Health of the Industry:
A Wall Street and K Street Perspective

National Defense Industrial Association
2007 Munitions Executive Summit
“Sustaining Industrial Readiness”
Washington, DC

February 7, 2007

Pierre A. Chao
Senior Fellow and Director Defense-Industrial Initiatives
202-775-3128 / pchao@csis.org
“The Issues of Our Time”:
Defense Budgets and Future Growth
FY07 Request Sustained Growth Contrary to Predictions of Slowdown, FY08 Decelerating…

FY08 Budget Request and FY07, FY06 Authorizations ($ Billions)

<table>
<thead>
<tr>
<th></th>
<th>FY2008</th>
<th>FY2007</th>
<th>FY2006</th>
<th>FY08-07 % Change</th>
<th>FY07-06 % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement</td>
<td>102</td>
<td>82</td>
<td>77</td>
<td>24.4%</td>
<td>6.5%</td>
</tr>
<tr>
<td>RDT&amp;E</td>
<td>75</td>
<td>75</td>
<td>71</td>
<td>0%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Total Investment</td>
<td>177</td>
<td>157</td>
<td>148</td>
<td>12.7%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Other</td>
<td>294</td>
<td>115</td>
<td>253</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top Line</td>
<td>471</td>
<td>372</td>
<td>401</td>
<td>26.6%</td>
<td>-7.2%</td>
</tr>
</tbody>
</table>

(With Supplmnts)

<table>
<thead>
<tr>
<th></th>
<th>FY2008</th>
<th>FY2007</th>
<th>FY2006</th>
<th>FY08-07 % Change</th>
<th>FY07-06 % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement</td>
<td>134</td>
<td>126</td>
<td>105</td>
<td>6.3%</td>
<td>20.0%</td>
</tr>
<tr>
<td>RDT&amp;E</td>
<td>77</td>
<td>77</td>
<td>73</td>
<td>0%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Total Investment</td>
<td>211</td>
<td>203</td>
<td>178</td>
<td>3.9%</td>
<td>14.0%</td>
</tr>
<tr>
<td>Other</td>
<td>403</td>
<td>390</td>
<td>356</td>
<td>3.3%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Top Line</td>
<td>614</td>
<td>593</td>
<td>534</td>
<td>3.5%</td>
<td>11.0%</td>
</tr>
</tbody>
</table>

Source: DoD Comptroller
Wall Street Has Certainly Altered Expectations…

QDR/Budget Worries

Relief Rally

Bernanke’s Bust

Relief Rally
Wall Street Continues To Value the Sector As Having Growth...

## Market Value to EBITDA

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Year End 2006</th>
<th>Year End 2004</th>
<th>Cycle Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alliant Tech</strong></td>
<td>8.7x</td>
<td>8.6x</td>
<td>10.7x</td>
<td></td>
</tr>
<tr>
<td><strong>General Dynamics</strong></td>
<td>9.6x</td>
<td>9.1x</td>
<td>8.7x</td>
<td></td>
</tr>
<tr>
<td><strong>Defense Average</strong></td>
<td>9.0x</td>
<td>8.7x</td>
<td>9.3x</td>
<td>4 - 10x</td>
</tr>
</tbody>
</table>

Sources: JPMorgan, Credit Suisse
### Approaching One of Longest Upramps in Defense Spending in U.S. History…

**Defense Outlays**

<table>
<thead>
<tr>
<th>Years</th>
<th>Length</th>
<th>Years</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1797-1800</td>
<td>4 years</td>
<td>1902-1904</td>
<td>3 years</td>
</tr>
<tr>
<td>1804-1814</td>
<td>10 years</td>
<td>1907-1919</td>
<td>12 years</td>
</tr>
<tr>
<td><strong>1822-1837</strong></td>
<td><strong>16 years</strong></td>
<td>1926-1931</td>
<td>6 years</td>
</tr>
<tr>
<td>1843-1847</td>
<td>5 years</td>
<td>1934-1945</td>
<td>12 years</td>
</tr>
<tr>
<td>1852-1858</td>
<td>7 years</td>
<td>1948-1953</td>
<td>6 years</td>
</tr>
<tr>
<td>1860-1865</td>
<td>6 years</td>
<td>1956-1969</td>
<td>13 years</td>
</tr>
<tr>
<td>1871-1874</td>
<td>4 years</td>
<td><strong>1976-1989</strong></td>
<td><strong>14 years</strong></td>
</tr>
<tr>
<td>1880-1883</td>
<td>4 years</td>
<td><strong>1996-2009??</strong></td>
<td>14 and counting</td>
</tr>
<tr>
<td><strong>1886-1899</strong></td>
<td><strong>14 years</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Statistical Abstract of the United States and Budget of the United States Government Historical Tables
The Long Term Budget Pressures Continue…
(O&M Death Spiral, Personnel Costs, Deficits)

Percentages of DoD Total Outlays 1962-2012E

Recapitalization Cycles
This An O&M Cycle

R&D vs Procurement “Mix Issue”

Sources: DoD 2006 Greenbook, CSIS analysis
Strategy Take Aways…

• **Two major thrusts**
  – The Long War against terrorist extremists
  – Dissuade near peer competitors – possess unquestioned military superiority so that armed conflict is unthinkable

• **Service moves**
  – Marines – lighter, fill in SOF roles
  – Army – more expeditionary, lighter, more trigger pullers
  – Navy – swap capital for labor, focus on the Pacific
  – Air Force – the near peer insurance policy

• **Will have to be accomplished in resource constrained environment**
Market Implications…

“Bar-bell” Shaped Markets

“Slice” #1
The Long War: rapid acquisition,
Off the shelf/short development,
quick response is key, COCOM centric

“Slice” #2
Dissuade: very long cycle,
Technology development, platform
oriented but limited production, service
centric

“Slice” #1
Reset/Retrofit: Install “black boxes”
in existing equipment to plug into
network, maintenance/repair

Transformation: Desire for large,
horizontally integrating networks,
leverage the IT revolution

Strategic Question #1: How Do You Organize to Address
Is it one or two industrial bases? Can they be the same suppliers?
Market Implications (Services)…

• Once Iraq/Afghan surge moderates, what will replace growth?
  – Aging of federal workforce
  – Increased outsourcing
  – Increased complexity of tasks

• What area of services

• What new models
  – Public-private partnerships
  – PFI

Strategic Question #2: How Much Services and What?
Strategic Questions…

• #3 What strategy do you adopt for a slowing market

From a policy standpoint what markers/guideposts does government want to leave for industry as it decides?

- Consolidation constrained
- Investors afraid of commercial diversification “unblemished by success”
  - Have a successful model with TRW tech spin outs
- “Sticking to the plan” requires discipline
“The Issues of Our Time”: Industry Financial Performance and Strategies
Why Care About Wall Street?

In the last 20 years, financial markets have provided 40-80% of the capital needed to operate...

Defense Industry Cash Inflows (Percent), 1980-2005

Operating Cash Flows = From the Customer

Sources: FactSet, S&P Compustat, Annual Reports, CSIS Analysis
Overall Defense Industry Margins Near Highs.

CSIS Defense Index Average Operating Margin (weighted by revenue), 1980-2005

Note: CSIS Defense Index comprises 36 publicly-traded companies with majority revenues derived from US defense business. Boeing Military results have also been included here.

Sources: FactSet, Company Reports, CSIS Analysis.
From A Return Standpoint, Second Tier Does Better…

Operating Margin by Company Type (weighted by revenue), 1980-2005

Sources: FactSet, S&P Compustat, Company Reports, CSIS Analysis.

Note: CSIS Defense Index comprises 36 publicly-traded companies with majority revenues derived from US defense business. Boeing Military results have also been included here.
However, Compared to Its Peers the Defense Industry Has the Lowest Returns…

Industry Average Operating Margin, 1980-2005 (weighted by revenue)

Notes: 1) CSIS Defense Index comprises 36 publicly-traded companies with majority revenues derived from US defense business. Boeing Military results have also been included here.  
(2) S&P Sub-sector constituents accurate back to 1994; composition held constant for years 1980 to 1993.
Policy Realities Leave Industry With Few Levers to Pull...

If margins cannot be increased, then lower volatility – multi-years, O&M, political

Industry Revenue Volatility versus Average Operating Margin, 1980-2005 (weighted by revenue)

Target Margins Given the Risk

Massive Risk-Reward Disconnect in the Defense Market

Financial Response to the Policy and Market Realities...

Defense Industry Cash Outflows (Percent)

Sources: FactSet, S&P Compustat, Energy Information Administration, Congressional Reports, CSIS Analysis
With This Strategy Industry “Returned To the Line” and Retained the Interest of Investors ...
It’s That Time of the Cycle Again…

- At this point in every defense cycle, attention is turned to defense industry profitability, program performance, contracting scandals
  - “Look at how much they are making” – conflating of revenues and profitability
  - Award fees
  - “Let’s bring back fixed price development”

- “Caesar’s Wife” is a competitive and strategic advantage for industry and program managers
- Program execution is key!, key!, key! for industry and PMs
Strategic Questions…

• #4 If everyone is adopting the same strategy, how do you differentiate?

• #5 What does industry do with the cash? What incentives does government want to establish to shape decisionmaking?
“The Issues of Our Time”: Changing Relationship With the Customer
Changing Nature of the Relationship...

- Customer unsure about what it wants (very fluid environment)
- Future of LSI model
- Vertical Integration and organizational conflict of interest
  - General Dynamics/Anteon transaction
- Rise of new, more distributed customers
  - Regional CoComs – increased input into acquisition
  - Global CoComs – some with pots of money
Strategic Questions…

• #6  How to organize to address a new customer set and increased complexity
  
  – Large, horizontally integration projects (GIG, etc.) demand wide-spanning structures
  – Ambiguous, fluid, chaotic environment with distributed customers demand strong vertical structures
  – Shaping environment critical
Questions/Discussion
About CSIS

For four decades, the Center for Strategic and International Studies (CSIS) has been dedicated to providing world leaders with strategic insights on—and policy solutions to—current and emerging global issues.

CSIS is led by John J. Hamre, formerly deputy secretary of defense, who has been president and CEO since April 2000. It is guided by a board of trustees chaired by former senator Sam Nunn and consisting of prominent individuals from both the public and private sectors.

The CSIS staff of 190 researchers and support staff focus primarily on three subject areas. First, CSIS addresses the full spectrum of new challenges to national and international security. The Defense Industrial Initiatives Group (DIIG) is part of the CSIS International Security Program and focused on issues related to the global defense-industrial enterprise. Second, we maintain resident experts on all of the world's major geographical regions. Third, we are committed to helping to develop new methods of governance for the global age; to this end, CSIS has programs on technology and public policy, international trade and finance, and energy.

CSIS is private, nonpartisan, and tax-exempt. CSIS receives funding from public and private entities. CSIS does not take policy positions, the views in this presentation are those of the author.