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What to do with the cash?

Of gates, tracks, and signals

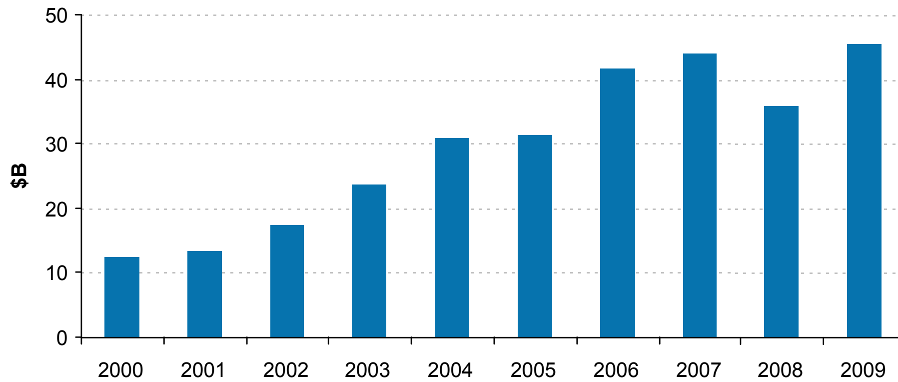
This year's annual earnings reports have been accented with indications of what major public companies in the aerospace and defense sector are going to do with the mass of cash that has built up on their balance sheets. A sampling of these reports includes the following:

- BAE Systems, with £403 million of net cash on its balance sheet at the close of 2009, announced a 10 percent increase to its dividend and unveiled a £500 million share buy-back program.
- Lockheed Martin, with $2.4 billion of net cash on its year-end balance sheet, announced that it plans to repurchase about $1 billion of its shares in 2010.
- Ultra Electronics, with £42 million of net cash at the end of 2009, announced a 20 percent increase to its final dividend and a capacity to spend up to £120 million on acquisitions in the near term.
- L-3 Communications, with about $1 billion of net cash on hand, indicated in January that it will increase cash deployments in 2010 through both acquisitions and share repurchasing, and proceeded in February to announce its acquisition of the optical laser company Insight Technologies in a half billion dollar transaction thought to be financed with cash.

All of which prompts our attention to one of key strategic choices facing the A&D sector in 2010: "**What to do with the cash?**"

Over the several years when these cash balances have been building up (see Figure 1), share repurchases have been the preferred deployment strategy (particularly in the US), a trend given strong impetus by the sharply declining equity values most companies experienced from the fall of 2007 to early in 2009. But today, now that equity values have somewhat recovered, and set against a dominant backdrop of change on the strategic and market landscape, the cash deployment strategies of all aerospace and defense companies warrant a fresh look.

Figure 1: Cash on the balance sheet of 15 global aerospace and defense firms[1]



Our general conclusion is that what A&D companies do with their cash going forward should reflect a more balanced deployment across three objects: (1) internal investment (e.g., capex and research and development) and (2) external investment (e.g., for acquisitions but also in new-market footprints), in addition to (3) sustaining dividends and/or share repurchasing programs. Reflecting this balance, the right prescription for any particular company should flow from a critical assessment of the following sequence of questions:

- What "gates" should measure the merit of alternative deployments of the cash?
- What "track" should characterize the portfolio of cash requirements the business faces under various scenarios?
- What "signals" might alternative deployments of cash register with investors?

Three gates

The belief is widespread, but mistaken, that earnings accretion is a sufficient hurdle for an investment of this cash, and especially when those increments of earnings per share would show up in year-one. Such a finding is only the start of the story about what's best to do with the cash. It's no surprise that in these years of exceptionally low interest rates and relatively weak equity values for A&D companies, the deployment of cash toward the repurchase of shares have routinely passed this first-order test. Surely that's a big part of the reason for the recent popularity of these initiatives. However, growth in earnings per share is not a sufficient test of what to do with the cash, because it may overlook the opportunity cost of one such deployment initiative when compared either to shareholders' alternative uses of the cash or the company's own alternative opportunities.

The overriding test of what to do with the cash is whether, on a risk adjusted basis, the given investment can be expected to generate the highest return. That may sound like a simplistic tagline, but heeding this principle requires a disciplined walk through the following three "gates" of ascending stringency:

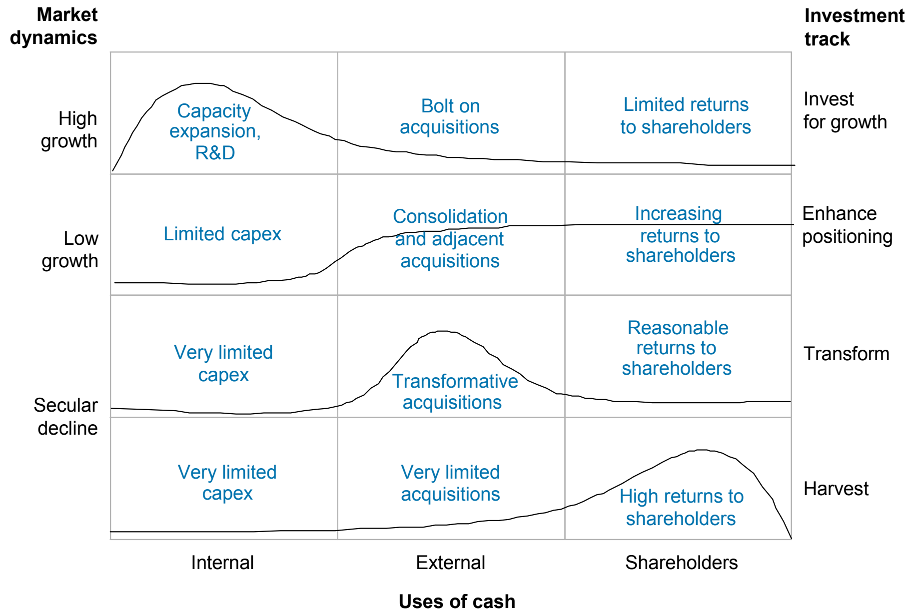
1. **Is the proposed deployment earnings accretive?**
   The first-order test of any investment is almost always whether it increases cumulative earnings per share over time. Passing through this gate is not a sufficient test of what to do with the cash, but it's a necessary one. This first gate is a relatively simple and mechanical calculation driven mostly by the share price and the prevailing interest rates, in share buyback deployments,[2] or by the prevailing interest rates alone, in respect to other investments.

2. **Is the deployment value-added?**
   The second gate tests whether returns from the uses of the cash will exceed the opportunity cost an investor bears by tying up his capital in shares of the company making the

[1] Data based on Dec 31, 2009 cash & cash equivalents for Boeing, Lockheed Martin, Northrop Grumman, Raytheon, General Dynamics, ATK, L-3, Goodrich, Rockwell Collins, EADS, BAE Systems, Finmeccanica, Thales, Safran, and Rolls Royce.

[2] Earnings accretion via share buy-back is all about reducing the denominator (number of share) of the earnings per share (EPS) calculation by more than the numerator (Net Income): For example, consider again BAE Systems' announced share buy-back of £500 million. At the company's current share price of 381p, this would mean 131.2 million shares repurchased, or 3.7% of the 3,541.8 million shares in issue. Deploying £500 million of cash would produce circa £10 million less interest income (at current low rates), or about £7 million less Net Income, which reduces the numerator of the EPS by about 0.5%. The net result of the small reduction in the Net Income and larger reduction in the share count produces a net increase of EPS of about 3.4%.

Figure 2: Cash investment priorities as a function of market dynamics



investment. This threshold is ordinarily calculated using the business' weighted average cost of capital, or WACC.[3] If the expected internal rate of return (IRR) on the investment fails to exceed the WACC, then regardless of whether the investment is thought to be earnings accretive, it would be value-destructive and should not be undertaken.

3. **Does the deployment hold the promise of a superior return?** As no company has unlimited funds, there is a necessary trade-off between the various cash deployment options that may clear the previous two gates. At that point, which of them to undertake—share buybacks, growth of capital assets, R&D, the acquisition of complementary businesses, etc.—depends simply on their relative returns. If, for example, a company's executives believe its stock is undervalued in the capital markets compared with their own conviction about the prospects for the business, and the return implied by the difference between management's expectations and its market price is superior to any other alternative investment of the cash, then buying back shares may be the correct outcome of even this third test.

Three tracks

As the A&D industry and its stakeholders admire the relatively low-debt, cash-rich balance sheets of its companies, their attention will turn increasingly to questions about how those resources will be deployed to animate the transition of these companies across the present inflection in the strategic and market landscape. Broadly speaking, the deployments of this cash will take one or more of three distinct forms:

- **Internal investment.** For example, companies may expand capital expenditure or R&D. Note, however, that internal investment may also manifest itself in a buyback of shares motivated by management's conviction about its "true" value.
- **External investment.** For example, companies may acquire other businesses. Note, however, that external investment may also manifest itself in the establishment of minority stakes in complementary businesses.
- **Disinvestment.** The issuance of dividends or initiation of a program to buy back outstanding shares are the general instruments companies use to unwind the

[3] The cost of capital for a project is dependent on the risks inherent in the project. Higher risk projects would have higher costs of capital than those for low risk projects, because investors would require higher promised rates of return to undertake the higher levels of risk. Companies usually are involved in more than one project, often with varying degrees of anticipated risk. According to finance theory, a company's overall project cost of capital would therefore be a blend of the costs of capital associated with its various projects. As companies typically finance their operations using both debt and equity financing, this blended cost of capital is usually equal to the company's weighted average cost of capital (WACC). A company's WACC can be calculated according to the following formula: $\text{WACC} = \text{Opportunity Cost of Equity}\left(\frac{\text{Market Value of Equity}}{\text{MV of Equity + Debt}}\right) + \text{Opportunity Cost of Debt}\,(1 - \text{marginal tax rate})\left(\frac{\text{Market Value of Debt}}{\text{MV of Equity + Debt}}\right)$

capitalization of a so-called "ex-growth" company. Note, however, that preliminary disinvestment initiatives may also manifest themselves in asset sales and business unit divestitures which, in the first instance, will add still more cash to the balance sheet, not reduce it.

As a practical matter, and however finite the amounts of cash available to a company, it is rarely the case that a single investment alternative so convincingly dominates all others' estimated returns at gate three that only one deployment of cash balances is warranted. However carefully estimated, the vagaries of costs, performance, and outcomes associated with most cash deployment initiatives in aerospace and defense are great enough to recommend an approach to the uses of cash that envisions a portfolio of investments, not just one. Still, the shape of that portfolio is hardly random, and instead, as illustrated in Figure 2, should follow a "track" informed by the company's outlook on the dynamics of the market environment it faces at any particular point in time.

1. **Invest for growth.** *What should the portfolio of cash deployment look like for a company facing a high growth market?* Consider the situation of pure-play defense companies over most of the past decade as an object lesson. Throughout this period of time, sustained increases in the US defense budget meant that companies with exposure to that market could ride a wave of growth. Accordingly, the appropriate uses of capital tended to involve investments to expand capacity, to increase research and the development of new products, and to improve market exposure through acquisitions of complementary businesses. Reinforcing these strategies were the expectations of these companies' shareholders, who, in the face of a market outlook supporting high growth, oriented on capital appreciation, not dividends.

Examples abound of defense companies responding to the run up in US defense spending over the past decade by investing for growth. For example:

- Between 2004 and 2006, Cobham used the proceeds of a cost reduction program to expand research and development from 5 percent of sales to 7 percent. When this strategy was announced, CEO Allan Cook said,

  "Focus on technology leadership is key . . . we have established technology acceleration plans and identified cost reductions to fund these technology plans."[4]

  The initiative—a neat solution to the tension between reducing costs to enhance near-term profitability and boosting R&D to sustain long-term growth—was a calculated campaign to boost growth by developing technologies that would address emerging opportunities.

- Raytheon's pattern of cash deployment across this wave of growth exhibits an enhanced program of independent research and development (IR&D) in, for example, the sensors that underlie intelligence, surveillance, and reconnaissance (ISR) systems. At the same time, Raytheon also has made a string of acquisitions designed to expand its capabilities in high growth markets, like cyber security (e.g., BBN Technologies (2009), Telemus Solutions (2008), SI Government Solution (2007), and Oakley Networks (2007)).

2. **Enhance positioning.** *What's the right portfolio of cash deployment for a company facing a low growth market?* Although it may continue deploying cash to diversify its exposure to adjacent markets, the emphasis of cash deployments should shift from growing the top line to maximizing profitability and nearer term returns to shareholders. Such initiatives may take the form of investments to cut costs, stock buy-backs, or simply the payout of higher dividends. At the same time, the appropriate portfolio of cash deployments for a company with this outlook also includes acquisitions, especially those designed to gain production scale or, again, improve exposure to higher growth adjacencies.

As US defense spending to acquire materiel began flattening out in the second half of the last decade, many companies have undertaken investments characteristic of a cash deployment portfolio designed to enhance positioning. For example:

- Lockheed Martin's cash deployments in recent years have reflected exactly this mix of returns to shareholders combined with investments in adjacencies. Through share buy-backs and increases to it dividend, the company has

[4] Cobham results presentation FY 2005.

returned almost $12 billion to shareholders since 2006. It also is the most prominent defense contractor actively reshaping the range of its market participation through initiatives to address new markets, like helicopters (e.g., VH-71 Presidential Helicopter), armored vehicles (e.g., formation of a joint venture with the Finnish firm Patria), the "smart" electricity grid (e.g., partnerships with utilities such as PPL Electric, Rappahannock Electric Co-op, and Northern Virginia Co-op), and military support services (e.g., acquisition of Pacific Architects & Engineers (2006)).

- After raising its dividend by a bold 48 percent in 2009, Chemring Group announced in January of this year its intent to acquire The Allied Defense Group for $59 million in cash. Like Chemring, which already has a substantial trans-Atlantic business in energetics, ordnance products, and ammunition, ADG also is a manufacturer of medium and large caliber ammunition. As Chemring CEO David Price put it,

  > "The acquisition of The Allied Defense Group will significantly enhance our business within the global ammunition and ammunition-related service markets. It provides a complementary range of products and manufacturing technologies, and increases the strength of our product engineering capabilities."[5]

  It's a classic illustration of an investment to enhance positioning in the face of a slow-growth market outlook.

3. **Harvest or transform.** *Finally, how should the portfolio of cash deployment look for a company facing the 'end of history'?* If a defense company were to adopt the belief that either market demand or its competitive positioning was in long-term secular decline, the implications for cash deployment set up a stark choice. Either it should harvest the cash generated by the assets and return it to shareholders, or it should redirect its finite cash flows into investments designed to transform the company into something that can address more attractive markets or employ a more competitive model. The overriding metric should continue to be, "How do I maximize the return on investment on a risk adjusted basis," but the determination of that risk adjusted basis now takes on a heightened significance.

A major realignment that entails exiting one business area and entering an entirely new area is fraught with risk that the company simply may not be set up to manage. At the same time, simply harvesting the residual value in a business also cannot be undertaken without substantial risk. Without a doubt, it is sometimes a board of director's fiduciary duty to exit the business entirely and return all the proceeds to its shareholders. However, the central question in that determination—"Do I create more value (or destroy less value) by holding onto this declining asset than the price I can get by selling it today?"—is hard to answer with precision, especially when set against the context of dynamic change that is often the impetus for secular decline to begin with.

Reflecting on how the defense industrial structure evolved across the last secular divide in the defense markets following the end of the Cold War, we can consider how that era's defense companies faced down this tough choice between transforming its assets or harvesting them. For example:

- The VT Group's divestiture in October 2009 of its stake in BVT, a shipbuilding joint venture with BAE Systems, marked the culmination of its 15-year transformation from a UK naval systems and shipbuilder, called Vosper Thorneycroft, to the trans-Atlantic, pure-play support services company we know today. As VT Group's CEO Paul Lester commented upon completion of the divestiture,

  > "This completes the final step of our exit from our shipbuilding and related activities. It will leave us in a strong financial position with net cash on our balance sheet and positions us to continue to pursue a growth strategy focusing exclusively on support services."[6]

While the impending sale of VT Group to Babcock International would seem to be adding an ironic postscript to this tale of transformation, the 757 pence per share Babcock is paying to VT Group's shareholders, when compared to the 86 pence for which it was trading at the beginning of 1993, is surely a decisive vindication of that company's strategic choice about how to confront secular decline.

- In the summer of 1993, when the new Clinton Administration promulgated its Bottom Up Review (BUR) of the post-cold-war defense program and "last

[5] Chemring Group Press Release on Acquisition of Allied Defense Group, 19 January, 2010.
[6] VT Group Press Release, 24 September, 2009.

supper" industrial strategy, the Northrop Corporation was a manufacturer of military aircraft with $5.5 billion of annual revenue, a balance sheet showing $3.2 billion of assets, and a share price of $13. The BUR had reduced the planned procurement of Northrop's single most important product, the astounding B-2 stealth bomber, to a total of only 21. Faced with this secular turn of events, its CEO Kent Kresa might well have cashed out for what the market would bear; instead, he went to work transforming the company. The following year, it paid $2.2 billion to acquire the Grumman Corporation, the cornerstone of the "world-class aerospace firm, especially in the area of reconnaissance-strike programs"[7] that Kresa said he was beginning to build. Two years later, it added the Electronic Systems Group of Westinghouse, a transaction which Kresa regarded as turning Northrop Grumman into "a defense electronics company with an interest in aircraft, rather than the other way around."[8] In July 1997, Northrop Grumman acquired Logicon, which became the platform for a succession of subsequent acquisitions in information technology and systems integration. The back-to-back acquisitions of Litton Industries and Newport News Shipbuilding in 2001 added naval shipbuilding to Northrop Grumman's portfolio. The crowning achievement of this transformation, the $13 billion acquisition of TRW in December 2002, completed the formation of a diverse, tier-one $26 billion defense company within a decade from the defining presidential election of the immediate post-cold-war era. Today, Northrop Grumman is a $33.8 billion company with a balance sheet showing $30.3 billion of assets and whose shares trade above $65.

Three signals

The final consideration we recommend A&D companies weigh in developing strategies for what to do with the cash concerns the complex signals which any of these actions may convey to investors, and their dynamic effects on share prices. To begin with, it is rarely clear to investors who are even apprised of an investment initiative which "gate," and at what threshold of return, prompted it. Moreover, viewed in isolation, any one initiative in the portfolio of a cash deployment strategy holds ambiguous indications about which underlying market dynamic is its impetus. And all that ambiguity may lead to second-order effects on share prices that undermine the static rationale of the investment to begin with.

Consider, for example, the range of investors' potential responses to BAE's announcement (in its fiscal year 2009 preliminary results) that it plans to buyback £500 million of shares:

1. On the one hand, the most straightforward signal of such a share repurchase plan is that management thinks the company's stock is undervalued. As managers, it may be thought, CEO Ian King and Group Finance Director George Rose have better insight into BAE Systems' prospects than the general market, and by putting money where their conviction lies the announcement may well induce the market to revalue the stock upward. Accordingly, in response to the announcement, Ben Fidler, Deutsche Bank's equity analyst covering BAE Systems, wrote,

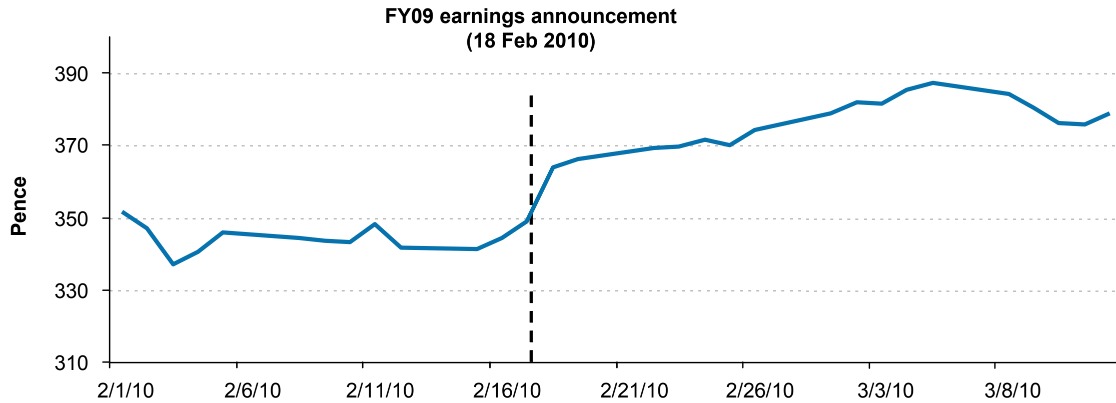
   > "The announced £500m share buyback came as one of the clear positives to emerge from results, with management finally answering overhanging shareholder frustration over BAE's inefficient capital structure and its low valuation. In still choppy equity markets, we believe this [share repurchase] offers substantial appeal to investors."[9]

2. On the other hand, investors could as easily, perhaps, view the announcement as an indication that the company has run out of positive net present value projects or growth opportunities (gone ex-growth), which, in turn, could be viewed negatively and may lead the market to revalue the stock downward. Indeed, it was in anticipation of such a response that George Rose went out of his way in announcing the share buyback to reassure by stating,

   > "This [buy-back] program is being initiated in the context of an appropriately balanced use of capital. In addition to this accelerated return to shareholders, we will continue to pursue our

[7] Northrop Corp. Press Release on Acquisition of Grumman Corp., May, 1994.
[8] Northrop Grumman Press Release on Acquisition of Westinghouse Electronic Systems Group, March, 1996.
[9] Deutsche Bank Aerospace & Defense Global Market Research, "BAE Systems Plc", Benjamin Fidler, 19 February 2010.
[10] BAE Systems Plc Q409 Earnings Presentation, 18 February, 2010.

Figure 3: BAE Systems share price



strategy of organic investment and investing in attractive sectors of the defense market through selective acquisitions."[10]

3. On still another hand,[11] BAE Systems' decision to return cash to shareholders may be fashioned as an expression of good-faith by management, preempting concerns that as the business matures it will grow more focused on the accretion of its "empire" than of earnings for its shareholders. From this perspective, a return of capital signals management's discipline against wasting stockholders' wealth, even where doing so may diminish their managerial realm. Such a signal may, in turn, cause the market to revalue the stock upward.

In the event, BAE Systems' share performance since the announcement has been largely positive, as shown in Figure 3. However, understanding the relationship between that performance and the variety of signals investors may have received by the announcement of BAE Systems's share buyback is further confounded by the fact that all three of these dynamics, plus other "noise" surrounding the announcement, may be in play simultaneously.

While we have illustrated the complex dynamic of investment choices on share prices by reference to a share buyback initiative, a nominally "disinvestment" form of deployment, a similarly complex dynamic also would be in play for other of the broad forms of deployments companies might make with their cash balances:

- **Internal:** For instance, does Rolls-Royce's October 2009 announcement that it will invest $500 million in a new aerospace manufacturing plant at Crosspointe, in Northern Virginia, signal to investors that it is positioning for the rapid growth of demand for aerospace propulsion components? Or, will it instead resonate with investors as an initiative simply to reduce the company's foreign exchange exposure, drawing attention to Rolls-Royce's susceptibility to US Dollar/Sterling fluctuations? According to James Guyette, President & CEO of Rolls-Royce, North America,

  > "For us, Crosspointe is about growth—about positioning for the future. With this new campus in the US, we are spreading our capability around the world, getting closer to our customers, growing our presence in key markets and strengthening our ability to manage business continuity risk."[12]

- **External:** What signal are DynCorp International's recent acquisitions of Casalas & Associates, an international development and strategic communications firm, and Phoenix Consulting Group, a training and management consultancy serving the intelligence community, sending to investors about the company's outlook on the market? Do investors perceive these initiatives as the leading edge of a strategy to transform the company in response to a post-Iraq War secular decline in its traditional contingency support services market? Or will investors accept management's expressed rationale, which is that these transactions represent prudent steps toward gaining

[11] Yes, among other of their deformities, financial economists we know often wield more than two hands.

[12] "Rolls-Royce Expands US Capability; Begins Construction on New Manufacturing Facility in Virginia," 19 October 2009.

exposure for the company to areas that are likely to grow over the next decade, offsetting the company's lower growth outlook for its traditional core markets? As DynCorp's CEO Bill Ballhaus explains it, in a formulation straight from the enhanced positioning playbook, "These acquisitions are consistent with our goal of accelerating growth, expanding service offerings and penetrating new segments."[13]

What DynCorp's experience also points up is that the strength and clarity of the signals investors receive from announced deployments of capital become stronger and clearer as investors see for themselves how a pattern of consistent actions cohere to the strategic rationale in which management persistently frames its choices.

In summary

Among the key strategic issues facing the A&D sector in 2010 is how to deploy the very considerable cash balances that have been accumulating on balance sheets since the beginning of the decade. This question is now especially important because in the markets for both commercial aerospace products and defense systems, there is inflection-point change in the character of the strategic landscape—change in technology, capital, regulation, etc.—as well as in the immediate market for what customers will buy and how competitors compete. Now that A&D equity values are on the upswing, the presumptive rationale of share buybacks is less strong, and companies will have to take a fresh look at their cash deployment strategies. We believe that a more disciplined walk through the gates that test which investments underwrite superior risk-adjusted returns will lead A&D companies to deploy their cash balances in a manner that better balances their reinforcement of internal strengths and expansion through external growth, while appropriately attending the remuneration of investors through shareholder dividend and repurchasing programs. The particular balance of these objectives in the portfolio of any cash deployment strategy should reflect a company's outlook for growth in its markets, the track of its chosen strategy for addressing change in that market, as well as its ability to manage the overtones of the signals its actions register with investors.

How Charles River Associates can help

CRA's Aerospace and Defense Practice leverages a broad range of capabilities and experience, spanning strategy formulation through investment banking expertise and equity investment, to achieve for its clients a balanced approach to addressing capital deployment and other critical challenges facing A&D executives.

In particular, we can help companies make strategic choices about:

- Evolution of the business environment
- Management of its portfolio
- Planning for growth
- Mergers and acquisitions
- Repositioning of business offerings
- Management of technology

About CRA

Aerospace and defense consulting at CRA combines deep industry knowledge, rigorous analytics, and trusted objectivity to guide executive decisions about critical strategic choices in the aerospace and defense industry. Our consultants provide broad perspective and thorough understanding of the complex strategic landscape in which aerospace and defense firms operate, based on experience drawn from leading aerospace and defense companies, financial institutions, government agencies, and prior service in the Armed Forces.

To learn more, please visit **www.crai.com/aerospace**.

[13] DynCorp International Press Release on Acquisition of Phoenix Consulting Group, October, 2009.