

Aerospace & Defence Update

Expect retirements to accelerate through 2024

Industry Overview

Expect retirements to accelerate through 2024

This week, we provide an update on passenger aircraft retirements. Throughout the Covid-19 pandemic, retirements lagged expectations (materially), and this largely continued until 1H23. However, retirements accelerated materially through 2H23 in the NB segment, and we see evidence of a progressive acceleration in the WB segment after the 2022-1H23 trough. An increase in the level of retirements is healthy, in our view, and shows that airlines are starting to focus on fleet replacement now the recovery from the pandemic is largely completed. For WB, we see the pace of retirements lagging NB through 2024 given strength of the international recovery but expect this to increase mid-term given the high average age of the fleet.

Exhibit 2: NB vs. WB retirements 2016-2023

NB retirements reached >300 in 2023



Source: BofA Global Research estimates

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NB retirements inflected through 2H23

The NB recovery was in full swing through 2023, and this led to a normalisation in retirements, with a significant acceleration seen through 2H23. In 2023, retirements were >30% versus 2019 levels. We must look back to 2013 to see higher levels of retirements versus 2023. We do not expect significant disruption on retirements from the temporary production freeze on the Boeing 737 and see NB retirements likely back to a more normalized level of c.3% of the installed fleet as production rates increase.

WB retirements progressively accelerating from a trough

WB retirements troughed through 2022 and started to show a very modest acceleration in 2023, which we expect to consolidate further through 2024. WB retirements remain significantly below NB. However, we see an argument for WB retirements to accelerate through 2024 as Airbus and Boeing deliver on WB production rates and also because of the high average age of the fleet.

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Equity Europe Aerospace & Defence

Beniamin Heelan >> Research Analyst MLI (UK) +44 20 7996 5723 beniamin.heelan@bofa.com

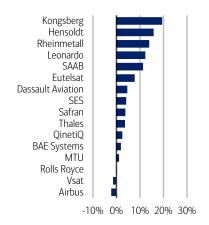
Virginia Montorsi >> Research Analyst MLI (UK) +44 20 7996 1146 virginia.montorsi@bofa.com

Carlos Iranzo Peris >> Research Analyst +44 20 7995 3016 carlos.iranzoperis@bofa.com

Ronald J. Epstein Research Analyst **BofAS** +1 646 855 5695 r.epstein@bofa.com

Exhibit 1: Sector weekly performance rel FTEU 300

Weekly stock performance



Source: Eikon (prices as of 15th Feb, 2024) BofA GLOBAL RESEARCH

ASK: available seat kilometre

c.: circa fwd: forward NA: North America NB: narrowbody rel: relative to

RPK: revenue passenger kilometre

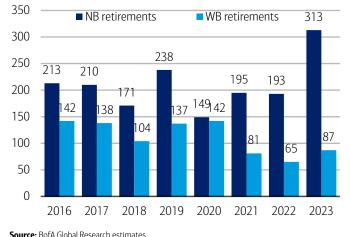
vs.: versus WB: widebody

Expect retirements to accelerate through 2024

This week, we provide an update on passenger aircraft retirements. Throughout the Covid-19 pandemic, retirements lagged expectations (materially), and this largely continued until 1H23. However, retirements accelerated materially through 2H23 in the narrowbody (NB) segment, and we see evidence of a progressive acceleration in the widebody (WB) segment after the 2022-1H23 trough. An increase in the level of retirements is healthy, in our view, and shows that airlines are starting to focus on fleet replacement now that the recovery from the pandemic is largely completed. For WB, we see the pace of retirements lagging NB through 2024 given the strength of the international recovery but expect this to increase mid-term given the high average age of the fleet.

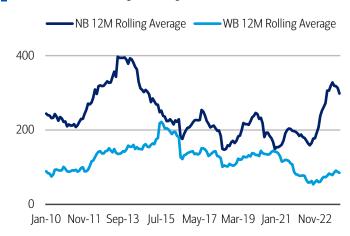
Exhibit 3: NB versus WB retirements 2016-2023

NB retirements reached >300 in 2023



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Exhibit 4: Passenger aircraft retirements – 12-month rolling average WB retirements have troughed through 2022



Source: BofA Global Research estimates

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NB retirements inflected through 2023

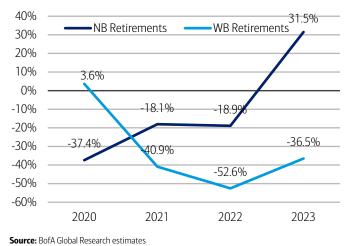
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Exhibit 5: NB retirements versus WB retirements versus 2019 levels

NB retirements were already >30% versus 2019 levels



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Exhibit 6: 737 and A320CEO retirements YoY growth

 $12\mbox{-}month$ rolling average retirements peaked on both the A320 and the 737 through 2023



Source: BofA Global Research estimates

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WB retirements progressively accelerating from a trough

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Exhibit 7: WB 12-month rolling average, 2021-2023

Wb retirements troughed in 2022 $\,$

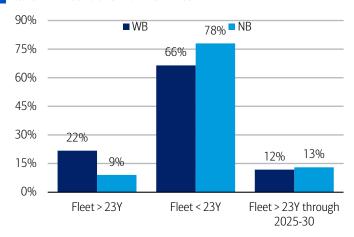


Source: BofA Global Research estimates

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Exhibit 8: WB and NB fleet age

Current WB fleet is older than the NB fleet



Source: BofA Global Research estimates



Weekly news round up

Exhibit 9: Global Aerospace and Defence Weekly News flow

Major news from the last week in the Global Aerospace & Defence Industry

Weekly news flow

Airbus warns airlines of new delivery delays -sources: Airbus has begun notifying airlines of a new bout of delivery delays, pushing back some deliveries previously scheduled for late 2024 and parts of 2025 by several months amid ongoing supply problems, industry sources said on Friday. An Airbus spokesperson declined to comment on delivery planning, but said: "We are in continuous dialogue with our customers. We are still operating in a complex environment." Airbus began the year with a 50% rise in January deliveries compared to the same month of last year, which had been depressed by parts shortages and industrial bottlenecks. But supplies of engines and other components remain relatively tight and Reuters shortages of aircraft that are needed to meet a recovery in demand could last for years, according to speakers at last week's Airline Economics conference in Dublin. Air Lease Executive Chairman Steven Udvar-Hazy told the conference that many Airbus and Boeing single-aisle aircraft were already running "a year late, nine months late, eight months late. That's more the norm today". Airbus exceeded its delivery target last year with 735 aircraft handed over to airlines and leasing companies.

Source

Saab defence group raises targets, shares hit all-time high: Swedish defence equipment-maker Saab reported an 8% rise in fourth-quarter operating profit on Friday, and lifted growth targets based on increased military spending, driving shares to an all-time high. In early trading, shares hit an all-time high of 742 crowns, up 6.8%, before paring gains slightly. The value of the stock has more than tripled since Russia's invasion of Ukraine. For the period 2023-2027, Saab lifted its organic sales growth target to around 15% from a previous goal of 10%. In the latest quarter, order bookings climbed 5% to 31.5 billion crowns. For 2023, Saab's order backlog jumped 20% to 153 billion crowns. It proposed a 2023 dividend of 6.40 crowns up from 5.30 crowns a year ago.

Reuters

Germany's Scholz pledges to meet 2% NATO spending target: German Chancellor Olaf Scholz on Monday said defence companies could count on his government ramping up military spending and that it would meet its commitment to spend 2% of GDP on NATO defence. Scholz was speaking after former U.S. President Donald Trump sparked outrage among U.S. allies by suggesting the United States might not protect fellow NATO members who are not spending enough on defence against a potential Russian invasion. While in office, Trump publicly criticised countries that did not meet the NATO alliance's goal to spend 2% of gross domestic product on defence. Scholz said Germany and Europe's defence Reuters industry must switch towards mass production of arms as the war in Ukraine exposed how European manufacturers struggled to meet demand for ammunition. Scholz was on a visit to the future site of Rheinmetall's arms factory in central Germany. Scholz said the military and Germany's defence industry could now depend on Berlin's commitment to meet the 2% NATO target. "That is urgently needed. Because as harsh as this reality is: we do not live in times of peace," Scholz said.

Boeing, pressured over 737 MAX 9 blowout, says January deliveries shrank 29%: Boeing said on Tuesday it delivered 27 airplanes in January, which was down 29% from the same month last year as regulators, lawmakers and customers pressured the planemaker following a MAX 9 mid-air cabin panel blowout last month. Deliveries of the profit-making 737 MAX fell to just 25 aircraft after two solid months where Boeing delivered in excess of 40 MAXs. While deliveries tend to be slower in January, Boeing delivered 38 airplanes, including 35 MAXs, in January 2023. The U.S. planemaker booked three gross orders, its lowest total since 2019, after a blockbuster December. It said customers it did not identify canceled orders for two 737 MAX while Spanish carrier Air Europa canceled an order for one 787 Dreamliner. Boeing's European rival Airbus delivered 30 jets in January and reported 31 new orders. Aside from the 737 MAX deliveries, Boeing delivered one 787 Dreamliner and one widebody 767, which be modified into a KC-46 tanker for the U.S. Air Force. Boeing's backlog decreased from 5,626 to 5,599 aircraft as of Jan. 31. It has a total of 6,189 unfilled orders when accounting adjustments are not considered.

Reuters

Boeing to stabilize 737 production later this year, CFO says: Boeing CFO Brian West said Tuesday the company will move to a steady 737 production rate of 38 aircraft per month in the second half of 2024 after slowing the line following last month's mid-air cabin blowout on a 737 MAX 9. Lower aircraft delivery volumes, customer considerations paid to airlines as a result of the MAX 9 grounding, and the company's need to hold additional inventory from its supply chain will all contribute to cash usage in the first quarter, West said during the Cowen Aerospace & Defense Conference. Previously, Boeing said it was "cycling" at a rate of 38 narrowbody 737s a month, but West said that the planemaker is having to periodically pause the line as it focuses on quality in the wake of the incident. "We have to acknowledge that we have lots of things to focus on in terms of keeping the airplanes in position longer so that we can incorporate all the learnings that we're finding, and that's just fine," West said, adding that it will be up to the Federal Aviation Administration to approve future rate increases. Boeing shares were down 2.3% in morning trade.

Reuters

Jet engine maker Safran posts higher 2023 core profit: French jet engine maker Safran posted sharply higher revenues and operating profit for 2023 and predicted further growth this year, lifted by strong demand for engine services. Recurring operating income rose 31% to 3.166 billion euros as revenues rose 22% to 23.199 billion, the company said, while its widely watched civil aftermarket revenues rose 33% in dollar terms. Safran co-produces the LEAP jet engine with GE Aerospace for all Boeing 737 MAX jets and about half the A320neo jets sold by Airbus where its CFM joint-venture competes for engine sales with Pratt & Whitney. Chief Executive Oivier Andries told reporters restrictions by the U.S. aviation regulator on Boeing's growth plans for 737 production - resulting from flaws in production of a door plug that blew off a jet last month - could affect deliveries of LEAP-1B engines but that it was too early to quantify this. Andries ruled out switching production from the Boeing version of the LEAP to the Airbus version, known as LEAP-1A, in 2024 or the short term, and said Airbus had not asked for this. He did not, however, rule out CFM studying the relative capacity requirements of the two versions for 2025 and beyond. He also said he expected Boeing to wait until the results of an ongoing FAA audit of its factories before making any decisions on supplier production rates. LEAP deliveries grew 38% in 2023, slightly below target, Safran reported. The CEO also told journalists Safran is in talks with the Italian government over Rome's recent decision to block part of its planned \$1.8 billion purchase of the flight control systems business of Collins Aerospace.

Reuters

Airbus plans special dividend, takes new space charge: Europe's Airbus unveiled a special dividend on Thursday after posting higher 2023 results, buoyed by record airplane orders and higher deliveries but dampened by a fresh charge of 200 million euros (\$214.62 million) in its troubled Space unit. The world's largest commercial planemaker said core adjusted operating profit rose 4% to 5.8 billion euros as revenue rose 11% to 65.4 billion, and predicted core profit of 6.5 to 7.0 billion euros in 2024. Airbus proposed an unchanged regular dividend of 1.8 euros a share, and added a special dividend of 1 euro per share as net cash topped the 10-billion-euro threshold previously identified as a potential trigger for Reuters returning cash to shareholders. Airbus is riding a wave of orders from airlines coping with a rebound in travel demand from the pandemic, helping it to build up cash reserves in contrast with U.S. rival Boeing which is mired in debts stemming from a series of crises. Airbus, as expected, forecast around 800 jet deliveries for 2024 but announced a further delay in entry to service of its A321XLR single-aisle jet to the third quarter from the second. The first customer airplane entered final assembly in December. The company's forecasts are subject to no further disruption to tight global supply chains or the world economy.

Thai Airways to acquire 45 wide-body Boeing jets: Thai Airways International said on Wednesday it entered into an agreement with Boeing and GE Aerospace for a firm order of 45 wide-body jets to expand its fleet, with deliveries starting in 2027. "The long-term aircraft acquisition plan is crucial for replacing gradually expiring leased and aging aircraft," Thai Airways said in a statement. The announcement confirms a Reuters report from this month. The order also came with options for additional aircraft, the airline said, adding that its fleet size would reach 96 jets after the acquisition.

Reuters

Exclusive: Biden slashes F-35 jet order 18% in 2025 budget request, sources say: U.S. President Joe Biden wants an 18% cut in the number of F-35 jets the Pentagon buys next year after Congress' cap on the size of the upcoming defense budget compelled the administration to find savings, two sources familiar with the situation said. The Pentagon order for Lockheed Martin's stealthy fighter will drop to below 70, down from an expected order of 83, for an estimated \$1.6 billion drop in spending on jets. The drop in F-35 orders could impact the big defense contractor, which earns about a quarter of its revenue from the jet program. International demand for the jets, which cost somewhere between \$80 million to about \$120 million each depending on the type, remains strong. Lockheed shares fell 2.6% after the news, which was first reported by Reuters. Lockheed said in a statement, "we look forward to working with the Biden administration and Congress" on the 2025 fiscal year budget in the months ahead."

Exhibit 9: Global Aerospace and Defence Weekly News flow

Major news from the last week in the Global Aerospace & Defence Industry

Weekly news flow Source

Airbus confirms OneSat satellite programme hit by major charges: Airbus confirmed on Thursday that the OneSat family of commercial telecom satellites had been swept up in financial charges at its Space business. In November, Airbus announced 400 million euros of charges related to unidentified satellite programmes at the nine-month stage, mostly taken in the third quarter. Industry sources said at the time that these notably included the OneSat family. On Thursday, Airbus added another 200 million of charges, bringing last year's total to 600 million euros. 'OneSat is a programme that is ongoing. We have recorded charges in 2023, big time, but we remain very committed to the programme," Airbus CEO Guillaume Faury told a news conference.

Reuters

Jet engine maker Safran raises dividend on profit jump and growth outlook: French jet engine maker Safran posted sharply higher revenue and operating profit for 2023, raised its dividend and predicted further growth this year on the back of strong demand for engine services. Shares in the company rose sharply in early Paris trade and were up 4.3% by 0833 GMT. Full-year recurring operating income rose 31% to 3.166 billion euros (\$3.4 billion) as revenue rose 22% to 23.199 billion, the company said, while its widely watched civil Reuters aftermarket revenue rose 33% in dollar terms. The company also said it would raise its dividend to 2.20 euros a share. Key Safran client Airbus also released full-year figures on Thursday, announcing a special dividend after record orders, boosting its core operating profit by 4%.

Reuters

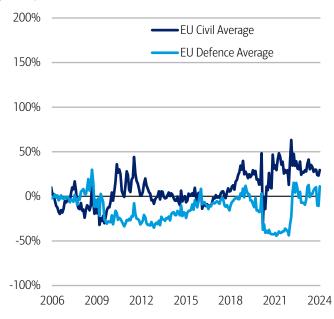
Lockheed Martin on track to increase production of weapons systems: Lockheed Martin said on Thursday that it was on track to raise production of its weapons systems to meet increased demand amid escalating security concerns. The Russia-Ukraine war, the Middle East crisis and the specter of Chinese aggression are driving demand for weapons systems made by U.S. defense companies. Lockheed said it was on track to double production of its High Mobility Artillery Rocket Systems (HIMARS). HIMARS production capacity has already increased from 48 per year to 60 per year and is on track to meet the 96 per year capacity by the end of 2024. Production of Javelin, a shoulder-fired and platform-employed antitank missile system, increased to 2,400 per year. It expects to increase Javelin production capacity to 3,960 Javelins per year by late 2026. It will deliver more than 10,000 Guided Multiple Launch Rocket Systems (GMLRS) this year and aims to increase production capacity to 14,000 per year in 2025. Additionally, Lockheed said it had advanced funds to increase air defense missile PAC-3 MSE annual production rates to 650 by 2027.



Global A&D Valuations

Exhibit 10: EU Civil & Defence 12-month forward PE rel SXNP (industrials)

EU Civil is currently trading at 29.6% premium to SXNP, and defence is trading at 11.2% premium to index (15/02/2024)

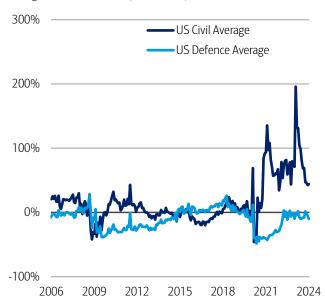


Source: BofA Global Research estimates. EU Defence = Thales and Finmeccanica, BAE, QQ, Rheinmetall, SAAB, Hensoldt, Kongsberg EU civil: Airbus, MTU, Safran

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Exhibit 12: US Civil & Defence 12-month forward PE rel S&P500 Industrials

US Civil is currently trading at a 44.1% premium to index, and defence is trading at a 10.1% discount (15/02/2024)



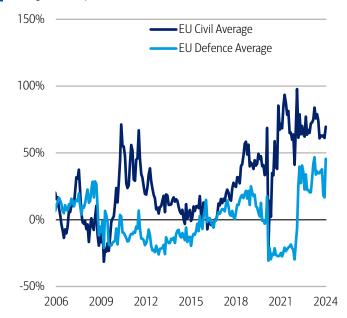
Source: BofA Global Research estimates

US Civil: Boeing, CAE, Crane Co, Hexcel, Triumph Textron. US Defence: General Dynamics, L3, Lockheed Martin, Moog, Northrop Grumman

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Exhibit 11: EU Civil & Defence 12-month forward PE rel SXXP (market)

EU Civil is currently trading at a 69.6% premium to SXXP, and defence is trading at 45.6% premium to SXXP (15/02/2024)

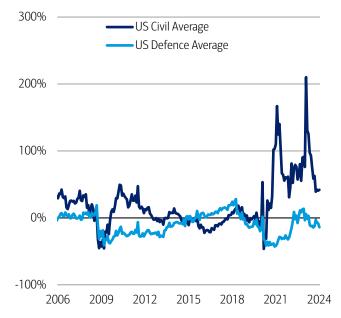


Source: BofA Global Research estimates. EU Defence = Thales and Finmeccanica, BAE, QQ, Rheinmetall, SAAB, Hensoldt, Kongsberg EU civil: Airbus, MTU, Safran

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Exhibit 13: US Civil & Defence 12-month forward PE rel S&P 500

US Civil is currently trading at a 41.8% premium to index, and defence is trading at a 14.2% discount (15/02/2024)



Source: BofA Global Research estimates

 $US\ Civil:\ Boeing,\ CAE,\ Crane\ Co,\ Hexcel,,,\ Triumph\ Textron.\ US\ Defence:\ General\ Dynamics,\ L3,\ Lockheed\ Martin,\ Moog,\ Northrop\ Grumman$



Where numbers are moving

Sector FY24 EPS over the last month decreased 0.5%, with Civil OE names' EPS decreasing 1.3%, civil aftermarket names' EPS decreasing 0.2% and defence names' EPS decreasing 0.2%. The major estimate increase was Kongsberg (+3.8%) and decrease was Hensoldt (-4.3%) during last month.

We continue to monitor the consensus EPS data on a weekly basis.

Exhibit 14: EPS Revision to 15 February 2024

EPS revisions have been overall positive as the re-opening consolidates and the first positives of increasing defence budgets are felt

1M	3M	6M	1Y
-1.3%	-2.3%	-2.6%	-12.0%
-0.2%	0.3%	4.5%	9.0%
-3.2%	-2.4%	2.9%	16.7%
-4.3%	-7.4%	-7.4%	-11.9%
3.8%	5.3%	7.9%	22.3%
-2.8%	-4.1%	-1.4%	-7.8%
0.0%	0.6%	-1.2%	5.7%
0.2%	-0.1%	0.1%	0.9%
0.1%	3.3%	5.5%	11.4%
1.5%	13.9%	66.8%	105.9%
1.9%	7.2%	14.1%	32.4%
-0.4%	-1.3%	3.8%	5.8%
-0.6%	-4.6%	-4.3%	-1.7%
-1.3%	-2.3%	-2.6%	-12.0%
-0.2%	-0.4%	1.3%	5.7%
-0.2%	0.0%	2.4%	6.8%
-0.5%	-0.5%	1.8%	5.9%
	-1.3% -0.2% -3.2% -4.3% 3.8% -2.8% 0.0% 0.2% 0.1% 1.5% 1.9% -0.4% -0.6% -1.3% -0.2% -0.2%	-1.3% -2.3% -0.2% 0.3% -3.2% -2.4% -4.3% -7.4% 3.8% 5.3% -2.8% -4.1% 0.0% 0.6% 0.2% -0.1% 0.1% 3.3% 1.5% 13.9% 1.9% 7.2% -0.4% -1.3% -0.6% -4.6% -1.3% -2.3% -0.2% -0.4% -0.2% 0.0%	-1.3% -2.3% -2.6% -0.2% 0.3% 4.5% -3.2% -2.4% 2.9% -4.3% -7.4% -7.4% 3.8% 5.3% 7.9% -2.8% -4.1% -1.4% 0.0% 0.6% -1.2% 0.2% -0.1% 0.1% 0.1% 3.3% 5.5% 1.5% 13.9% 66.8% 1.9% 7.2% 14.1% -0.4% -1.3% 3.8% -0.6% -4.6% -4.3% -1.3% -2.3% -2.6% -0.2% 0.0% 2.4%

Source: DataStream

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Exhibit 15: 12-month forward PE to 15 February 2024Civil Aerospace has re-rated as the re-opening has consolidated

1M	3M	6M	1Y
1.4%	11.4%	1.1%	13.6%
15.5%	11.5%	22.7%	24.7%
3.5%	-4.4%	-11.0%	-15.7%
51.2%	23.6%	3.5%	34.4%
36.2%	22.1%	24.7%	19.0%
36.4%	29.1%	47.7%	101.3%
19.3%	27.6%	-6.6%	-19.5%
20.6%	8.2%	3.3%	-2.7%
25.7%	24.6%	18.6%	14.3%
1.2%	23.9%	10.1%	-15.0%
35.2%	20.7%	9.1%	23.8%
5.9%	13.4%	11.9%	6.8%
1.2%	0.2%	0.0%	8.5%
1.4%	11.4%	1.1%	13.6%
8.8%	21.6%	5.1%	-9.2%
28.1%	17.3%	19.7%	37.6%
21.0%	15.7%	10.4%	17.4%
	1.4% 15.5% 3.5% 51.2% 36.2% 36.4% 19.3% 20.6% 25.7% 1.2% 5.9% 1.2% 1.4% 8.8% 28.1%	1.4% 11.4% 15.5% 11.5% 3.5% -4.4% 51.2% 23.6% 36.2% 22.1% 36.4% 29.1% 19.3% 27.6% 20.6% 8.2% 25.7% 24.6% 1.2% 23.9% 35.2% 20.7% 5.9% 13.4% 1.2% 0.2% 1.4% 11.4% 8.8% 21.6% 28.1% 17.3%	1.4% 11.4% 1.1% 15.5% 11.5% 22.7% 3.5% -4.4% -11.0% 51.2% 23.6% 3.5% 36.2% 22.1% 24.7% 36.4% 29.1% 47.7% 19.3% 27.6% -6.6% 20.6% 8.2% 3.3% 25.7% 24.6% 18.6% 1.2% 23.9% 10.1% 35.2% 20.7% 9.1% 5.9% 13.4% 11.9% 1.2% 0.2% 0.0% 1.4% 11.4% 1.1% 8.8% 21.6% 5.1% 28.1% 17.3% 19.7%

Source: DataStream



Global PE Trends

Exhibit 16: EU A&D Sector Valuations – relative 12-month fwd PE

Defence has re-rated since February 2022

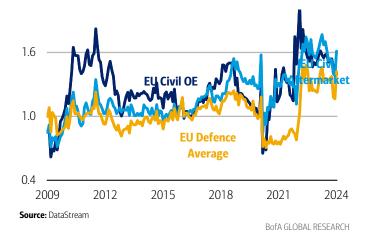


Exhibit 18: Global Airlines Valuations - relative 12-month fwd PE

Airlines have de-rated since 2021 as consensus have been raising numbers due to air traffic recovery $% \left(1\right) =\left(1\right) \left(1\right) \left$



Exhibit 20: US Industrials Sector Valuations – relative 12-month fwd PE

US Industrials started to re-rate since 2H20 and have remained broadly stable through $2023\,$

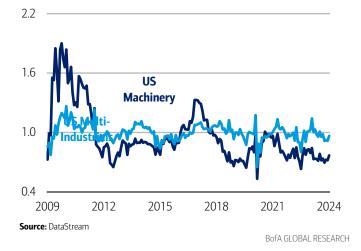


Exhibit 17: US A&D Sector Valuations - relative 12-month fwd PE

US names have not re-rated that much since February 2022 vs ${\sf EU}$

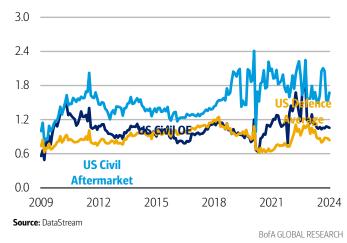
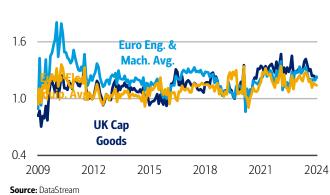


Exhibit 19: EU Industrials Sector Valuations – relative 12-month fwd PE

European and UK Capital Goods started to re-rate since 2H20

2.2



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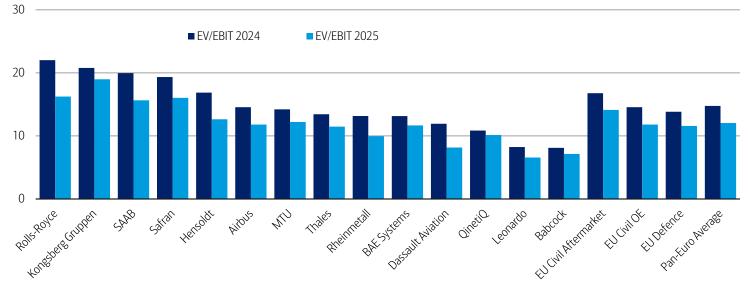


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Valuations and PE ranges

Exhibit 21: EV/EBIT for 2024 and 2025

2024 (Pan-Euro average=14.74) and 2025 (Pan Euro average=12.03) ordered in terms of 2024, most expensive to least

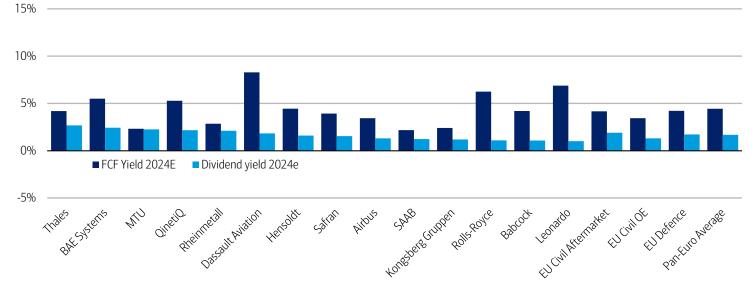


Source: BofA Global Research estimates

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Exhibit 22: Free Cash Flow Yield % and Dividend Yield %

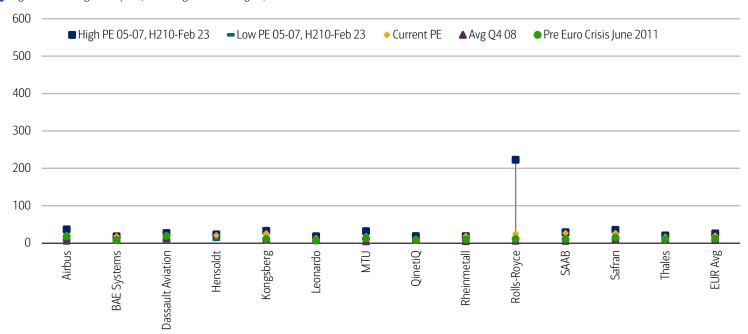
Free cash flow Pan Euro average = 4.44% and dividend yield average =1.67%



Source: BofA Global Research estimates

Exhibit 23: European A&D Stock – PE Candle light

Civil Aerospace companies trade at the top of their historical PE ranges due to air traffic recovery and high visibility on backlogs. Defence trades at peak of ranges due to high sector average multiples (increasing defence budgets).



Source: BofA Global Research estimates

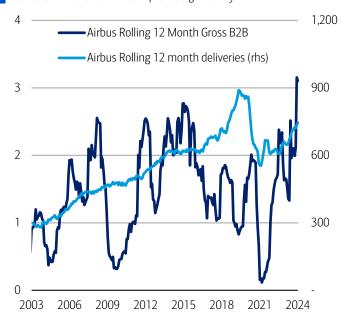
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10

Global book to bill trends

Exhibit 24: Airbus 12-month Rolling B2B and deliveries

Airbus delivered 735 aircraft in 2023, driving a step-up in 12-month rolling deliveries – new orders have improved significantly

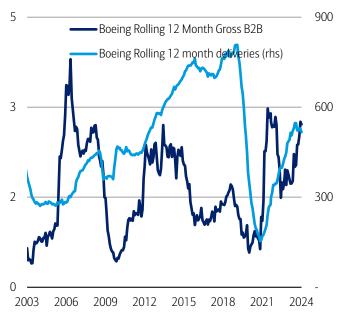


Source: BofA Global Research estimates

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Exhibit 25: Boeing 12-month Rolling B2B and deliveries

Boeing's Gross B2B and deliveries fell significantly after the 737MAX grounding in 2019

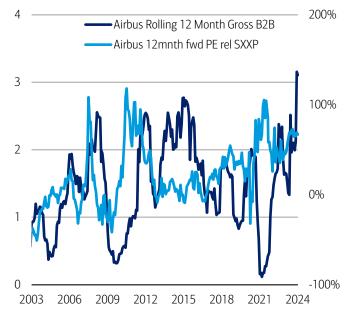


Source: BofA Global Research estimates

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Exhibit 26: Airbus 12-month Rolling B2B vs. Air 12-month fwd PE rel SXXP Airbus trades at a premium to SXXP due to high backlog visibility and the

Airbus trades at a premium to SXXP due to high backlog visibility and the recovery of air traffic



Source: BofA Global Research estimates

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Exhibit 27: Boeing 12-month Rolling B2B vs. BA 12-month fwd PE rel S&P Boeing's 12-month fwd PE multiple trades at a premium to S&P due to level of EPS



Source: BofA Global Research estimates



Air traffic & Capacity

Exhibit 28: Global RPKs and ASKs (%)

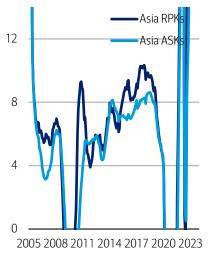
COVID-19 drove global traffic growth to all-time low levels in 2020



Source: IATA BofA GLOBAL RESEARCH

Exhibit 29: Asia RPKs and ASKs (%)

Asia-Pacific increased significantly through 2023 as result of China re-opening

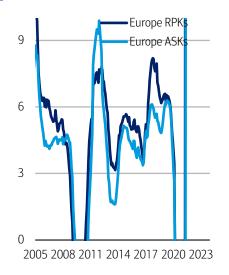


Source: IATA

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Exhibit 30: Europe RPKs and ASKs (%)

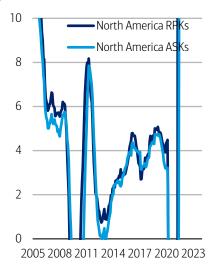
Europe started to improve from mid-2021 onwards



Source: IATA

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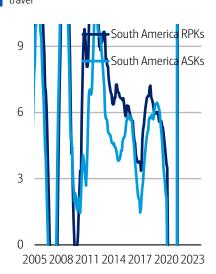
Exhibit 31: North America RPKs and ASKs (%) North America has higher domestic mix than Europe



Source: IATA

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Exhibit 32: South America RPKs and ASKs (%) South America relies heavily on intracontinental

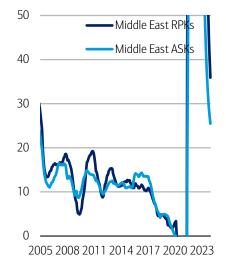


Source: IATA

BofA GLOBAL RESEARCH

Exhibit 33: Middle East RPKs and ASKs (%)

Middle East relies heavily on international longhaul traffic through major airport hubs



Source: IATA



Relative stock valuations

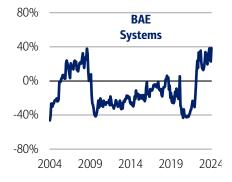
Exhibit 34: Airbus 12-month fwd PE rel SXXP

Airbus has re-rated due to high backlog visibility



ource: DataStream BofA GLOBAL RESEARCH

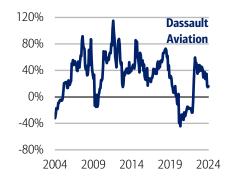
Exhibit 35: BAE 12-month fwd PE rel SXXP BAE has re-rated since February 2022 due to increasing defence budgets



Source: DataStream

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Exhibit 36: Dassault 12-month fwd PE rel SXXP Dassault has de-rated heavily on business jet market weakness and GTF concerns



Source: DataStream

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Exhibit 37: Kongsberg 12-month fwd PE rel

Kongsberg has re-rated since Feb 2022



Source: DataStream

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Exhibit 38: Leonardo 12-month fwd PE rel SXXP

Leonardo has re-rated significantly since Feb 22



Source: DataStream

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Exhibit 39: MTU 12-month fwd PE rel SXXP

MTU has de-rated due to GTF concerns



Source: DataStream

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Exhibit 40: QinetiQ 12-month fwd PE rel

QinetiQ is the only defence name that has derated since February 20 22 due to concerns around margins and cap allocation

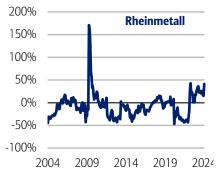


Source: DataStream

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Exhibit 41: Rheinmetall 12-month fwd PE rel SXXP

Rheinmetall has re-rated since February 2022 due to strong growth on Ammo

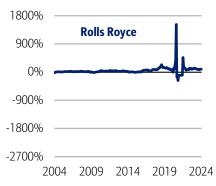


Source: DataStream

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Exhibit 42: Rolls Royce 12-month fwd PE rel SXXP

RR's valuation has re-rated due to strong WB recovery and a turnaround plan



Source: DataStream



Exhibit 43: SAAB 12-month fwd PE rel SXXP

SAAB has re-rated since February 20 22 due to strong growth outlook and Sweden potentially entering NATO



Source: DataStream

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Exhibit 44: Safran 12-month fwd PE rel SXXP

Safran has re-rated since 2020 lows due to strong aftermarket growth and overall narrowbody recovery

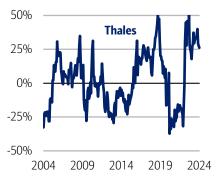


Source: DataStream

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Exhibit 45: Thales 12-month fwd PE rel SXXP

Thales has re-rated since February 2022 due to increasing defence budgets



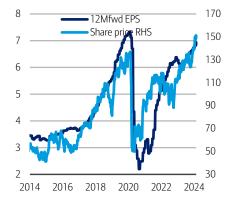
Source: DataStream



A&D EPS Trends

Exhibit 46: Airbus EPS vs. Share price

Airbus has faced positive EPS revisions as the company delivered 735 deliveries in 2023

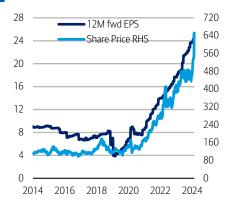


Source: DataStream

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Exhibit 49: Kongsberg EPS vs. Share price

Kongsberg EPS/share price has been positively correlated since 2019

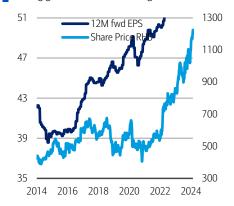


Source: DataStream

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Exhibit 47: BAE EPS vs. Share price

BAE EPS expectations have grown reflecting strong growth on defence budgets

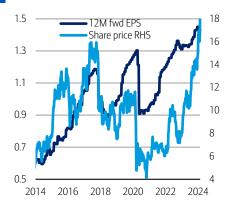


Source: DataStream

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Exhibit 50: Leonardo EPS vs. Share price

Leonardo EPS expectations have increased since 2020 lows



Source: DataStream

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Exhibit 48: Dassault EPS vs. Share priceDassault share price has come down due to

Dassault share price has come down due to lower-than-anticipated deliveries

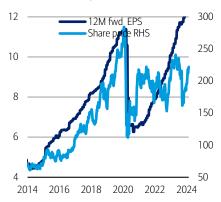


Source: DataStream

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Exhibit 51: MTU EPS vs. Share price

GTF concerns weighed on MTU share price performance through 3Q23

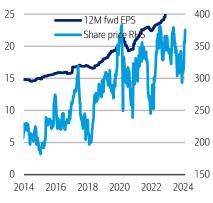


Source: DataStream

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Exhibit 52: QinetiQ EPS vs. Share price

QQ EPS growth has been more limited than EU defence peers due to limited margin expansion



Source: DataStream

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Exhibit 53: Rheinmetall EPS vs. Share price

Rheinmetall EPS expectations have increased due to strong growth outlook on Ammo



Source: DataStream

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Exhibit 54: Rolls Royce EPS vs. Share price

Rolls Royce's share price has improved since late 2022 due to the widebody recovery

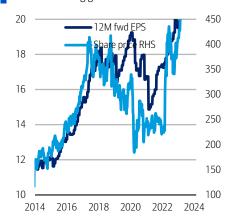


Source: DataStream



Exhibit 55: SAAB EPS vs. Share price

SAAB has seen EPS upgrades since February 20 22 due to strong growth outlook

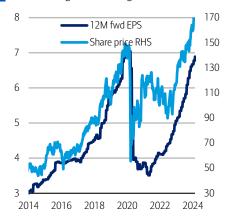


Source: DataStream

BofA GLOBAL RESEARCH

Exhibit 56: Safran EPS vs. Share price

Safran faced strongly positive earnings revisions due to strong aftermarket growth

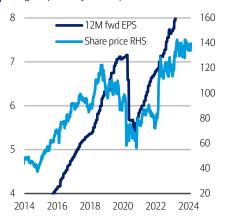


Source: DataStream

BofA GLOBAL RESEARCH

Exhibit 57: Thales EPS vs. Share price

EPS expectations have increased significantly as Thales should benefit from increasing defence budgets, primarily in Europe



Source: DataStream



A&D Comp Sheet

Exhibit 58: A&D Comp SheetBelow we highlight our valuation peer comparison

Europe					EV	/EBITI	EBITDA EV/EBIT			PE (x)				DY			FCF yield		
	Rating	Currency	Price	Mcap (USD)	2024	2025	2026	2024	2025	2026	2024	2025	2026	2024	2025	2026	2024	2025	2026
Airbus	1 - Buy	EUR	149	125,849	11.1	9.3	7.5	14.5	11.8	9.2	21.7	17.0	12.3	1.3%	1.7%	2.3%	3.4%	5.3%	7.7%
Babcock	1 - Buy	GBP	467	2,974	5.4	4.8	4.2	8.1	7.1	6.2	12.3	10.9	9.4	1.1%	1.7%	2.8%	4.2%	5.4%	7.3%
BAE Systems	1 - Buy	GBP	1,225	46,813	10.3	9.1	8.6	13.1	11.6	10.9	16.9	14.5	12.8	2.4%	2.6%	2.7%	5.5%	6.4%	7.5%
Dassault Aviation	2 - Neutral	EUR	183	15,888	9.9	7.0	6.0	11.9	8.1	6.9	16.5	12.3	10.8	1.8%	2.4%	2.8%	8.3%	-0.4%	1.0%
Hensoldt	2 - Neutral	EUR	35	4,328	12.7	9.7	8.5	16.8	12.6	10.8	21.0	17.4	15.0	1.6%	2.3%	2.7%	4.4%	5.3%	6.2%
Kongsberg Gruppen	3 - Underperform	NOK	652	10,877	15.6	14.4	13.3	20.8	19.0	17.4	27.2	24.7	22.6	1.2%	1.3%	1.4%	2.4%	2.8%	3.0%
Leonardo	1 - Buy	EUR	19	11,504	5.1	4.3	3.4	8.2	6.6	4.6	15.0	12.1	10.3	1.0%	1.2%	1.5%	6.9%	8.5%	12.7%
MTU	2 - Neutral	EUR	222	12,190	9.7	8.6	7.7	14.2	12.2	10.4	17.1	14.7	12.9	2.2%	2.3%	2.6%	2.3%	2.3%	3.3%
QinetiQ	2 - Neutral	GBP	375	2,705	7.6	7.1	6.4	10.8	10.1	9.0	14.9	13.6	12.4	2.2%	2.3%	2.4%	5.3%	6.0%	7.0%
Rheinmetall	1 - Buy	EUR	377	17,374	9.5	7.5	6.2	13.1	9.9	7.7	17.4	13.5	10.7	2.1%	2.8%	3.7%	2.9%	4.3%	6.2%
Rolls-Royce	1 - Buy	GBP	320	33,704	11.4	9.3	7.9	22.0	16.2	10.8	22.9	18.0	13.3	1.1%	1.5%	2.0%	6.2%	7.6%	10.3%
SAAB	1 - Buy	SEK	778	9,934	12.3	10.1	8.5	19.9	15.6	11.6	26.2	21.0	17.5	1.2%	1.5%	1.8%	2.2%	2.3%	3.0%
Safran	1 - Buy	EUR	183	84,217	14.3	12.1	10.4	19.3	16.0	13.4	26.0	20.3	16.6	1.5%	2.0%	2.4%	3.9%	5.0%	6.2%
Thales	2 - Neutral	EUR	140	31,266	9.4	8.3	8.6	13.4	11.5	10.2	15.0	12.8	11.6	2.7%	3.1%	3.5%	4.2%	5.3%	0.0%
EU Civil Aftermarket					12.0	10.3	9.1	16.8	14.1	11.9	21.5	17.5	14.8	1.9%	2.1%	2.5%	4.2%	5.0%	6.6%
EU Civil OE					11.1	9.3	7.5	14.5	11.8	9.2	21.7	17.0	12.3	1.3%	1.7%	2.3%	3.4%	5.3%	7.7%
EU Defence					9.8	8.4	7.5	13.8	11.6	9.8	18.4	15.6	13.6	1.7%	2.1%	2.5%	4.2%	5.1%	5.9%
Pan-Euro Average					10.3	8.7	7.7	14.7	12.0	9.9	19.3	15.9	13.4	1.7%	2.1%	2.5%	4.4%	4.7%	5.8%

Non Europe					E۱	//EBITC	λ		EV/EBIT			PE(x)			DY			FCF yiel	d
	Rating	Currency	Price	Mcap (USD)	2024	2025	2026	2024	2025	2026	2024	2025	2026	2024	2025	2026	2024	2025	2026
Boeing	2 - Neutral	USD	205	125,279	31.5	17.1	13.3	49.4	21.4	15.9	293.3	31.3	23.1	0.0%	0.0%	0.0%	3.4%	5.0%	6.3%
Embraer	1 - Buy	USD	18	3,355	7.5	5.9	4.7	11.7	8.5	6.5	12.2	9.4	7.6	0.0%	0.0%	0.0%	9.7%	11.9%	14.0%
General Dynamics	1 - Buy	USD	270	73,975	14.4	13.1	11.9	16.9	15.1	13.6	18.7	16.6	14.8	2.1%	2.3%	2.5%	5.4%	6.2%	6.7%
HEICO	1 - Buy	USD	194	23,680	28.1	24.6	21.2	34.1	29.6	25.1	56.2	47.3	38.4	0.1%	0.1%	0.1%	1.8%	2.2%	3.0%
Hexcel Corp	2 - Neutral	USD	74	6,278	17.6	15.5	14.0	26.6	22.1	19.4	33.1	27.6	23.3	0.8%	0.8%	0.8%	3.3%	3.7%	4.3%
Huntington Ing Industries	3 - Underperform	USD	285	11,283	14.2	12.5	11.2	18.7	16.6	14.8	17.6	15.6	13.8	1.9%	2.1%	2.4%	5.8%	6.3%	6.4%
L3Harris	2 - Neutral	USD	211	40,046	14.9	12.7	11.8	17.0	15.4	14.1	16.8	14.7	13.4	2.7%	2.8%	3.0%	5.5%	6.5%	6.9%
Lockheed Martin	2 - Neutral	USD	423	102,244	12.7	11.9	11.7	13.8	13.5	13.3	16.1	14.6	14.3	3.0%	3.3%	3.5%	6.2%	6.7%	7.1%
Mercury Systems	3 - Underperform	USD	30	1,807	69.7	66.4	62.9	63.0	52.7	44.3	24.4	20.8	19.0	0.0%	0.0%	0.0%	1.4%	4.2%	4.8%
Northrop Grumman	1 - Buy	USD	450	67,516	13.4	12.1	11.4	17.8	16.0	14.9	18.9	16.7	15.6	1.8%	2.0%	2.2%	3.8%	5.5%	6.8%
Raytheon	2 - Neutral	USD	92	121,789	11.0	15.9		16.1	15.9	15.4	17.0	14.9	13.7	2.7%	2.9%	3.1%	4.7%	5.7%	6.8%
Spirit Aerosystems	3 - Underperform	USD	30	3,513	7.5	6.2	5.5	11.7	8.6	7.2	15.5	9.2	7.5	0.0%	0.0%	0.0%	5.5%	6.0%	13.1%
Textron	2 - Neutral	USD	86	16,626	10.6	9.8	9.2	14.1	12.7	11.8	15.5	13.4	12.0	0.1%	0.1%	0.1%	6.3%	7.0%	8.4%
TransDigm Ltd	1 - Buy	USD	1,158	64,380	21.6	18.8	17.7	23.3	20.1	19.0	35.8	29.3	26.1	0.0%	0.0%	0.0%	2.6%	3.3%	3.7%
Triumph Group	1 - Buy	USD	15	1,162	13.9	11.3	9.7	19.2	13.7	11.6	33.6	18.7	12.1	0.0%	0.0%	0.0%	4.4%	5.3%	7.9%
US Civil Aftermarket					21.6	18.8	17.7	23.3	20.1	19.0	35.8	29.3	26.1	0.0%	0.0%	0.0%	2.6%	3.3%	3.7%
US Civil OE					16.8	12.1	10.5	25.4	16.2	13.6	89.4	20.4	16.4	0.2%	0.2%	0.2%	4.6%	5.4%	8.0%
US Defence					12.8	13.1	11.4	16.6	15.5	14.6	17.4	15.5	14.4	2.4%	2.6%	2.8%	5.1%	6.1%	6.8%
US Average					19.3	16.9	15.4	23.6	18.8	16.5	41.6	20.0	17.0	1.0%	1.1%	1.2%	4.6%	5.7%	7.1%

Source: BofA Global Research estimates. Mcap = market capitalisation. DY – dividend yield.



A&D Calendar

Exhibit 59: A&D Calendar

Calendar of events for A&D companies

Date	Subject	Event
12 Jul 23	Kongsberg	1H23 results
20 Jul 23	QinetiQ	QinetiQ AGM
20 Jul 23	SAAB	1H23 results
21 Jul 23	Thales	1H23 results
26 Jul 23	Airbus	1H23 results
26 Jul 23	MTU	1H23 results
27 Jul 23	Safran	1H23 results
28 Jul 23	Eutelsat	FY23 results
28 Jul 23	Hensoldt	1H23 results
28 Jul 23	Leonardo	1H23 results
02 Aug 23	BAE Systems	1H23 results
03 Aug 23	Rolls-Royce	1H23 results
03 Aug 23	SES	1H23 results
08 Aug 23	Yahsat	1H23 results
09 Aug 23	Vestas	1H23 results
10 Aug 23	Rheinmetall	1H23 results
14 Aug 23	Nordex	1H23 results
15 Aug 23	Montana Aerospace	1H23 results
08 Sep 23	Avio	1H23 results
26 Oct 23	Eutelsat	1Q24 results
26 Oct 23	SAAB	9M23 results
27 Oct 23	Kongsberg	9M23 results
27 Oct 23	MTU	9M23 results
27 Oct 23	Safran	9M23 results
31 Oct 23	Thales	9M23 results
02 Nov 23	SES	9M23 results
06 Nov 23	Avio	9M23 results
07 Nov 23	Leonardo	9M23 results
08 Nov 23	Airbus	9M23 results
08 Nov 23	Vestas	9M23 results
09 Nov 23	Hensoldt	9M23 results
09 Nov 23	Rheinmetall	9M23 results
11 Nov 23	Nordex	9M23 results
14 Nov 23	Montana Aerospace	9M23 results
23 Nov 23	Eutelsat	Shareholders annual meeting

Source: Company report



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