



**Commentary**

Before we delve into Congress and the budget fiasco, as we approach the end of 2011, from an investment perspective, it is hard to deny that the aerospace and defense sector has held up remarkably well vs. the broader markets this year. Considering what the sector has gone through this year...

- A budget that has seen its near-term peak
- A beginning to our withdrawal of troops from the Middle East
- National debt issues with calls to eviscerate the defense budget and cuts amounting to \$100+ billion annually or nearly 20% of the existing defense budget (though unlikely to actually happen)

...and the sector has held its own; tracking the market throughout the year fairly closely. At one point the index was down 45%, so let's give credit to the executives at many of the companies operating in the sector for seeing what may (or may not) come, positioning their firms so that the bottom hasn't dropped out, and giving investors a story of how the bottom may already be in.

	SPADE Defense	S&P500
November	[0.72%]	[0.51%]
QTD	10.12%	10.21%
YTD	[3.49%]	[0.85%]

Although the index is down roughly 25% from its all-time peak, it has recently at current levels with a number of analysts and investors seeing value in the sector at these levels.

As pointed out in the November commentary (see pg 4), a rough analysis generating data for the 20 years prior to the availability of data for the SPADE Defense Index (from 1980) shows that after dividends were reinvested, the sector has seen only five years with negative returns in the past thirty years, with declines from the peak consistent with what we have already seen. Compared to 80-odd% declines for financial stocks in the aftermath of the 2008 market collapse or that by internet/tech stocks following the Nasdaq bubble earlier in the century, there is an understanding a natural floor to defense spending may exist -- below which the risk to the nation becomes too great and politics and fear then begin to govern the discussion. Combined with the current upcycle we are seeing in the related commercial aerospace sector and (so far) companies involved in the sector have held up comparatively well. Although funds have seen their assets decline over the past two years, many underlying stocks having dividends of 2% - 4% and some investors still find the sector attractive.

**End-Of-Year Strategies**

Which brings us to end-of-year tax planning. One of the strategies employed by money managers to get tax benefits for their clients is to sell the shares of an underperforming company such as Northrop Grumman (down 11.90% YTD) or General Dynamics (down 6.91% YTD); take the

**SPADE Defense Index Statistics**

11/30/11 Close: 2053.21  
 All-time Close: 2747.67  
 Date of all-time close: 9 October 2007

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writeoff and use the proceeds to purchase an ETF (such as PPA) to stay exposed to the sector. If good news happens and the market rises, you are still able to participate. If the sector drops, you'd likely have seen a drop in your stock as well but you benefit from the tax deduction. In 30 days, after the wash rule expires, you can switch back to holding the individual stock. As an example, at its peak this year Northrop traded at \$72.50 and Lockheed at \$82.43. Currently they trade for \$56.40 and \$77.42 respectively. If you bought at the peak you have a loss of \$16 and \$5 respectively. Selling and buying the ETF (NYSE: PPA) and you capture the loss while remaining exposed to the sector. *(As an added disclaimer, PPA tracks the SPADE Defense Index, which means we benefit from the increase of assets in the ETF).*

**Budget / Congress/ Sequestration**

"Fiscal castration" is what Brett Lambert, DoD industrial base policy chief calls sequestration.

Maybe I'm naive but I thought the Congressional Supercommittee would come back with something; I didn't think they'd come out with a full solution but I figured they'd come back with something so as to not look like complete fools. I was wrong.

President Obama then made a speech, a very good speech by-the-way, which removed any sort of edge the markets may react to. So this took us back to my conclusion from the previous commentary, the defense sector is in, deep breadth, wait and see mode.

This all puts DoD budget officials in a very precarious situation -- planning for a budget level without knowing what the level is. So here is where we are today:

1. The FY12 Budget has still not passed by Congress although they hope to do so by the end of the year.

Nov 2011 Top Gainers			Nov 2011 Laggards			YTD Top Gainers			YTD Laggards		
1	Force Protection	50.00%	1	GeoEye	[43.43%]	1	EMS Technologies*	66.23%	1	Kratos Defense	[62.03%]
2	TASER	21.13%	2	DigitalGlobe	[26.96%]	2	SRA International*	51.20%	2	GeoEye	[55.20%]
3	Gencorp	11.93%	3	Computer Sciences	[22.35%]	3	Goodrich*	38.54%	3	Digital Globe	[53.01%]
4	Viasat	11.11%	4	Kratos	[21.01%]	4	Transdigm	33.90%	4	Computer Sciences	[50.75%]
5	Moog	7.98%	5	ITT Exelis	[20.88%]	5	Triumph Group	33.07%	5	NCI Information	[47.37%]
6	OSI Systems	7.92%	6	LMI Aerospace	[17.45%]	6	OSI Systems	31.49%	6	Ducommun	[45.04%]
7	American Sci & Eng	7.63%	7	Ducommun	[16.12%]	7	Teledyne Tech	28.91%	7	Key W Holding	[44.58%]
8	Huntington Ingalls	7.63%	8	Booz Allen	[11.64%]	8	TASER	28.09%	8	Oshkosh Trucking	[41.77%]
9	Boeing	4.41%	9	NCI Information	[11.36%]	9	Integral Systems*	22.81%	9	AAR Corp	[33.53%]
10	Heico	4.07%	10	Ceradyne	[11.12%]	10	Precision Castparts	18.35%	10	ITT Exelis	[28.48%]

\* Acquired

Largest Defense Prime Contractors		
	November	YTD
Lockheed Martin	2.96%	11.79%
Boeing	4.41%	5.26%
General Dynamics	2.91%	[6.91%]
Northrop Grumman	[1.18%]	[11.90%]
Raytheon	3.12%	[1.66%]
L-3	[2.18%]	[5.94%]

ETF Statistics (NYSEarca: PPA) Powershares Aerospace & Defense	
Exchange / Ticker Symbol:	NYSE / PPA
Fee	60 basis
Assets (11/30/11)	\$61 M
Closing Price (11/30/11)	\$18.05
Yield (12-Month Yield)	1.52%
November 2011 Volume	660,300
Turnover	12%
source: Marketwatch	

Portfolio Price / Earnings	11.44
Portfolio Price / Book	1.93
Portfolio Price / Sales	0.73
Portfolio Price / Cash Flow	8.33
Earnings Growth Rate	4.24%
Beta (3 year)	1.06
Alpha (3 year)	[1.37]
R-squared (3 year)	82.76
Yahoo Finance - 10/31/11	

- The FY13 budget to be announced in February will not take into account any sequestration.
- FY13: Unofficially, behind-the-scenes, contingency and worst-case budget scenarios are being worked up while officials, such as DoD Secretary Panetta, sternly warn Congress about the risks of decimating the military. President Obama and members of Congress on both sides of the aisle seem to agree on this.(yes, there is something they agree on unfortunately it's not a solution, just that the solution is unacceptable).
- DoD officials have stated that budget officials should NOT impact the operating margins of private companies and if costs go down, they are happy to accept increased margins over what firms experience today.
- 2014+: OCO (overseas contingency operations) will be included in the base budget with \$50B set aside annually for future years

**Generating Savings via Personnel Costs**

We've talked in the past that significant cost savings to DoD could be made by fixing DoD's personnel issues. The 5 December 2011 commentary by MGen Arnold Punaro (ret) in *Defense News* provides some statistics and a plan:

- Taking care of people expenditures now consume 50% of the defense budget -- This is up 80% since 2001 while the size of the active military is up less than 5%.
- The retirement fund liability of \$1.3T today will be 2.7T in 2034

	2011 Enacted	2012 Request	2013
FY12 Base Budget President	528.95	553.02	570.72
Fiscal Guidance		525.35	523.89
Savings		27.67	46.82
Base Budget Adjustment		---	[0.47]
FY13 Base Budget	528.95	553.02	523.42
FY13 OCO Budget	159.06	117.58	82.53
Total	688.01	670.60	605.96

table credit: Heritage Foundation

and \$4T in 2046. Only 20% of those that have served, serve 20+ years and qualify!

- The \$108B for 2.3 million retirees includes \$50B in actual pay, \$20B into the accrual fund for future costs; \$22B in interest, and \$5B for concurrent receipts. An additional \$52B goes to military health programs.
- Grandfathering existing soldiers and changing the multiplier from 2.5 to 2.0; basing on the 5 highest years of pay vs. 3; and delaying payment of pensions benefits to age 60 would save \$350 billion over 20 years.

Between 2011 and 2014, the DoD budget will drop by \$100B annually (OCO) plus a possible \$15B-\$20B in retiree and health savings -- \$1 Trillion+ over the next decade. Congress may not come up with solutions, but it seems we can.

PPA (blue)  
50-day (red)  
200-day (green)



#### Looking at a one-year chart and there is:

1. Significant resistance around the \$16 level with PPA bouncing off several times (July/Sept 2010, Aug-Oct 2011)
2. The price level moved through the 200-day moving average and currently sits at the 50-day.
3. Current levels are around a 50% Fibonacci retracement (from peak to trough)
5. PPA has tracked the ups and downs of the S&P 500 (as correlations in most sectors are near 1)

### About the SPADE Defense Index

The SPADE Defense Index (NYSE-amex: DXS) provides an investment benchmark for the value that the market ascribes to companies involved with defense, homeland security, and space.

The Index is designed to reflect the broad diversity of activities that is representative of companies involved with the sector – including industrial firms that manufacture aircraft, tanks, ships, and missiles; and those involved with current and next generation systems related to network centric warfare and information technology; intelligence, surveillance, and reconnaissance; satellites; border security; and defense systems that protect the lives of our servicemen and servicewomen.

\* \* \*

SPADE Indexes publishes a variety of private and public sector and regional indexes. Public indexes listed on the NYSEamex include: the SPADE Defense Index (ticker: DXS), the SPADE Oklahoma Index (ticker: OKLAH); and the SPADE Texas Index (ticker: TEXAS).

### Licensed Products

#### Exchange Traded Fund - ETF

Licensed to Invesco Powershares, the Powershares Aerospace & Defense Portfolio ETF (NYSE: PPA) is designed to track the performance of the SPADE Defense Index.

#### Rules

The Index was designed to be RIC (registered investment company) compliant for the purpose of enabling financial products. Companies are required to meet a variety of eligibility criteria including market valuation, liquidity, and listing on a major U.S. exchange. Full details are available on our website.

\* Market Cap: Minimum \$100M

\* Share Price: Minimum \$5.00

\* Sufficient Liquidity

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#### Contact Information

SPADE Indexes  
1725 'I' Street, NW, Suite 300  
Washington, DC 20006  
Tel: (202) 349-3917  
info@spadeindex.com  
http://www.spadeindex.com  
Scott Sacknoff: Index Manager

**By the Numbers**

**\$59.4 Billion** - Amount in lost wages estimated by the Aerospace Industries Association if the sector loses an estimated 1 million jobs due to defense budget cuts from sequestration.

**\$21.7 Billion** - Amount of an order from Indonesia's Lion Air for 230 Boeing 737s. The final total could reach \$35 billion based on options for an additional 150 planes.

**\$18.56 Billion** - Amount of new orders received by Boeing from Emirates Airline during the Dubai Airshow.

**\$17.8 Billion** - Approved by a congressional committee for NASA, preserving its space telescope while cutting funding for space taxis. The amount is a cut of \$684 million. The House of Representatives needs to finalize the bill.

**\$7.4 Billion** - From DoD to Lockheed Martin for support of the US Air Force F-22 Raptor program.

**\$2.82 Billion** - To cover gaps from F-35 program delays, the U.S. Air Force will upgrade more than 300 F-16s at a cost of \$9.4 million per aircraft. The upgrades extend the life of the F-16s by 8 years to 10,000 hours. Upgrades to F-15s are also under consideration.

**\$360 Million** - Amount paid by General Dynamics in cash for Force Protection.

**\$289 Million** - NASA placed an additional order for an additional TDRSS satellite with Boeing. With the first-generation TDRS spacecraft retiring by 2015, NASA must continue to replenish the fleet.

**\$17 Million** - To Northrop Grumman for armed Fire Scout drones from the U.S. Navy. The MQ-8B Fire Scout will be the first unmanned aerial vehicle to carry weapons for the Navy.

**Rough Analysis**

*Using tickers of current big 5 prime contractors (including dividends)*

**SPADE Defense Index (DXS)**  
*Actual Performance (ex div)*

	SPADE Defense Index (NYSE: DXS)	S&P500 (ex-div)
2010	9.61%	12.78%
2009	21.71%	23.45%
2008	[38.03%]	[38.49%]
2007	<b>22.17%</b>	3.53%
2006	<b>19.33%</b>	13.62%
2005	<b>5.30%</b>	3.00%
2004	<b>20.47%</b>	8.99%
2003	<b>37.27%</b>	26.38%
2002	[2.87%]	[23.37%]
2001	<b>0.94%</b>	[13.04%]
2000	<b>4.98%</b>	[10.14%]
1999	15.31%	19.53%
1998	6.63%	26.67%

	Defense Stocks (Equal Weight)	Defense Stocks (Modified Weight)	S&P500
1997	14.84%	12.86%	33.36%
1996	22.21%	<b>23.36%</b>	22.96%
1995	<b>60.83%</b>	<b>63.13%</b>	37.58%
1994	<b>5.21%</b>	<b>6.09%</b>	1.32%
1993	<b>44.62%</b>	<b>42.33%</b>	10.08%
1992	<b>16.02%</b>	<b>13.71%</b>	7.62%
1991	12.60%	11.56%	30.47%
1990	<b>6.52%</b>	<b>6.73%</b>	[3.10%]
1989	5.23%	7.20%	31.69%
1988	9.03%	10.83%	16.61%
1987	[23.29%]	[24.19%]	5.25%
1986	8.89%	8.25%	18.67%
1985	14.51%	14.06%	31.73%
1984	<b>12.43%</b>	<b>13.99%</b>	6.27%
1983	12.55%	14.55%	22.56%
1982	<b>39.46%</b>	<b>41.15%</b>	21.55%
1981	[8.42%]	[7.96%]	[4.92%]
1980	[6.24%]	[6.71%]	32.50%

**Aerospace & Defense**

Years Positive Returns: 26

Years Negative Returns: 5

Years Double Digit Positive Returns: 16

Years Outperform S&P500: 15-16 of 31

Dec-11		52 SPADE Defense Index						Market	Forward	Price/	Price/	PEG	
Company	Ticker	Float %	Price	Price	% Ch	% Ch	Cap	P/E	Sales	Book	5 yr	Div Yld	
		30-Nov-11	31-Oct-11	30-Nov-11	YTD	MTD	intraday	(ttm)	ttm	mrq	expected	forward %	
Honeywell Intl	HON	6.75%	52.40	54.15	1.86%	3.34%	41.88	12.20	1.08	3.42	0.83	3.00%	
Boeing Co	BA	6.15%	65.79	68.69	5.26%	4.41%	51.05	13.85	0.74	8.13	1.13	2.60%	
United Technologies	UTX	5.89%	77.98	76.60	-2.69%	-1.77%	69.41	12.92	1.14	2.93	1.18	2.70%	
Lockheed Martin	LMT	5.06%	75.90	78.15	11.79%	2.96%	25.11	9.96	0.52	8.35	1.11	5.30%	
General Dynamics	GD	4.97%	64.19	66.06	-6.91%	2.91%	23.52	8.72	0.71	1.67	1.22	3.10%	
Raytheon Co	RTN	4.93%	44.19	45.57	-1.66%	3.12%	15.77	8.73	0.60	1.47	0.97	4.00%	
Precision Castparts	PCP	4.58%	163.15	164.75	18.35%	0.98%	23.76	16.00	3.41	2.96	1.25	0.10%	
Goodrich Corp	GR	4.42%	122.63	122.01	38.54%	-0.51%	15.28	17.71	1.98	4.04	1.31	0.90%	
Northrop Grumman	NOC	4.40%	57.75	57.07	-11.90%	-1.18%	14.91	8.34	0.43	1.22	0.99	3.70%	
Rockwell Collins	COL	4.02%	55.83	54.90	-5.72%	-1.67%	8.31	10.91	1.67	5.35	0.95	1.90%	
L-3 Communications Hldgs	LLL	3.85%	67.78	66.30	-5.94%	-2.18%	6.62	70.47	0.42	0.98	1.04	2.80%	
Ball Corp	BLL	3.62%	34.57	35.11	3.19%	1.56%	5.71	11.33	0.64	3.92	1.23	0.80%	
Textron	TXT	3.39%	19.42	19.43	-17.81%	0.05%	5.40	11.63	0.47	1.56	0.27	0.40%	
Transdigm	TDG	3.05%	93.92	96.42	33.90%	2.66%	4.85	15.02	3.86	5.75	0.82		
Flir Systems	FLIR	2.70%	26.30	26.86	-9.71%	2.13%	4.19	15.89	2.52	2.56	1.25	1.00%	
Harris Corp	HRS	2.70%	37.75	35.60	-21.41%	-5.70%	4.12	6.54	0.66	1.77	0.65	3.30%	
SAIC	SAI	2.59%	12.43	12.05	-24.02%	-3.06%	4.12	8.73	0.36	1.60	1.55		
Computer Sciences	CSC	2.39%	31.46	24.43	-50.75%	-22.35%	3.79	6.12	0.22	0.77	0.69	3.40%	
Triumph Group	TGI	1.84%	58.70	59.49	33.07%	1.35%	2.92	11.53	0.80	1.55	0.85	0.30%	
URS Corporation	URS	1.81%	35.70	36.14	-13.15%	1.23%	2.88	9.39	0.29	0.79	0.78		
Heico	HEI	1.56%	57.02	59.34	16.28%	4.07%	2.48	30.91	3.15	4.32	1.87	0.20%	
Teledyne Technologies	TDY	1.31%	54.47	56.68	28.91%	4.06%	2.1	14.42	1.04	1.91	1.79		
Viasat Inc	VSAT	1.26%	42.59	47.32	6.55%	11.11%	2.00	33.09	2.30	2.20	2.15		
Booz Allen & Hamilton	BAH	1.23%	15.81	13.97	-28.10%	-11.64%	1.84	8.08	0.31	1.69	0.44		
Alliant Techsystems	ATK	1.22%	58.08	58.84	-20.95%	1.31%	1.94	6.91	0.41	1.51	3.24	1.40%	
Moog Inc.	MOGA	1.20%	38.73	41.82	5.08%	7.98%	1.92	11.21	0.78	1.41	1.21		
Oshkosh Truck	OSK	1.18%	20.86	20.52	-41.77%	-1.63%	1.88	10.11	0.23	1.10	4.16		
Elbit Systems	ESLT	1.11%	45.63	41.53	-21.83%	-8.99%	1.78	8.46	0.61	1.79	0.86	3.60%	
Esterline Technologies	ESL	1.04%	55.90	53.87	-8.06%	-3.63%	1.65	9.42	0.94	0.97	0.72		
Huntington Ingalls	HII	0.98%	29.50	31.75	-11.11%	7.63%	1.55	10.73	0.23	1.31	0.56		
Caci Intl	CACI	0.94%	54.89	56.38	4.80%	2.71%	1.49	9.54	0.40	1.28	0.68		
ITT Exelis	XLS	0.80%	11.30	8.94	-28.48%	-20.88%	1.65	5.39	0.28	0.85		4.50%	
Mantech International'a'	MANT	0.78%	35.13	33.80	-18.22%	-3.79%	1.24	9.06	0.40	1.09	1.27	2.70%	
Cubic Corp	CUB	0.71%	47.12	42.43	-10.01%	-9.95%	1.13	13.38	0.84	1.96	0.77	0.40%	
Osi Systems	OSIS	0.59%	44.30	47.81	31.49%	7.92%	0.94	17.77	1.28	2.27	0.93		
Orbital Sciences Corp	ORB	0.55%	15.46	14.85	-13.31%	-3.95%	0.87	14.14	0.60	1.30	1.03		
Comtech	CMTL	0.50%	33.11	30.29	9.11%	-8.52%	0.71	22.27	1.13	1.14	0.68	3.70%	
Ceradyne Inc	CRDN	0.47%	33.46	29.74	-5.68%	-11.12%	0.72	10.36	1.26	0.99	1.01		
AAR Corp	AIR	0.47%	19.93	18.26	-33.53%	-8.38%	0.71	7.74	0.35	0.77	0.52	1.70%	
Digital Globe	DGI	0.43%	20.40	14.90	-53.01%	-26.96%	0.69	19.87	2.00	1.26	6.04		
American Science & Engineering	ASEI	0.43%	68.02	73.21	-14.10%	7.63%	0.65	23.32	2.45	2.34	1.77	2.90%	
AeroVironment	AVAV	0.41%	33.03	30.51	13.72%	-7.63%	0.66	20.76	2.04	2.43	1.09		
Mercury Computer Sys	MRCY	0.27%	14.60	13.79	-24.97%	-5.55%	0.42	12.54	1.71	1.21	0.92		
GeoEye	GEOY	0.27%	33.57	18.99	-55.20%	-43.43%	0.42	8.44	1.19	0.83	0.54		
Force Protection	FRPT	0.24%	3.68	5.52	0.18%	50.00%	0.36	14.15	0.61	1.20	6.85		
TASER International Inc.	TASR	0.23%	4.97	6.02	28.09%	21.13%	0.33	66.89	3.54	3.52			
Gencorp	GY	0.20%	4.86	5.44	5.22%	11.93%	0.32	20.15	0.33				
KEY W Holding	KEYW	0.13%	8.40	8.13	-44.58%	-3.21%	0.21	62.54	1.08	1.00	27.80		
LMI Aerospace	LMIA	0.12%	20.11	16.60	3.81%	-17.45%	0.19	8.51	0.74	1.1	0.74		
Kratos Defense & Security	KTOS	0.11%	6.33	5.00	-62.03%	-21.01%	0.17	14.29	0.28	0.52			
NCI Information Technology	NCIT	0.10%	13.65	12.10	-47.37%	-11.36%	0.17	12.35	0.25	0.95	1.50		
Ducommun	DCO	0.08%	14.27	11.97	-45.04%	-16.12%	0.13	5.65	0.25	0.47	1.15	2.70%	

Data Provided by Yahoo Finance & Capital IQ, and Forward P/E by Thompson