2.03	\$0.23
Add'l Interest Expense Dilution	(\$2.80)	(\$3.52)	(\$5.05)	(\$2.19)	(\$1.58)	NA	(\$1.05)	(\$0.17)
Net Accretion (Dilution) vs. 2013E EPS	\$4.97	\$3.92	\$8.75	\$3.03	\$1.21	NA	\$0.98	\$0.07
% Acc (Dil) vs. 2013E EPS	65%	46%	117%	53%	23%	NA	21%	5%

Source: Citi Research, FactSet
Note: Assumes 6.5% debt cost

We note that this phenomenon is not particularly new since the primes have been steadily buying down their share count and increasing debt levels over the past few years. Indeed, we first identified this potential last April around the time of the HII spin (see: [DoD Sets the Leverage Bar With NOC Spin - Potential Implications Help Diminish the Value Trap Argument](#)). And we refreshed our thesis in a deep-dive piece in May ([Leveraged Buybacks – Why You Should Care](#)).

Figure 17. Select Defense Capital Raises

Date	Ticker	Amt (\$m)	Cpn	Term	Weighted Coupon
10/20/10	RTN	600	4.88%	30Y	3.4%
		1,000	3.13%	10Y	
		400	1.63%	5Y	
11/8/10	NOC	300	5.05%	30Y	3.3%
		700	3.50%	10Y	
		500	1.85%	5Y	
7/12/11	GD	500	3.88%	10Y	2.5%
		500	2.25%	5Y	
		500	1.38%	4Y	
9/9/2011	LMT	600	4.85%	30Y	3.5%
		900	3.35%	10Y	
		500	2.13%	5Y	
11/21/11	COL	250	3.10%	10Y	3.1%
12/6/11	RTN	425	4.70%	30Y	2.8%
		575	1.40%	3Y	
		900	1.00%	5Y	
11/1/12	GD	1,000	2.25%	10Y	2.1%
		500	3.60%	30Y	

Source: Citi Research

Average accretion in is overstated to the extent that companies are unlikely to lever to the full 2.8x, but it's understated since our simulation assumes a 6.5% debt cost which is likely too high given where defense companies have recently raised debt (Figure 17). See Figure 18 for a sensitivity analysis of how average accretion varies with leverage and debt cost. We note that the leveraged buyback exercise is at least 20% accretive at 2.0x leverage for debt costing all the way up to 10% (2x leverage is in line with CACI's recently discussed targets, see [CACI Supports Our Leveraged Buyback Thesis](#)). And at 6% cost of debt and 1x leverage, the leveraged buyback is still 11% accretive. We note that since late 2010, defense companies have accessed the fixed income markets at an average coupon of 3%, implying greater opportunity for an accretive leveraged buyback (Figure 17).

Figure 18. Average Accretion Sensitivity

	Target Net Debt/EBITDA							
	1.0x	1.3x	1.5x	1.8x	2.0x	2.3x	2.5x	2.8x
Cost of Debt								
2%	16%	23%	30%	40%	50%	63%	78%	98%
3%	15%	21%	28%	37%	47%	59%	73%	91%
4%	14%	19%	26%	34%	43%	54%	68%	84%
5%	12%	18%	24%	31%	40%	50%	62%	77%
6%	11%	16%	22%	29%	36%	45%	57%	71%
7%	10%	15%	20%	26%	33%	41%	51%	64%
8%	9%	13%	18%	23%	29%	37%	46%	57%
9%	8%	12%	16%	20%	26%	32%	40%	50%
10%	7%	10%	13%	18%	22%	28%	35%	44%
11%	6%	8%	11%	15%	19%	24%	29%	37%
12%	5%	7%	9%	12%	15%	19%	24%	30%
13%	4%	5%	7%	9%	12%	15%	19%	23%
14%	3%	4%	5%	7%	8%	10%	13%	16%

Source: Citi Research
Note: Average includes GD, LMT, NOC, RTN

What's Priced In?

The market is pricing in too much bad news into defense shares, as current valuations reveal an expectation of perpetually negative free cash flows.

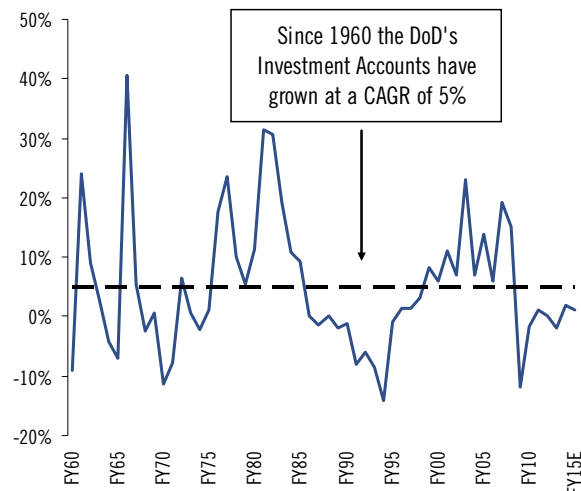
In our view, there's a disconnect between market fears and strategic realities: we think investors are pricing in negative growth (indefinitely) into defense stocks. To come to such a conclusion we compare the percentage of market cap tied to zero growth. We arrive at the zero growth market value by reversing the perpetual DCF calculation (divide 2011 UFCF by the WACC less a growth rate of zero). Our math shows that current market values imply perpetual declines in defense companies' FCF whether one uses 2011 as the base year, or averages 2008-10 (Figure 19). In our view, this is too pessimistic since DoD investment accounts grow over time; ~3-5% nominally over the long-term. This is driven by a persistent need to refresh and update military equipment (Figure 20).

Figure 19. Zero-Growth Scenario

	Zero-Growth Mkt Value (\$m)	Current Mkt Value (\$m)	Mkt Value Attributable to Zero Growth	Mkt-Implied Perpetual FCF Growth Rate
GD	\$27,848	\$21,961	126.8%	(2.4%)
LMT	\$45,603	\$28,511	159.9%	(3.8%)
NOC	\$24,561	\$15,608	157.4%	(4.9%)
RTN	\$27,668	\$17,971	154.0%	(4.1%)

Source: Citi Research, FactSet

Figure 20. Annual Investment Account Growth



Source: DoD

Defense Performance

The defense stocks in our coverage universe have outperformed the market by an average of 240 bps YTD, but underperformed by an average of 730 bps since the election. In our view, the market got a bit ahead of itself on two counts: (1) expectations of a potential Romney win given polling data heading into the election; and more importantly (2) the extent to which a Romney Presidency would materially benefit defense primes. In our view, both Presidents would have remained committed to pre-eminent US military power and we note that Romney's outsized DoD spending plans were unlikely to have actually ever gone through given fiscal and threat realities (we're low on funds and we're winding down the wars).

In our view, YTD outperformance has been driven by better-than-expected earnings performance and continued shareholder-friendly cash deployment. International growth has also driven in-line to better top-line performance especially at RTN and LMT.

Furthermore, companies with exposure to things that "fly and float" (HII, LMT, NOC, RTN) are outperforming those with exposure to ground-based systems (GD). We attribute this to the reality that DoD expects to address future threats with advanced air/sea based technology as opposed to another land war.

Figure 21. Defense Performance YTD

	YTD Performance	Relative YTD	Post-election Performance	Relative post-election	Main drivers
GD	(6.4%)	(1,404 bps)	(9.0%)	(918 bps)	Ground-based/IT defense jitters, w/ IS&T guidance eroding materially over the year Macro uncertainty impacts bizjets & disappointment around G650 cert timing
HII	28.5%	2,090 bps	(9.2%)	(938 bps)	Better sentiment around Naval shipbuilding plans Steady margin improvement @ Ingalls
LMT	8.3%	64 bps	(6.4%)	(653 bps)	Cash returns, especially dividend (now yields 4.9%) Strong margins & resilient top-line driven of late by international missile defense
NOC	8.1%	51 bps	(7.8%)	(795 bps)	Cash returns, including dividend & share repos Strong margins pacing ahead of L-T targets
RTN	11.6%	400 bps	(3.5%)	(365 bps)	Cash returns, including dividend & share repos Industry-leading margins continue to expand on risk retirement & performance
Avg.	10.0%	240 bps	(7.2%)	(734 bps)	

Source: Citi Research, FactSet
Note: Relative performance vs. S&P 500

Companies mentioned

Boeing Co. (BA.N; US\$71.04; 1)
 Rockwell Collins, Inc. (COL.N; US\$54.41; 2)
 DigitalGlobe (DGI.N; US\$23.85; 2)
 General Dynamics Corp. (GD.N; US\$62.14; 1)
 Huntington Ingalls Industries (HII.N; US\$40.20; 1)
 Lockheed Martin Corp. (LMT.N; US\$87.58; 1)
 Northrop Grumman Corp. (NOC.N; US\$63.23; 1)
 Raytheon Co. (RTN.N; US\$54.00; 1)
 Textron Inc. (TXT.N; US\$23.14; 2)

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.

IMPORTANT DISCLOSURES

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Boeing Co

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Rockwell Collins Inc

DigitalGlobe Inc. may be deemed to be controlled by or under common control with Morgan Stanley due to ownership, board or other relationship. Citigroup may be deemed to control Morgan Stanley Smith Barney LLC, and Morgan Stanley Smith Barney LLC is a joint venture between Morgan Stanley and Citigroup.

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of General Dynamics Corp

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Huntington Ingalls Industries Inc

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Lockheed Martin Corp

An employee of Citi serves on the board of Raytheon Co.

Citigroup Global Markets Inc. owns a position of 1 million USD or more in the debt securities of Textron Inc

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of Rockwell Collins, Inc., Raytheon Co..

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Boeing Co., Rockwell Collins, Inc., DigitalGlobe, General Dynamics Corp., Lockheed Martin Corp., Northrop Grumman Corp., Raytheon Co., Textron Inc..

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Boeing Co., DigitalGlobe.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Boeing Co., Rockwell Collins, Inc., DigitalGlobe, General Dynamics Corp., Lockheed Martin Corp., Northrop Grumman Corp., Raytheon Co., Textron Inc. in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Boeing Co., Rockwell Collins, Inc., DigitalGlobe, General Dynamics Corp., Lockheed Martin Corp., Northrop Grumman Corp., Raytheon Co., Textron Inc..

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Boeing Co., Rockwell Collins, Inc., DigitalGlobe, General Dynamics Corp., Lockheed Martin Corp., Northrop Grumman Corp., Raytheon Co., Textron Inc..

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Boeing Co., Rockwell Collins, Inc., DigitalGlobe, General Dynamics Corp., Lockheed Martin Corp., Northrop Grumman Corp., Raytheon Co., Textron Inc..

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Research Ratings Distribution

Data current as of 5 Oct 2012

Citi Research Global Fundamental Coverage

% of companies in each rating category that are investment banking clients

12 Month Rating			Relative Rating		
Buy	Hold	Sell	Buy	Hold	Sell
51%	38%	11%	7%	85%	7%
50%	47%	45%	59%	47%	50%

Guide to Citi Research Fundamental Research Investment Ratings:

Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

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

Investment Ratings: Citi Research investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return

("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of Citi Research management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation. **Relative three-month ratings:** Citi Research may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings**, which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of the Citi Research expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Inc

Jason Gursky; Jonathan Raviv

OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Boeing Co., Rockwell Collins, Inc., Lockheed Martin Corp., Northrop Grumman Corp., Raytheon Co., Textron Inc.. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citiVelocity.com.)

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a

predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Research research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to Citi Research research reports.

Important disclosure regarding the relationship between the companies that are the subject of this Citi Research research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures.

For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

This Citi Research research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of Citi Research. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in **Australia** through Citi Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in **France** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A., Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in

Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ("FAA") through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in **Spain** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E.**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs) and other product that is made available through other distribution channels only to certain categories of clients to satisfy legal or regulatory requirements, Citi Research concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual Citi Research analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. Citi Research simultaneously distributes product that is limited to QIBs only through email distribution.

The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints. Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Reuters and Datastream.

© 2012 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST
