

Current Themes 2007



Investing in the Defense, Homeland Security, and Space Market

Keynote Presentation by: Scott Sacknoff

Security & Defense Forum
10 October 2007

SP[♠]DE[®] Defense Index

Index: **'DXS'**
Exchange Traded Fund*: **'PPA'**

** ETF offered by Powershares*

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Before we get started...

...Why we're here today

- **\$5 Trillion** – Amount Spent by the U.S. on defense from FY05 – FY13
- **4 to 5% of U.S. GDP** – Estimated amount spent on defense
- **\$1.1 Trillion** – Amount Spent Globally on Defense Activities **
- **\$546 Billion** – U.S. Defense Discretionary Budget Authority - 2013 *

- **\$300+ Billion** – Supplemental Budget for 2007 & 2008 for Military Activities in Iraq & Afghanistan* (\$42B more added in Oct07)
- **\$40+ Billion** – Budget for ‘Classified Military and Intelligence Items’ ***
- **\$114 Billion** – Growth in Core U.S. Discretionary Budget Authority for the Dep’t of Defense Between FY-07 and FY-13 * (\$65 billion FY08 – FY09)

* FY-08 DoD Budget ** CIA 2006 estimate *** ISBC Research

Before we get started...

...Who We Are

The **SPADE Defense Index** was developed by sector executives familiar with index management in cooperation with leading Wall Street firms in order to benchmark the investment performance of companies operating in defense, homeland security, and space. It is the **only** index to focus on all aspects of the defense sector – from the manufacture of aircraft, naval vessels, tanks, and missiles, to current and future modernization efforts related to IT and network centric warfare, armor and armored vehicles, secure communications, UAVs, satellites, border security, and battlespace awareness.

- Ticker AMEX: DXS
- Weighting Modified Market Capitalization
- Constituents/Rules price 55 (October 2007) / \$100M+ Market Cap, 50K/day trading vol., \$5+ share price
- Historical Data Availability Dec 30, 1997 to present, Index went live on July 6, 2004
- Index Manager ISBC – Consulting group with expertise in defense, space, security, investing
- Calculation & Distribution American Stock Exchange
- Investable Products: Powershares Aerospace & Defense ETF (AMEX: PPA)
- ETF IPO Date: 26 October 2005
- ETF Liquidity / Assets As of October 2007: <100,000 shares/day, \$400 Million AUM

Presentation Overview...

- **A Quick History Lesson**
- **Reality vs. Perception**
- **Rally Hits Year Eight**
- **Expectations for 2007**
- **Market Drivers**
- **So Far in 2007**

A Quick History Lesson ...

Like many other industries, the defense industry goes through cycles.

However... In addition to the investment / replacement cycle associated with capital goods, the rise and fall of the defense sector also must respond to outside factors:

- Aggressors
- New Technologies

During the 20th century, there has been a major U.S. military action within every 20-year period.

U.S. Military Actions

- 1914 - 1918 WWI
- 1939 - 1945 WWII
- 1950 – 1953 Korean War
- 1945 - 1985/1991 Cold War
- 1959 – 1975 Vietnam War
- 1991 Gulf War
- 2001+ Global War on Terror

A Quick History Lesson ...

Recent History:

1985-1991 – Soviet Union Falls

1986 to 1997 – Defense budgets decline as % GDP as U.S. begins to capture ‘peace dividend’ reducing size and scope of military .

1998 - 2001 – Defense budget flat in terms of % GDP but begins to rise in terms of actual \$.

U.S. begins to retool and re-invest in military systems using technology gains in broader market to envision new military capabilities

9-11 Changed Everything ...

September 11, 2001

The popular perception in the West that removing the threat posed by the Soviet Union made the world a safer place disappears.

Terrorism was no longer something that happens ‘elsewhere’.

Shift in perception from blasé to ‘the best defense is a good offense’

Defense and Homeland Security Funding Begin a Dramatic Rise

The Markets React

With Government Spending Increasing Sums on Defense and Homeland Security

Investors See An Opportunity

- The Shares of the 'Big 5' Begin to Rise (LMT, GD, NOC, RTN, BA) as investors seek out the big name prime contractors
- With only *one* internal-client mutual fund available to the public at the time – Wall Street interest in the sector leads to the launch of the SPADE Defense Index and an ETF tracking the index from Powershares.

- Investors and the media begin to highlight:
 - Mid- and small-tier defense companies, suppliers, etc.
 - Firms involved with defense transformation, armor and armored equipment, IT
 - 'Homeland Security' becomes a buzz word

The Markets React

Investors discover the benefits of investing in companies involved with defense, homeland security, and space

The Portfolio Managers' View

➤ Growth - Solid Returns that have now outperformed the S&P500 for 8 consecutive years.

➤ A Hedge Against Portfolio Risk - Associated with world events such as war/terrorist action.

➤ A Hedge Against Economic Downturns - Sales & earnings of defense companies are not directly tied to changes in the economy. Escalation clauses in many contracts allow price increases due to inflation.

➤ Diversification - Most investment portfolios have historically provided limited sector exposure

➤ A Stable and Long-Term Customer and Business Base

Notably a key client whose mission is fundamentally more important than the cost to implement

➤ Dividends – Offered by many defense companies

➤ Significant Barriers to Entry– Security, contracting, relationships, etc.

The Rally Hits Year Eight

Performance Chart 1Jan98 – 10Oct07



Defense Company Performance

Increased Revenues

Record Earnings

Margins Rise

**Total Cash on Hand
in the Billions**

**Many defense companies
are the healthiest they
have ever been**

The Rally Hits Year Eight

SPADE Defense Index has outperformed the S&P 500 each year since 2000

Performance Chart 11Sept01 – 10Oct07



Period	SPADE (DXS)	S&P 500
1998	6.63%	26.67%
1999	15.31%	19.53%
2000	4.98%	[10.14%]
2001	0.94%	[13.04%]
2002	[2.87%]	[23.37%]
2003	37.27%	26.38%
2004	20.47%	8.99%
2005	5.30%	3.00%
2006	19.33%	13.62%
2007	27.54%	7.65%

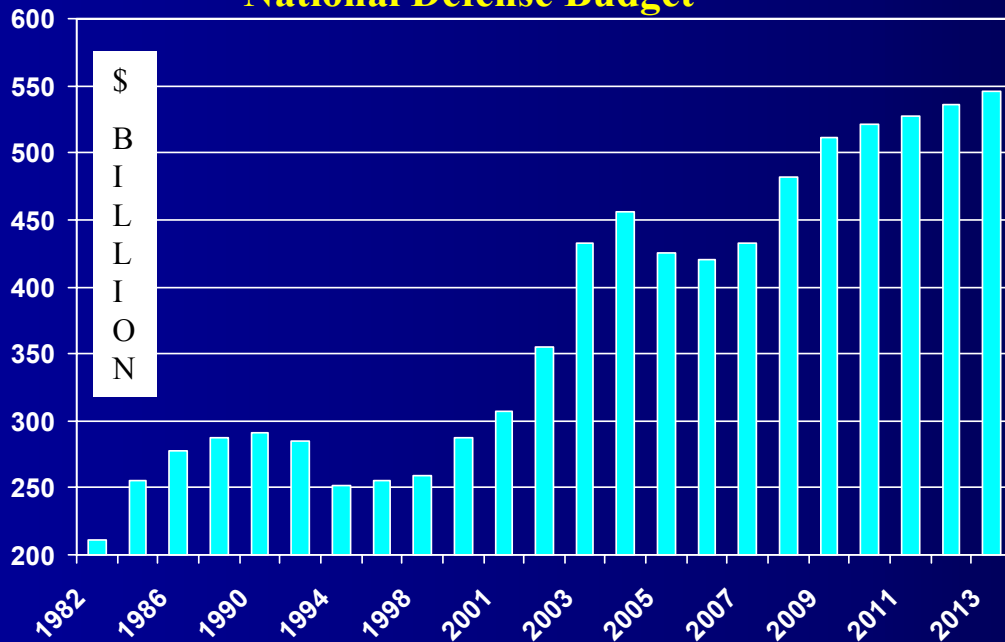
How Defense Companies Grow

1. Rising Core Budgets for the Department of Defense
2. Supplemental Budgets to fund the Global War on Terror
3. Outsourcing – Increased Hiring of Private Companies to Do Tasks Previously Performed by Military Personnel
4. Increasing International Sales as Foreign Militaries Ramp-up Their Capabilities
5. Acquisitions – A steady supply of emerging small companies
6. An Investment Cycle Associated with the Military Transformation from One Designed to Defend/Fight the Soviet Union to One Leaner and More Mobile That Puts People and Equipment Further Out of Harms' way
7. 'Internal' Diversification – Defense companies maintain a range of skills and technologies that in some cases are of use to other customers – diversifying to some degree their revenue stream.

Driver #1 The Department of Defense Budget

The 2002 core DoD budget was slightly more than \$300B. In 2007 it is more than \$432 Billion. In 2013, DoD forecast's it to be \$546 Billion

National Defense Budget



Reagan Bush Clinton Bush (incl. FY08 budget)

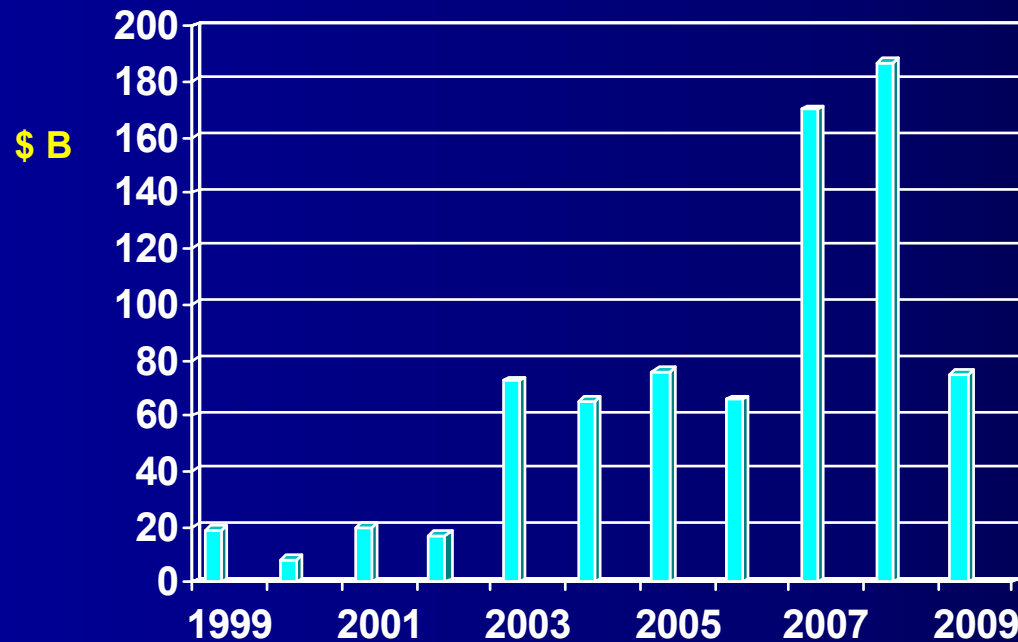
DoD Discretionary Budget Authority (FY-08)

Period	Total (\$B)
FY07	432.4
FY08	481.4
FY09	511.0
FY10	521.3
FY11	527.3
FY12	536.0
FY13	546.0

Driver #2

The Supplemental Budgets

In order to fund the Global War on Terror (GWOT) including the war in Iraq and Afghanistan, Congress has routinely authorized supplemental spending bills.



Supplemental spending is not new. Between 1999 and 2002, Congress approved \$64.8 billion.¹

Beginning in 2003 (and including that currently before Congress), it will have authorized nearly \$600 Billion in additional funds to be spent through 2009.²

¹ OMB/Defense News (Dec 06)

² FY08 Budget

Driver #3

Outsourcing

The Department of Defense increasingly is relying on the private sector to achieve its mission. ⁴ As an example, the Army has seen its expenses for service contracts go from a quarter (in FY00) to more than a third (FY04).

Trends

- *Reduction in size of military*
- *Retirement of skilled military personnel*
- *Increasing complexity of technology and/or those requiring special skills*
- *Easier to hire than to organize*

Driver #4

International Sales

- *The United States spends roughly **half** of the total spent worldwide on defense²*
- *The 50 largest nations combined spend \$1.06 Trillion annually ²*
- *56 Nations spend more than \$1 billion – 12 spend more than \$10 billion annually ²*
- *In terms of GDP, the U.S. ranks 30th ²*
- *China's spending on defense has risen to \$81 billion – more than any nation other than the U.S. ¹*
- *Foreign military sales from Sept05–Sept06 **doubled** from 10.6B to \$21B ³*

¹ CIA Factbook, 2006

² Figures from the Stockholm International Peace Research Institute

³ New York Times 10Nov06

⁴ Defense Today 9Nov04

Driver #5

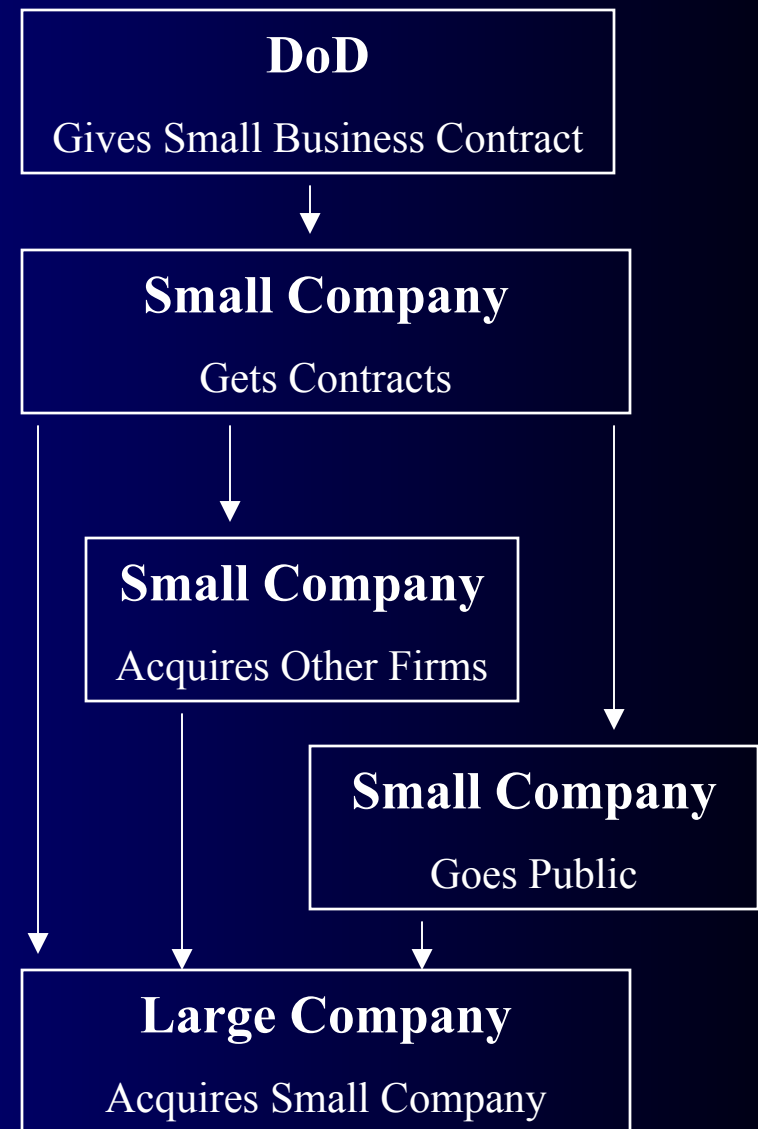
Acquisitions

On average, the defense sector sees several hundred deals annually

- *mostly small, <\$100 million*
- *mostly private*

The acquisitions provide...

- *exposure to long-term contracts*
- *key personnel (& clearances)*
- *access to classified programs and personnel*
- *technology & capabilities*



Driver #6

Technology

DoD's mission is to maintain capabilities that allow our military to have an advantage over an enemy or possible enemy. **The RDT&E budget is +/- \$70 billion annually – making it the largest investor in advanced technology in the world.**

Many new systems are developed over 10-15-20 year timeframes.

Current areas of interest include:

- IT/Network Centric Warfare and Battlefield Visualization
- Armor and Protection against IED/mines
- UAVs / GPS and other technologies that put the soldier and equipment further out of harm's way

- **1916 – 1918 WWI**
 - Aircraft, the tank, machine guns
- **1939 - 1945 WWII**
 - Introduction of the jet, missiles
- **1946-1960+**
 - Nuclear weapons age
- **1957- today**
 - Satellite systems
- **1980s**
 - Stealth technology
- **2000s**
 - Network-centric warfare

Driver #7

Diversification

DoD has increasingly developed programs focused on connecting diverse groups within the military, providing them with access to information and intelligence and enabling them to better fulfill their mission.

In response, many defense companies have, in the past few years, acquired firms specializing in various aspects of information technology.

In addition to serving DoD, these firms have applied these skills to winning numerous contracts from non-military federal, state, local, and private organizations

Defense companies are less reliant on the DoD budget now than they have been in the past

Example:

Lockheed Martin, Northrop Grumman, and General Dynamics maintain some of the largest information technology organizations in the world.

From Related Business Lines:

- *Boeing:* Manufactures aircraft for commercial customers
- *Armor Holdings:* Manufactures products for law enforcement and private customers
- *Northrop Grumman:* Builds science and exploration satellites for NASA

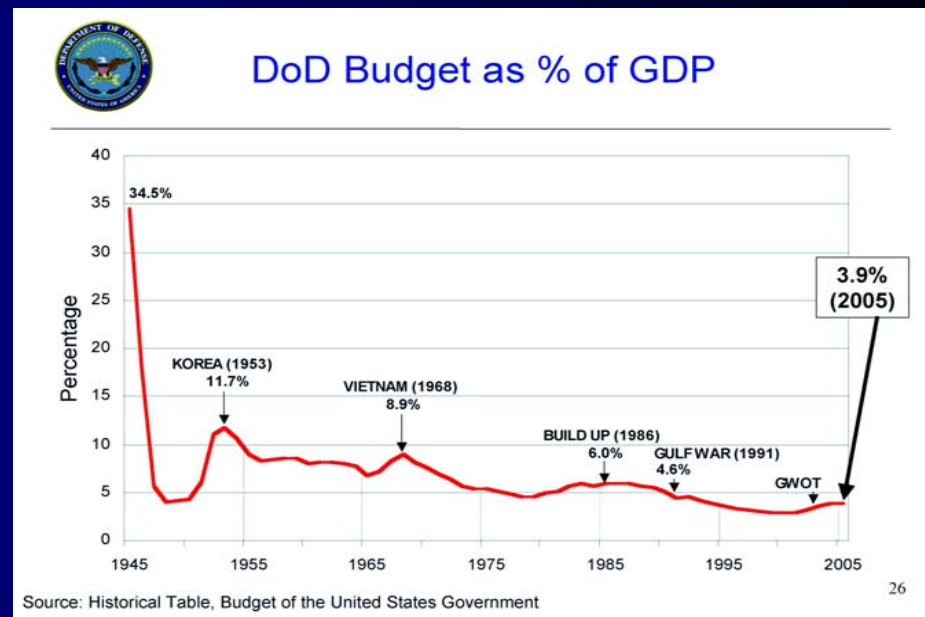
Misperceptions vs. Reality

The Belief

We're spending more today than ever on defense and security

The Reality

In WWII, the U.S. spent 34.5% of GDP on the war effort. We now spend 4-5%



Misperceptions vs. Reality

The Belief

A pull-out of Iraq will lead to a long-term decline in spending on defense and a 'peace dividend'

(We've heard this for several years now)

The Reality

News of the pull-out will likely lead to a short-term decline, *however...*

- Our exit from Iraq does not leave the world a safer place
- Our military has significant needs to replace, upgrade, and modernize
- Short-term reactions by investors do not always match the long-term prospects and health of a sector
- There are a number of factors, including \$65 billion in budgeted growth, increasing international sales, outsourcing, etc. that can offset a decline.

Misperceptions vs. Reality

The Belief

When Congress no longer approves supplemental spending, the run in defense is over

(We've heard this for several years now)

The Reality

Again, not necessarily...

- A large percentage of the \$\$\$ in the supplemental budgets went to operations and personnel costs
- As the previous slide indicated, outsourcing, core DoD budget growth, a healthy commercial aerospace sector, rebuilding and modernizing our military capabilities, and growth in international defense sales are all positive trends
- The FY-08 budget is similar in size as the total budget authority for FY-05 (incl. supplementals)
- Most importantly...the world has not changed

Misperceptions vs. Reality

The Belief

**Democrats Taking
Congress is Bad
for Defense**

The Probability

1. The Democrats focus is on the 2008 Presidential Election. As such, they will move to the middle. It is unlikely that they will cede defense/security as a topic to the Republicans
2. The Democrat's Security Plan calls for 'rebuilding a state-of-the-art military by adding equipment and manpower'
3. The withdrawal from Iraq will not be a quick exercise

Misperceptions vs. Reality

The Belief

The U.S. spends more on defense than anyone else

The Reality

1. True, in terms of total \$. But in terms of actual dollars as a percent of GDP, the gap is much closer.
2. Put in terms of a per capita percentage, there are a number of smaller countries, especially in the Mideast, that expend more than the U.S.

Misperceptions vs. Reality

Are Homeland Security & Defense the Same?

Similarities

- Similar contractors – The top 21 H.S. contractors in 2006 included ‘defense firms’ – L-3, SAIC, URS, Northrop Grumman, Lockheed Martin, and General Dynamics.
- Similar budget / contracting process
- Similar end-goal: protect and defend the nation
- Budget growing ~\$2 billion a year to near \$40 B, roughly triple since ‘01.
- Focus is on a broad range of missions
- Heavy reliance on IT, sensors, communications

Differences

- Congressional and public support defines homeland security as a general positive while those favoring ‘defense’ are mixed
- Specific mission focus. ‘Homeland Security’ distinct activities include the Coast Guard, FEMA, Airport Security, and Passport Control
- Key goals for HS are to:
 - Control U.S. border
 - Defense against WMD
 - Secure critical infrastructure
 - Encourage national culture of preparedness

What Were Our Expectations for 2007

Feb 07 Beliefs

Much of the Same

*(2006 trends have
not changed)*

A Look at 2006

- SPADE Defense Index – Up 19.33% in 2006
- Large Caps Dominate
 - 10 of 12 largest firms in the Index up 20%+, 16 Index firms up 30%+
 - Post solid/record earnings
 - Billions in cash available to buy back stocks, acquire specialty firms
- Mid- & Small-cap Defense IT and homeland security firms lagged as DoD shifted \$ to war efforts and schedules to out-years
 - *Contrarians wait for turnaround*

So Far in 2007

YTD - the Index has outperformed the S&P 500 by nearly 20% (1 Oct 07)

The Index continues to set historic highs with frequency

A Look at 2007

- SPADE Defense Index – YTD Up 27.54% vs. a gain of 7.65% for the S&P 500 (1Oct07)
- Powershares Aerospace & Defense ETF seen assets under management more than quadruple in 2007 to more than \$400 million YTD.
- February market sell-off due to events in China / Japan / US real estate saw the defense sector decline 6.3% (from 20Feb07 to 5Mar07) – in the following month, the Index recaptured 4.6%. Since then the Index has soared with a brief drop in sympathy with the late summer market drop due to loan/banking/real estate issues.

Conclusions

Many money managers believe that defense sector investments should be a core part of a portfolio

1. The reasons behind the defense sector's growth (namely a response to a volatile world) will be with us for some time.
2. The amount the U.S. spends to protect its interests (~ 4-5% GDP) and offer economic and emotional stability to its citizens is reasonable
3. Investor interest in defense sector companies and equity funds is growing

A Final Note...

“How To Profit from a Stronger America” LOUIS RUKEYSER's Wall Street Week (1Mar04)

How Long Will the Military-Spending Boom Last?

A good long while, it appears. Even after the current war on terrorism cools down (which itself could take years or decades), there are plenty of other conflicts to keep the weapons-makers busy. Right now, there are more than 30 insurgencies, uprisings, struggles, guerrilla movements and full-fledged wars being waged worldwide.

Sadly, the business of war is a growth business and has been so for a while. The Clinton administration sold more weapons overseas than any other administration in history. And with the Bush administration intervening in Iraq, our expansionist-foreign-policy trend looks to be securely in place. Which means the money spigot flowing from the Pentagon to defense contractors won't be turned off anytime soon. After all, if you're going to be the world's policeman, you'd better have a powerful pistol.

One last thought: ***While it would be wonderful if the demand for weapons dried up tomorrow, thousands of years of human history argue against it.*** And *Louis Rukeyser's Wall Street* is engaged in the realpolitik of investing, not wishful thinking. No one ever improved the world—or their financial lot in it—by ignoring the way the world really works....

For More Information ...

Visit www.spadeindex.com to learn about:

- Index Rules / Methodology
- Index Constituents and Details
- Links to historical data and performance

To receive our free newsletter, *The SPADE Investor*,
send an email to: info@spadeindex.com



Index: DXS

Licensed ETF: PPA

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