KPMG

Aerospace & Defence – Q1 2022 Industry Update

We end the first quarter in a position not seen since 1945. Full scale conventional warfare on the European mainland was not a likelihood predicted by any defence ministry in the region. Against the backdrop of human tragedy the re-appraising of defence priorities, and ultimately budgets, across Europe to respond to this reality is an unsurprising outcome of the Russian invasion. It is too early to draw conclusive lessons but if there is one immediate lesson to be drawn from 4 weeks of hostilities, it is that knee jerk investments in hardware when not accompanied by the pre-requisite logistics capability and a motivated and trained military is no guarantee of delivering the required effect.

There can be no doubt that Europe is now a changed market for defence. Only Germany, so far, has made an immediate commitment (to the tune of €100bn) but it is unlikely that those EU and NATO members that are not dedicating 2% of GDP to defence will be allowed by the treaty partners to continue to do so; a credible threat and collective peer pressure will be more effective than unilateral US efforts to change this paradigm. Barclays assess that meeting these targets will deliver a £60bn increase per year in defence spending across Europe, with equipment accounting for 30-40% of this, and the largest spend expected to be in Germany, Italy, the Netherlands and Spain.

It is too early to predict the capabilities that will be the major beneficiaries but progress of the war so far has done nothing to suggest a major shift from the existing focus for investment, namely: ISTAR and C4I along with the synthetic capability to train in a geographically and financially constrained environment. Equally from a major programme perspective events have merely reinforced the status quo with increased orders of the J35. Following on the heals of the Finnish and Swiss orders, Germany opted for the J35 over the cheaper F-18 they had been previously considering. Inter-operability across allies in Belgium, Denmark, Italy, the Netherlands, Norway, Poland and the UK is obviously now a more important consideration than cost.

The impact on the defence supply chain is as yet uncertain. Prior to events in Ukraine, US primes, following years of frustration at anaemic defence budgets in Europe were turning their attentions back to the more robust domestic defence market. Added opportunity in Europe, combined with a signal via the Rocketdyne transaction, that the US DoD is concerned that consolidation and vertical integration in the US market may inflate pricing, means that their European subsidiaries may no longer be candidates for divestment.

Unlike previous geo-political events since the end of the Cold War this is unlikely to be a blip that is quickly resolved. It was the decrease in defence spending following the end of the Cold War that drove the wave of defence consolidations over the last twenty years and left a market dominated by a small number of megaliths. The sustained growth in defence spending that will follow recent events combined with a reluctance from Governments to sanction further consolidation will most likely see the re-emergence of mid-cap defence players.

Aerospace

						EV/Revenue Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2021-2023	
Company	**Country**	**Market Cap (GBPm)**	**Net Debt / (Cash)**	**Adj EV (GBPm)**	**Net debt / EBITDA (2022)**	**2021**	**2022**	**2023**	**2021**	**2022**	**2023**	**2021**	**2022**	**2023**	**Sales**	**EBITDA**
Airbus SE		**73,462**	**(1,164)**	**76,850**	**n/a**	**1.8x** 43,800 (2%)	**1.5x** 50,122 14%	**1.3x** 58,632 17%	**13.8x** 5,587 13%	**11.0x** 7,017 14%	**8.8x** 8,689 15%	**20.6x** 3,733 9%	**15.7x** 4,900 10%	**11.8x** 6,520 11%	**16%**	**25%**
Boeing Company		**86,008**	**32,050**	**123,947**	**5.2x**	**2.7x** 45,999 8%	**2.0x** 61,880 35%	**1.7x** 70,963 15%	**nmf** 1,076 2%	**20.2x** 6,136 10%	**15.4x** 8,071 11%	**nmf** (518) (1%)	**29.3x** 4,231 7%	**19.8x** 6,275 9%	**24%**	**174%**
Bombardier Inc.		**2,111**	**4,166**	**7,085**	**6.4x**	**1.6x** 4,494 (5%)	**1.4x** 5,059 13%	**1.3x** 5,555 10%	**26.4x** 269 6%	**10.9x** 649 13%	**8.1x** 871 16%	**49.2x** 144 3%	**22.9x** 310 6%	**14.4x** 491 9%	**11%**	**80%**
Dassault Aviation SA		**10,101**	**(3,991)**	**4,545**	**n/a**	**0.7x** 6,092 24%	**0.9x** 5,027 (17%)	**0.9x** 5,014 (0%)	**7.9x** 577 9%	**8.7x** 524 10%	**7.6x** 602 12%	**10.1x** 451 7%	**11.9x** 384 8%	**11.2x** 407 8%	**(9%)**	**2%**
HEICO Corporation		**14,217**	**84**	**14,520**	**0.2x**	**nmf** 1,398 1%	**8.7x** 1,668 19%	**7.8x** 1,853 11%	**39.6x** 367 26%	**32.3x** 450 27%	**28.7x** 506 27%	**46.0x** 316 23%	**38.9x** 374 22%	**34.0x** 427 23%	**15%**	**17%**
Meggitt PLC		**5,928**	**778**	**6,785**	**2.2x**	**4.6x** 1,489 (12%)	**4.0x** 1,680 13%	**3.5x** 1,936 15%	**28.6x** 237 16%	**18.8x** 360 21%	**15.9x** 427 22%	**nmf** 103 7%	**27.3x** 249 15%	**21.8x** 311 16%	**14%**	**34%**
MTU Aero Engines AG		**9,515**	**523**	**10,392**	**0.7x**	**3.0x** 3,517 (1%)	**2.4x** 4,393 25%	**2.1x** 4,952 13%	**22.3x** 467 13%	**14.2x** 732 17%	**12.3x** 846 17%	**34.5x** 302 9%	**20.7x** 503 11%	**17.1x** 609 12%	**19%**	**35%**
Rolls-Royce Holdings plc		**8,460**	**5,254**	**13,336**	**3.5x**	**1.2x** 11,218 (2%)	**1.1x** 11,912 6%	**1.0x** 13,202 11%	**10.5x** 1,268 11%	**8.8x** 1,522 13%	**6.7x** 1,987 15%	**28.7x** 465 4%	**19.5x** 682 6%	**13.4x** 997 8%	**8%**	**25%**
Safran SA		**38,685**	**1,597**	**39,586**	**0.5x**	**3.1x** 12,845 (15%)	**2.6x** 15,307 19%	**2.2x** 17,723 16%	**17.9x** 2,206 17%	**13.6x** 2,913 19%	**11.0x** 3,591 20%	**37.7x** 1,049 8%	**19.4x** 2,036 13%	**15.2x** 2,608 15%	**17%**	**28%**
Senior plc		**525**	**153**	**674**	**2.2x**	**1.0x** 659 (10%)	**0.9x** 735 12%	**0.8x** 827 12%	**11.9x** 57 9%	**9.9x** 68 9%	**7.1x** 94 11%	**nmf** 10 2%	**27.2x** 25 3%	**14.3x** 47 6%	**12%**	**29%**
Singapore Technologies Engineering Ltd		**7,218**	**716**	**8,037**	**1.1x**	**1.9x** 4,214 6%	**1.6x** 5,052 20%	**1.5x** 5,465 8%	**14.4x** 559 13%	**12.1x** 662 13%	**10.6x** 759 14%	**22.4x** 359 9%	**19.3x** 416 8%	**16.5x** 487 9%	**14%**	**17%**
Textron Inc.		**12,241**	**1,644**	**13,885**	**1.2x**	**1.4x** 9,925 10%	**1.3x** 10,911 10%	**1.2x** 11,524 6%	**11.8x** 1,179 12%	**10.4x** 1,336 12%	**9.6x** 1,447 13%	**15.6x** 888 9%	**13.8x** 1,008 9%	**12.6x** 1,100 10%	**8%**	**11%**
Thales S.A.		**20,510**	**739**	**22,382**	**0.3x**	**1.6x** 13,600 (11%)	**1.5x** 14,479 6%	**1.4x** 15,519 7%	**11.8x** 1,895 14%	**9.8x** 2,290 16%	**8.9x** 2,523 16%	**21.9x** 1,022 8%	**14.1x** 1,591 11%	**12.3x** 1,827 12%	**7%**	**15%**
Min						**0.7x**	**0.9x**	**0.8x**	**7.9x**	**8.7x**	**6.7x**	**10.1x**	**11.9x**	**11.2x**	**(9%)**	**2%**
Mean						**2.0x**	**2.3x**	**2.1x**	**18.1x**	**13.9x**	**11.6x**	**28.7x**	**21.5x**	**16.5x**	**12%**	**26%**
Median						**1.7x**	**1.5x**	**1.4x**	**14.1x**	**11.0x**	**9.6x**	**25.5x**	**19.5x**	**14.4x**	**14%**	**25%**
Max						**4.6x**	**8.7x**	**7.8x**	**39.6x**	**32.3x**	**28.7x**	**49.2x**	**38.9x**	**34.0x**	**24%**	**174%**

Source: CapIQ.

Note: Multiples are based on enterprise value as of 31 March 2022 and historical and forecast sales. EBITDA and EBIT, calendarised to 31 December. "nmf": not meaningful; "n/a": not available. Adjusted EV takes into consideration IFRS16, Market valuations of defence businesses are 35% up on the FTSE year to date, and not exclusively due to events in Europe; more specifically the US defence budget outlook is looking increasingly favourable and more generally investors are shifting away from growth to cyclical value stocks. It is likely that the ESG headwinds, which started amongst institutional investors in 2017, will be reviewed in the light of events in Ukraine. Whilst this will start to have a more immediate effect on listed stocks it is likely that the European private equity funds will need to wait until their next fund raising cycle to secure the same freedoms as their US peers. We expect to see those specialist US funds being more active in European processes whilst the market is more buoyant but less crowded.

So far the impact on the civil aerospace market has been muted but there are undoubtedly significant delayed repercussions that will severely impact the supply chain at the critical moment when re-stocking is in train and robust demand from the narrow body and business jet market filters through. The most immediate impact will be driven by the reduced access to titanium, nickel and natural gas. On the latter front most suppliers are hedged and so have time for Governments to scrabble around and unlock alternate sources. A few however are not, and the prospect of turning from a metal processing and manufacturing business to a gas trading house will test internal capabilities and balance sheets. Without access to titanium and nickel there is no option but to reduce build rates which will impact the recovery that people are now starting to bake into forecasts. Of less immediacy but of more long term impact are the impacts on the global supply chain. We believe that events in Ukraine will cause a re-assessment of long term supply chain strategy, particularly amongst the US primes. Previously the size of the Chinese market and the cost efficiency of manufacturing facilities there was deemed reason enough to justify offshoring significant activities. Recent months have demonstrated the fragility of the global supply chain, highlighted the costs and time to transfer unfinished components between different processes on a global basis and elevated risk as a major consideration. All of which will drive a level of near shoring not previously seen in the supply chain. There is no doubt that, absent the near term headwinds outlined above, investors are returning to the commercial aerospace market; whereas a low cost manufacturing facility had previously been considered an asset, it may now, dependent on location, be deemed a liability for which little value is attributed.

Defence

						EV/Revenue Revenue (GBPm) Revenue growth			EV/EBITDA EBITDA (GBPm) EBITDA %			EV/EBIT EBIT (GBPm) EBIT %			2 Year CAGR 2021-2023	
Company	Country	Market Cap (GBPm)	Net Debt / (Cash)	Adj EV (GBPm)	Net debt / EBITDA (2022)	2021	2022	2023	2021	2022	2023	2021	2022	2023	Sales	EBITDA
BAE Systems plc		22,567	3,594	28,031	1.2x	1.4x 19,521 1%	1.3x 22,208 14%	1.2x 23,012 4%	11.5x 2,438 12%	9.4x 2,995 13%	9.0x 3,121 14%	15.2x 1,844 9%	11.8x 2,375 11%	11.2x 2,492 11%	9%	13%
Elbit Systems Ltd.		7,373	882	8,131	1.9x	2.1x 3,898 14%	1.9x 4,254 9%	1.8x 4,488 6%	19.8x 411 11%	17.2x 474 11%	16.1x 505 11%	26.7x 304 8%	22.0x 370 9%	20.4x 398 9%	7%	11%
General Dynamics Corporation		50,934	8,546	61,409	2.2x	2.2x 28,410 2%	2.1x 29,931 5%	1.9x 32,147 7%	15.8x 3,893 14%	15.6x 3,934 13%	14.1x 4,343 14%	18.6x 3,303 12%	18.9x 3,246 11%	16.7x 3,675 11%	6%	6%
Kratos Defense & Security Solutions, Inc.		1,942	26	1,979	0.4x	3.3x 606 10%	2.9x 682 13%	2.6x 766 12%	47.5x 42 7%	29.5x 67 10%	23.4x 85 11%	nmf 23 4%	nmf 25 4%	45.4x 44 6%	12%	43%
L3Harris Technologies, Inc.		36,492	5,167	42,036	1.8x	3.2x 13,156 (1%)	3.1x 13,366 2%	3.0x 14,017 5%	15.6x 2,686 20%	14.5x 2,898 22%	13.8x 3,038 22%	20.9x 2,013 15%	16.7x 2,514 19%	15.8x 2,666 19%	3%	6%
Leidos Holdings, Inc.		11,204	3,789	15,014	3.4x	1.5x 10,145 13%	1.4x 10,731 6%	1.3x 11,266 5%	13.7x 1,099 11%	13.5x 1,116 10%	12.7x 1,186 11%	17.1x 877 9%	17.3x 867 8%	15.7x 956 8%	5%	4%
Leonardo S.p.a.		4,385	2,692	5,992	1.9x	0.5x 11,872 (1%)	0.5x 12,587 6%	0.5x 13,025 3%	5.0x 1,207 10%	4.2x 1,424 11%	3.9x 1,555 12%	6.9x 867 7%	5.8x 1,025 8%	5.3x 1,124 9%	5%	14%
Lockheed Martin Corporation		91,445	7,014	105,007	0.9x	2.1x 49,513 3%	2.1x 50,292 2%	2.0x 51,430 2%	15.8x 6,654 13%	13.8x 7,626 15%	13.5x 7,782 15%	17.8x 5,896 12%	16.0x 6,573 13%	15.6x 6,747 13%	2%	8%
Northrop Grumman Corporation		53,109	7,909	62,976	2.1x	2.4x 26,341 (2%)	2.3x 27,833 6%	2.2x 28,854 4%	9.8x 6,450 24%	17.0x 3,701 13%	16.2x 3,876 13%	11.1x 5,650 21%	22.9x 2,753 10%	21.5x 2,932 10%	5%	(22%)
Raytheon Technologies Corporation		111,774	18,995	134,847	2.0x	2.8x 47,552 15%	2.6x 52,528 10%	2.4x 56,718 8%	16.1x 8,400 18%	14.2x 9,519 18%	12.4x 10,854 19%	26.2x 5,139 11%	21.1x 6,400 12%	17.9x 7,527 13%	9%	14%
Rheinmetall AG		7,030	(249)	7,431	n/a	1.6x 4,752 (2%)	1.3x 5,545 17%	1.1x 6,481 17%	10.2x 726 15%	8.7x 857 15%	7.7x 964 15%	14.1x 526 11%	12.1x 613 11%	10.4x 714 11%	17%	15%
Saab AB (publ)		3,670	(173)	3,967	n/a	1.2x 3,198 1%	1.2x 3,337 4%	1.1x 3,510 5%	11.3x 350 11%	9.5x 417 12%	8.6x 460 13%	17.0x 233 7%	15.0x 265 8%	13.5x 294 8%	5%	15%
Ultra Electronics Holdings plc		2,371	40	2,437	0.2x	2.9x 851 (1%)	2.7x 912 7%	2.5x 961 5%	16.5x 148 17%	15.0x 162 18%	13.9x 175 18%	20.5x 119 14%	17.7x 138 15%	16.8x 145 15%	6%	9%
Min						0.5x	0.5x	0.5x	5.0x	4.2x	3.9x	6.9x	5.8x	5.3x	2%	(22%)
Mean						2.1x	1.9x	1.8x	16.0x	14.0x	12.7x	17.7x	16.4x	17.4x	7%	10%
Median						2.1x	2.1x	1.9x	15.6x	14.2x	13.5x	17.5x	17.0x	15.8x	6%	11%
Max						3.3x	3.1x	3.0x	47.5x	29.5x	23.4x	26.7x	22.9x	45.4x	17%	43%

Source: CapIQ.

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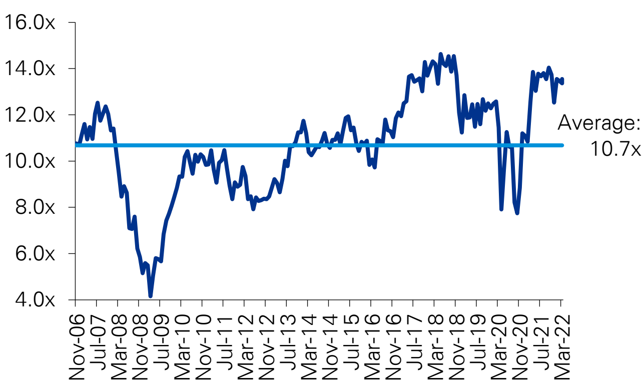
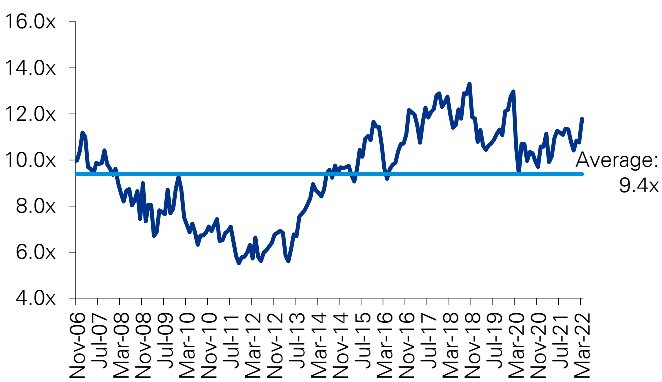
Sector valuation through the cycle (EV/LTM EBITDA)

Aerospace



Source: Capital IQ

Defence



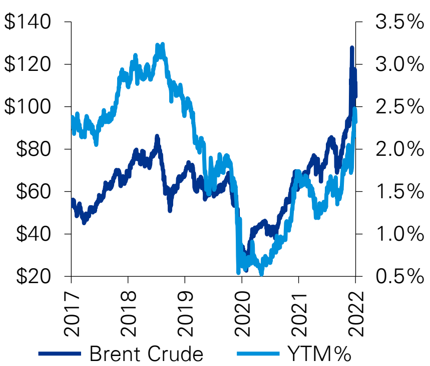
Source: Capital IQ

Selected recent M&A activity headlines

- Jan 2022 - **Electra.aero**, a developer of hybrid-electric ultra-short takeoff and landing (eSTOL) aircraft, received an investment from **Lockheed Martin Ventures**
- Jan 2022 - **Rheinmetall** acquired a 75% stake in an e-mobility and green energy joint venture with US specialist **PolyCharge America, Inc**.
- Jan 2022 - **Triman Industries,** a portfolio company of **AE Industrial Partners,** acquired **Brighton Cromwell and Crestwood Technology Group** provider of military aftermarket supply chain management
- Jan: **Curtiss-Wright Corporation** agreed to acquire the assets of **Safran Aerosystems Arresting Company**, designer and manufacturer of aircraft emergency arresting systems
- Feb 2022: **HEICO Corporation** agreed to acquire 74% of **Pioneer Industries** specialty distributor of spares for military aviation, marine and ground platforms
- Feb 2022 - **EMCORE Corporation** agreed to acquire the assets and liabilities of the **L3Harris Space and Navigation Business**
- Feb 2022 - **Daher Aerospace** agreed to acquire the **Florida Aerostructures business** of **Triumph Group**
- Mar 2022 - **Cranfield Aerospace Limited** received equity funding including participation from **Safran Corporate Ventures** and **Hydrogenone Capital Growth Plc**
- Mar 2022: **BAE Systems plc** agreed to acquire **Bohemia Interactive Simulations** provider of training and simulation software products and components for defence and civilian applications
- Mar 2022 - **TransDigm Group** agreed to acquire **Dart Aerospace** Limited provider of unique helicopter mission equipment solutions
- Mar 2022 – **Vectrus, Inc.** and **The Vertex Company**, a portfolio company of **American Industrial Partners**, entered into an all-stock merger
- Mar 2022 - **DC Capital Partners** acquired **uAvionix Corporation** provider of small form factor communications, navigation, and surveillance avionics for unmanned and manned aircraft

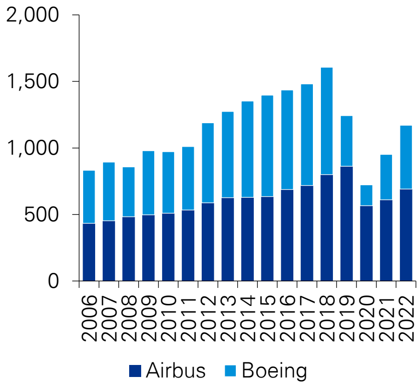
Economic indicators

Brent Crude ($) vs. US 10 Yr Treasuries



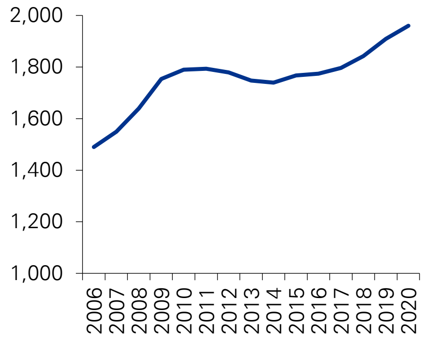
Source: Capital IQ

Delivered Commercial Aircraft (Units)



Source: Airbus and Boeing annual report, UBS, JPMorgan, Barclays.

Global Defence Spend ($bn)



Source: SIPRI Military Expenditure Database

Our sector experts

Glynn Bellamy
Head of A&D, UK – KPMG UK

T: +44 (0)7766 442407
E: glynn.bellamy@kpmg.co.uk

Alastair Horrocks
Director – KPMG UK

T: +44 (0)7796 690204
E: alastair.horrocks@kpmg.co.uk

Matthew Willies
Director – KPMG UK

T: +44 (0)7796 941915
E: matt.willies@kpmg.co.uk

kpmg.com/uk

The information in this document is based on data obtained from Bloomberg, CapitalIQ, EIU, Mergermarket, WTO and is based on KPMG analysis.