Aerospace & Defense

2024 Aerospace & Defense Year Ahead: Butterflies and Bullets

Industry Overview

OEM looking better, AM to continue to outperform

As we look into 2024 and reflect back on 2023, we think the top question on investors' minds is "is this the year commercial aerospace production finally normalizes?". The set up into 2024 does suggest a less turbulent path ahead. The OEM production outlook is significantly brighter than it has for the past two years, however we remain cautious that the ramp is not without its risks. We see continued strength in the narrowbody recovery and suspect 2024 may be the long-awaited inflection point for the widebody recovery. The aftermarket (AM) appears to have largely benefited from a chaotic 2023, and we expect to see continued upside throughout 2024 as OEM production normalizes.

Top aero picks: BA, HWM, TDG, and the aircraft lessors

Going into 2024, our top picks for commercial aerospace are Boeing, Howmet, and Transdigm with the aircraft lessors, AerCap and Air Lease, as wild cards. On the OEM front, we see several catalysts for Boeing going into 2024 (including a return to Chinese deliveries and a stabilization of the supply chain base) and see opportunities for Howmet to continue to benefit from pricing power as one of the few western titanium structures suppliers. On the AM front, Transdigm will continue to benefit from tailwinds in the segment as well as growing international travel. While we see the supply/demand mismatch as a solid set up for increased leased aircraft demand, we note that there does remain a near term risk stemming from lessors needing to access capital markets (at higher interest rates) before lease rates can be repriced due to the mismatch in duration.

'24 could be strong for defense, but rate cuts could impact

We highlight that defense stocks have outperformed the S&P 500 in 80% of presidential election years since 1980. However, this outperformance generally tends to come mostly in 2H. Defense stocks have outperformed the S&P 500 two-thirds of the time in 2Q-4Q (vs. just 55% of the time in 1Q). In those quarters that defense stocks outperformed, 3Q generally saw the strongest outperformance (+10%). However, if the Fed were to gradually cut rates next year, we think 2024 could see a more "risk-on" market in which we see rotation out of defensive names, including defense.

Top defense picks: NOC, GD, DRS, BAH, and PLTR

Our top picks within our defense coverage universe are Northrop Grumman, General Dynamics, Leonardo DRS, Booz Allen Hamilton, and Palantir as a wildcard. We continue to see strong growth tailwinds for those well exposed to modernization (NOC) and legacy munition (GD) priorities. Among the SMID cap names, DRS will likely recognize stronger margins on its electric power and propulsion offering for the Columbia-class program. Among the defense services companies, we believe there is upside to BAH's "fist mover advantage" in the mission critical AI field. While we anticipate some "caution" in early 2024 as investors reevaluate AI-ratings and the AI hype, we expect PLTR to improve through the balance of the year on commercial & defense opportunities and strengthening margins.

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Equity
Americas
Aerospace/Defense

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

Mariana Perez Mora
Research Analyst
BofAS
+1 646 855 5696
mariana.perezmora@bofa.com

Andre Madrid
Research Analyst
BofAS
+1 646 725 3107
andre.madrid@bofa.com

Jordan Lyonnais
Research Analyst
BofAS
+1 646 855 5204
jordan.lyonnais@bofa.com

Samantha Stiroh
Research Analyst
BofAS
+1 646 855 5725
samantha.stiroh@bofa.com

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

2024 – The OE ramp is upon us

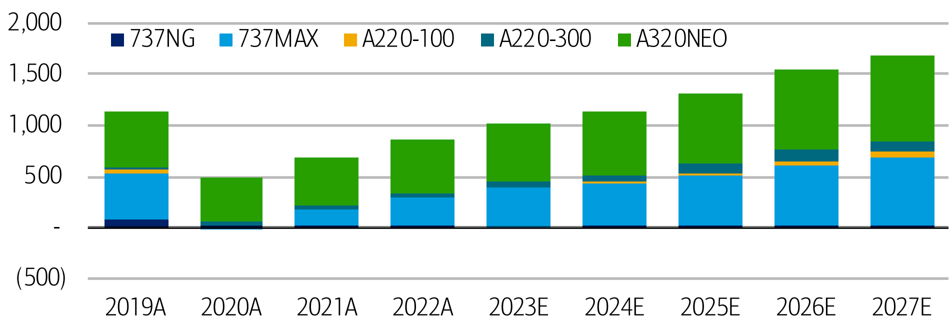
For 2024, we suspect the question at the top of investors' minds remains, "Can 2024 be the year commercial aero production is finally normalized". The set up into 2024 does suggests a less turbulent path ahead. Most companies in our coverage have noted supply chain constraints have eased significantly, domestic air traffic has exceeded 2019 levels, international travel is mostly recovered, and Boeing & Airbus maintain they are ready to significantly increase production volumes. We note the OEM outlook appears much brighter than the last two-years, however we remain cautious on the notions the ramp is without risks. The supply chain remains fragile and after a year of multiple quality escapes leading to increase FAA scrutiny, we suspect there may be more decade old skeletons in the closet.

Narrowbody market – Room to ramp

We expect continued strength in the narrowbody market and point to the positive sign Boeing and Airbus (covered by Ben Heelan) have held their ramp step-ups mostly unchanged. Boeing expects to ramp 737 production to 42/mo by February 2024, then 53/mo by February 2025. Airbus expects to ramp A320 production to 65/mo by the end of 2024, then progress to 75/mo in 2026. Narrowbody production has recovered significantly from the lows of 2020 at 489 aircraft, to our estimated 1,016 aircraft at the end of 2023 (See exhibit 1).

We expect both Boeing and Airbus to increase production rates in 2024, however we see headwinds to achieving the ambitious rates. Engine OEMs continue to face challenges in meeting their production schedule which ultimately hampers both Boeing and Airbus. Airbus could risk customers pushing back on accepting aircraft with known contaminated HPT (high pressure turbine) disks from Pratt & Whitney if the clean disk install plan is delayed beyond 1Q2024. At Boeing, though insulated from the GTF issue, continues to face delays from their problematic suppliers. In the first week of December, it was widely reported, BA moved the 42/mo target from December 2023 to February 2024, due to a supplier error in 3Q. We expect Boeing to produce 420 737s in 2024 (36/mo), and Airbus to produce 680 A320s in 2024 (57/mo).

Exhibit 1: Boeing and Airbus Narrowbody Production
Narrowbody production has increased significantly, although not to pre-pandemic levels



Source: BofA Global Research

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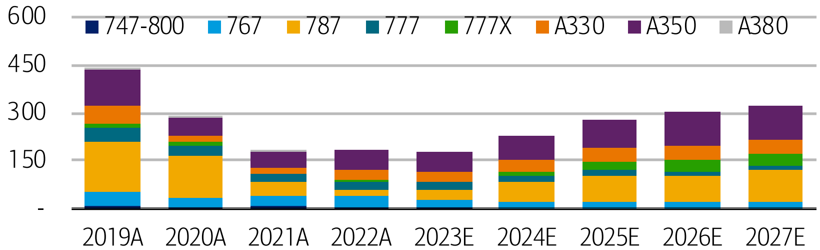
Widebody – The final recovery frontier

While narrowbody production rebounded quickly following the lows of the pandemic and is steadily pushing forward, widebody production has remained suppressed. We expect 2024 to be the real inflection point for widebody production rates, with significant upside opportunity if the supply chain will allow for it. We view the widebody rebound as the last phase of the commercial aerospace and should provide additional upside to suppliers with exposure weighted to the widebody market. Boeing is ramping 787 production from 3/mo & steadily increase to meet 10/mo by the end of 2025, and anticipates 777X production to restart in 2024. Airbus is also ramping A350 production from 4/mo expecting to reach 10/mo by the end of 2025. We anticipate Boeing producing 117 widebodies in 2024, and Airbus producing 112. We anticipate the widebody production ramp to be smoother, relative to the narrowbody ramp, given the significant progress made in stabilizing the supply chain. However, we do not expect production rates to reach 2019 levels within the next five years (See Exhibit 2).

Exhibit 2: Boeing and Airbus Widebody production
2024 should be an inflection point for the widebody market recovery



Source: BofA Global Research

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The risks to watch for in the OE

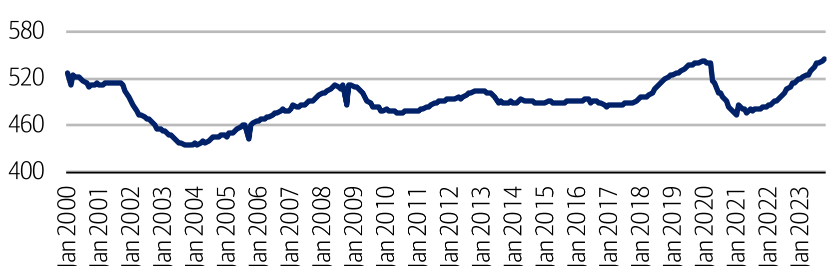
Where will the next "Boogeyman" be hiding?

In 2023, the commercial aerospace industry exemplified the destructive nature of the butterfly effect. In the case of Pratt & Whitney (an RTX company), a quality escape in 2015 snowballed to a $7bn charge, and an average of 350 GTF-powered A320s being grounded from 2024-2026. For Spirit AeroSystems in both the AFT-Pressure Bulkhead and Vertical Stabilizer-Fin, a mistake made years ago rippled through to 2023 leading to 737 deliveries being paused, substantial rework required on the existing fleet, and hundreds of millions in excess costs. Even a small UK-based aftermarket supplier allegedly forging document and supplying bogus parts sent more shockwave through the aerospace industry. It's our hope that in 2024, after all the recent mishaps, the increased scrutiny from both the regulators and industry participants will mean these surprises are finally behind us. However, if 2023 has a set a new precedent – the more each party looks, they may find the next butterfly.

Labor – Improving, all eyes on unions

For 2023 all facets of attracting, retaining, training, and negotiating labor remained a headwind. The larger companies in our coverage stated plainly they're hiring talent from their suppliers, peers, and adjacent industries, while smaller suppliers shared their talent is being targeted. Attracting and retaining talent did improve (see Exhibit 3), the number of U.S. employees working in Aerospace returned to pre-pandemic levels with a sharp turnaround in 2023.

Exhibit 3: U.S. employees (Aerospace products & parts mfg.) (000, seasonally adj.)
2023 shows a sharp rebound in U.S. Aerospace employment



Source: BofA Global Research, U.S. Bureau of Labor Statistics

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BA union agreement could provide next aircraft details

For 2024, we see some of the largest labor risks in training and negotiating. One of the largest watch items for next year is the labor agreement between Boeing and the International Association of Machinists (IAM) contract expiring on September 12th, 2024.

Union looking at strong precedent set in 2023

As widely reported in the press (including The Seattle Times - Nov 6th) the IAM labor union, representing 30,000 Boeing employees, has two major priorities 1) Increase pay by 40% over the next four years (in line with the Spirit renegotiation (see report)) and 2) Boeing commit to building the next new aircraft in Washington. Formal negotiations will begin in January or February 2024. According to press reports, the Union has taken note of the recent successes for autoworkers in Detroit and IAM employees at Spirit AeroSystems in Wichita.

Agreement could hold key details on next BA clean sheet aircraft

As we as we alluded to in the previous section, it would not surprise us if Boeing management were to create a “butterfly”. The union has a strong hand, given they played a critical role in the recertification of the 737 MAX with the FAA and Congress. We think Boeing could accept the terms of the deal to minimize disruptions and continue to focus on production, however, the piece likely to drive greatest disruption will be on the next-single-aisle aircraft. In the past, Boeing has not promised a location for a new aircraft as part of a union deal. If the next aircraft location is seen as truly non-negotiable for the union, plans from the contract could potentially yield significant details for suppliers, workers, and investors.

Aftermarket – downturn for what?

For all of the chaos and misgivings in 2023 for the commercial OE segment, the aftermarket appears to have benefited. Aftermarket benefitted from the sharp return to domestic air traffic, and the gradual recovery in international RPKs (See Exhibits 4 & 5). With OE production and deliveries slowed, and strong travel demand older aircraft were flying for longer, driving aftermarket spending. Many investors are now trying to determine if aftermarket growth has peaked.

In 2024, we expect continued strong growth in the aftermarket, while slower than 2023, we still see an opportunity for upside. We would expect with an average of 350 GTF-powered A320s being grounded from 2024-2026 there will be meaningful growth in the aftermarket due to the increased demand, on top of older aircraft continuing to fly for longer to compensate for the grounded fleet. Additionally, international RPKs are still ~5% lower compared to 2019 levels. The reopening of China was a major tailwind for aftermarket in 2023 and with recovery nearing 2019 peaks, and demand pushing toward exceeding those levels, we would expect shop visits grow meaningfully. Lastly, aftermarket suppliers have benefitted from strong pricing power, with most pushing inflation and labor increases back to customer. We expect aftermarket suppliers to retain the upper hand on pricing continuing in 2024 due to the demand/supply imbalance.

Risks to watch for in the aftermarket

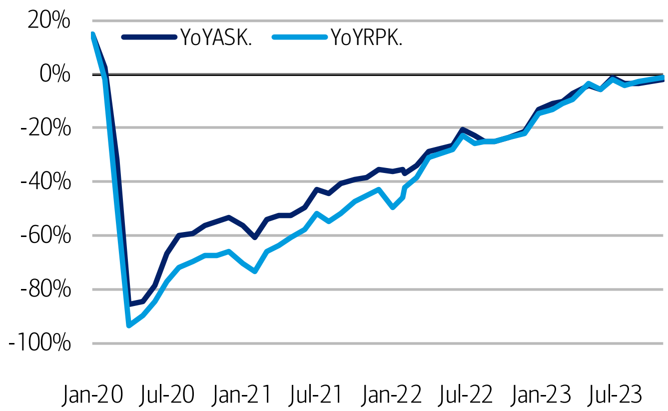
Share price pressure likely as deceleration expectations increase

Despite ramps in OE production set to accelerate, we see aftermarket growth slowing in a more gradual trend. While we do anticipate aftermarket growth to decelerate, but remain strong, we are aware of a growing number of investors expecting a deceleration. A key risk we see for companies in our coverage with significant aftermarket exposure, is if the slowdown in aftermarket growth is too high to satisfy investors and withstand a larger investor base expecting the growth to be lackluster.

Parked fleet increasing – a watch item for spares market disruption

Retirements and increased teardowns will be a critical watch item in 2024. If Airbus and Boeing are able to meet or exceed current production and delivery schedules this could lead to increased retirements, spares, and disrupt the aftermarket. As we noted in our December 21st Parked Fleet Update, the parked narrowbodies reached 7.6% in December (above 5.9% in Dec. 2019) and parked widebodies reached 12.1% in December (above 7.5% in Dec. 2019). The increased number of parked aircraft does typically signal there will be a slowing in the aftermarket. However, because aircraft have been flying longer than anticipated we see it less likely these aircraft will result in a significant influx spare or used serviceable materials (USM). Additionally, with the incremental groundings related to the GTF, we see it likely operators will be hesitant to scrap narrowbodies which could still operate.

Exhibit 4: Total market ASK vs. RPK growth
% change in monthly RPKs and ASKs vs. 2019



Source: IATA, BofA Global Research

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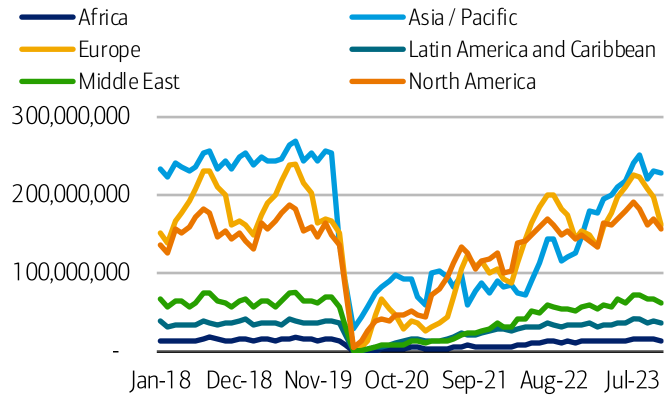
Exhibit 5: Total market RPKs by Market
APAC and NA had the strongest resurgence



Source: IATA, BofA Global Research

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Top picks for commercial aero in 2024

OE top picks: Boeing, Howmet

Boeing – Buy the Master Scheduler

We continue to see Boeing as having multiple catalysts in 2024 which can provide meaningful upside opportunity. 1) Boeing maintains deliveries to China will restart soon. 31 formerly China-bound MAXs have been reactivated, and the first 787 to be delivered to China in three years is slated for December 31st. 2) Boeing starting to deliver aircraft to China should generate cash from the faster wind-down of aircraft held in inventory (~250 MAXs / ~75 787s as of 3Q2023). 3) Boeing has been significant progress stabilizing their supply-chain base and could meet their production goals of 50/mo by 2025/2026 ahead of our 2026 target.

Howmet – Buy the pricing power

HWM's commercial aerospace segment grown over the last 10 consecutive quarters, now accounting for roughly half of all revenue. Demand is expected to remain steadfast in the coming years as airline load factors continue to improve. Management cited lower time on wings as an accelerant for the engine spares market, which HWM projects to extend into the next 2-3 years at a minimum. We continue to see HWM uniquely positioned to benefit with strong OEM demand, and significant pricing power as being one of the few titanium structures suppliers.

Aftermarket top pick: TransDigm

TransDigm – Buy the bellwether

TDG was a dominating force in aftermarket through all of FY2023. TDG expects aftermarket growth in the mid-teens for FY2024, after end the year with aftermarket revenue up 31% Y/Y. We see upside for TDG should international travel continue to improve faster than initially anticipated, if the impact from AOG from the GTF is larger than expected, as well as continued strength Commercial in the Interiors and Business Jet submarkets.

Wildcard: AerCap & Air Lease

Lessors benefit from S/D mismatch but yield curve risks remain

In our view, the aircraft lessors, AerCap (AER) and Air Lease (AL), are strongly positioned given aircraft supply/demand mismatch and current macro environment to outperform going into 2024. They are trading below book-value at the same time while they are selling aircraft well above the book-value. However, we highlight that the names remain wildcards given near term risks and the uncertainty of Russia-related recoveries and the interest rate environment.

As demand for aircraft outpaces supply, we expect to see 1) a general increase in lease rates and 2) more opportunities for highly profitable aircraft sales. We see a particular catalyst for outperformance as the yield curve returns to normal and financing costs come down. Despite the solid set up, we highlight there remains near-term risk stemming from the mismatch between the duration of debt and the duration of remaining lease term. The lessors will likely have to access capital markers (at high interest rates) before lease rates can be repriced (see our Nov 2 note here). Additionally, while we have seen progress being made on Russia-related asset recoveries, the lessors are not out of the woods yet and a solid portion of assets remain contested with litigation coming into 2024/2025.

2024 Defense Outlook

Low expectations + election year = upside risk

Much of the investor community has questioned the fate of the defense sector for 2024 ahead of the presidential election and a possible full year continuing resolution (CR). Despite speculation that defense spending might catch some flak as Democrats vie to maintain control, we note that defense stocks have outperformed the S&P 500 in 80% of presidential election years since 1980 (see our Defense Modernization Model report). Additionally, we view concerns of budgetary cuts as overstated, as only a small minority actually aims to achieve cuts to defense spending. The Biden administration set the tone that Democrats are not as dovish as they once were. In fact, we are currently seeing the most bipartisan support for strong defense spending since the late Cold War/Ronald Reagan era.

Staggered continuing resolutions indicate a resolution will likely be made

We recognize that a CR remains a serious challenge to 2024 defense performance, which could freeze spending at prior fiscal year levels and halt new program starts. However, we think the likelihood of a defense shutdown is rather low as CR expirations are generally staggered. According to the Committee for a Responsible Federal Budget (CRFB), the first expiration date is January 19, and this deadline applies to those programs covered under Agriculture, Energy-Water, Military Construction/Veteran Affairs, and Transportation/Housing and Urban Development bills. The second expiration date, February 2, applies to those programs covered under Commerce-Justice-Science, Defense, Financial Services-General Government, Homeland Security, Interior-Environment, Labor-Health and Human Services-Education, Legislative Branch, and State-Foreign Operations bills. We expect that the initial shock of a first potential expiration would likely bring all parties back to the negotiating table in order to avoid a full government shutdown, preventing any extended impact to defense spending.

FY24 NDAA still features $44bn spending increase over President's Budget

On December 22, President Biden signed the FY24 National Defense Authorization Act (NDAA). The latest NDAA calls for $886bn, reflecting a $44bn bump to defense spending above the initial FY24 President's Budget request of $842bn and slightly above our BofAe of $882bn. Having been approved by Congress, the bill now goes to the White House where it awaits President Biden's signature. Some highlights of the NDAA include:

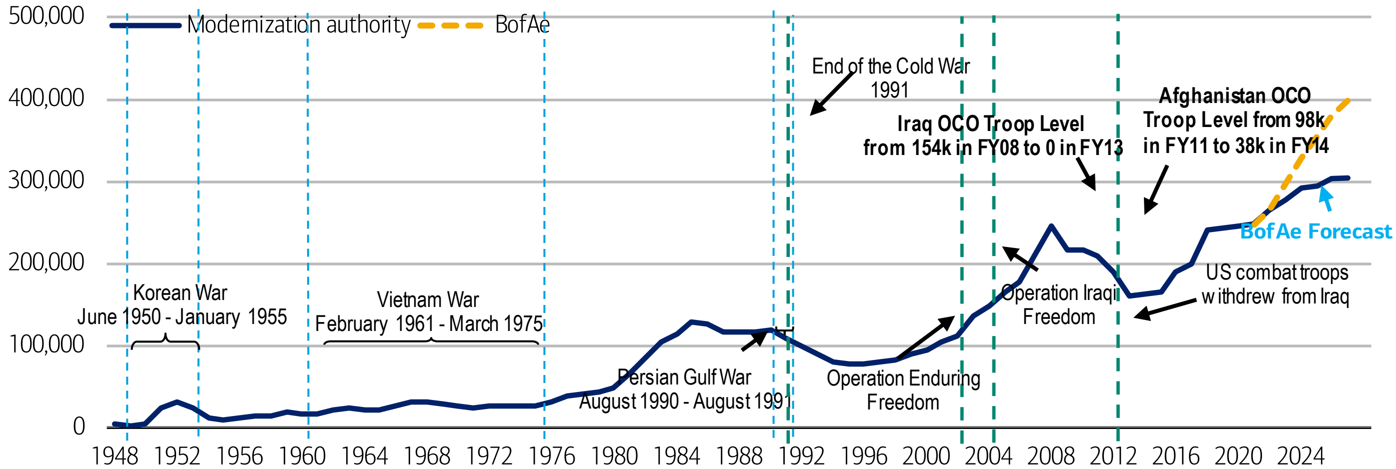
- **AUKUS provisions**: the latest NDAA paves a way for the US to transfer off Virginia-class submarines as part of the AUKUS trilateral agreement. The inclusion of AUKUS provision also opens the door for the US to receive funding from the Australian government to support the program. Australian officials have verbally committed to contributing $3bn to support US naval industrial capacity.

- **Combined Joint All Domain Command and Control (CJADC2)**: the NDAA bill calls for enhanced focus on Combined Joint All Domain Command and Control and artificial intelligence, with requests for appointed figures to spearhead the Pentagon's CJADC2 efforts and AI technology transfer. The bill also calls for multiple AI application studies across the service branches to gauge operational feasibility.

- **MTA authority granted to Space Development Agency for Transport/Tracking Layers**: the Space Development Agency (SDA) received approval to use Middle Tier Acquisition authority to develop lower Earth orbit satellites through 2030. These constellations are intended to enable the US military to transport data and track missiles through the SDA's Proliferated Warfighter Space Architecture (PWSA) program.

- **Legacy platforms – including F-22, RQ-4, F-16, M1 Abrams, PIM, CH-47 – live to see another day**: the NDAA generally sees higher projected spending levels as sunsetting programs end up getting added back into the final budget. Several legacy programs across the branches fell into this category. The US Air Force is not expected to retire any F-22 Block 20 aircraft, despite previously seeking to retire 32 units in FY24, while also limiting F-16 retirements to maintain a minimum fighter fleet of 1,112 aircraft. Furthermore, the first RQ-4s are not allowed to be retired until after 2028. At the US Army, lawmakers nearly doubled requested M1 Abrams tank upgrade spending to $1.2bn and raised Self-Propelled Howitzer Paladin Integrated Management (PIM) projected procurement funding by $205mn to $674mn for FY24. The bill also calls for $421mn for CH-47 Chinook procurement and Block II advanced procurement, despite years of the Army holding up efforts to procure the faster and heavier successor.

Exhibit 6: Defense Budget Authority (current $mn)
We project that the US defense budget could exceed $1tn by 2026



Source: BofA Global Research estimates, Department of Defense, Congressional Research Service, White House

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Don't forget upside from supplemental spending

Spending to Ukraine, Israel is all incremental, not included in NDAA balance

According to the Fiscal Responsibility Act, any CR that extends beyond January 1 will result in an automatic 1% cut to FY23 levels, effective starting April through sequestration order. Even if this were to occur, we believe the investor community overlooks the impact of supplemental spending to Ukraine and Israel. While funding to Ukraine may be slowing from peak levels (see our latest Ukraine funding tracker), all funding is incremental to whatever is included in the NDAA. With that said, the recently shot-down $106bn bill that would have covered a year worth of funding for Ukraine and Israel could be seen as additive to the US defense budget. While the bill continues to face opposition, we believe some form of aid will continue to flow to Ukraine and Israel, much of which can be seen as an incremental growth driver for the defense sector.

Looking ahead: 2024 downselections, munitions demand

NGAD, CCA, FARA: big decisions expected in 2024, but not always well received

2024 brings with it a number of expected program selections, including:

- **Next Generation Air Dominance (NGAD) sixth generation fighter**: award expected in 2024; Boeing and Lockheed Martin still in the running (Northrop Grumman pulled out in July 2023).
- **Collaborative Combat Aircraft (CCA) unmanned fighter wingman**: award could come as soon as summer 2024; Boeing, General Atomics, Lockheed Martin, Northrop Grumman, and Anduril Industries (see our Unmanned Systems report).
- **Future Attack and Reconnaissance Aircraft (FARA) helicopter**: award expected in 1Q24 (according to most recent Congressional Research Service report); Bell

(Textron) is bidding with its 360 Invictus model and Sikorsky (Lockheed Martin) is bidding with its Raider X model. We see risks for FARA being either cancelled or postponed.

In some cases, it may be better to own the loser

However, it is worth noting that large contract wins can sometimes lead to a "winners' curse". We have found that, in some cases, it may not be worth owning the winner of a major program. If a program is expected to be a drain on resources and the number of units procured are not deemed enough to earn in excess of the initial investment, then investors may be wary of the program win and shares may be affected as a result. This was partially the reasoning for Northrop Grumman forgoing the T-X Air Force trainer competition in 2023 (BA has already taken $1.3bn in charges on the program).

Additionally, there have been program competitions or program decisions where the loser has lost more than a single contract. For instance, a DoD decision to cancel the A/X aircraft program raised many questions about the future of Grumman, whose core business was building carrier-based aircraft. This program decision was a contributing factor behind the company's decision to consider a merger with Martin Marietta and with Northrop.

Continued upside from munitions demand

While modernization remains a top DoD priority, munitions suppliers continue to see growing demand as US and allied stockpiles run low due to the ongoing conflict in Ukraine. As mentioned in our weekly Valuation Trends report from July 17 (see report), concerns persist over munitions stockpiles and NATO members' ability to replenish reserves at a pace which can meet demand. US Air Force Commander General James Hecker noted munitions reserves are getting dangerously low. As a result, the DoD aims to increase artillery production to fill the munitions void. In October, 155mm artillery production was said to have increased to 28,000 rounds/month (336,000 annually), with plans to increase production to 100,000 rounds/month (1.2mn annually).

How to approach defense in 2024

Defense likely a 2H story, with biggest moves generally in 3Q of election yrs

Defense stocks tend to perform well during election years. As mentioned above in the "Low expectations + election year = upside risk" section, defense stocks have outperformed the S&P 500 in 80% of presidential election years since 1980. However, this outperformance generally tends to come mostly in the second half. Defense stocks have outperformed the S&P 500 two-thirds of the time in 2Q-4Q (vs. just 55% of the time in 1Q). In those quarters that defense stocks outperformed, 3Q generally saw the strongest outperformance (+10%).

Exhibit 7: Defense stock relative performance in election years on a quarterly basis
In the quarters that defense stocks outperformed, 3Q generally saw the strongest outperformance (+10%)

	1980	1984	1988	1992	1996	2000	2004	2008	2012	2016	2020	# Times Outperformed	% Outperformance
1Q	13%	-11%	1%	10%	3%	-14%	-3%	9%	-2%	-1%	1%	55%	6%
2Q	-8%	11%	-5%	1%	2%	18%	11%	-4%	1%	9%	-12%	64%	8%
3Q	8%	0%	3%	6%	6%	36%	7%	8%	-2%	-2%	-7%	64%	10%
4Q	14%	3%	-7%	14%	-9%	20%	-6%	4%	3%	4%	-10%	64%	9%

Source: BofA Global Research, FactSet

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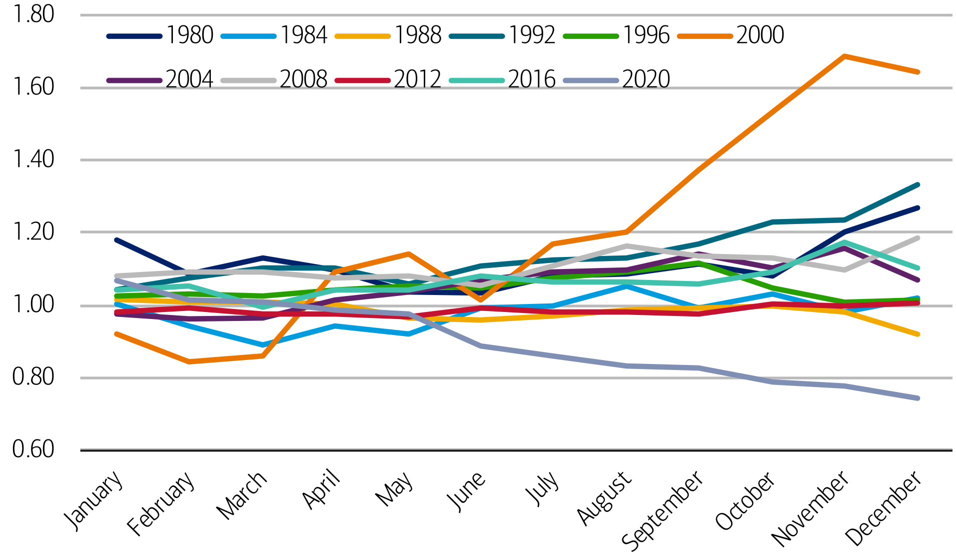
Exhibit 8: Defense stock performance in election years by month
In the quarters that defense stocks outperformed, 3Q generally saw the strongest outperformance (+10%)



Source: BofA Global Research, FactSet

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Strength of defense stocks will largely depend on how soft of a landing

Soft landing could lead to further rotation out of defense stocks

The BofA US Economics team is currently signaling a softer landing with lower recession risk and four 25bps cuts in March, June, September, and December, or 100bp of cuts for the year. Additionally, they foresee faster growth, lower inflation, and less unemployment. If this backdrop plays out, we think 2024 could see a more "risk-on" market in which we see rotation out of defensive names, including defense stocks.

Investors might flock back to defensive names in the event of harder landing

Alternatively, a harder than anticipated landing could indicate a starkly different market environment. Softer growth and stickier inflation could also lead to strong rate cuts, but for different reasons. In this environment, we could potentially see a flight back to defensive names as investors aim to weather a recession.

Services: new-tech could drive growth

While some investors have expressed concern about what a longer-than-expected CR may mean for the shorter-cycle defense services names, we remain relatively positive on the outlook going into 2024. As we highlighted in our Dec 4 report (see report), many management teams adjusted their operating strategies following the last defense down turn. The defense services companies are now increasingly exposed to key growth areas and priorities, including offensive/defense cyber capabilities, artificial intelligence and machine learning, integrated mission solutions, and modernization & digitalization.

We believe names with flexibility and exposure to GWAC contracts (Government Wide Acquisitions Contracts) will have an advantage, as the government has increasingly used GWAC type contracts to more quickly procure commercial products and services through simplified methods. Despite the incrementally more positive outlook on defense services names, even in the face of a potential extended-CR, we note that margin improvement is likely to be capped by budgetary pressures, impacting profitability.

Top picks for defense in 2024

Large cap

NOC positioned for modernization, but GD still supplies legacy needs

We continue to see Northrop Grumman (NYSE: NOC) as our top defense pick for those seeking exposure to modernization priorities. NOC is featured on two of the three legs of the nuclear triad through its Sentinel intercontinental ballistic missile (ICBM) program (land) and the B-21 Raider bomber (air). According to estimates provided by the DoD, we expect the Sentinel program to grow at a 33% CAGR between 2023 and 2027. Over the same timeframe, we expect the B-21 program to grow at a 23% CAGR.

While modernization remains a top DoD priority, munitions suppliers continue to see growing demand as US and allied stockpiles run low due to the ongoing conflict in Ukraine. General Dynamics (NYSE: GD) remains the strongest publicly traded producer of munitions. See 'Continued upside from munitions demand' section for more details. While previously only supplying the body of the round, GD has increasingly moved toward capturing 100% of the round's market value on newer munition variants. The expansion of its value capture will continue to drive growth at Combat Systems over the next several years.

SMID cap

DRS to benefit from margin step up from Columbia-class repricing

Despite returning over 50% YTD, we continue to see strong potential for Leonardo DRS (NASDAQ: DRS) through 2024. When DRS reported 3Q23 earnings (see our Nov 20 takeaway report), it announced a $3bn contract to supply the electric power and propulsion system on the remaining seven Columbia-class submarines. The contract implies ~$430mn/shipset, well above prior expectations (shipset 3-5 contract implied ~$333mn/shipset). Most Columbia-class revenue being recognized now is associated with shipset two. As the program transitions to shipset three, DRS will likely recognize stronger margins on the program, a trend which should continue through the later shipsets which are priced even higher. We believe this margin step up could surprise to the upside in 2024.

BAH: high growth + early-stage AI beneficiary

We favor names with exposure to early-stage investment priorities, which we expect will provide insulation through budgetary noise. The deep knowledge and intimacy with government customers and mission has helped Booz Allen Hamilton (NYSE: BAH) anticipate and provide tailored solutions for customers, ahead of the customer's ask. To address higher performance expectations and maintain their competitive position, BAH has increased investments in AI solutions and continues to refine their M&A approach. We believe there is upside to BAH's "fist mover advantage" in the mission critical AI field, and see additional benefits from the company's heritage and culture manifesting in BAH's ability to hire and retain an AI-focused workforce.

Wildcard

Palantir could still see strong growth on Government front

We view Palantir's (NYSE: PLTR) performance throughout 2023 as a testament to the company's deeply entrenched differentiation in artificial intelligence (AI) services. The question we're most asked from investors is "can this momentum continue?". We see significant catalysts into 2024 that should accelerate PLTR growth throughout the year, including strength in US government revenues (with PLTR benefitting particularly from JADC2 and AI efforts included in the 2024 National Defense Authorization Act) and implementing efficiency initiatives for customers (see our Nov 3 note here). However, we do anticipate some potential "caution" at the beginning of the year as investors reevaluate AI-ratings and the AI hype. Throughout the balance of the year, we expect PLTR to strengthen as the company reports momentum on commercial & defense opportunities and strengthening margins.

Exhibit 9: Stocks mentioned
Rating and price summary

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
BA	BA US	Boeing	US$ 260.66	B-1-9
HWM	HWM US	Howmet	US$ 54.12	B-1-7
TDG	TDG US	TransDigm Group	US$ 1011.6	B-1-9
AL	AL US	Air Lease Corp	US$ 41.94	B-1-7
AER	AER US	AerCap	US$ 74.32	B-1-9
NOC	NOC US	Northrop Grumman	US$ 468.14	B-1-7
GD	GD US	General Dynamics	US$ 259.67	B-1-7
DRS	DRS US	Leonardo DRS	US$ 20.04	B-1-9
BAH	BAH US	Booz Allen Hamilton	US$ 127.91	B-1-7
PLTR	PLTR US	Palantir	US$ 17.17	C-1-9

Source: BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk

AerCap Holdings N.V. (AER)

We derive our PO of $80 using a 0.95x price-to-tangible book value on our 2024 estimate (excluding goodwill but not premium assets and maintenance rights). Our 0.95x multiple compares to 0.3-1.8x of last ten-year range.

Downside risks to our PO are global economic weakness, fuel price spikes, inability to access capital markets at attractive terms, terrorism and geopolitical events, a downturn in aircraft values resulting from rising supply, flattening yield curve, a sharp appreciation of the U.S. dollar, changes in equity risk premiums, overall stock market and financial company valuations, and actual value of GECAS assets is lower than expected.

Upside risks to our PO are higher-than-forecast aircraft trading gains, faster-than-expected recovery in air traffic and commercial air travel, higher lease rates, stronger-than-expected economic growth, continued weakness in fuel prices, U.S. dollar depreciation, easier access to credit at attractive rates, and higher-than-expected unlocked value from GECAS assets.

Air Lease Corporation (AL)

We derive our PO of $60 using a 0.9x price-to-book value on our 2024 estimate of AL book value. We expect the percentage of net book value at risk to disappear by the end of 2023 due to improving market conditions (with commercial traffic recovering of pre-pandemic levels by the end of 2023) and sale of riskier assets as they come off lease.

Downside risks to our price PO are global economic weakness, fuel price spikes, inability to access capital markets at attractive terms, terrorism and geopolitical events, a downturn in aircraft values resulting from rising supply, flattening yield curve, continued sharp appreciation of the U.S. dollar, changes in equity risk premiums, and overall stock market and financial company valuations.

Upside risks to our PO are stronger than expected economic growth, faster than expected recovery to air travel demand, continued weakness in fuel prices, U.S. dollar depreciation, and easier access to credit at attractive rates.

Boeing (BA)

Our PO of $275 is based on the near-term average FCF of $15/share and relative discount to the S&P500 of 0.8x (about half standard deviation above historical average). In our view, a multiple roughly in line with the historical average fairly reflects the looming aerospace recovery, strong demand for commercial jets, defense opportunities, and the lack of dividend.

Upside risks to our PO are the possible involvement of an activist shareholder, better-than-expected cash margins at 787 and/or MAX programs, the company's ability to sustain 777 delivery rates through the bridge to 777X, lower-than-expected 777X, future single-aisle and middle-of-the-market aircraft development costs.

Downside risks to our PO are as follows: Tight competition for engineering talent in the current labor market could make new product development more challenging. Execution risk on new programs and production ramp-ups (737MAX, 777X, KC-46) could result in cost overruns and margin contractions. Changes in trade policy that end in a trade war. A sharp and prolonged surge in oil prices to above $100/bbl would be negative to aircraft demand. A downturn in commercial aviation, due to an exogenous factor, could adversely affect financial results. As aircraft are priced in USD, an unexpected rapid revaluation in the dollar could significantly affect order activity. Also, a strong dollar could improve Airbus' competitive advantage. 787 fixes could take longer than expected.

Booz Allen Hamilton (BAH)

Our PO of $145 is based on a 1.3x relative EV/EBITDA multiple to the BofA multiple for the defense primes on CY23 estimates. This equals a 16.3x EV/EBITDA multiple on CY24e. We think a relative multiple at the higher end of the historical range (0.9-1.4x) fairly represents the AI opportunity, strong organic growth opportunities, and a return to a more shareholder friendly capital deployment strategy.

Risks to the upside are a better-than-anticipated upturn in the federal budget, faster-than-expected normalization from post-COVID environment, inexpensive and well-integrated M&A activity and unexpected capital return to shareholders in the form of buybacks or special dividends.

Risks to the downside are cuts to the DoD budget vs. anticipated, which could negatively impact our estimates. Should BAH run into any problems with integrating M&A, containing its costs or a heightened competitive environment there could be downside risk to our estimates. Further disruption from COVID effects also a risk.

General Dynamics (GD)

We derive our PO of $295 using a two-stage discounted cash flow (DCF) analysis, which assumes a 9.1% discount rate, 5.0% 2028-2032 growth rate, and 2.6% long-term growth rate. In our view, GD's defense program exposure to land and sea priorities, coupled with Gulfstream could provide near-term and medium-term organic growth. Additionally, the company's strong balance sheet and solid cash generation could sustain dividend growth and share repurchases.

Downside risks to our PO are 1) a downturn could occur in business jets, due to an exogenous factor, 2) given that business jets are priced in dollars, an unexpected devaluation in the dollar could significantly impact order activity, 3) poor execution on defense programs could adversely impact margins, 4) defense budget cuts could limit growth in the medium and long term.

Howmet Aerospace Inc. (HWM)

Our price objective (PO) of $60 for HWM is based on a relative P/FCF multiple of 1.5x, resulting in a 29.7x P/FCF multiple. We believe a 1.5x relative multiple, above the 1.1x historical average, fairly reflects the upside of the commercial recovery.

Upside risks to our PO are an accelerated commercial aero upcycle, additional wins from commercial original equipment manufacturers (OEMs) moving away from VSMPO, increased F-35 sales either domestically or internationally, and further pressure on emissions standards, thus benefitting the company's wheels business.

Downside risks are the economic backdrop results in another downturn to the commercial aero cycle that is not offset by the unmet demand of the last few years, F-35 program deliveries decline and the trucking industry sees a significant downturn.

Leonardo DRS, Inc. (DRS)
We derive our $22 PO based on a sum-of-the-parts EV/EBITDA multiple of 13x on the Advanced Sensing and Computing (ASC) 2024e earnings and 17x on the Integrated Mission Systems (IMS) segment. We view an EV/EBITDA multiple as the best way to value the equity as it accounts for the margin expansion expected from newly priced Columbia-class shipsets.

The SOTP valuation implies a 15x multiple, or 1.2x relative multiple to the S&P 500 on 2024 estimates and a 1.0x multiple to the defense primes. A multiple above the broader market and in line with SMID cap defense peers alludes to the company's high growth profile and exposure to long term programs with strongly predictable schedules and funding.

Downside risks to our PO are continued supply chain challenges pertaining to microelectronics, lumpiness of Columbia-class revenues, poor execution on fixed-price programs, continued fixed-price contract awards, poor award activity in the international market, potentially diminished funding for land systems in which DRS supports, and volatility from potential parent company secondary offering.

Upside risks to our PO are even higher-than-expected growth in defense spending, accelerated margin ramp on the Columbia-class program, more cost-plus contract awards, continued strength in the international market, continued funding for land systems, and the gradual reduction in Leonardo SpA's ownership stake.

Northrop Grumman (NOC)
We derive our PO of $615 based on a DCF analysis that reflects a 5% Y/Y growth rate for 2025-2030e, a 2.7% long term growth rate and a 7.7% discount rate. The US Defense Budget Authorization has grown at a 1.8% CAGR in constant dollars since post World War II. Considering the most profitable production phase of the B-21 Raider program starts in about ten years and the GBSD will enter production at the end of this decade, we expect NOC's next terminal growth rate could exceed the historical growth rate of US defense spending.

Downside risks to our PO are that execution risk on defense programs could result in cost overruns and margin contractions, and unexpected cancellations to programs in both commercial and military could materially impact NOC.

Palantir Technologies (PLTR)
Our PO of $21 is based on a 0.6x EV/Sales/Growth multiple to 2025e and represents a sum of the parts of 0.6x on Government (above Defense IT svs on stronger EBITDA margins) and 0.8x on Commercial (in line with GAAP profitable software infrastructure and industrial automation). We think that higher-than-peers' stock based compensation, outsized founders' voting power, and a less conventional investment and sales strategy are balanced by a beneficial position to national security and US government/allies' modernization efforts, a leading role in artificial intelligence (AI)-powered platforms, opportunistic partnerships, strong balance sheet and strengthening profitability.

Downside risks to our PO are lower-than-expected AI-platforms market growth, faster than expected commoditization, higher success from competitors to catch up with technologies, and/or stronger than expected resistance from government customers to use commercial off the shelf solutions.

Upside risks to our PO are stronger-than-expected growth of the AI-platforms market, higher-than-expected PLTR penetration, better-than-expected profitability, and/or successful agreements and investments.

TransDigm Group Inc. (TDG)
Our $1100 PO is based on a 1.5x EV/EBITDA relative multiple to the S&P 500 on CY24e. The 1.5x multiple reflects a premium to average relative multiple of 1.4x. In our view, a multiple above historic average fairly reflects TDG's strong aftermarket positioning, robust margin performance and solid cash generation.

Downside risks to our PO are: Higher oil prices would likely derail air traffic growth and, therefore, aircraft demand, resulting in a downturn in commercial aviation. A downturn in commercial aviation, due to exogenous factors, such as a terrorist attack or natural business cyclicality, could adversely impact TDG's financial results. If the defense budget for RDT&E and investment accounts do not increase as we expect, this could affect TDG's defense business.

However, if the commercial aerospace and business aviation jet recoveries are better than we are forecasting, earnings could fare better than our projections and the stock could perform better. If margins fare better than we are forecasting, there could also be upside potential to our valuation.

Analyst Certification

We, Ronald J. Epstein and Mariana Perez Mora, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

US - Aerospace and Defense Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	AerCap Holdings N.V.	AER	AER US	Ronald J. Epstein
	Air Lease Corporation	AL	AL US	Ronald J. Epstein
	Boeing	BA	BA US	Ronald J. Epstein
	Booz Allen Hamilton	BAH	BAH US	Mariana Perez Mora
	BWX Technologies, Inc.	BWXT	BWXT US	Ronald J. Epstein
	CACI International	CACI	CACI US	Mariana Perez Mora
	Cadre Holdings Inc	CDRE	CDRE US	Ronald J. Epstein
	Crane Co.	CR	CR US	Ronald J. Epstein
	Embraer	ERJ	ERJ US	Ronald J. Epstein
	General Dynamics	GD	GD US	Ronald J. Epstein
	Howmet Aerospace Inc.	HWM	HWM US	Ronald J. Epstein
	KBR	KBR	KBR US	Mariana Perez Mora
	Leidos Holdings	LDOS	LDOS US	Mariana Perez Mora
	Leonardo DRS, Inc.	DRS	DRS US	Ronald J. Epstein
	Northrop Grumman	NOC	NOC US	Ronald J. Epstein
	Palantir Technologies	PLTR	PLTR US	Mariana Perez Mora
	Parsons Corporation	PSN	PSN US	Mariana Perez Mora
	RBC Bearings Inc	RBC	RBC US	Ronald J. Epstein
	Rocket Lab	RKLB	RKLB US	Ronald J. Epstein
	Teledyne Technologies Inc	TDY	TDY US	Ronald J. Epstein
	TransDigm Group Inc.	TDG	TDG US	Ronald J. Epstein
NEUTRAL				
	Albany International	AIN	AIN US	Ronald J. Epstein
	Garmin	GRMN	GRMN US	Ronald J. Epstein
	HEICO Corporation	HEI	HEI US	Ronald J. Epstein
	Hexcel Corporation	HXL	HXL US	Ronald J. Epstein
	L3Harris	LHX	LHX US	Ronald J. Epstein
	Lockheed Martin	LMT	LMT US	Ronald J. Epstein
	Textron	TXT	TXT US	Ronald J. Epstein
UNDERPERFORM				
	Bombardier	BDRBF	BDRBF US	Ronald J. Epstein
	Bombardier Inc.	YBBD B	BBD/B CN	Ronald J. Epstein
	CAE Inc.	YCAE	CAE CN	Ronald J. Epstein
	CAE Inc.	CAE	CAE US	Ronald J. Epstein
	Huntington Ingalls Industries	HII	HII US	Ronald J. Epstein
	Mercury Systems	MRCY	MRCY US	Ronald J. Epstein
	Raytheon Tech	RTX	RTX US	Ronald J. Epstein
	Spirit AeroSys-A	SPR	SPR US	Ronald J. Epstein
RVW				
	Triumph Group	TGI	TGI US	Ronald J. Epstein

Disclosures

Important Disclosures

Equity Investment Rating Distribution: Aerospace/Defense Electronics Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships [R1]	Count	Percent
Buy	31	62.00%	Buy	23	74.19%
Hold	11	22.00%	Hold	9	81.82%
Sell	8	16.00%	Sell	6	75.00%

Equity Investment Rating Distribution: Technology Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	215	53.09%	Buy	111	51.63%
Hold	97	23.95%	Hold	45	46.39%
Sell	93	22.96%	Sell	24	25.81%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster R2
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

R2 Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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