

Consolidation and Value in the U.S. Defense Industry

Bulls in the DoD China Shop

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Should today's program managers study stock markets for clues to the future of the acquisition environment? In this article, we argue that they should. Using Wall Street parlance, many program managers may actually be "dancing with bulls" and not even know it. Awareness of market signals is a necessary addition to the program manager's already bulging tool kit. Let us explain by examining the plight of management in the U.S. defense industry.

The Customer and the Stockholder

Defense contractor management must answer to two powerful stakeholders—the customer and the stockholder. The acquisition community, as customer, has had a significant role managing and supervising the procurement of weapon systems. Arguably, the customer has been fairly satisfied in the past decade. The technical performance of our weapon systems has been outstanding, with operations such as Desert Storm validating years of successful program management decisions. But what about the stock performance of defense contractors during the same period? Have defense contractors' stockholders been as happy as their customers? Or, are shrinking budgets and fewer programs harming industry shareholders? The answers might surprise even the most savvy program managers and may



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prove to be invaluable information for making future decisions.

By historical measure, the last 10 years have been a superb decade for investors in the U.S. stock market. From 1986 through 1995, the widely followed Standard and Poor's (S&P) 500 Index rose a cumulative total of 287 percent—an average rate of 14.5 percent a year. An investment of \$10,000 in the index on January 1, 1986, would thus have been worth about \$38,700 on December 31, 1995. But as many industries grew and prospered in the last decade, others appeared to be in serious decline. Surely defense industry stocks, for example, must have withered as the defense procurement budget declined by almost two-thirds in real terms during this same period. Pity the unlucky investors in defense company stocks for missing one of the greatest bull markets in history. One would expect a \$10,000 investment spread equally among the 10 largest defense contractors on January 1, 1986, to now be worth in the vicinity of \$3,333.

Whoops! As of

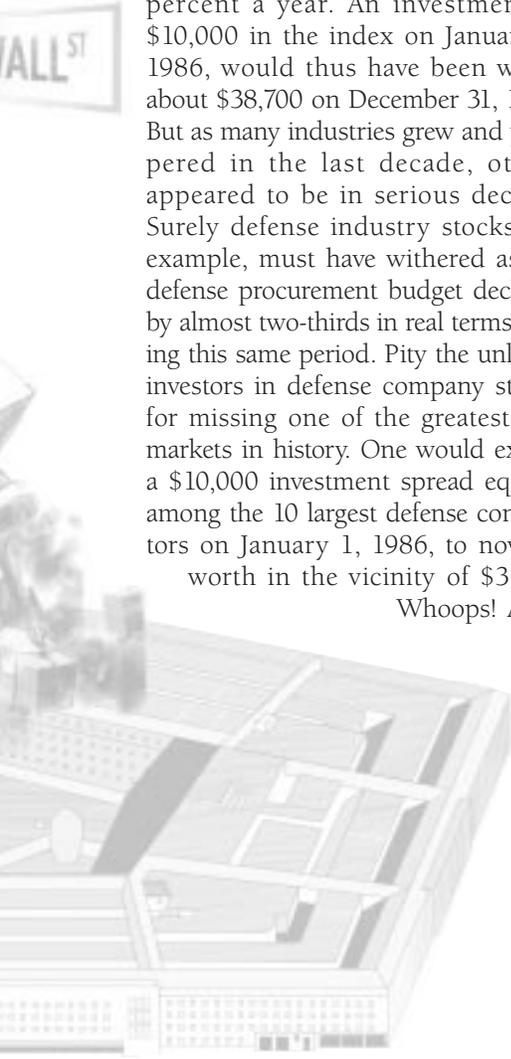
**What has happened
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be? In this article, we offer our perspective.

Are the Markets Crazy?

How can we understand the explosive performance of the stocks of large defense firms during an era where defense procurements have nosedived? One way is to suggest that markets behave irrationally, and that the defense stock run-up is a mistake. But irrational behavior is difficult to predict and interpret. Could there be a rational explanation? Try this one: Stock markets look forward. What has happened (even very recently) is not as relevant as what will happen. If the market prices of defense stocks are rising now, then the market anticipates prosperity for these firms in the future. Is this a reasonable explanation? Let's examine the performance of defense stocks in the past decade more closely (Figure 1).

Defense stocks lagged the S&P 500 index for most of the 1980s. But during the five-year period from 1991 through 1995, the market has become very bullish on defense stocks. Could this rosy view be tied to defense industry merger-mania? Maybe, but why? Merger activity began rising soon after the defense budget peaked in the mid-1980s. But since 1990, the



December 31, 1995, this \$10,000 investment would be worth not \$3,333, not \$10,000, not \$20,000, but \$43,900! This is \$5,200 more than an investor would have earned from buying and holding the S&P 500 index during the same period. These 10 large defense stocks have returned an average of 15.9 percent a year over the last decade, easily outstripping the S&P 500. Given the downward defense budget spiral, how could this

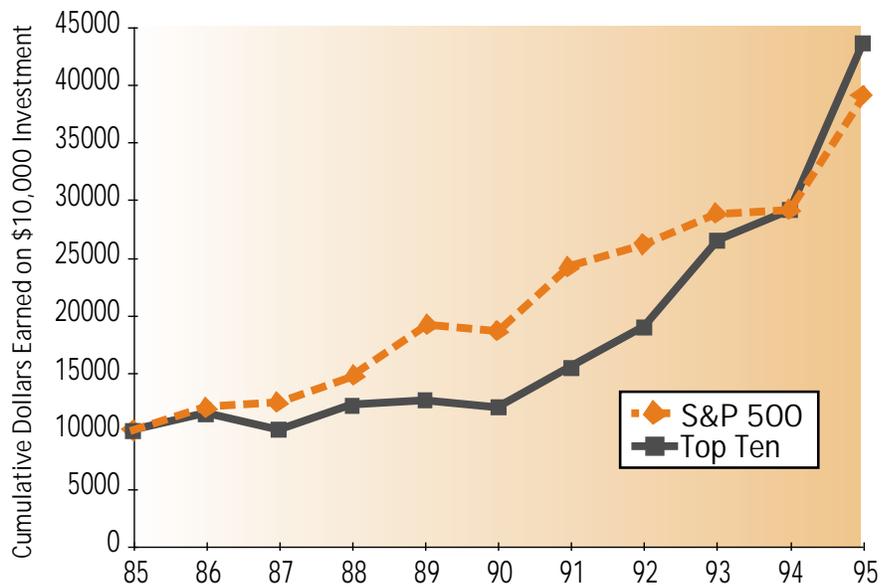


Figure 1. \$10,000 Invested in Either S&P 500 or Top 10 Defense Stocks

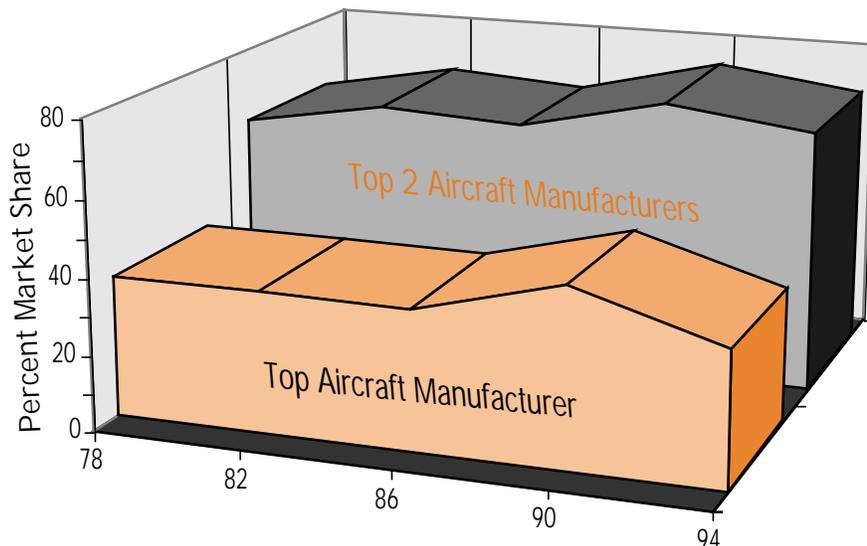


Figure 2. Standard Industry Classification 3721: Aircraft

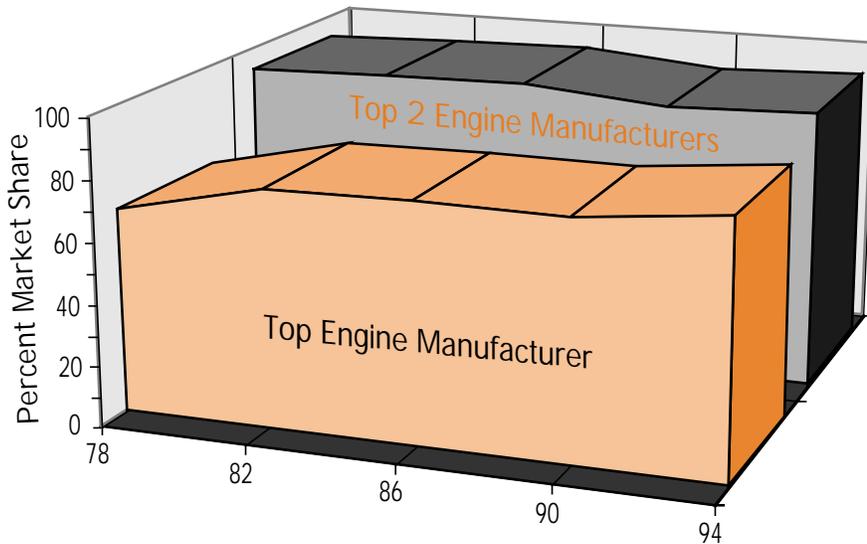


Figure 3. Standard Industry Classification 3724: Aircraft

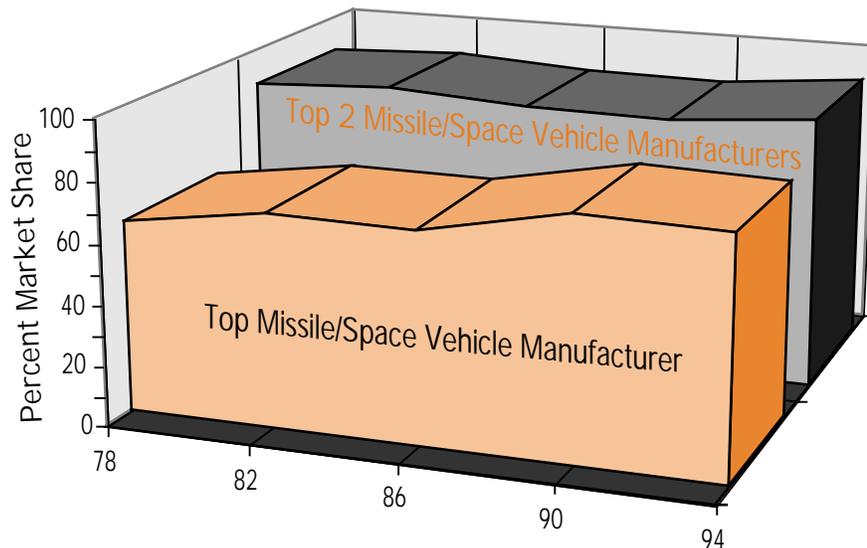


Figure 4. Standard Industry Classification 3760: Missile/Space Vehicle Engines

rate of consolidation has accelerated, dominated by mega-mergers such as Lockheed Martin and Northrop Grumman. The average return for the top 10 defense firms in this period is in excess of 29 percent a year, compared to 16 percent for the S&P 500. Is this market behavior rational, given the continuing decline in defense budgets, or are the markets crazy? We suggest that the former explanation is the one that program managers ought to consider.

Industry Changes

We have observed that during this period when merger activity within the defense industry has skyrocketed, so have defense firms' stock prices. Is this pure coincidence? Look at the structure of the defense industry—it has been very concentrated for a long period of time. The last few years have marked an acceleration in consolidation as many firms have sought to exit defense businesses due to declining budgets and alleged difficulties in dealing with federal procurement policies. Those firms interested in remaining in defense have acquired businesses at a rapid pace.

One example is Martin Marietta, led by Norman R. Augustine. Over the past few years, Martin has grown significantly through acquisitions, including the purchase of General Dynamics Space Systems. In 1995, Lockheed and Martin agreed to merge, thereby creating the largest defense company in the United States. Consolidation shows no signs of abating. Lockheed Martin recently went public with its attempt to buy portions of Loral for \$10B. This bid was less than one week after fellow industry behemoth Northrop Grumman offered to buy Westinghouse Electric's defense-electronics business for \$3B. Finally, showing that even the Federally Funded Research and Development Centers (FFRDC) were not immune, Science Applications International Corporation recently proposed to combine operations with The Aerospace Corporation. Based on this recent activity, it appears that defense industry consolidation will continue

into the foreseeable future (Figures 2, 3, and 4).

Because many defense lines of business are currently dominated by one or two large contractors (examples include aircraft, electronic systems, missiles and space systems, and aircraft engines), any additional mergers in some of these industries may create pure monopolies. How could the government let this happen, and how is it going to affect future program managers?

The truth is that the government has not only let this happen, but has been a vocal supporter of defense industry consolidation. According to a letter written by then Assistant Secretary of Defense John M. Deutch to the Federal Trade Commission in December 1994, "Consolidation among defense suppliers is both inevitable and necessary... The Department supports the merger of [defense industry] corporations. It represents a step toward a stronger, robust industry that will result in savings for the U.S. Government." In fact, much political debate has centered around a DoD policy allowing cost sharing for defense contractor consolidation. This "payoff for layoffs" strategy is one example of how policy is having trouble keeping up with the rapid changing defense industrial-base environment.

Value Creation

When does it make sense to combine two firms into one? Conventional wisdom in the 1970s and early 1980s was, "...it always made sense." The result was the creation of conglomerate organizations comprised of many different businesses. Critics of the conglomerate mergers came to describe this strategy as "Di-Worse-Ification." The conglomerate merger or acquisition, perhaps best exemplified by the widely studied Mobil-Montgomery Ward marriage, often led to disaster. Executives in one line of business (such as crude oil) frequently had no idea how to run diverse businesses (like a retailer) under the conglomerate umbrella. Responding to decreased profits, the

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stock market grew increasingly pessimistic about conglomerates, assigning them far less value as one entity than would be assigned if the organization were to split up and trade separately.

So what about the frenzy in the defense industry to merge and acquire? How is this industry phenomenon different from value-destroying conglomerate mergers? Big difference. Defense firms are not merging as conglomerates—they are generally consolidating within a single industry that is already highly concentrated. Unlike conglomerate mergers, defense industry marriages, both horizontally and vertically, often create synergies that enhance value. One example is E-Systems and Raytheon. The acquisition of E-Systems by Raytheon gave E-

Systems a needed boost with regard to reaching overseas markets and gave Raytheon more muscle to complement its line of defense electronic systems. These "within-industry" combinations may create value by giving the firm added pricing power (i.e., the ability to influence the price they will receive for their goods or services in the future).

In addition, within-industry combinations facilitate cost reduction. When two firms in the defense industry combine, they can eliminate many of the administrative and support functions that each had performed separately. Government initiatives such as Overhead Should-Cost Reviews have been champions of this type of savings for years. While eliminating redundancy results in a number of lost jobs, it dramatically improves the bottom line by reducing expenses. As a result of the Lockheed Martin merger, for example, a recent *Standard and Poor's Stock Report* states that the combined firm will eliminate redundant expenses totaling over \$1.9B a year. Synergies also result as larger firms take advantage of scale economies obtained from buying materials in larger quantities.

Reason for Concern

So how can program managers use this information to their advantage? If a program manager has an appreciation for the operating environment, he or she will be better able to be proactive. Consider the U.S. defense industry of the future. Increased contractor revenues will come from enhanced pricing power. Decreased contractor costs will come from eliminating redundant functions and taking advantage of scale economies. Both of these phenomena increase the cash flows that will be available to the firm's owners—the stockholders. These predicted additional cash flows are the basis for value creation, and are reflected in the climbing stock prices. But should the program manager assume that some of the benefits of consolidation be passed along to the government in the form of savings on procurement contracts? The DoD hierarchy apparently thinks so. For

example, *Business Week* reports, "The Pentagon has actively encouraged such deals in an effort to reduce over-capacity and to lower its own costs, adopting what wags dub a Noah's Ark approach to industrial policy: Two makers of everything the Defense Department needs." It could be argued that similar policy manifested itself in missile procurement during the 1980s in what was called Dual-Sourcing.

But to date, there appears to be no evidence that the government will share in the benefits of the industry's consolidation. Rising defense stock prices suggest that the defense industry in the United States is headed for a golden era. Unless program managers act, much of this "gold" may unfortunately come at the expense of the Department of Defense, and ultimately the taxpayer. Consider the evidence.

Recent defense industry cost cutting has been severe. But many defense firms are in their best financial position ever. Some sit on large sums of cash that could fund their operations for long periods of time. As contractors join forces and become more efficient by reducing costs, it seems logical to expect some of these cost savings will be passed along to the government. But this expectation assumes competitive forces influence contractor behavior. As consolidation is taken to its extreme, however, contractors obtain monopolistic pricing power and become less interested in passing along cost savings. For many future major weapon systems procurements, there will be only one (or at most two) contractors able to do the job. The acquisition community's long enjoyed monopsonistic honeymoon may be over. When the government needs to upgrade or replace one of its many aging defense systems, or requires a surge production capability, it may face a large, well-financed, sole-source provider. A contractor in this position has a great deal of leverage against a customer in a hurry, especially when that contractor knows they are the only game in town. In the words of *Business Week*, "The Pentagon

might end up with just two animals—a pair of 800-pound gorillas."

The Bottom Line for Program Managers

Given that the stock market is correct in predicting a golden era for defense companies, the issue is how the program manager can use this information to the government's advantage. We outline three possible approaches:

- Change the industry structure.
- Improve cost visibility.
- Change the contracting environment.

While clearly out of the scope of any individual program manager, changing the defense industry structure could include various options, such as the DoD not supporting any future mergers. More aggressive actions, such as breaking up the industry, seem to be a long shot. The stock market sure doesn't believe the government would attempt it. With the concerns about the health of the defense industrial base and fears of overseas domination, forcing divestiture would be politically and economically risky.

Promulgating policy that enables more scrutiny and cost accountability in the government-contractor relationship is another option. The rationale is that if contractors have more market power, the government needs more cost insight in order to be better able to defend its negotiating position. While cost insights are valuable, this alternative may be inconsistent with current efforts to streamline and shorten the contracting process.

The third approach involves implementing changes in the federal contracting environment. This alternative may involve a shift from fixed-price-type contracts to cost-type contracting, where the contractor may feel that a more equitable sharing of risk has occurred. In addition, program managers could intensify the ongoing efforts to streamline the acquisition process—increased use of Commercial Off-the-Shelf (COTS) products, busi-

ness practices, less standardization—which may attract new suppliers who have previously avoided contracting with the government due to cumbersome procurement procedures. For example, Microsoft Corporation may be willing to be a supplier for the government should we make the contractual process similar to the way Microsoft conducts business with its current customers. Obviously attracting suppliers like Microsoft will not hurt competition nor the industrial base.

In any case, the market has sounded the warning bell for the DoD, and it is up to program managers to heed the call. The late 1990s and the early 21st Century will mark a difficult and expensive procurement era. Creative approaches to risk sharing and new ways to avoid win-lose scenarios in contracting need to be developed now for the government-industry partnership to prosper in this changing environment. If program managers don't use valuable financial information to their best advantage, they may as well let the "Wall Street bulls run through the DoD china shop."

Editor's Note: This research was conducted in conjunction with the Joint USAFA/ Defense Systems Management College Acquisition Research Group.

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