MARCH 2015



AEROSPACE AND DEFENSE PRACTICE PUBLIC SECTOR PRACTICE

International defense sales:

Opportunities, but not for all

Most defense contractors expect to find growth in international sales and noncore businesses. Only a few are likely to succeed. Five actions can improve their chances.

David Chinn, Kevin Dehoff, and Giacomo Sonnino Almost all Western countries have significantly cut defense spending in recent years, reflecting both a drawdown of forces in Afghanistan and Iraq and cuts to their overall government budgets. This is a long-term trend and has already affected equipment-acquisition budgets, with more cuts likely to come. Many defense companies say that they expect to replace the lost revenues with international sales—to countries other than the traditional large customers (the United States and some countries in Western Europe). However, our research indicates that the gap is much wider than the "primes"—or the analysts who cover these prime contractors—currently forecast. We

estimate the cumulative shortfall in revenues from the US government's investment-account spending to be \$50 billion between 2010 and 2015,¹ of which only about \$29 billion is forecasted to be replaced by growing international sales.

In this article, we explain our research and suggest five actions that defense companies can take to succeed in international markets: understand the opportunity in detail, at the country and program level; develop more affordable products adapted to the needs of individual markets; organize for international growth, evolving from a narrow Western focus to a global structure; get the right talent to pursue domestic opportunities and establish international opportunities; and optimize offsets and other obligations through sound and responsible strategies.

Reality versus expectations

With Western defense budgets now in decline, aerospace and defense companies that sell to these governments are looking for ways to replace the lost revenues. The widely held expectation is that growth will come from international defense sales. Companies are also attempting a shift to adjacent businesses, including commercial aerospace, civil helicopters, cybersecurity, business with other government departments (such as public security), and other businesses, as ways to make up for the reduction in defense spending.

Our research suggests that the industry's apparent optimism might be misplaced, at least with respect to the potential growth in international defense sales. We analyzed this issue in two ways. First, we reviewed global defense spending-that is, purchases by the 18 largest government defense buyers, representing 83 percent of addressable global spending. (We excluded China and Russia from this analysis; for more on their spending, see sidebar "Nonaddressable spending.") We then analyzed the revenues generated by the defense industry (the 37 largest contractors, which generate 84 percent of all revenues created by the top 100 contractors). We analyzed each company and business unit for the period 2010 to 2015, assessing defense revenues; aerospace, security, and adjacent-business revenues; and their geographical split. We used actual revenues whenever possible; for estimates of current and future

revenues, we relied on consensus market expectations, as seen in company projections, analyst reports, and other sources. (For more on our methodology, see sidebar "About this research.")

We estimate that growth in defense spending outside the United States will not offset the US decline (Exhibit 1). The total US defense budget (covering personnel, operations and maintenance, procurement, and all other categories) contracted by \$14 billion between 2010 and 2012 and is forecasted to contract by \$64 billion between 2012 and 2015; \$35 billion of the reduction from 2012 to 2015 is forecasted to come out of investment—that is, procurement and research, development, testing, and evaluation (Exhibit 2). (Figures on defense spending and investment are nominal.) While there is considerable variation among European defense budgets, collectively, they contracted by \$4 billion between 2010 and 2012 and are forecasted to contract by a further \$4 billion between 2012 and 2015, while investment will be roughly flat over the same period. On the other side, the addressable international markets increased their total spending by \$55 billion between 2010 and 2012 and are expected to add a further \$47 billion between 2012 and 2015; investment accounts are forecasted to account for \$15 billion of this growth (see sidebar "Nonaddressable spending").

Exhibit 3 lays out the pertinent facts across the entire period we studied, 2010 to 2015. Annual US defense spending in investment accounts (equipment procurement and R&D) is slowing, from \$210 billion in 2010 to \$195 billion in 2012 to \$160 billion in 2015. US revenues for

Nonaddressable spending

In recent years, China and Russia have increased their defense spending dramatically in most categories, including investment (exhibit). Indeed, these countries represent a significant portion of the growth in international spending, but this growth is not available to foreign defense

primes. These governments do not typically purchase equipment on the open market; they instead procure mostly from state-owned and domestic suppliers. For this reason, we exclude them from our analysis.

→ CAGR, 2010–15 → CAGR, 2010–12 → CAGR, 2012–15

Exhibit

China's and Russia's defense spending is growing quickly but is not accessible to foreign firms.



 $^{^1}$ Compound annual growth rate. Note that rates may not match yearly values shown, because of rounding. Source: Ministry-of-defense reports; Teal Group

CAGR, 2010-15 CAGR, 2010-12

Exhibit 1 International growth will not offset the decline in Western spending.

Government defense spending, \$ billion (nominal)



¹ Compound annual growth rate. Note that rates may not match yearly values shown, because of rounding.

Source: Ministry-of-defense reports; National Defense Budget Estimates for FY 2015, US Department of Defense, 2014, defense.gov; Teal Group; McKinsey analysis

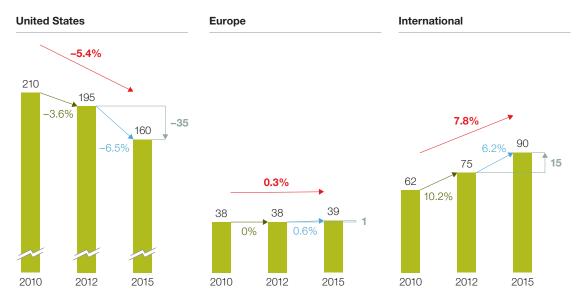
defense companies are also declining. The companies we studied generated about \$220 billion in revenues in the US in 2010² and \$208 billion in 2012. But in 2015, companies and analysts still expect that they will generate \$190 billion in revenues—\$30 billion more than the government currently plans to spend. Even with revenues from other departments and continued subcontracting among these firms, companies' expectations might come up well short of reality.

Can they address this mismatch of expectations through new sales elsewhere? Our research suggests that not every company will be able to do so. Other countries outside the United States plan to spend more, it is true; European and international investment accounts are set to rise from \$99 billion in 2010 to \$113 billion in 2012 to \$128 billion in 2015. But analysis of previous spending plans suggests that much of this projected spending might fade and be directed inward to the domestic industry. For example, European defense spending has not met forecasts; a 2010 projection from the Teal Group for 2013 was 8 percent higher than the actual spending. Large tenders in emerging countries (for example, fighter-aircraft programs in India, South Korea, and the United Arab Emirates) have been delayed, retendered, or canceled altogether. Many

Exhibit 2 The gap in investment spending is even wider.

Government defense investment, \$ billion (nominal)





¹ Procurement and research, development, testing, and evaluation.

Source: Ministry-of-defense reports; National Defense Budget Estimates for FY 2015, US Department of Defense, 2014, defense.gov; Teal Group; McKinsey analysis

defense firms are not set up for success overseas; they do not always have the products these governments want, and many are not organized to produce them and sell them well. Despite companies' public statements and international growth ambitions, our analysis suggests that revenues from international countries are forecasted to rise only from \$113 billion in 2010 to \$116 billion in 2012 to \$118 billion in 2015.

Aerospace, security, and other adjacent businesses (for example, civil helicopters and security products and services) are enjoying strong growth that looks set to continue. Thanks to the up cycle in commercial aircraft and growth in adjacent

markets, industry-wide growth has offset defenserevenue losses in recent years and is expected to continue to do so (though with the important proviso that a big portion of that growth is captured by two large aircraft manufacturers; excluding them, the growth in commercial is not big enough to offset the decline in defense). The aerospace, security, and adjacent-business portion of the business mix at top defense contractors is expected to shift to 57 percent by 2015, up from 47 percent in 2010.

We divided our sample of 37 companies³ into those that are defense focused (that is, they derive more than 50 percent of revenues from

 $^{^2}$ Compound annual growth rate. Note that rates may not match yearly values shown, because of rounding.

defense) and those that are commercial focused (that is, they derive more than 50 percent of revenues from aerospace, security, and adjacent businesses). We found that the shape of aerospace and defense companies' portfolios makes a significant difference in their performance. Growth at commercial-focused companies is expected be about 5 percent faster annually

than at defense-focused companies between 2012 and 2015.

A geographical split is also apparent here: European companies, which are more exposed to international markets and more diversified, are forecasted to outgrow US companies by about two percentage points annually between 2010 and 2015.

Exhibit 3 Revenue projections for the defense industry are overly optimistic.



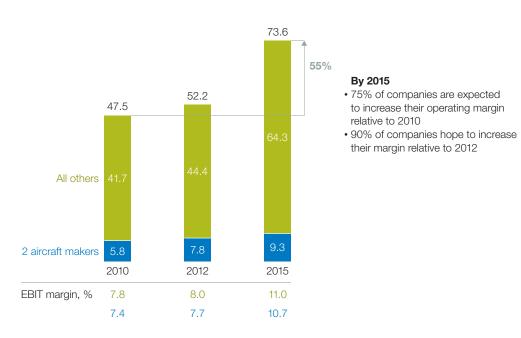


¹ Compound annual growth rate. Note that rates may not match yearly values shown, because of rounding.

Source: Analyst reports; annual reports; National Defense Budget Estimates for FY 2015, US Department of Defense, 2014, defense.gov; McKinsey analysis

Exhibit 4 Companies and analysts are expecting an unprecedented 55 percent growth in profits.

Industry earnings before interest and taxes (EBIT), \$ billion



Source: Analyst reports; annual reports; $Defense\ News;$ McKinsey analysis

Despite the challenges, the industry's confidence is high. Our review suggests that for the industry as a whole, companies and analysts are predicting an unprecedented 55 percent improvement in the profitability of their operations from 2010 to 2015 (Exhibit 4). Indeed, 90 percent of companies say they hope to increase their operating margins over this period.

Delivering on the promise

The industry as a whole may not make good altogether on its growth and profit targets, but there is no reason that individual companies cannot do so. International growth can help close the gaps that arise from shrinking European and US defense budgets; in fact, some defense

primes are growing their international businesses successfully. To compete in international markets (and in general), defense players need to be much more "commercial" and nimble in their approach. Almost all defense customers now expect their suppliers to deliver the best technology at the lowest cost, regardless of where it originates from. Companies need to address five challenges to be successful internationally.

1. Is there enough value in the opportunity?

Companies need to understand the international opportunity accessible to them based on their specific capabilities at a detailed level, assess the opportunities alongside those in their core Western markets, and allocate efforts accordingly. However, focusing on inter-

national markets might not be the answer for everyone.

Companies need to work out where to focus through a detailed assessment, by country and by program, of the available opportunities.

Very often we hear executives aspiring to grow internationally or in a specific region. Sometimes this leads to investing considerable effort in small opportunities, when most of the growth relevant to that company lies in a few programs in a different set of countries.

Executives should study the specific programs and upcoming contracts available in each country and create a set of countries to address, considering each country's needs and objectives, the status of the local defense industry, and the particular country's relationships with other governments. Understanding which countries are big spenders is not enough. At the same time, companies need to assess whether specific programs or tenders are really accessible, given their specific capabilities, products, and relationships. And they need to compare the international opportunities with those in their traditional markets. International sales will not always be at the top of the list when compared with opportunities available in domestic markets or adjacent markets.

This threefold approach results in a prioritized list of opportunities to pursue in international markets. Companies can then work to increase their chances of success, for example, by seeking government support, establishing a local presence in the country, structuring partnerships with local suppliers, suggesting improvements to governments' stated requirements, and developing tailored solutions.

2. Is the offering 'fit for purpose' to meet international needs?

Current products and service offerings, developed for traditional defense customers, do not always meet international customers' needs. Defense companies must understand these customers' specific cost and performance requirements; often this will reveal the need to develop more affordable products. Relying on Western-funded product development might not be enough to win international business.

Historically, defense companies have addressed international opportunities by trying to export products developed for their domestic customers. This has the obvious benefit of leveraging substantial development efforts, selling a ready-to-use and often fully tested product and hence generating profitable business. But it doesn't necessarily meet international customers' budgets.

Companies will need to move to a market demand—based approach to develop affordable products, setting project-cost targets and developing rigorous processes for taking out costs (direct labor, direct material, and indirect) to meet demand requirements at target cost.

This approach begins by working backward from the best possible understanding of customer demand and the price customers will pay and then using this to develop a cost structure that will deliver the products needed at the target cost. This is a new way of working. It starts with the answer—the final price—rather than starting with the product and figuring out the price later. It depends on a realistic view of potential market outcomes and the volumes

associated with those outcomes. That, too, is different from the conventional approach. The market demand—based affordability strategy challenges the historical structure of costs and budgets to force the company to take a new position on key trade-offs. Done well, this results in a competitive cost advantage over rivals.

3. Is the organization set up to deliver internationally?

A performing business in Europe or North
America needs to evolve to deliver internationally.
Companies must set a clear international
aspiration: Is it multinational? Is it global? They
should then manage strategies, organization
structures, and risks accordingly, adapting their
operating model and supply chain to win
in new markets and leverage the international footprint.

Each defense company needs to set its international ambition and posture. It might, for example, decide it wants to be a Western company with some exports, an international defense company present in multiple countries, or a truly global defense organization. The aspiration should consider the challenges and risks. Growing internationally tests the company's strategy and organization, creating pressure to be locally flexible and adaptable while also following global standards and practices. And in many cases, the pursuit of foreign

sales takes defense companies deep into areas of unfamiliar risks that many find difficult to evaluate and manage. Becoming a truly global defense organization will require a global footprint, global supply chain, local capabilities, local partnerships, alliances, and joint ventures.

Once companies know what they want to be, where to go, and what opportunities to pursue, they need to evolve their operating model and organize to compete, succeed, and deliver internationally. Defense companies face organization-design models that range from global to regional and country specific. Companies need to take into account the local market characteristics and satisfy local needs. Unfortunately there is no silver bullet, and no single organization model is right for all companies.

Global organization models can leverage scale and benefit from shared infrastructure (for example, product development, R&D, support functions, and technologies) and maximize access to talent pools, but they may suffer a lack of agility and difficulty in adapting their operations to country-specific needs. On the other side, regional organization models introduce a layer between the global corporate or Western headquarters and the countries that the defense company wants to address. This comes at

Defense companies in Europe and North America need to evolve to deliver internationally. an extra cost, but regional units can help tailor operations to local business needs and develop relationships, and they can still deliver economies of scale by sharing infrastructure across countries.

Finally, country-specific, locally driven organizations can maximize tailoring and agility, but this may duplicate some infrastructure, increase management complexity, and may not fully exploit the benefits of being a global defense prime. Achieving the internationalization strategy and delivering with an international organization structure might require a journey, for example, from a domestic business with an export-based international presence, which leverages products developed for the domestic customer, to an international business with a multinational presence, and eventually to a global defense business that can develop new products competitively to meet demands.

At each step, companies will need to adapt their management approach; typically, this will include redesigning support functions, governance, controls, and processes such as investment allocation. They will want to be mindful of the powerful economic leverage to be had from shared infrastructure and shared services ranging from R&D centers to procurement functions. The objective is to become a customer-driven organization, one that is more commercial, more agile, and better able to respond competitively to market demands.

4. Does the business have the right people to operate in a completely different environment? Developed-market defense organizations have plenty of successful managers who have

built the business over time. This doesn't mean that they will be successful in establishing a business on the other side of the world.

The company's vast pool of skills, knowledge, and experience is an asset, but making the most of it is difficult. Attracting, developing, and deploying talent in new markets at the required pace is a challenge; nevertheless, defense companies must do it to compete.

Deciding where to go and how to organize is not sufficient to succeed. Companies need to get the right talent. Successful developed-market managers are often transferred to foreign countries to build the business after a successful tender is won through contracted agents. Unfortunately, those managers don't always do well abroad.

The reality of building a local business is complex. Language and culture are only the first barriers. Developed-world defense companies need to build local customer relationships, establish a manufacturing presence, form partnerships, and comply with local regulations and laws. Inevitably, this requires new international and local talent.

But qualified managers are getting harder to find and more expensive as demand grows in emerging markets. Defense companies need to compete for the often limited local management talent in attractive markets across all functions, from human resources and finance to business development, sales, and the supply chain.

Foreign companies need to shape their employee value proposition to attract local talent, for

example, by offering recruits the opportunity to work elsewhere in the world during their career, offering global development and specialized training programs, and designing special programs to tackle cultural and linguistic barriers that impede local executives from taking jobs at regional and global levels. In any market, the basic ingredients of a strong employer brand will be competitive compensation; attractive working conditions; managers who develop, engage, and support their staff; and good communication in order to stay integrated with the global organization while retaining some local tailoring.

If a company succeeds at this, entering international markets can pay dividends for the entire firm. Not only could it provide access to a new pool of talent—especially engineers, who are particularly scarce in many markets—but it can also give the company more affordable manufacturing and production resources and more cost-effective resources for support functions and shared services.

5. How should offsets and other regulatory requirements be addressed?

Companies typically look at offsets as a burden and a source of risk along with the extra regulatory challenges attached to entering new markets. Being successful in international markets requires turning offsets and regulation into a source of competitive advantage, while also complying with relevant laws, such as the Foreign Corrupt Practices Act. Offsets can be an important enabler for success in international markets. Companies need to

develop sound offset strategies and adapt quickly to shifts in market-access regulation.

Many governments impose industrial-compensation arrangements as a condition of the purchase of goods and services from nondomestic suppliers. Over the past few years, several nations have introduced reforms in their offset policies that are raising the bar for contractors' industrial participation. Some contractors view these offset requirements as "pay to play" instruments and sources of increased risk. There are risks, to be sure, as well as ethical considerations and additional costs. But offsets can also contribute to successful sales in foreign markets.

Offsets can help Western companies tap into markets that would otherwise be difficult to access. Relationships with local partners are part of the table stakes in major military-procurement competitions, so it is common for contractors to propose offset agreements aimed at developing industrial relationships through joint production or development. For example, Israeli manufacturers have built a top global position in the export of unmanned aerial vehicles in part by cultivating robust local relationships, including joint ventures in Brazil and other emerging defense markets.

A sound offset strategy starts with context: a company should objectively evaluate the methods that have proved successful in the past—both its own and those of its competitors. Any proposed offsets should be consistent with the company's

About this research

Scope. Our research covered defense spending and revenues worldwide. We reviewed the budgets of 18 significant purchasers of defense equipment, accounting for 83 percent of all addressable military spending worldwide in 2012. We excluded China and Russia because they buy very little equipment from Western firms. We analyzed the revenues of 37 large aerospace and defense companies; together, they account for 84 percent of all defense revenues worldwide.

Period. We reviewed defense budgets and revenues for the period from 2010 to 2013, and we used company statements and analyst reports to estimate the period from 2014 to 2015. Many countries budget for defense on two-, three-, or five-year cycles; we used the current cycle, and for cycles ending in 2014 and 2015, we extrapolated from the current cycle. For the US Department of Defense budget, we used actual outlays for 2010 to 2013 and budgeted outlays for 2014 to 2015 according to the 2014 and 2015 US national defense budget estimates. We did not make any assumptions about the ways in which the Budget Control Act might or might not affect future defense budgets.

Defense spending and revenue definitions. For defense spending, we used actual outlays whenever possible. Outlays most closely represent cash disbursements from governments to their contractors. For revenues, we used sales, not orders, except in a few

cases where a company's order book was used to estimate the split between US and international sales. All defense spending and investment figures are nominal, for best comparison with industry revenues in each year of the analysis (2010, 2012, and 2015).

Geographical splits. All defense spending is assumed to take place within the budgeting country. Revenues are recognized according to the geographic base of the customer to which they are booked.

Defense/nondefense split. Many companies do not use these categories in their reporting; some lump together defense and civil revenues, while others lump together civil, commercial, and other adjacent businesses. We have analyzed each company's businesses and made best efforts to segregate defense, commercial, and adjacent-business revenues.

Sources. We called upon several sources in our research: analyst reports; company annual reports; earnings calls; investor presentations; ministry-of-defense documents; *National Defense Budget Estimates for FY 2015*, US Department of Defense, 2014, defense.gov; outlays; press reports; and the Teal Group.

overall international strategy. Contractors should avoid offset programs that may disrupt operations or limit opportunities in other parts of the company—and those that run afoul of relevant laws, such as the Foreign Corrupt Practices Act. They must understand customer preferences; governments do not always articulate these, and offset teams must perform due diligence to understand their priorities. Offset teams will need detailed knowledge of local acquisition regulations in order to mitigate reputational and legal risks. And defense companies must understand who the most important stakeholders are and how to engage with them effectively.

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The aerospace and defense industry is expecting to earn revenues that international government customers do not plan to spend. We think it unlikely that the industry as a whole will achieve its growth objectives. But that doesn't mean any given company cannot succeed, provided it responds vigorously to the five challenges outlined above. •

- ¹All budget figures for the US Department of Defense in this article are outlays (see sidebar "About this research").
- ²This figure is slightly more than Department of Defense outlays because defense businesses capture spending from other government departments and because subcontracting results in double counting of a small amount of revenues.
- ³ We exclude two large commercial aircraft makers from this analysis; the two companies account for a large share of commercial revenues and have grown even faster than their commercially focused peers. Including them would make growth and volumes in commercial businesses seem even greater than they already are. The two companies also have large defense businesses, and we include them in the defense-revenue analyses in this article.