

15 September 2010

*Private and Confidential*

# Global A&D in Current Economic and Geopolitical Situation

Prepared for:



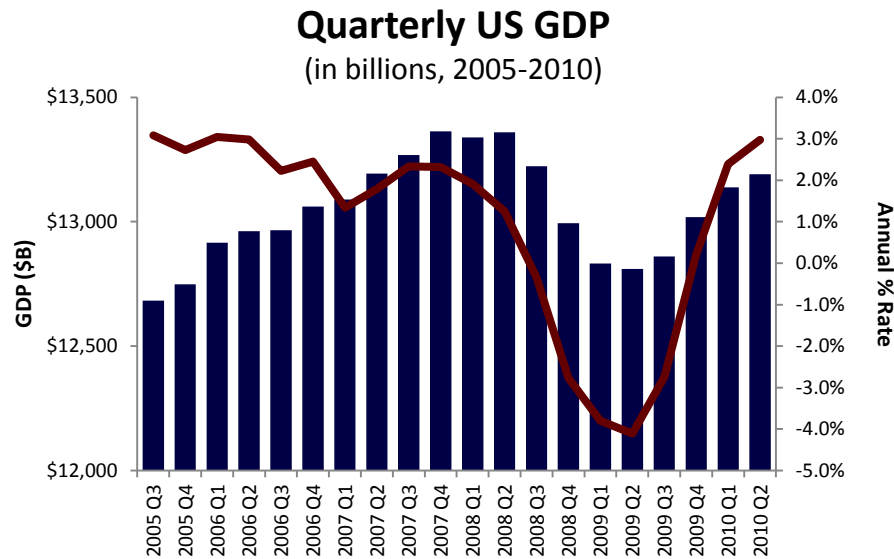
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- 1. How has the global recession affected the aerospace and defense market?**
- 2. Where are global budgets headed?**
- 3. What kind of commercial recovery are we really in?**
- 4. How should industry approach international markets?**
- 5. How should industry respond?**

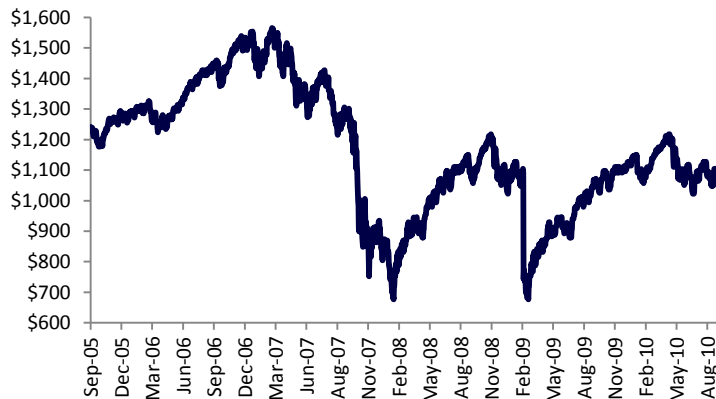
*Source: RSAdvisors analysis*

- **How has the global recession affected the aerospace and defense market?**

*Source: RSAdvisors analysis*



### S&P 500 (2005-2010)



Source: CapIQ, RSAAdvisors analysis

## Impact on A&D Industry

- Triggered the last downcycle in commercial aerospace
- Reminded everyone that business jet industry is cyclical
- Forced a reduction in airline seating and heavy manufacturing capacity
- Highlighted the role governmental debt will play in steeper defense spending
- Shifted the balance of power between strategic buyers and PE firms
- Complicated national security challenges with “whole of government solutions”
- Introduced a more benign view of near peer threats

Recent Changes to the Status Quo

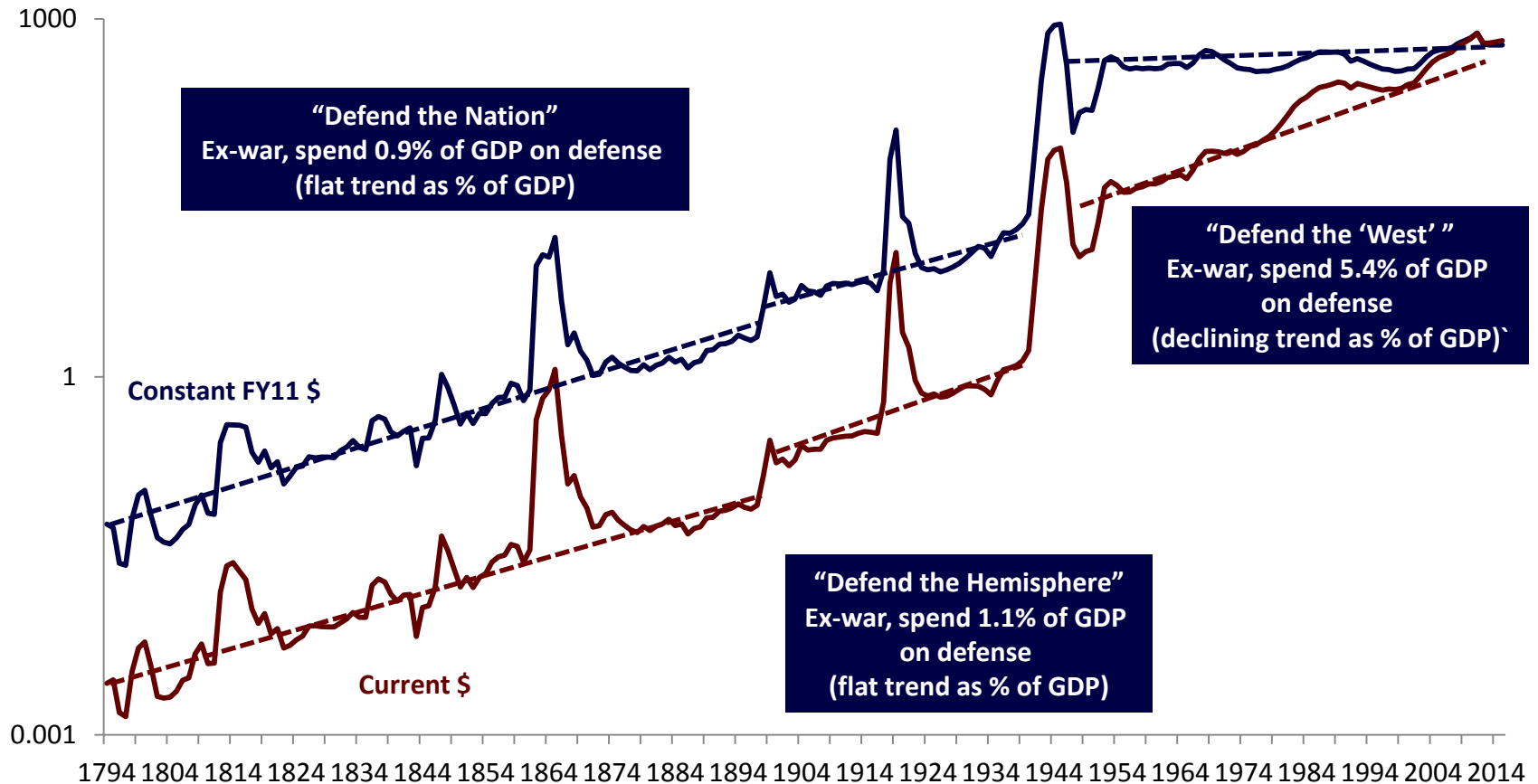
<b>“Change”</b>	Commercial aircraft’s robust recovery	China overtakes Japan as the 2 <sup>nd</sup> largest economy	For profit space exploration takes off
<b>Indicator</b>	<p><b>Global Commercial Jet Deliveries</b></p>	<p><b>China’s Quarterly GDP</b></p>	<p><b>SpaceX launches Falcon 9</b></p>
<b>Cause</b>	Economic cycle Aircraft age & cost	Demographics	Public policy (NOT technology)
<b>Type of Change</b>	<b>Cyclical Trend</b>	<b>Long Term Trend</b>	<b>Discontinuity</b>
<b>Other Examples</b>	Defense budgets Acquisition reform	Aging federal workforce Increasing integration of economies	Technology revolutions

Source: CapIQ, SpaceX, RSAdvisors analysis

- **Where are global defense budgets headed?**

### Historical US Defense Spending

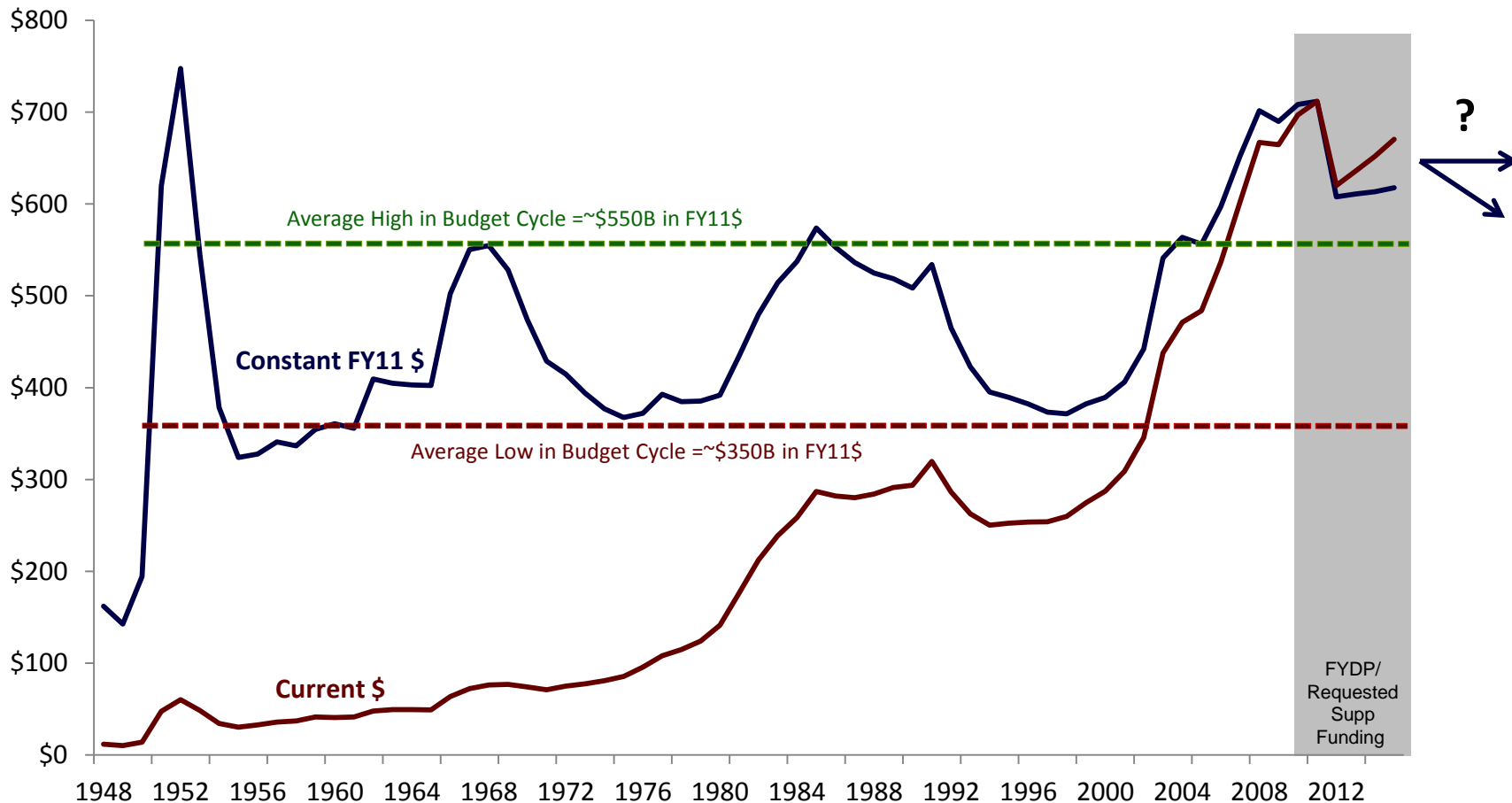
Current and FY11 Constant \$ Defense Spending, 1794-2015



Source: Dept. of Commerce, DoD, RSA Analysis

### Modern US Defense Spending, 1948-2015

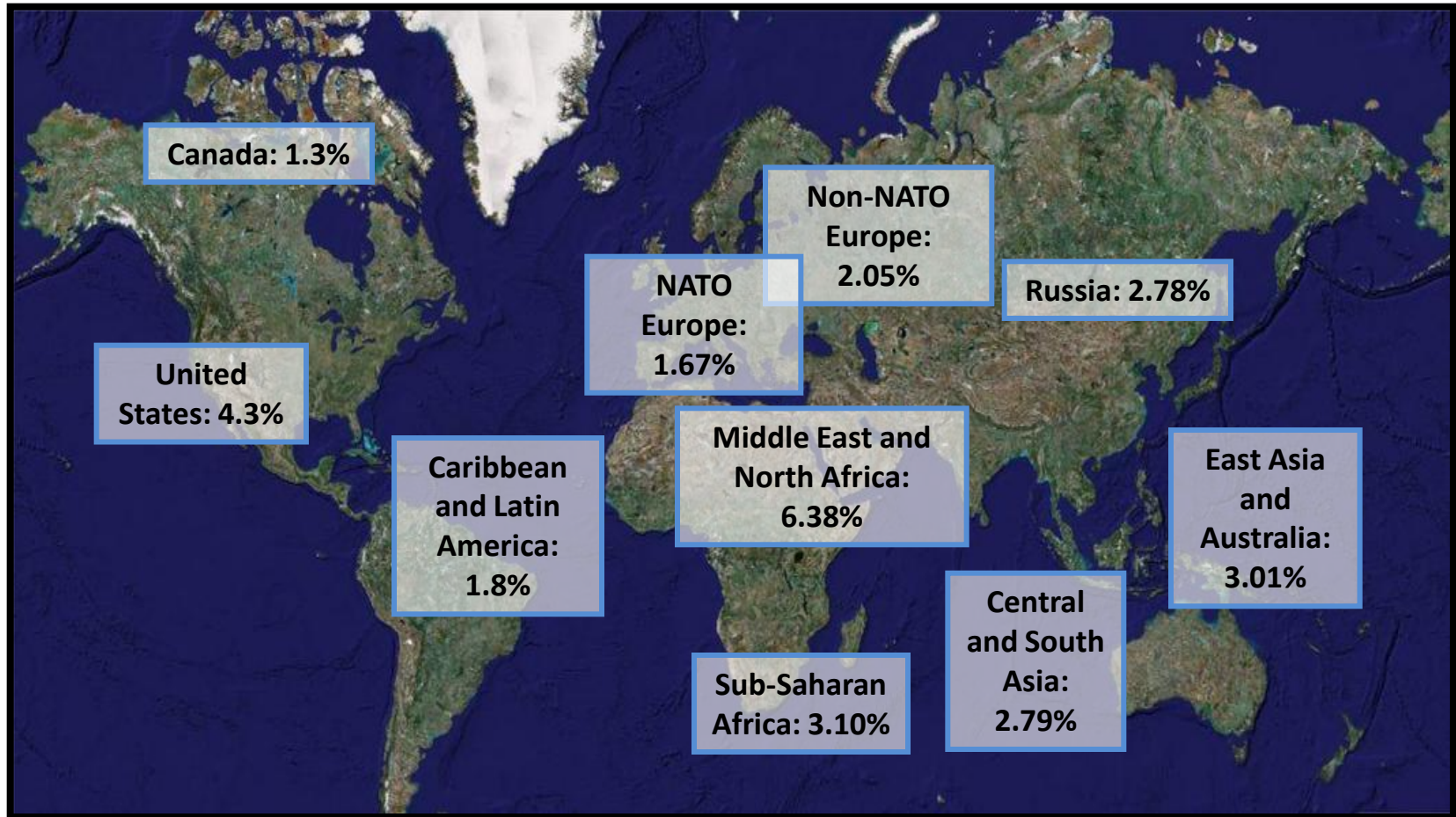
Planned Budget Authority in Constant \$B Including Supplementals and FY11 FYDP (does not forecast additional supplementals)



Source: DoD, RSA analysis

## Aggregated Percent of GDP Spent on Defense

Defense Spending as a % of GDP by Region

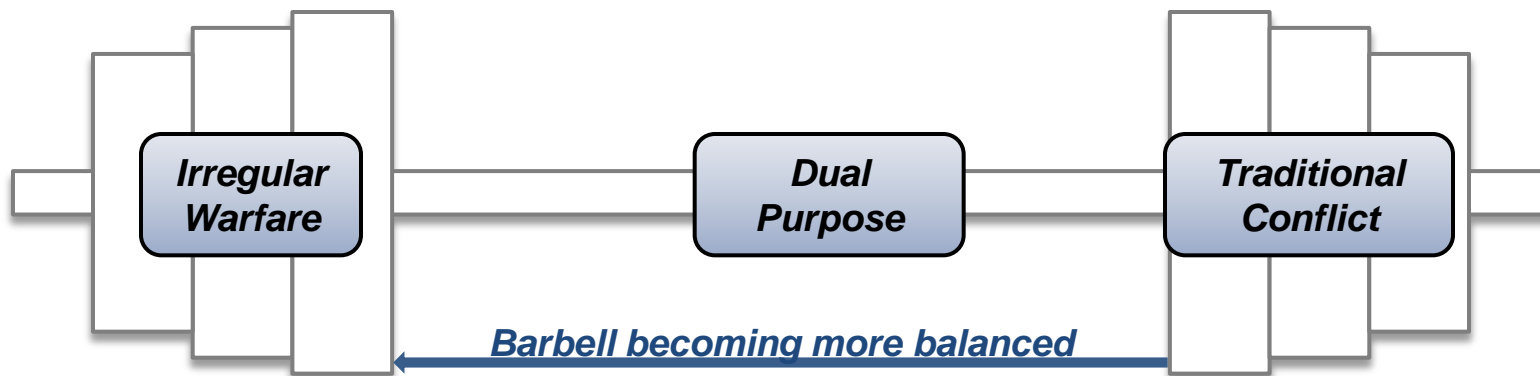


**Historically nations that spend less than 3% of GDP on defense tend to face necessary tradeoffs**

Source: World Bank, SIPRI

**Where are defense budgets headed?**

**And with the governments facing a wide spectrum of threats, from the fight of today to future, near-peer adversaries, how do you organize to address it?**



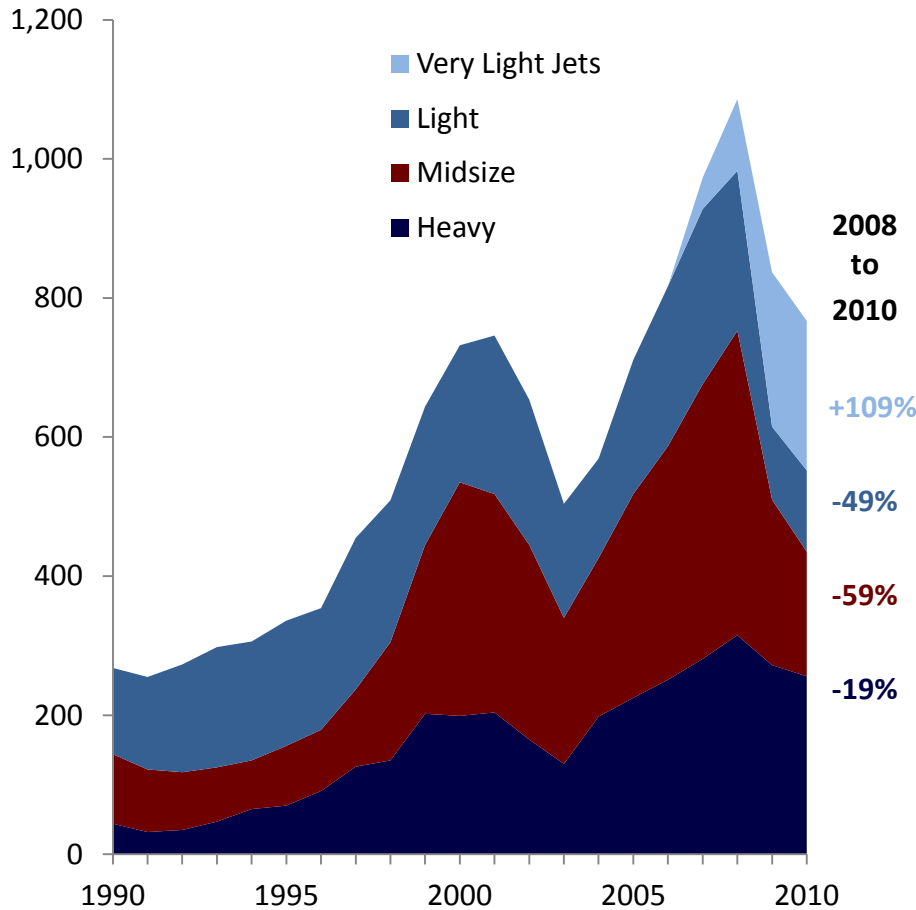
<b>"Barbell-Shaped" Markets</b>	
<b>Slice #1</b>	
<p><b><u>The Long War</u></b> Rapid Acquisition, Off-the-Shelf/Short Development, Quick Response is Key, COCOM Centric</p>	<p><b><u>Deterrence</u></b> Very Long Cycle, Tech. Development, Platform-Oriented but Limited Production, Service Centric</p>
<b>Slice #2</b>	
<p><b><u>Reset/Retrofit</u></b> Install "Black Boxes" in Existing Equipment to Plug into Network, Maintenance, Repair</p>	<p><b><u>Transformation</u></b> Desire for Large, Horizontal Integrating Networks, Leverage the IT Revolution</p>
<b>Slice #3</b>	
<p><b><u>Operational and Policy Support Oriented Services</u></b> Logistics, Operations, and Intelligence Support</p>	<p><b><u>High-skilled Services</u></b> Technically Skilled Services</p>

Source: US Department of Defense, RSAdvisors analysis

- **What kind of commercial recovery are we really in?**

### Global Fleet Deliveries Per Year

1990 - 2010

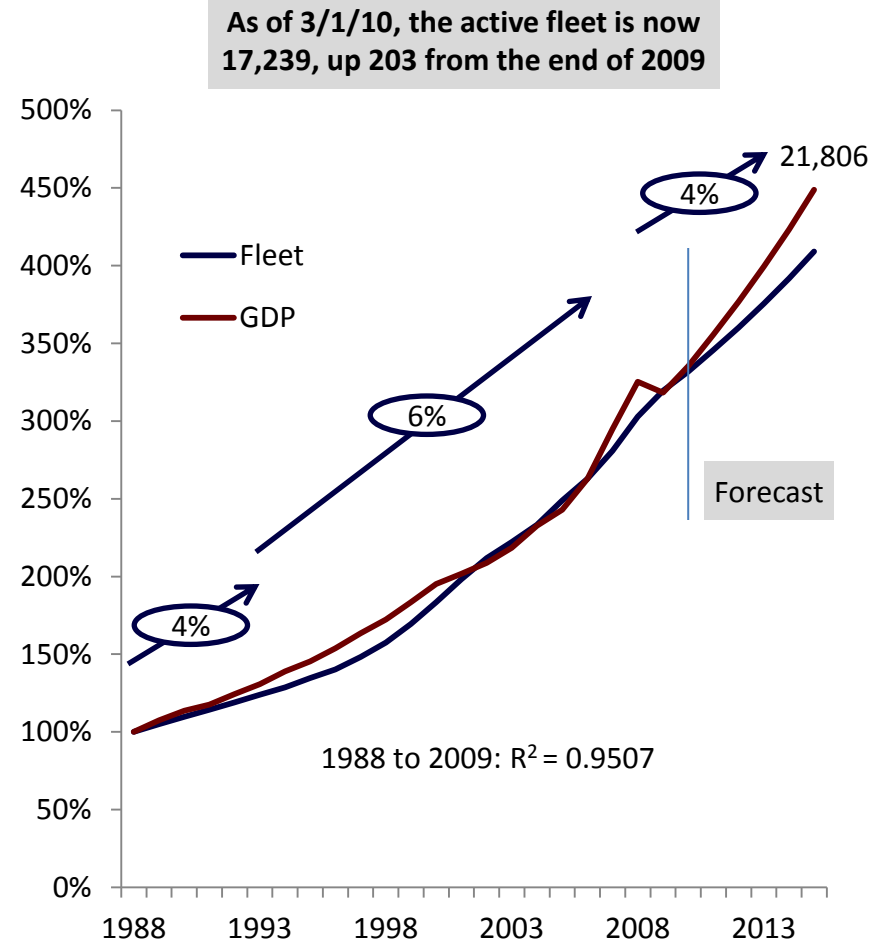


Note: Very light jets exclude the Eclipse 500

Source: GAMA, JETNET, Business and Commercial Aviation, RSAdvisors analysis

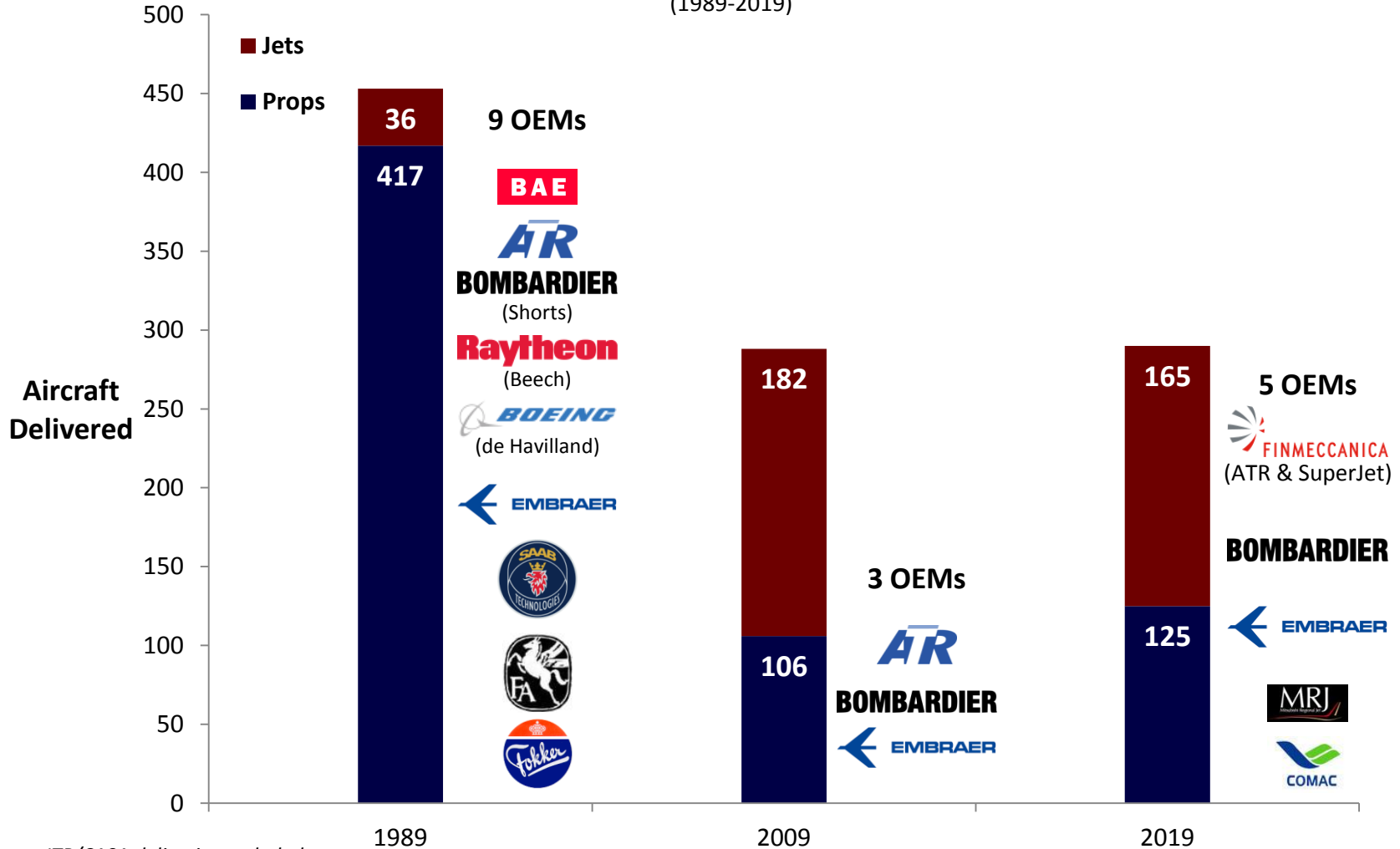
### Global Fleet Compared to Global GDP

1988-2015



### Regional Aviation Deliveries & Industrial Base Evolution

(1989-2019)



Note: ITP/CASA deliveries excluded

Source: Company released information, Teal, RSAdvisors analysis



- **How should industry approach international markets?**

## How to approach international markets?

Firms that play in the global market must make a decision to seek entry through operations that are global, multidomestic or transnational

### Global

- Strategy and operations are done at the corporate level
- Works better for firms that have standardized products and services with a goal of optimizing economies of scale
- Resources and management achieved across borders and markets making it difficult to manage
- More often seen with US defense firms

### Multidomestic

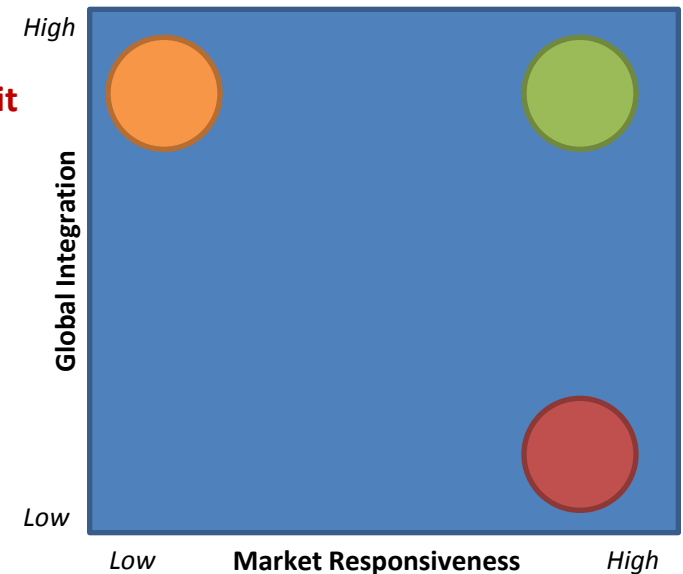
- Strategy and operations are decentralized to the local business unit
- Products and services better address local demands
- Allows greater focus on local competition and enables greater customer intimacy
- More often seen with European defense firms

### Transnational

- Attempts to marry customer intimacy with global efficiencies
- Corporate management key to success since it requires a balance between local needs and global operations
- Close strategic dialogue with corporate required
- Growing interest in this model as globalization in defense becomes more significant

## International Market Strategy Decisions

Integration vice Market Responsiveness



## **Risks to International Strategies**

***Cost of coordination across diverse geographical business units***

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***Institutional and cultural barriers***

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***Understanding competitors strategic intent***

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***Unfamiliar customer intent and planning***

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***Balance efficiency with capabilities***

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## **Implementing the Right Strategy**

***Product innovation and product breadth associated with a multidomestic strategy results in a higher level of uncertainty for the overall business, as compared to a global strategy***

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***Consensus decision making will make a greater contribution to performance for business units pursuing a global strategy than in the case of business units pursuing multidomestic strategy***

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***The ability to understand competitive drivers in markets is much easier with a multidomestic strategy as intimacy with local demands and an understanding of the domestic industrial base are core tenets of the strategy***

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***Local responsiveness affects the complete value-adding process of the business because R&D, manufacturing, and distribution/marketing must be tightly integrated in order to rapidly and flexibly respond to the local context***

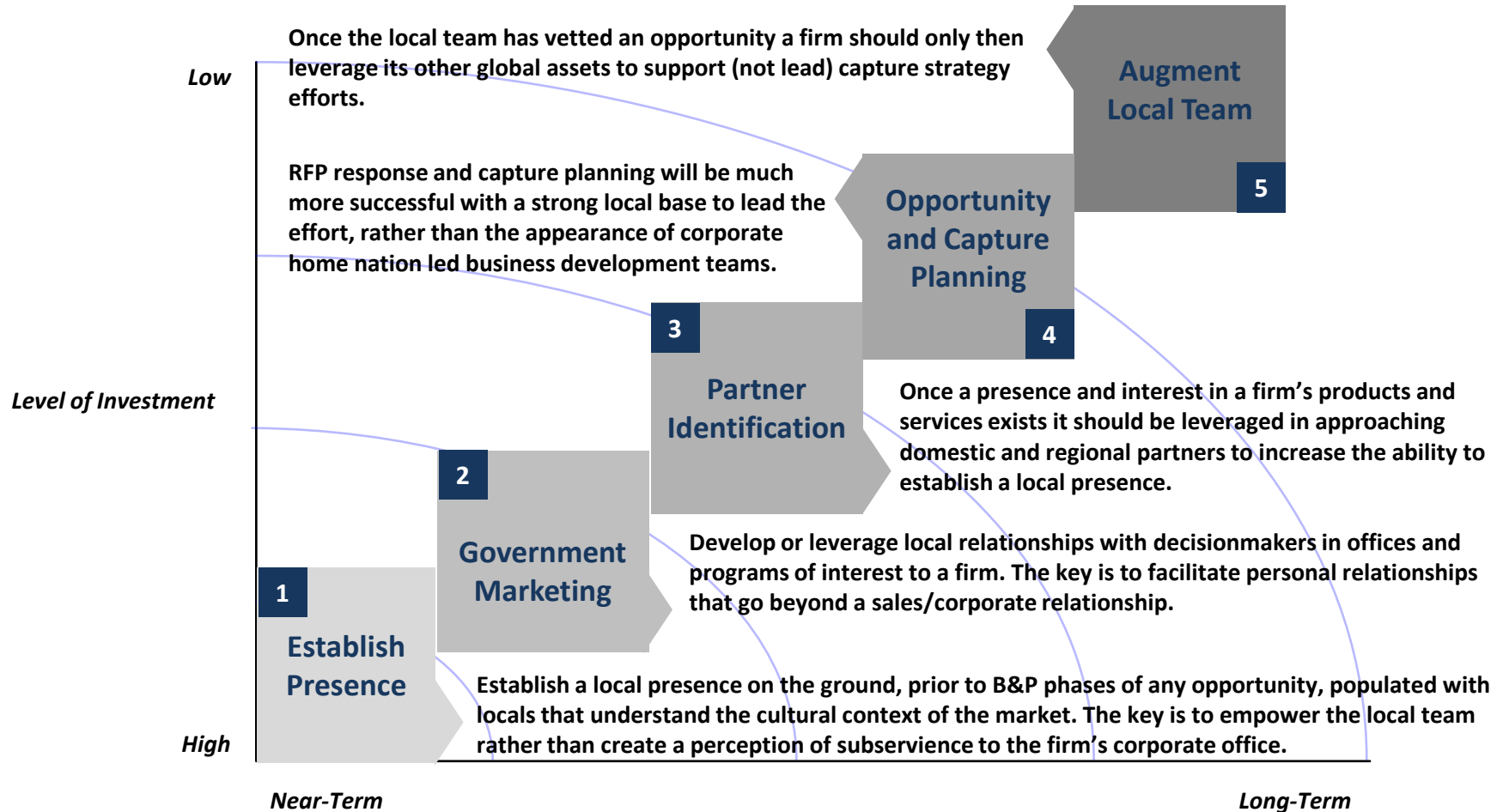
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***Strategies based on efficiency must minimize offerings over time to control costs, differentiation-based strategies must emphasize product innovation to sustain uniqueness and exclusivity***

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## How to approach international markets?

International market development is difficult because significant upfront investment is required, often based on speculation of future growth



*Many nations fear international firms, due to both industrial base concerns and a perception that they may be treated as unimportant after a competitive decision*

**Commit to new market development**

- Identify key markets and resource appropriately
- Specify key investment areas (internal)
- Identify and assess potential partnerships / M&A

**Conservative Growth**

- Focus on effective integration of assets
- Grow within existing markets prior to expansion into new markets
- Search for complementary capabilities with established players (difficult to go toe-to-toe with local firms and potentially global primes)

**Respond to Wariness**

- Must integrate relationships into domestic base to show level of commitment
- Know government and industry are wary – must be willing to go to extraordinary lengths to prove capability and trust
- International market growth is a very slow process

**Identify Potential Partners**

- Aggressively seek partnerships with entrenched firms to gain greater access to established markets and to leverage appropriate skills across markets
- Work through entrenched firms/primes to seek out local and regional partnerships

**Create Common Industrial Pool**

- Form common industrial pool for global programs, without global scale and commonality products/services need to be tailored for each market which is difficult and costly, especially at the scale of most international markets
- Search for commonality with established players (direct competition with domestic firms hard)

- **How should industry respond?**

- **Reinvest through organic growth domestically**
  - i.e. Reshape strategy to meet new market threats, i.e. Raytheon shift away from systems integration to system and component development
  - i.e. Develop a new engine
- **Reinvest through organic growth internationally**
  - i.e. develop indigenous sales channels
  - i.e. build a local production line
- **Give the money back**
  - i.e. dividend cash back to shareholders and investors
- **Grow or diversify through strategic mergers and acquisitions**
  - i.e. Northrop Grumman's early consolidation of unmanned systems
  - i.e. Honeywell's acquisition of AlliedSignal
  - i.e. Goodrich acquisition of Rohr, Coltec, Barnes, TRW Aeronautical, etc.

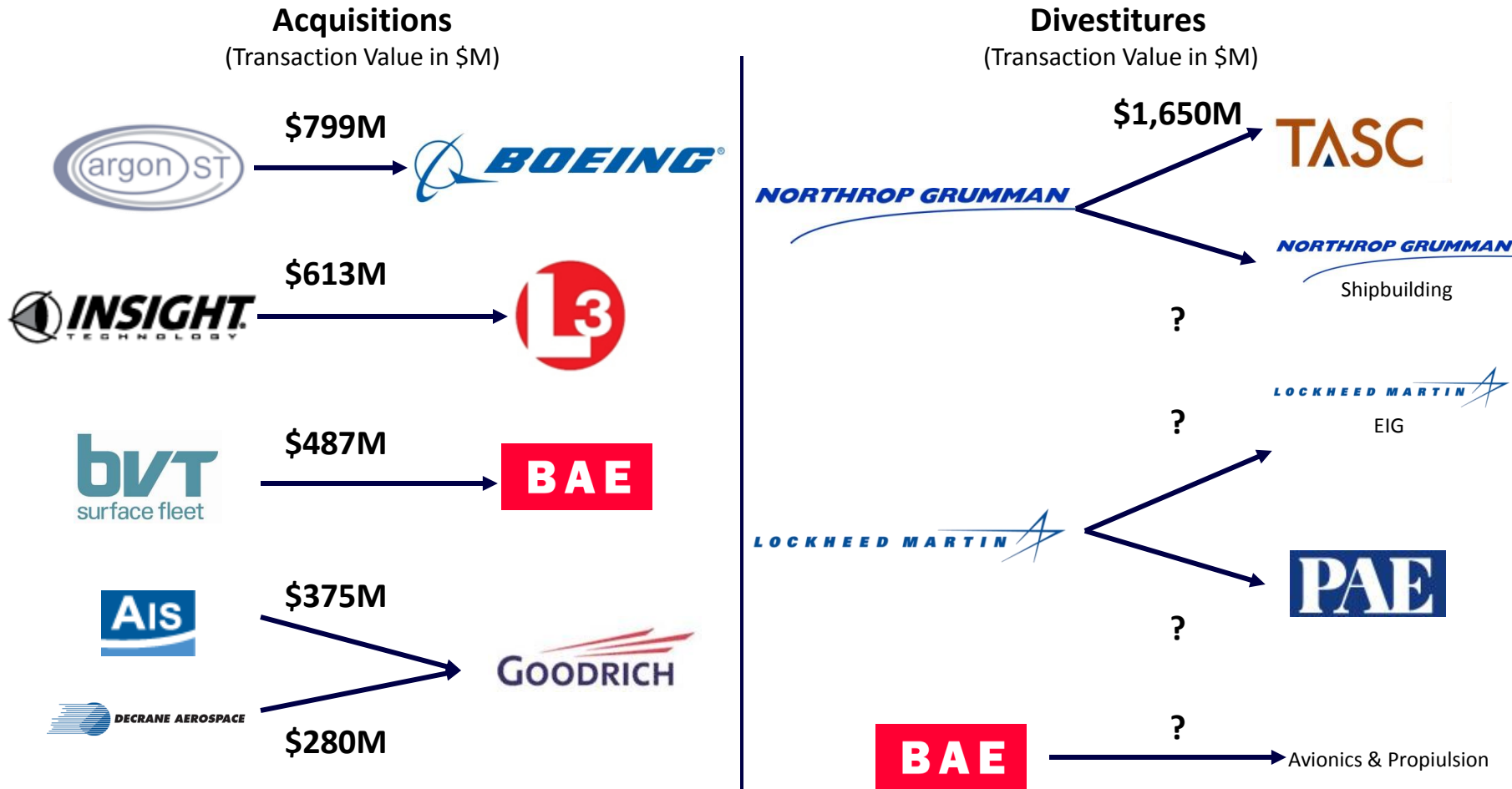
**Strategies Adopted by the Top 20 Defense Firms, 1991-1994**

Strategy	Revenue Growth	Earnings Margin	P/E 1991	P/E 1994	EV/EBIT 1991	EV/EBIT 1994	Share Performance
<b>M&amp;A</b>	26%	4.1%	7.5x	17.6x	5.3x	5.8x	153%
Commercial Diversification	1%	4.2%	9.4x	14.2x	4.5x	5.8x	55%
<b>Ride the Wave</b>	-8%	1.4%	13.9x	16.4x	5.1x	5.6x	88%

**Strategies Adopted by the Top 20 Defense Firms, 1994-1999**

Strategy	Revenue Growth	Earnings Margin	P/E 1994	P/E 1999	EV/EBIT 1994	EV/EBIT 1999	Share Performance
<b>M&amp;A</b>	56%	4.5%	18.4x	18.2x	5.5x	7.7x	88%

### Recent Major Transactions



Note: Northrop Grumman has announced plans to separate the Shipbuilding division; Lockheed Martin have announced plans to divest EIG and PAE  
Source: CapIQ, company released information, RSAdvisors analysis

- **How has the global recession affected the aerospace and defense market?**
  - Answer: It reminded us we are in a cyclical industry
- **What's happening to the US defense and security budget?**
  - Answer: It's under pressure, but still robust for the near term and the largest market in the world over the long term
- **What kind of commercial recovery are we really in?**
  - Answer: One that is segmented with high growth (narrow bodies), no growth (regionals, large business jets), and continued uncertainty (commercial jumbos, small business jets)
- **Is there an accessible international defense market?**
  - Answer: Yes, but preparation, strategy, commitment and caution are necessary
- **How should industry respond?**
  - Answer: By doing something, not standing still – historically companies that adopted a pro-active strategy performed better in the recovery

*Source: RSAdvisors analysis*

**MULTI-DISCIPLINARY**

**FOCUSED**

**EXPERIENCED**

**TRUSTED**

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