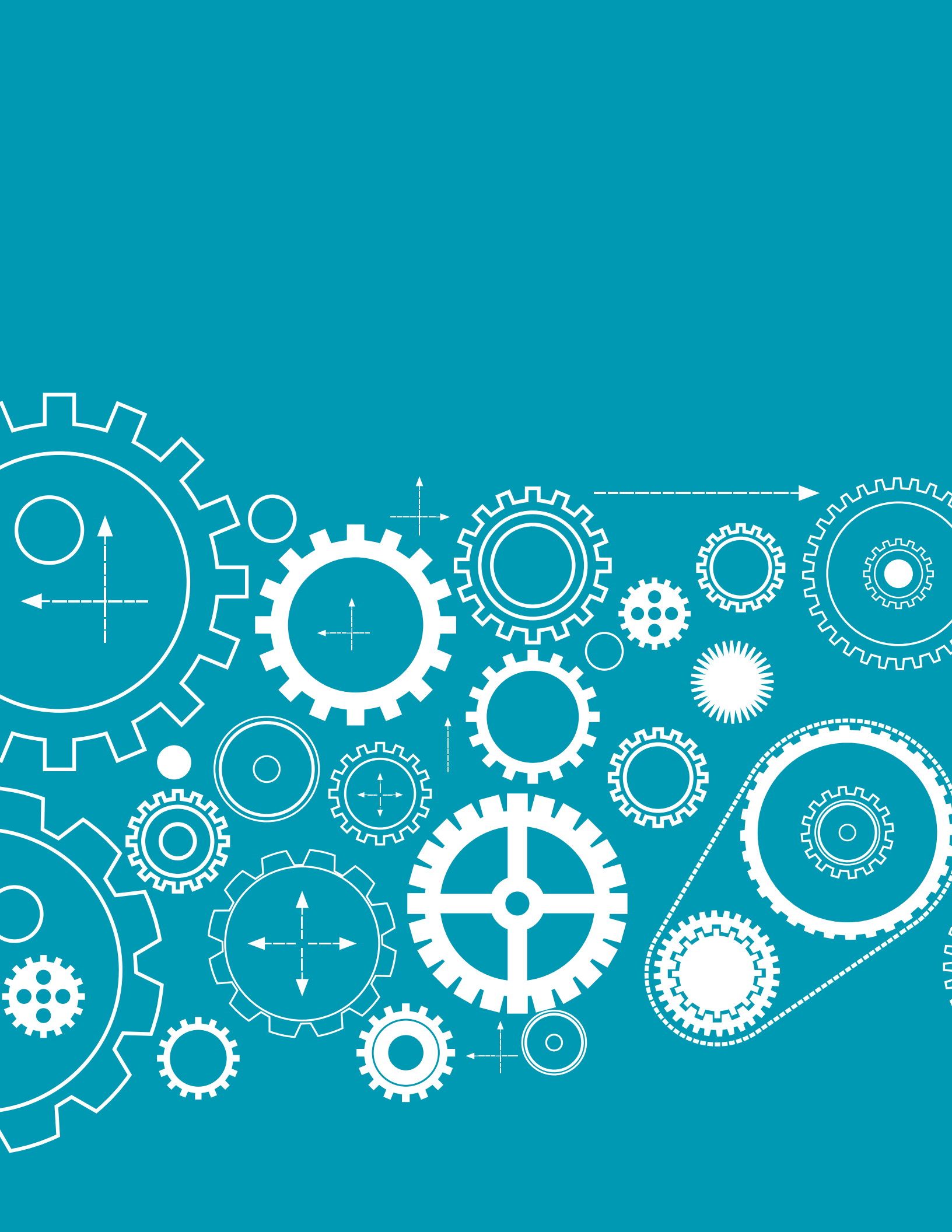
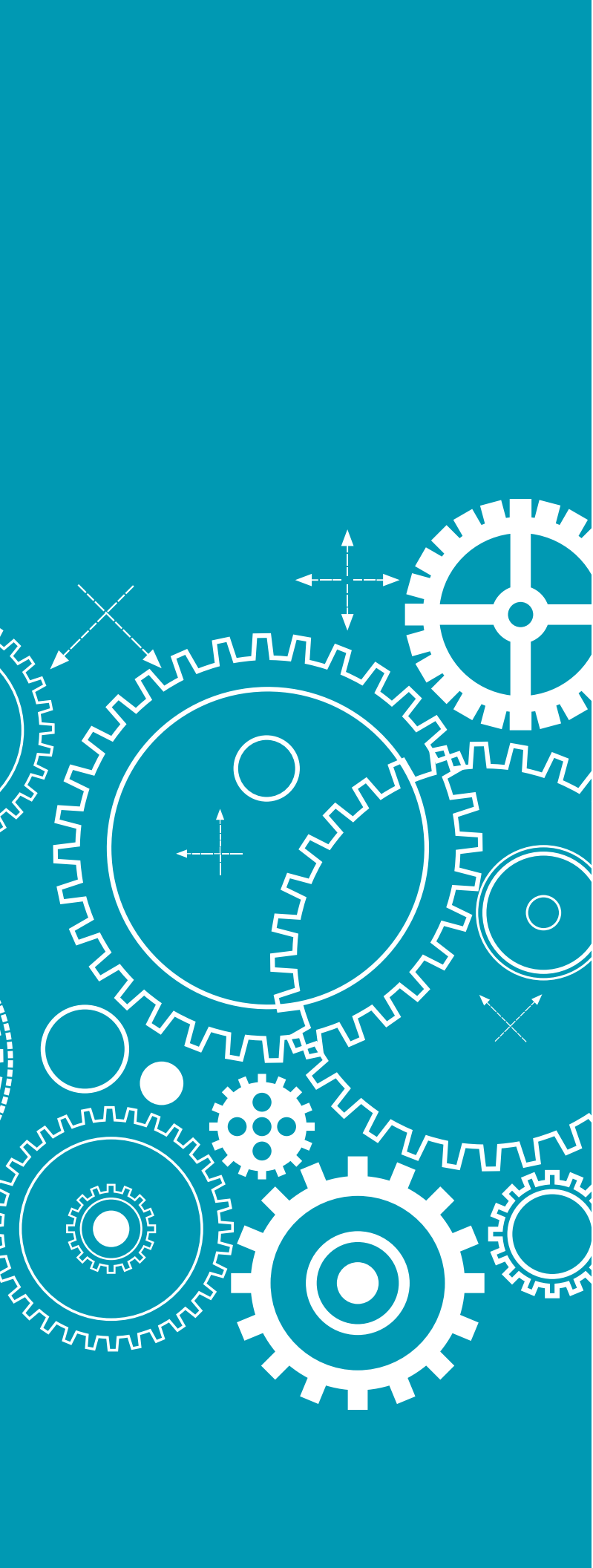


Merger and acquisition trends in aerospace and defense A closer look at value creation





Mergers and acquisitions (M&A) in the aerospace and defense industry are changing. While we still expect to see a high volume of transactions in the near term, the objective of many deals has shifted. Specifically, the aerospace and defense industry is moving away from megamergers aimed at generating cost savings and synergies toward acquisitions that deliver new products and new markets.

To assist companies in solving the challenges that may surface during this next wave of aerospace and defense M&A, we analyzed M&A data and interviewed leading industry advisors. Below is a summary of our outlook on aerospace and defense M&A activity:

- Near-term aerospace and defense M&A is likely to be focused on growth rather than economies of scale
- Given recent industry consolidation, we view megamergers as likely to decrease in frequency and expect an increase in acquisitions of smaller targets
- Aerospace and defense companies are likely to use acquisitions as a means to gain new capabilities, access emerging technologies, and expand geographically
- Growth-focused acquirers will likely be faced with a new set of questions: How can we vet targets in niche markets with limited information? How will we integrate operations with overseas markets? How can we preserve innovation and integrate talent of smaller acquisitions?
- In order to limit future research costs and product development risk, aerospace and defense companies may increasingly structure joint ventures and partnerships as opposed to outright mergers and acquisitions

To get ahead of the above and other potential changes in the aerospace and defense M&A landscape, companies should act now to reevaluate and consider updating their approach to value creation via M&A. Corporate development and integration teams will need to take a hard look at their entire M&A lifecycle, from target screening all the way to post-merger integration, and adjust their strategies to accommodate the evolving landscape.

A healthy aerospace and defense M&A market

Global M&A activity in the aerospace and defense industry reached its highest level ever in 2015. Total transactions for the year amounted to \$51.8 billion in value, and the number of transactions announced in 2015 increased 17.1 percent year over year. While 2016 aerospace and defense M&A activity declined relative to this 2015 peak, the 235 transactions announced in 2016 actually represented an increase over 2015 transaction volume, and the \$17.2 billion in total transactions still indicates a healthy, robust aerospace and defense M&A market.¹

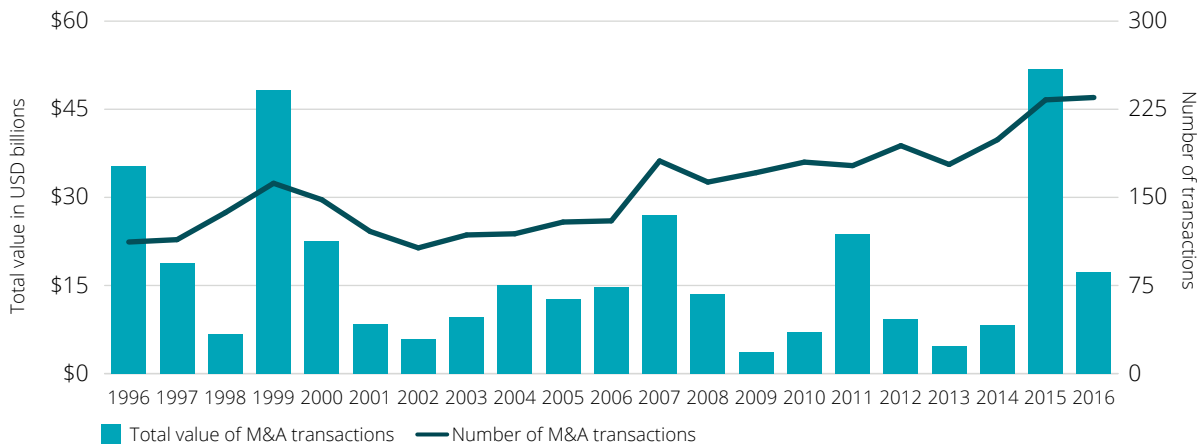
Several macroeconomic factors suggest a sustained level of M&A activity in the short term, namely

available capital among traditional aerospace and defense acquirers, the role of private equity acquirers, and early guidance from the new US administration on defense spending.

Available capital

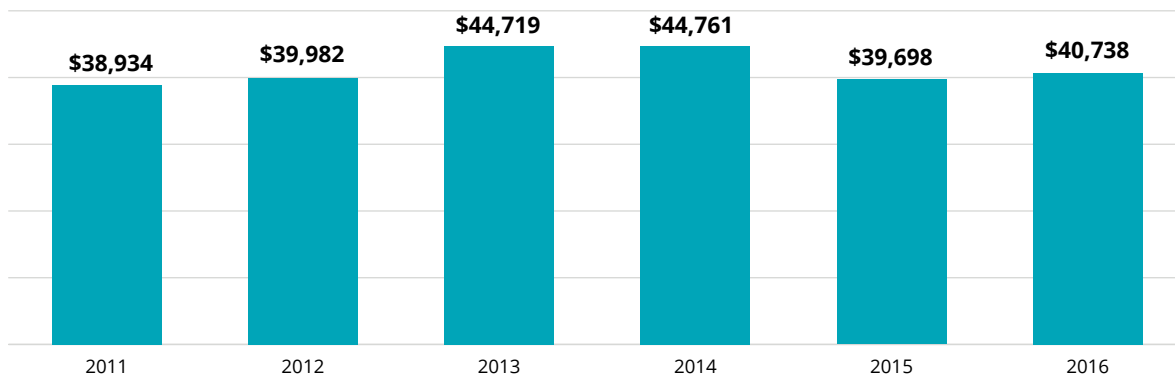
The 2016 calendar year-end cash balances of US aerospace and defense companies totaled nearly \$41 billion (Figure 2), despite the significant M&A activity in which these companies have collectively engaged over the past two years.² This indicates that traditional aerospace and defense acquirers still have significant capital to deploy toward acquisitions in the near term.

Figure 1. Annual aerospace and defense transactions and transaction value (1996–2016)



Source: SDC Platinum

Figure 2. Combined calendar year-end cash balances of US aerospace and defense companies (2011–2016) in USD millions



Source: S&P Capital IQ

Private equity acquirers

The number of private equity acquisitions in the aerospace and defense industry has increased over the past five years, peaking with 31 such acquisitions in 2015 (Figure 3).³ In the near term, middle-market aerospace and defense companies are likely to remain attractive targets for private equity investors, particularly those pursuing bolt-on acquisitions for existing portfolio companies. As a result, traditional aerospace and defense companies are likely to continue encountering private equity investors in bidding on middle-market targets.

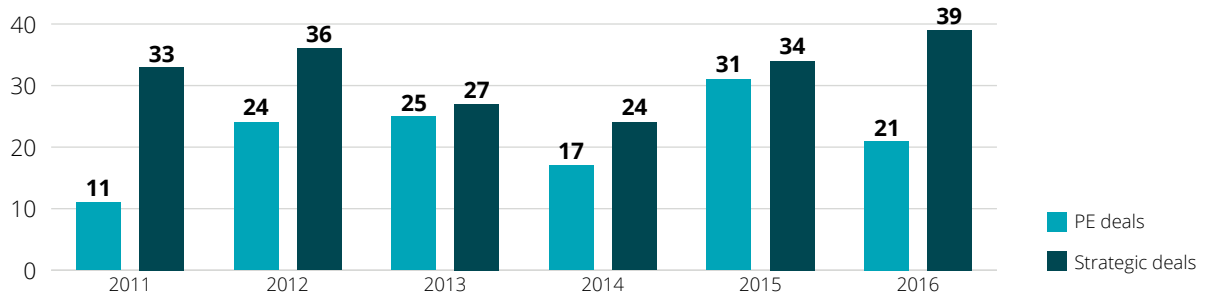
US defense budget

While there may be uncertainty as to the priorities of the new US administration as well as the implications of those priorities, our research suggests that, historically,

the defense budget, which has more than doubled in the last 20 years, has not been impacted by a change in administrations, and that aerospace and defense transaction volume does not closely correlate to the overall defense budget (Figure 4).⁴

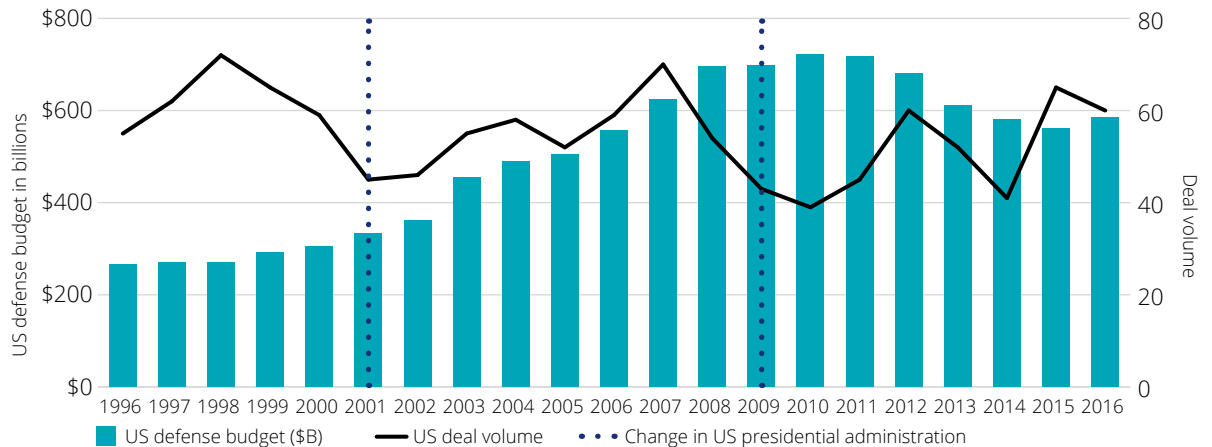
Despite this uncertainty, initial guidance from the new US administration suggests a prioritization of military spending and an emphasis on modernizing equipment and systems, which may drive both investment and M&A activity in the aerospace and defense market.⁵ In summary, several factors suggest a sustained level of strong aerospace and defense M&A activity, and those industry leaders who prepare themselves for likely changes in this next wave of M&A activity stand to better position their companies to benefit from potential opportunities.

Figure 3. Number of strategic and private equity acquisitions in the US aerospace and defense industry (2011–2016)



Source: SDC Platinum

Figure 4. Annual US defense budget and US aerospace and defense deal volume (1996–2016)



Source: SDC Platinum, www.defense.gov, www.cbo.gov

The evolving focus of aerospace and defense M&A

Deloitte anticipates that the next phase of aerospace and defense M&A activity will differ slightly from the recent past in several ways. We see aerospace and defense megamergers as likely to decrease in frequency in the near term, driven in part by the high degree of existing industry consolidation, as noted by the fact that the top 10 largest aerospace and defense companies accounted for 86 percent of total 2016 industry revenues.⁶ Further, we anticipate aerospace and defense companies increasingly looking to M&A (and joint ventures) as a means to grow, specifically by

expanding product portfolios, gaining new technical capabilities, and expanding into new geographies.

Product expansion

Among strategic aerospace and defense acquisitions over the past six years, product expansion has solidified its position as the most frequently cited deal rationale. Over the past two years, for instance, product expansion drove nearly half (45.2 percent) of all strategic aerospace and defense acquisitions (Figure 5).⁷

Figure 5. Annual aerospace and defense acquisitions by deal rationale (2011–2016)

	2011	2012	2013	2014	2015	2016
Product expansion	17	23	15	16	19	14
Technical capabilities	1	3	1	1	4	7
Capability expansion	4	1	1	1	2	4
Geographic expansion	–	1	1	2	–	2
Market expansion	2	–	1	2	–	2
Operational efficiency	1	1	–	–	–	1
Financial investment	–	–	–	–	2	1
Others	8	7	8	2	7	8

Source: SDC Platinum

Among these acquisitions driven by product expansion, acquirers have historically and most frequently sought to expand into new areas of aircraft engine and component manufacturing. And that remained true over the past two years; of the 33 product expansion acquisitions in 2015 and 2016, aircraft engine and component manufacturing accounted for 11 (33.3 percent). The last two years, however, also included a surge in product expansion acquisitions focused on search, detection, and navigation equipment, of which there were eight (24.2

percent). A majority of these deals involved targets that offered threat detection and defense products, which have emerged as a particular interest of aerospace and defense acquirers.⁸

Going forward, we project that communications equipment, surveillance, and unmanned aerial vehicles may attract particular M&A interest within the defense sector; in aerospace, aviation systems and component manufacturing are well positioned to attract strong M&A activity.

Technical capabilities

Acquiring technical capabilities has emerged as an increasingly prominent driver of strategic aerospace and defense deals, accounting for just 8.3 percent of strategic acquisitions in 2012 but 17.9 percent in 2016 (Figure 5). The technical capabilities that have recently been most in-demand via acquisition include: software design for intelligence, surveillance, and reconnaissance (ISR) applications; missile system design; and design of telecommunications equipment to be used in aircraft.

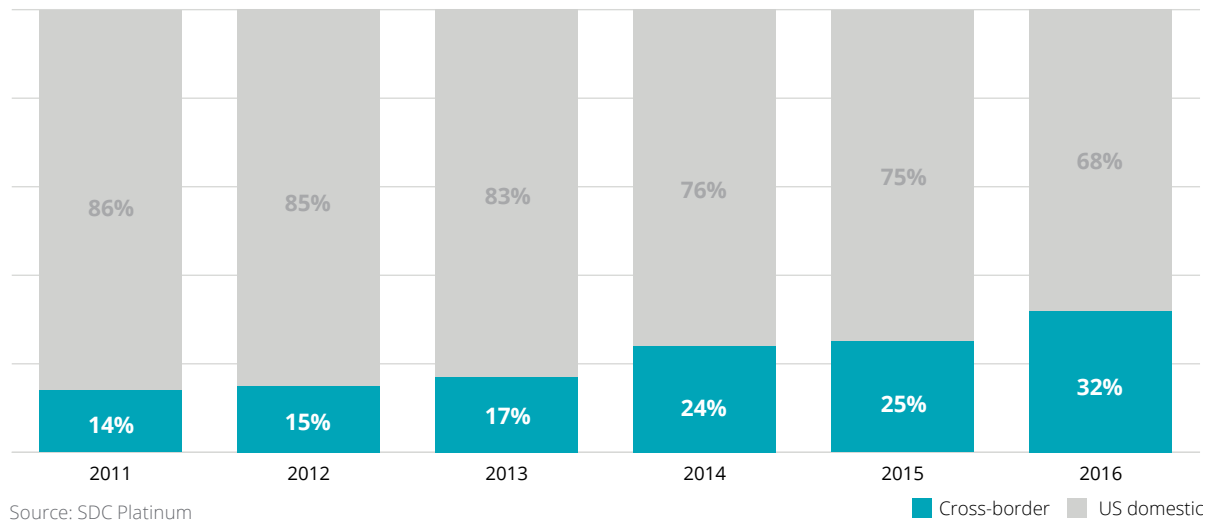
Geographic expansion

Though geographic expansion is infrequently cited as a primary deal rationale (Figure 5), aerospace and

defense M&A has become increasingly cross-border in nature. The share of total US aerospace and defense acquisitions that were cross-border, for example, has increased from 14 percent in 2011 to 32 percent in 2016 (Figure 6).⁹

We anticipate this trend toward cross-border deals continuing in the near term, as aerospace and defense companies seek to increase their access to new channels and customers beyond their core markets. In fact, so far in 2017 we have already observed that non-US clients show an increased interest in acquiring manufacturing capabilities within the US in order to support US-based defense programs.

Figure 6. US domestic and cross-border aerospace and defense acquisitions as a percentage of total US aerospace and defense acquisitions (2011–2016)¹⁰







Joint ventures

In addition to strong M&A activity, Deloitte anticipates a trend toward more aerospace and defense joint ventures (which are often cross-border), as companies increasingly look to share research and development costs and manage product development risk. Joint ventures and partnerships may be especially important for companies pursuing foreign military contracts, as governments may increasingly prioritize domestic manufacturing or other operations when awarding contracts.

US tax reform impact on valuation

The expressed intent of the new US administration to focus on broad tax reform may impact M&A strategy and valuations in several ways. For instance, although the breadth and scope of US tax reform are uncertain, reform efforts may impact US-based corporations' operating models as well as their after-tax earnings, which would impact transaction valuations.

In the context of M&A strategy and valuations, possible results and impacts of US tax reform-related changes could include:

Possible result of tax reform	Potential impact on M&A
 Reduction to the US corporate tax rate	Higher valuations of targets due to increased after-tax cash flows for US-based earnings
 Disallowed corporate interest expense deduction	Increase in the cost of capital on an after-tax basis, potentially pushing acquirers to look at offshore borrowing to fund deals to retain tax benefits on interest costs
 Territorial tax system	Multinationals' ability to repatriate offshore cash on tax-efficient basis to fund transactions, capital expenditures, or debt service (due to potential lower US residual tax)
 Border-adjustable tax	Exemption of exports and disallowance of US deductions for foreign-based or imported services and production may increase the appeal of companies with a high percentage of domestic exports or production capabilities as strategic acquisition targets

Below we have summarized the potential business and transaction valuation impacts of two different reform proposals:

Scenario 1: Tax reform blueprint with a border-adjustable tax, which is proposed by Republicans in the US House of Representatives

Scenario 2: 2014 Camp tax reform plan

	Current tax law	Scenario 1 – border-adjustable tax	Scenario 2 – wider tax base	Business considerations
Top corporate marginal tax rate	35%	20%	25%	Earnings per share
Depreciation	Costs generally recoverable over a period of time	Full expensing in year one	Longer recovery periods (straight-line method) May elect additional deduction for inflation	Capital expenditures
Interest expense	Generally deductible	No deduction for net interest expense	New thin capitalization rules, reduced interest deduction limit	Financing capital expenditures Capital structure
International regime	Worldwide with deferral	Territorial	Worldwide with deferral Minimum worldwide effective tax rate on foreign company income: 15% for intangibles and 12.5% for sales	Ownership, funding model, control of intellectual property
Transition tax (deemed repatriation)	n/a	One-time repatriation tax payable over 8 years Differential rates for cash (8.75%) and noncash (3.5%) assets	One-time repatriation tax payable over 8 years Differential rates for cash (8.75%) and noncash (3.5%) assets	Mandatory one-time tax liability
Border-adjusted tax base	n/a	Tax imposed on imports, but not exports	No proposal	Procurement strategy Sales and distribution M&A

New challenges in aerospace and defense M&A

The forecasted evolution in aerospace and defense M&A, coupled with proposed tax reform, will likely force aerospace and defense companies to confront a different set of challenges in evaluating, executing, and ultimately integrating acquisitions. The same solutions used in past acquisitions should not simply be repeated when executing future acquisitions, particularly those that are growth oriented. Based on past acquisitions on which Deloitte has advised, below is a list of potential challenges that aerospace and defense companies may face in the near future along with potential solutions to those challenges:

Challenge #1: Vetting a target in a niche market with relatively limited information

Aerospace and defense companies may find themselves considering an investment in an early stage company that offers a promising but not fully vetted technology, has a short financial track record, or has few competitors for benchmarking analysis.

Potential solution: Pre-deal due diligence and primary research

Without data and information available for a non-publicly traded company or company in a different geography, primary research interviews of industry experts, competitors, former employees, and other stakeholders can provide a firsthand view of how the market views a target and help to overcome a lack of publicly available information. This is one area where the strategic acquirer can take a due diligence approach used by private equity investors that uses advisors and industry executives to determine the local market trends and risks.

Challenge #2: Integrating operations in overseas markets

Aerospace and defense companies may encounter particular difficulty in successfully integrating an acquisition outside of their core market, resulting in inefficient operations, complex organizational structure, or failure to realize expected deal-related synergies.

Potential solution: Rigorous pre-close integration planning

Before integration planning is started, strong leadership alignment is required on the operating model and integration priorities. If the deal is about growth and scaling an acquisition's technical capabilities, then focus of integration planning should be less on cost efficiency and more on how to preserve the best talent and developing products

and services that are new to both companies. Creation of detailed integration workplans can help inform a number of key integration questions (including workforce selection, facility rationalization, and decision-making authority across business units) while also helping to ensure that the appropriate stakeholders are involved in and responsible for the integration; additionally, building synergy expectations into functional budgets can help ensure that the benefits of transactions are realized as expected.

Challenge #3: Preserving the innovative and entrepreneurial spirit of middle-market or emerging growth companies, post-acquisition

Aerospace and defense companies may not fully realize the value of early stage investments if they don't retain what made their acquisitions successful, including key leaders, culture, and speed-to-market.

Potential solution: Cultural assessments and early, frequent communication

At the outset, it's crucial to identify what aspects of a company's culture are perceived as contributing to its success (e.g., organizational structure, frequent all-hands meetings) and then make a plan for maintaining and continually measuring those attributes. Additionally, deal-related concerns can be addressed and a culture of transparency created via frequent, direct communication to acquired employees immediately following transaction close. Acquirers will need to think through what type of organizational structure makes sense (e.g., keeping the acquisition as a separate business unit or to integrate right away). This may depend on how different the culture is between the two companies and how much change an acquirer may want to introduce.

While there is much to learn from past M&A activity, aerospace and defense leaders should also be attuned to how the M&A landscape continues to evolve. Given the changing landscape of aerospace and defense M&A, now may be the time for aerospace and defense leaders to refresh their companies' approaches to growing and creating value via acquisition or joint venture.

Next steps: Preparing to pursue growth via M&A

Aerospace and defense companies face a complex and evolving competitive landscape in seeking to define and execute an effective M&A strategy. Consolidation among original equipment manufacturers has given rise to several major players with the resources to pursue an aggressive and expansive M&A strategy. Aerospace and defense company investment in emerging technologies has introduced competition from adjacent industries, such as software.

Evolving customer relationships, regulatory changes, and potential tax reforms likewise complicate deal making. Once an acquisition deal is closed, integration should focus on how to scale the acquired assets and capabilities while considering cultural attributes and differences. Notwithstanding these challenges, M&A activity remains high. The nature of aerospace and defense M&A deals continues to evolve, compelling aerospace and defense companies to be diligent in preparing for acquisitions.

Endnotes

1. SDC Platinum
2. S&P Capital IQ
3. SDC Platinum
4. SDC Platinum, www.defense.gov, www.cbo.gov
5. Michael D. Shear and Jennifer Steinhauser, "Trump to seek \$54 billion increase in military spending," *New York Times*, Feb 27, 2017, accessed Mar 2, 2017.
6. S&P Capital IQ
7. SDC Platinum, Deloitte analysis
8. SDC Platinum
9. SDC Platinum
10. As defined in this study, "US domestic" refers to a transaction between US-based companies; "cross-border" refers to a transaction between a US-based company and a non-US based company
11. abetterway.speaker.gov/_assets/pdf/ABetterWay-Tax-PolicyPaper.pdf
12. waysandmeans.house.gov/UploadedFiles/HR_1_FINAL.pdf

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Troy Watkinson, Saadat Khan, and Partho Banerjee.

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