2017 Global aerospace and defense sector financial performance study

Executive summary

Defense subsector expands, while commercial aerospace growth slows down

Global aerospace and defense sector revenue growth is slowing, marginally outpacing global gross domestic product growth. Global aerospace and defense (A&D) sector revenues grew 2.4 percent in 2016, adding US$15.7 billion in revenues, to reach US$674.4 billion. Although the growth rate declined from 3.8 percent in 2015, it slightly outperformed the estimated global gross domestic product (GDP) growth of 2.3 percent. This growth was driven primarily by the European commercial and US defense subsectors.

Global commercial aerospace revenue growth slowed from 6.3 percent in 2015 to 2.7 percent in 2016. Revenue for the subsector increased from US$314.7 billion in 2015 to US$323.1 billion. The European subsector recorded strong growth at 6.7 percent, while in the US growth was marginal, at 1.3 percent. This is a direct result of a 1.8 percent decline in aircraft deliveries in the US, while in Europe, deliveries increased by 8.3 percent. Aircraft backlog remained at an all-time high, having grown by 1.6 percent to 13,687 in 2016.

The global defense subsector continued to recover as global defense spending increased. Following a recovery in 2015, global defense revenue grew 2.1 percent, or US$7.2 billion, in 2016 to US$351.3 billion. Global defense spending rose 0.6 percent, with US defense expenditure up 1.7 percent. The primary factor in the improvement was likely the 3.1 percent growth in US defense revenues resulting from the 3.6 percent increase in funding from the US Department of Defense (DoD), the subsector's largest customer. In contrast, the European defense subsector revenues grew only 0.6 percent while defense spending in Europe increased 2.8 percent. Despite more spending, European defense revenue growth declined, likely due to a US$1.3 billion negative impact to the top line of Airbus' Defense & Space division, resulting from its ongoing portfolio reshaping.

European A&D sector revenue growth continues to outperform the US sector. In 2016, European A&D companies posted 3.7 percent year-on-year (YoY) growth, slightly outpacing the US sector's 2.4 percent growth. This outperformance echoes the results of 2015, when Europe's A&D sector grew by 8.2 percent while US revenues increased by only 1.4 percent. The growth in Europe in 2016 was primarily driven by the commercial aerospace subsector, which grew 6.7 percent largely as a result of an increase in commercial aircraft deliveries. On the other hand, the European defense subsector grew by only 0.6 percent as compared to 3.1 percent for the US defense subsector.

Revenue growth was led by incremental revenues in the original equipment manufacturers and electronics segment. These companies added US$3.4 billion and US$3.7 billion, respectively. Growth in the OEM segment is likely attributed to robust revenue increase at Airbus Group, which added US$2.4 billion, and Lockheed Martin, which contributed US$1.9 billion in revenues in 2016. In the electronics segment, Harris Corp. was the leading contributor to revenue, adding US$2.4 billion, mainly led by the acquisition of Exelis.

Global A&D sector operating margin continues to hold, with the European sector improving as the US sector declines. Operating margins for the sector sustained a double digit margin of 10.4 percent, holding near the 10.5 percent in 2015. Margins for the US sector declined 2.5 percent to 11.5 percent, whereas the European sector reported an operating margin of 9.6 percent, up 5.3 percent. This growth trend was primarily led by improvements at Airbus, Rolls-Royce and Safran. As a result, the gap between the US and Europe has narrowed to 1.8 percent from 2.3 percent in 2015.

Global defense operating margin growth strengthens as commercial aerospace margins tighten. The commercial aerospace subsector's operating margin declined 9.4 percent in 2016 compared with defense companies' operating margins, which grew 5.3 percent, despite only a 2.1 percent revenue increase in 2016. Commercial subsector operating margins fell to 9.1 percent, while defense companies' operating margins increased to 11.5 percent. Growth in defense subsector margins was led by strong operating performance at Rolls-Royce and Lockheed Martin.

Propulsion segment was the leader in operating margins. However, Tier 2 suppliers now rank second. They have earned close to 20 percent margins in the past and continued to outperform Tier 1 suppliers. In 2016, operating margins improved from 18.0 percent to 19.2 percent for the propulsion segment and from 16.7 percent to 17.9 percent for Tier 2 suppliers. Tier 1 suppliers' operating margins sustained a 10.0 percent margin in 2016, yet was much lower than the Tier 2 segment margins.

Sector productivity experienced a moderate improvement in 2016, led by strong growth in Europe. A&D productivity grew 1.9 percent in 2016 after a string of significant improvements in the recent past, recording strong growth of 7.6, 7.7, and 11.7 percent in the years between 2012, 2013, and 2014, respectively. Productivity among global A&D companies averages US$36,504 per employee, slightly higher as the employee base declined 1.1 percent and operating profit grew marginally. The European A&D sector experienced solid productivity growth of 11.1 percent, while productivity in the US increased only by 1.1 percent. However, productivity levels per employee continue to differ significantly and the US leads Europe at US$42,817 and US$31,970, respectively.

Debt levels continue to rise as companies increase leverage to finance acquisitions, share buybacks, and develop new and innovative products. Debt-to-equity ratio for the global A&D sector weakened 39.4 percent from 1.18 times in 2015 to 1.65. The US sector's debt-to-equity ratio deteriorated 34.2 percent rising from 1.79 to 2.40. As interest rates remained low, increased debt levels, especially in the US, were used to finance share buybacks, acquisitions and product development. Although European A&D companies saw their debt-to-equity ratio weaken to 1.58 in 2016, they remained much stronger than the US sector.

Global A&D sector performance summary

Figure 1 summarizes the key performance metrics of the global A&D sector.

Figure 1. Global aerospace and defense sector performance in 2016, as compared to 2015

Metric	2015	2016	Change (2016 versus 2015)
Revenues (US$ billion)	$658.7	$674.4	2.4%
Core operating earnings (US$ billion)	$69.5	$70.0	0.8%
Core operating margin (percent)	10.5%	10.4%	(1.6%)
Return on invested capital (percent)	25.3%	26.8%	6.2%
Free cash flow (FCF) (US$ billion)	$40.7	$45.5	11.8%
FCF margin (percent)	6.2%	6.8%	9.2%
Interest coverage ratio (times)	16.8 times	15.0 times	(10.7%)
Current ratio (times)	1.34 times	1.36 times	1.1%
Debt-to-equity ratio* (times)	1.18 times	1.65 times	(39.4%)*
Book-to-bill ratio	1.34 times	1.16 times	(13.2%)
Aerospace and defense (A&D) revenue/employee (US$)	$339,620	$351,692	3.6%
A&D core operating earnings/employee (US$)	$35,821	$36,504	1.9%
Number of A&D employees	1,939,614	1,917,643	(1.1%)

Source: Deloitte Global analysis of the 100 major global A&D companies using public company filings and press releases. See methodology section for further information and definitions of financial metrics, as well as company name, reports and dates.

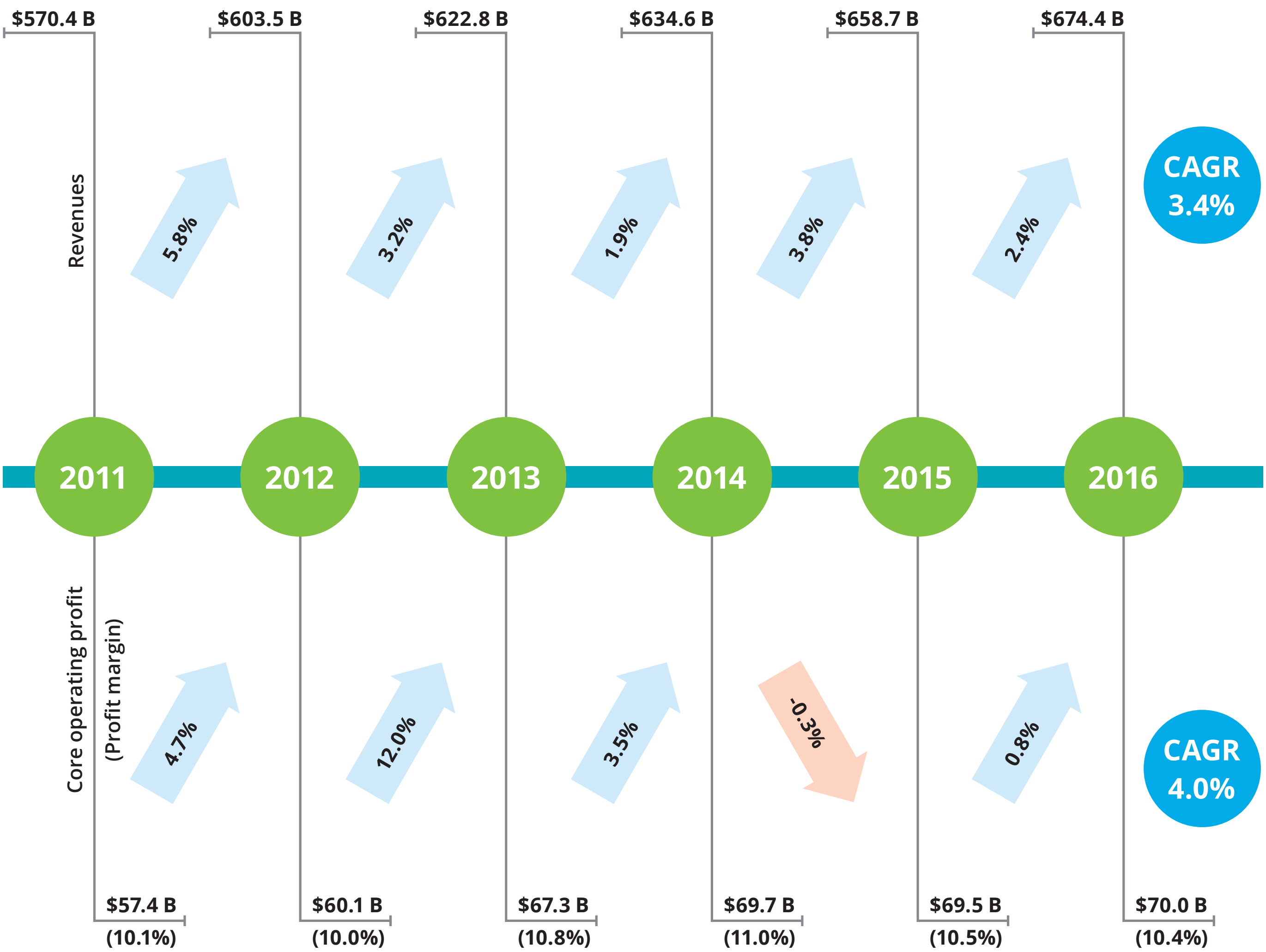
Note: *A lower debt-to-equity ratio is usually stronger and indicates a more financially stable business, hence, the ratio has weakened 39.6 percent in 2016, even though it has increased in absolute terms.

Revenue: Global A&D sector revenues grew by 2.4 percent to US$674.4 billion in 2016 from US$658.7 billion in 2015. Both the commercial aerospace and defense subsectors contributed to the growth in 2016, with revenues up 2.7 percent and 2.1 percent, respectively. For the commercial aerospace subsector, aircraft deliveries were strong in Europe, whereas the US experienced a marginal decline. Although commercial aircraft deliveries dropped slightly in the US, the industry still set a record high of 1,436 aircraft delivered globally.

Operating earnings: The global A&D sector's reported operating income rose 7.9 percent in 2016. However, this significant boost was primarily due to a loss reported by Bombardier in 2015 (due to one-time program adjustments on the C Series program), which suppressed the sector operating profit for 2015. On an adjusted basis, core operating earnings for the sector were up marginally by 0.8 percent in 2016, led by strong operating performance of the global defense subsector and offset by a decline in earnings for the commercial aerospace subsector.

Operating margin: Globally, the A&D sector's core operating margin declined slightly, to 10.4 percent, in 2016 from 10.5 percent in 2015. However, reported operating margin was up 5.4 percent to 9.4 percent, as compared to 8.9 percent the previous year. Reported operating profit in 2015 was suppressed by a US$5.3 billion operating loss at Bombardier, which normalized in 2016. Overall one -time write-offs/non-recurring charges declined from US$10.5 billion to US$6.4 billion in 2016.

Figure 2. Global aerospace and defense sector revenue and operating margin (2011 to 2016)



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Return on invested capital (ROIC) for the sector improved to 26.8 percent in 2016, up from 25.3 percent in 2015. QinetiQ topped the list with a 50.2 percent return in 2016. However, it was down YoY from 72.0 percent as a result of lower profitability in 2016. Moreover, the company does not have any debt obligations. Of the 100 companies analyzed, 4 reported negative ROIC metrics, with Triumph Group recording the lowest at minus 33.6 percent in 2016, due to an operating loss.

Free cash flow (FCF): represents the cash generated by a company through its operations after accounting for capital expenditure. Global A&D sector FCF improved 11.8 percent, to US$45.5 billion, in 2016 compared to 2015, driven by both revenue and operational cash-flow growth. The top 10 companies in terms of FCF contributed 71.7 percent to the total sector FCF in 2016, as compared to 68.2 percent the previous year. The top three companies Boeing (US$7,886 million), GE Aviation (US$5,775 million) and Lockheed Martin (US$4,126 million) – represented 39.7 percent of the total FCF, once again showing the concentration of the sector.

Free cash margin: In 2016, the global A&D sector FCM rose to 6.8 percent from 6.2 percent in 2015. This was largely driven by strong growth in global FCF, which was up 11.8 percent in 2016. Meanwhile, global A&D revenue growth was 2.4 percent in the same year, resulting in a higher FCM. Forty-four of the 100 companies analyzed reported FCM of more than 5.0 percent while 18 companies reported FCM of greater than 10.0 percent in 2016.

Book-to-bill ratio (BTB) ratio, a key indicator of future revenues, is determined by comparing sales order bookings to company revenues. The sector's BTB ratio declined 13.2 percent to 1.16 times in 2016 compared to 1.34 times in 2015. The decline in BTB ratio was likely due to a slowing in new orders at General Dynamics and Embraer, though it was partially offset by increases at Airbus Group, United Technologies and Northrop Grumman. The sector backlog increased 3.7 percent to US$2.78 trillion in 2016, led by the continued demand for commercial aircraft. However, aircraft orders experienced a slowdown in 2016, resulting in a decline in BTB. Yet continued topline growth and a sector BTB ratio of 1.16 times in 2016 signal the potential for further expansion of global A&D sector revenues, as the sector backlog remains modestly greater than 1.0.

Interest coverage ratio: The interest coverage ratio indicates a company's ability to pay its interest payments on debt from its available earnings. The ratio deteriorated 10.8 percent YoY in 2016, to 15.0 times, compared to 16.8 times in 2015, likely due to higher interest outflow in 2016 as debt levels increased.

Current ratio: This ratio is a measure of the short-term liquidity position. Current ratio for the sector improved 1.1 percent YoY to 1.36 times versus 1.34 times. The ratio is greater than 1.0 times, indicating the sector has a reasonably healthy short-term liquidity position. The two strongest current ratios in 2016 belonged to KLX Inc. (7.7 times) and Wesco Aircraft (4.9 times).

Debt equity ratio: Debt equity ratio measures the company's financial leverage and indicates the amount of debt the company is using to finance its assets relative to its shareholders' equity. The global A&D sector's debt to equity ratio weakened to 1.65 times in 2016 as compared to 1.18 times in 2015, implying that companies are increasingly using debt to finance stock buybacks, acquisitions, and product development plans. Jacobs Engineering, Fuji Aerospace and AAR Corp. were the top performers with low debt levels and debt to equity ratio of 0.09 times, 0.12 times and 0.17 times, respectively, in 2016.

Aerospace and defense sector employment: Total global A&D sector employment fell 1.1 percent to 1.92 million in 2016 from 1.94 million in 2015. However, the number of companies increasing their headcount in 2016 was up, with 58 companies adding people, compared to 55 the year before. That said, the magnitude of reduction in workforce by A&D companies was higher than that of businesses increasing their employee base, with the total number of employees declining at some of the big companies in 2016.

Regionally, employment at the US A&D companies declined 1.3 percent in 2016, from 1.11 million employees in 2015 to 1.09 million in 2016. European A&D companies reported a similar decline in employment numbers, with a 1.7 percent drop in 2016, from 637,000 to 626,000 employees in 2016.

With 44.7 percent of the total global A&D employees, the OEMs are the single largest employer in the sector. However, employment at this segment declined 4.9 percent YoY.

Employee productivity: Overall employee productivity, defined as core operating earnings per employee, improved 1.9 percent to US$36,504 in 2016 from US$35,821 in 2015. The propulsion segment generated the highest operating earnings per employee, at US$86,765, compared to US$76,824 in 2015, for a growth rate of 12.9 percent. Tier 2 segment's operating earnings per employee improved 11.8 percent from US$39,276 in 2015 to US$43,907 in 2016. Aerostructure segment's employee productivity was down 53.1 percent to US$18,078.

Equity markets: The US A&D sector's share price performance was strong in 2016, after experiencing the weakest performance in the previous five years in 2015. The Dow Jones A&D index grew 17.9 percent and outperformed the Standard & Poor's (S&P) 500 index, which was up 11.2 percent. The European A&D companies' performance was moderate, with a 4.9 percent growth in 2016. However, it outperformed the STOXX 600 Index, which grew only 1.3 percent. After experiencing downward pressure from the effects of US Government budget reductions in 2015, share price performance of the US A&D sector recovered. This is also likely due to investor anticipation of the new US administration's plans to increase defense spending.

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