

The Space Industrial Base: The View From Wall Street and K Street

**NDIA Space Policy & Architecture Symposium
The Ronald Reagan Center
Washington, DC**

July 20, 2004

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The View From Wall Street

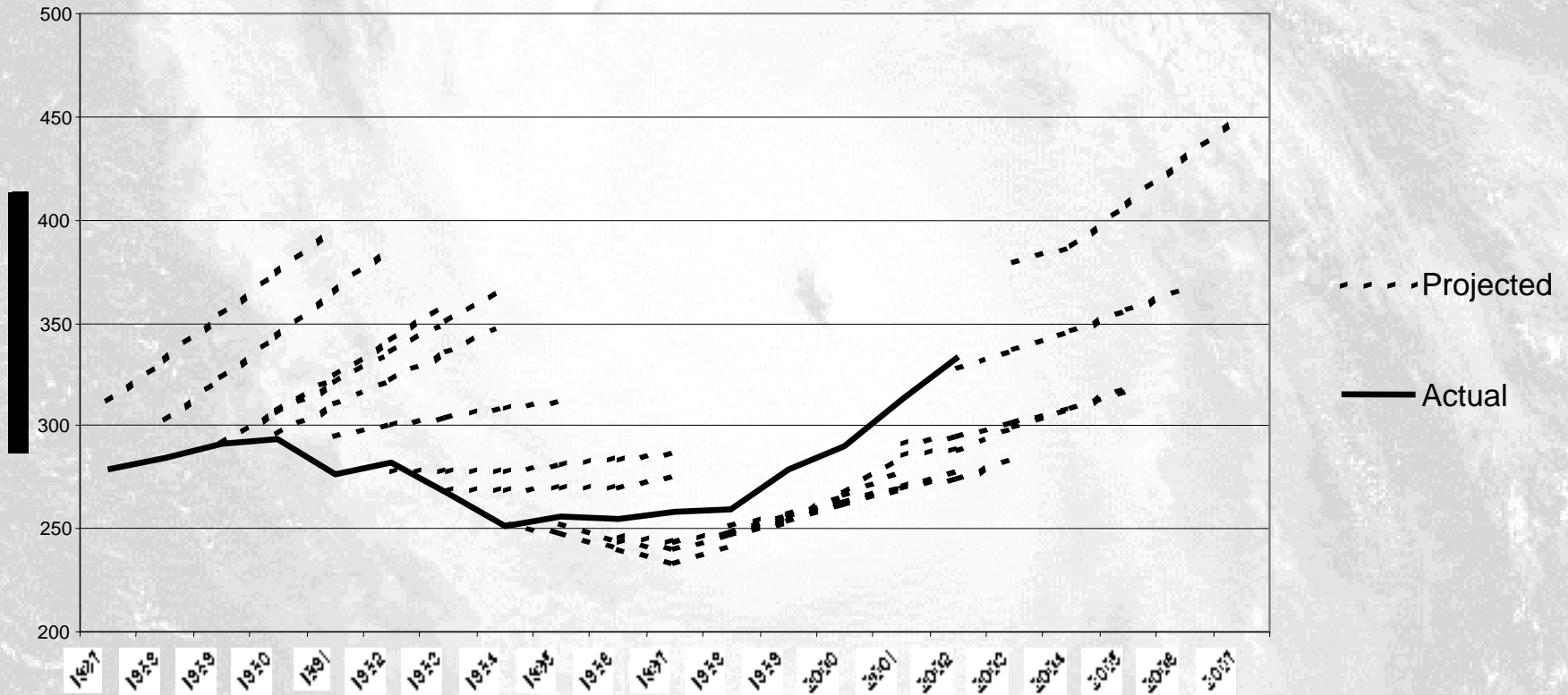
- **Visibility into industry limited**
 - **Divisions of large aerospace/defense companies**
 - **Private companies**
 - **Few publicly traded stocks**
- **Last decade, space industry has been characterized by extreme volatility, high risk, market bubbles and financial losses**
- **Hope springs eternal – still viewed as an area of potential future growth**
- **Last two years has been a period of recovery for space stocks (“couldn’t get worse”). Still trade at a discount to defense stocks and general market**
 - **Defense 17.2x P/E**
 - **Space 15.1x P/E (Orbital, Spacehab, Ball)**

Implications for Policy

- **“Big Space” characterized by**
 - **Large infrastructure investments**
 - **Significant R&D required**
 - **Exacting requirements**
 - **Hand crafted satellites and launchers (“cottage industry”), limited production runs**
 - **Far more budget and program volatility than expected/originally conceived**

Reality is Far Less Predictability...

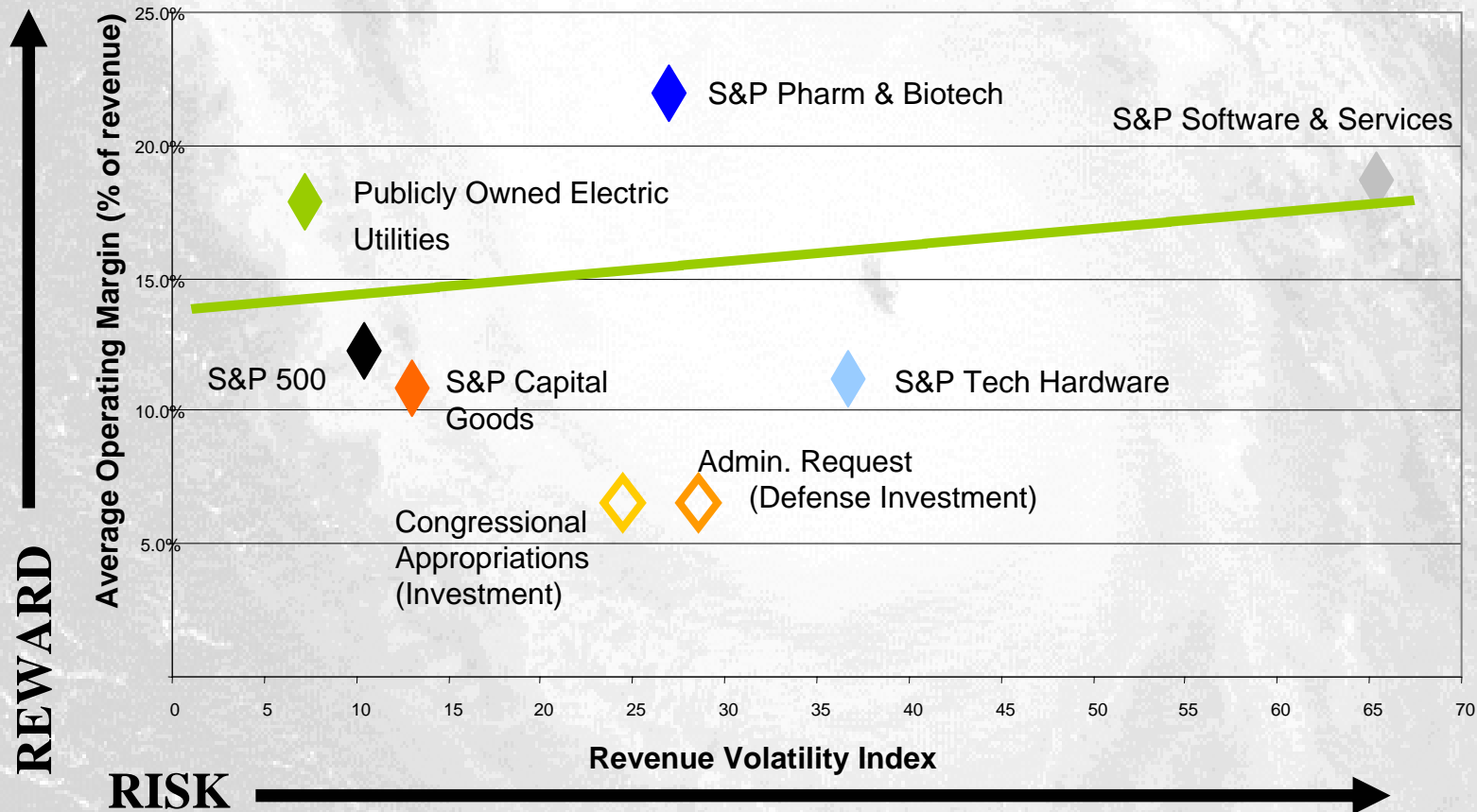
Department of Defense Future Years Defense Plans



Source: "Defense Budget for FY2003: Data Summary", March 29, 2002, Stephen Daggett and Amy Belasco, Congressional Research Service.

And a Risk-Reward Disconnect...

**Industry Revenue Volatility versus Average Operating Margin
(weighted by revenue) 1980-2002**



Implications for Policy

- **“Big Space” issues**
 - **If there is a risk-reward disconnect**
 - **AND changing the reward component is not politically feasible**
 - **THEN, the risk component must be addressed**
 - **Stability, stability, stability**
 - **Budget, program, people, etc.**
 - **See the DSB study**
 - **OTHERWISE, companies will feel the financial imperative to exit**
 - **Also, implies that reliance on commercial space will not solve the problem (we already discovered this)**

BIG SPACE CANNOT BE DONE ON THE CHEAP

Implications for Policy

- **Other ways to solve the issue**
 - **Reduce the investment required – “small space”**
 - **Reduce the infrastructure required**
 - **Lower the capital required**
 - **Open architecture design, spiral/incremental – reduce the volatility**
 - **Reduce the barriers to entry – increase competition**
 - **Won’t apply to all situations/capabilities**
 - **Creative incentives**