

Aerospace & Defense

Aerospace & Defense Q3 2022 Market Update

M&A Markets

Overall, conversations across the industry indicated a deceleration of new deal launches during Q3 2022. One private equity Managing Director commented that new A&D teasers coming across his desk shrank from multiple per week to one every other week during the quarter. Continued macroeconomic uncertainty, tightening of financing markets and lack of incentives to close transactions before year end (e.g., less stated concerns around potential changes to the tax code that catalyzed some private company owner sales in recent years) all contributed to the decline in deal pace.

That said, although the overall mergers and acquisitions (M&A) market pace has slowed, well performing A&D businesses are still approaching the market with confidence. Several A&D subsectors such as defense electronics; maintenance, repair and operations (MRO), and precision components with favorable mix, remain robust. Exits of many companies with heavy commercial aero exposure as original equipment manufacturer (OEM) build rates are slightly shifted to the right into 2023 / 2024. Some larger deals are also playing the wait-and-see game, in part due to acquisition financing being more challenging / expensive to secure. Despite these considerations, A&D M&A is expected to remain one of the most active subsectors for dealmaking.

Financing Markets

The syndicated financing markets have experienced steep volume reductions through 2022, and rising yields. In contrast, with a high level of dry powder, private debt markets remain open for premium assets, albeit with adjusted risk, hold size and leverage appetite. Lenders are also requiring stricter covenants - notably with regard to fixed charge and total leverage covenants - and stronger cash flows, with many lenders increasing equity cushion requirements above 50%. In recent M&A processes, leverage reads have come down a half to full turn, and spreads have widened 50-150 basis points, from earlier this year. Benchmark rates have increased to their highest levels in a decade, both in the U.S. and Europe, driven by central banks' rate increases in Q2 and Q3, with expectations for further rate increases in Q4 and into 2023.

On the equity side, capital availability remains robust as the private equity industry is armed with significant dry powder, with many prominent firms having raised new funds in 2022.

Valuation Trends

Commercial aerospace stocks continued to struggle in Q3 2022, despite the pronounced rebound in commercial travel from the troughs of the COVID-19 pandemic. Aerospace OEMs closed the gap against S&P 500 performance in the third quarter, after being down significantly in the past 12 months. Supply chain and labor shortages continue to permeate the industry and are leading to a choppier recovery than originally anticipated. Due to the lead time to acquire new aircraft, and the need to maintain capacity for recovering commercial travel demand, the MRO and aftermarket subsectors have surged ahead of the rest of the market in order to keep aging fleets operational. Long-term sentiment remains strong for both commercial, as well as business and general aviation and air travel.

Defense and government services stocks have fared better than the broader market over the past 12 months due to increased spending in response to geopolitical tensions and unrest in Ukraine. While the 2020 change in U.S. government administration led many investors to predict a decline in U.S. government defense spending, the updated budget and current events have bolstered demand and provided multi-year tailwinds for defense products. Moreover, across Europe, NATO countries have committed to spend 2% of GDP, with select countries such as the UK and Germany committing to spend even higher percentages. Pure defense stocks (e.g., BAE Systems) continue to perform well, but others have not been immune to the broader market sell-off in Q3.

Despite the challenges noted in the public markets, Lincoln International's recent deal activity and discussions indicate a general consensus that private market M&A valuations (for deals that have traded) have remained strong despite macroeconomic uncertainty and restrained financing. In fact, Lincoln's Valuations and Opinions Group's (VOG) aggregate A&D data for Q3 2022 shows an average valuation of 11.1x LTM EBITDA compared to 10.9x in Q2 2022 (quarter-over-quarter) and 11.5x in Q3 2021 (year-over-year). The same Lincoln VOG data also indicates that the A&D sector still commands valuations more than 1x higher than the broader industrials market.



Spotlight:

MRO on the Leading Edge of the Commercial Aerospace M&A Rebound

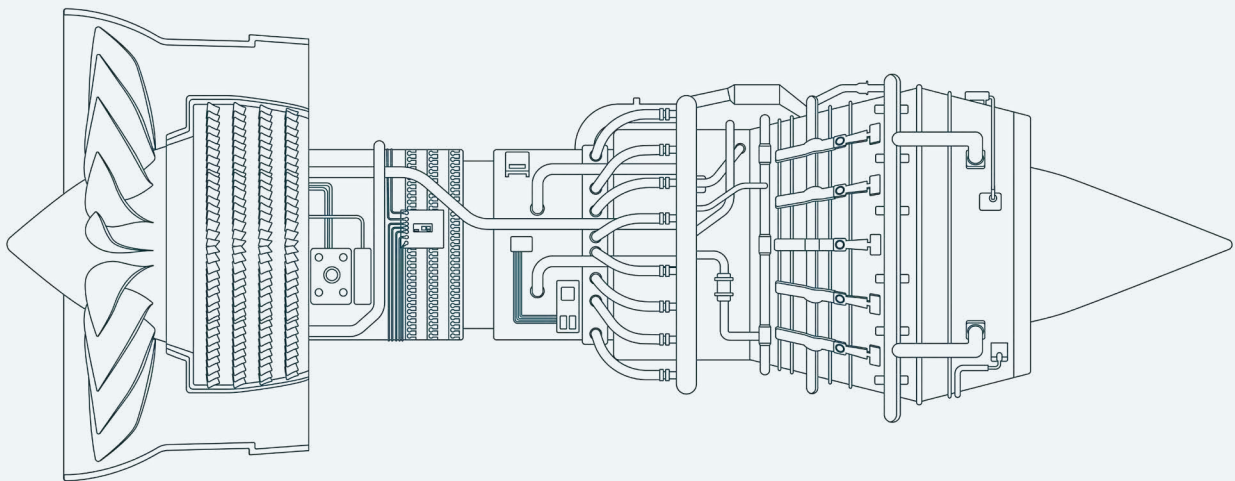
As noted above, commercial aerospace traffic has not fully returned to its 2019 highs. In October, Airbus Chief Executive Officer Guillaume Faury told the UK Aviation Club that Airbus is not forecasting a full global traffic recovery until 2023 to 2025, with 2023 looking increasingly unlikely⁽¹⁾.

Demand for air travel has increased over the last year while fleet sizes have not kept pace. Anyone flying lately will notice that airports feel as busy as ever; however, there is higher utilization on less aircrafts. While the supply chain for new OEM builds continues to struggle, MRO / aftermarket companies continue to thrive due to several factors, including but not limited to:

- Stored aircraft must undergo necessary checks and repairs before reentering the fleet
- Delayed deliveries of next generation aircraft causes existing planes to see more miles, in turn leading to more service needs
- Supply chain issues make new parts and systems more difficult to procure. As the Chief Executive Officer of a military aftermarket business recently stated, "Where there are supply chain challenges in the market, there is opportunity for those who have or know how to get parts. Those having the largest network, deepest relationships and technological innovation are finding ways to satisfy increasing customer needs."

As a result, several major MRO / aftermarket players have recently announced earnings meeting or exceeding pre-COVID-19 levels, while other sectors of the commercial aerospace supply chain continue to regain their footing. Not surprisingly, MRO M&A deals continue to transact with multiple aftermarket deals announced or completed in the quarter and year-to-date.

Commercial OEMs and their manufacturing suppliers will continue to regain prominence. That very well may be in 2023 as supply chain, macro and geopolitical uncertainties are resolved, or at least better understood. Until then, the aftermarket will continue to enjoy the first wave of commercial aero deal activity.

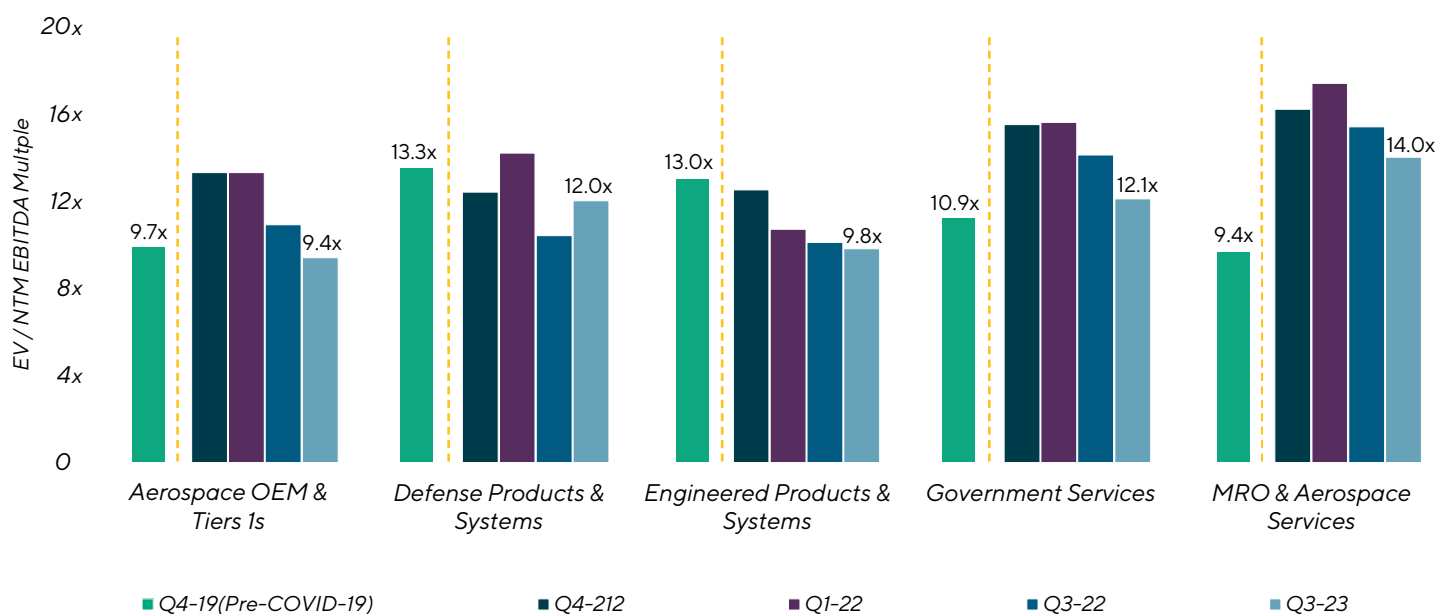


1. Hefher, Tim. 2022, October 12. Airbus CEO says 2022 deliveries may affect later output. Reuters. www.reuters.com/business/aerospace-defense/airbus-ceo-says-2022-deliveries-may-affect-later-output-2022-10-12/

A&D Public Company Performance

Subsectors	Quarterly Stock Performance	LTM Stock Performance	EV / NTM		P / E Multiple	Net Debt / NTM EBITDA	CY'21-23 CAGR		CY'22 Margin	
			Revenue	EBITDA			Revenue	EBITDA	Gross	EBITDA
Aerospace OEMs and Tier 1s	(8.6%)	(30.9%)	1.35x	9.4x	19.0x	1.5x	9.3%	38.8%	20.5%	12.5%
Defense Products & Systems	(12.9%)	0.8%	1.89x	12.0x	17.8x	1.4x	3.0%	8.5%	24.1%	15.4%
Engineered Products & Systems	(8.6%)	(25.9%)	1.90x	9.8x	17.2x	0.7x	6.3%	15.2%	31.9%	16.3%
Government Services	(4.1%)	0.8%	1.23x	12.1x	16.7x	2.1x	21.5%	22.1%	12.4%	9.3%
MRO & Aerospace Services	(7.6%)	(8.9%)	2.39x	14.0x	15.9x	0.2x	15.8%	34.3%	20.0%	15.5%
Mean	(8.4%)	(12.8%)	1.75x	11.5x	17.3x	1.2x	11.2%	23.8%	21.8%	13.8%
S&P 500	(5.3%)	(16.8%)	2.28x	10.6x	16.0x	n/a	7.6%	10.2%	n/a	21.6%

Public Trading Multiples Over Time in A&D Subsectors



Aerospace OEMs and Tier 1s: Airbus, Boeing, Bombardier, Dassault Aviation Société, Embraer, Honeywell International, Raytheon Technologies, Spirit AeroSystems, Textron

Defense Products and Systems: Aerojet Rocketdyne, BAE Systems, Curtiss-Wright, Elbit Systems, General Dynamics, Kratos Defense & Security Solutions, L3Harris Technologies, Lockheed Martin, Mercury Systems, Northrop Grumman, QinetiQ Group, Saab AB, Teledyne Technologies, Thales

Engineered Products and Systems: AMETEK, Barnes Group, Crane, Ducommun, ESCO Technologies, Héroux-Devtek, Hexcel, ITT, Kaman, Latécoère, Lisi, Magellan Aerospace, Moog, Parker-Hannifin, Safran, Senior, Singapore Technologies Engineering, TransDigm Group, Triumph Group, TT Electronics

Government Services: AECOM, Booz Allen Hamilton, CACI International, Leidos Holdings, SAIC, Tetra Tech, V2X

MRO and Aerospace Services: AAR, Exchange Income, HEICO, MTU Aero Engines, SIA Engineering Company, VSE

Q3 2022 M&A Transactions Across the A&D Sector

Date	Target Company	Target Description	Acquiring Company
Aerospace OEMs and Tier 1s			
Sep-22	Nearly All Assets of MD Helicopter	Manufactures light utility helicopters for commercial and military use	Bardin Hill Investment Partners
Defense Products & Systems			
Announced	AEI Systems	Provides weapons systems, such as cannons, miniguns and naval weapon mounts	Samsun Yurt Savunma
Announced	OneWeb	Operates a low-orbit satellite manufacturing business	Eutelsat Communications
Sep-22	iXBlue	Manufactures navigation and imaging systems for marine and defense applications	Groupe Gorgé
Sep-22	Pearson Engineering Limited / Responsive Engineering	Manufactures combat earth moving and bridging equipment for armored vehicles	Rafael Advanced Defense Systems
Sep-22	SI2 Technologies	Designs and manufactures antennas, arrays and low observables for defense sector	Antenna Research Associates
Sep-22	Nautics	Manufactures electronics systems for GPS tracking and other surveillance solutions	MetOcean Telematics
Sep-22	Giga-tronics	Develops electronics equipment for military test and airborne operational applications	Gresham Worldwide
Aug-22	R.S.Red Eagle	Provides large-scale drones and hybrid aircraft systems for airborne surveillance	EAMD European AeroMarine Drones
Aug-22	Hiddentec	Designs and manufactures tracking and surveillance equipment	MetOcean Telematics
Aug-22	DRS Global Enterprise Solutions	Provides custom SATCOM solutions for maritime, airborne and ground operations	SES Government Solutions
Aug-22	Ultra Electronics Holdings	Provides sonar and torpedo defense systems for maritime and defense applications	Cobham
Jul-22	Aerostar International	Designs surveillance technology, electronics and specialty sewn products	TCOM Holdings
Jul-22	RUAG Ammotec	Manufactures small-caliber ammunition, pyrotechnic elements and components	Beretta Holding
Jul-22	Advanced Acoustic Concepts	Provides sonar detection, surveillance solutions and torpedo defense systems	Thales Defense & Security
Jul-22	Northern Space & Security	Provides orbital analysis, space surveillance and tracking services	Raytheon
Jul-22	Telgaas	Manufactures microwave and millimeter wave components for satellite communication	Bascom-Hunter
Jul-22	Inster Tecnología	Designs and manufactures air to ground and satellite communication systems	Oesia Networks
Engineered Products & Systems			
Announced	EMI Solutions	Manufactures inserts, connectors and modules for military and aerospace applications	Mobix Labs
Announced	Pacific Contours	Manufactures hard and soft metal assemblies for the aerospace and defense sector	PCX Aerostructures
Announced	Trac Precision Machining	Manufactures and supplies precision-engineered parts of the aerospace industry	RCapital Partners
Announced	Hanwha Power System Co.	Manufactures air compressors and gas turbines	Hanwha Impact Partners
Announced	Isolite	Develops sealing and fire protection systems for automotive and aerospace industries	Certina Holding

Q3 2022 M&A Transactions Across the A&D Sector (continue)

Date	Target Company	Target Description	Acquiring Company
Announced	Clayens NP	Manufactures thermoplastics, composites, thermoset forming and electronics	OEP Capital Advisors
Announced	Stroco Manufacturing	Provides precision sheet metal parts and assemblies for the aerospace sector	Novaria Holdings
Announced	Schroth Safety Products	Manufactures restraint systems for various kinds of aircraft and defense applications	Loar Group
Announced (Nov-22)	GGB	Manufactures composite materials, metal-polymer bearings and thermoplastics	The Timken Company
Announced (Oct-22)	CAES Space Systems	Provides radiation-hardened microwave and millimeter wave technology solutions	Veritas Capital
Sep-22	Rossi Aéro Group	Manufactures parts and sub-assemblies for aeronautical equipment manufacturers	Mecachrome France
Sep-22	Mesotech International	Designs and manufactures meteorological and aviation weather systems	Westbourne Capital
Sep-22	Sterling Manufacturing Company	Provides integrated injection molding solutions for the healthcare and defense industries	Eptam Plastics
Sep-22	Certain Assets of Parker-Hannifin	Provides wheel and brake systems and related hydraulics for general aviation	Kaman
Sep-22	Performance Plastics	Provides precision injection molding for aerospace, defense and medical applications	Pexco
Sep-22	Meggitt	Provides components and sub-systems for the aerospace and defense markets	Parker-Hannifin
Sep-22	NuSpace	Provides mission-critical satellite propellant systems and pressure vessel solutions	PCX Aerostructures
Sep-22	Reaction Engines	Provides ultra-lightweight heat exchangers for aerospace applications	Strategic Development
Sep-22	RUAG Australia	Provides precision machining of flight controls, landing gear and airframe parts	ASDAM Operations
Sep-22	Ironwood Electronics	Provides sockets, grypvers, adapters, turnkeys and other electronic components	HEICO
Aug-22	WeAre Aerospace	Manufactures aerostructures, electrical boxes and passenger seats	Mecachrome France
Aug-22	Icon Machine Co.	Manufactures tight tolerance parts and components for civilian and defense contracts	Precision Aerospace Holdings
Aug-22	STG Aerospace	Manufactures protective safety equipment for aerospace and defense applications	Heads Up Technologies
Aug-22	Sensor Systems	Designs and manufactures antennas for commercial and military applications	Electronic Technologies Group
Aug-22	Charter Engineering	Manufactures radio frequency (RF) and microwave electromechanical coaxial relay switches	DB Control
Aug-22	ARINC	Provides communications, engineering and security solutions to the aviation industry	Mirion Technologies
Aug-22	Certain Assets of KVH Industries	Provides fiber optic gyroscope and inertial navigation systems	EMCORE
Aug-22	Adaptive Energy	Manufactures solid oxide fuel cells for back up and portable power applications	Edge
Aug-22	ACATEC	Manufactures and distributes aeronautical materials and carbon fiber structures	Ace Capital Partners
Aug-22	Certain Assets of Fiberdyne	Provides carbine fiber marine products in the United States	MarQuipt
Aug-22	Veraxx Engineering	Provides avionics, real-time embedded systems and electrical design services	ByLight

Q3 2022 M&A Transactions Across the A&D Sector (continue)

Date	Target Company	Target Description	Acquiring Company
Aug-22	Seradata	Provides space data analysis and satellite system solutions	Slingshot Aerospace
Aug-22	Interstellar Technologies	Develops sub-orbital rockets for conducting observations in space and experiments	Satudora Holdings
Jul-22	Certain Assets of Tecalemit	Provides thermocompression and aeronautic pipes in France	Airbus Atlantic
Jul-22	Acorn Welding	Manufactures aviation components, such as small brackets, braces and struts	Aerospace Welding Minneapolis
Jul-22	Epiq Design Solutions	Provides software-defined radio-based tools to provide situational awareness into RF environments	Veritas Capital
Jul-22	Exxelia	Manufactures electronic and electromechanical solutions, including capacitors, filters and sensors	HEICO Corporation
Jul-22	Crouzet Automatismes	Manufactures and distributes automation control components to aerospace customers	Bpifrance
Jul-22	Dynapower Company	Designs and manufactures power conversion and energy storage systems	Sensata Technologies Holding
Jul-22	Advanced Composite Structures	Designs and manufactures thermoplastic composite products for various industries	Gelder Aerospace
Jul-22	Orolia	Provides positioning and navigation solutions for various applications in France	Safran
Jul-22	Electro Flight	Designs and manufactures lightweight battery systems for the aerospace sector	Evolito
Jul-22	Certain Assets of Triumph Group	Stuart, Florida aerostructures business and employees were transferred to Daher	Daher Aerospace
Government Services			
Announced	Certain Aerial Emergency Services Businesses	Provides aerial emergency services in the UK	Ancala Partners
Announced (Oct-22)	Cobham Aviation Services Australia's Special	Provides border airborne surveillance and maritime safety search and rescue services	Leidos Holdings
Sep-22	Avantus Federal	Provides mission-focused data, cyber and space services to defense, intelligence and civilian customers	QinetiQ Group
Sep-22	Airborne Response	Provides unmanned aviation services and solutions to the public sector	Safe Pro Group
Sep-22	ManTech International	Provides technology solutions and services for U.S. defense, intelligence community and federal agencies	The Carlyle Group
MRO & Aerospace Services			
Announced	Certain Assets of Altos SE	Operates a satellite ground testing business	Terma
Announced	Sequa Corporation	Offers aftermarket services to aerospace, energy and metal coatings industries	Veritas Capital
Announced	Mayo Aviation	Provides private charter jet and aircraft management services	Priester Aviation
Announced	PTB Group	Repairs and overhauls Pratt & Whitney, Honeywell and Bell Drivetrain turbine engines	Precision Aviation Group
Announced	Atlas Air Worldwide Holdings	Provides outsourced aircraft operating solutions and dry leasing services	Apollo Global Management
Announced	VAS Aero Services	Provides aftermarket components across a range of aircraft and engine platforms	Satair USA

Q3 2022 M&A Transactions Across the A&D Sector (continue)

Date	Target Company	Target Description	Acquiring Company
Announced (Nov-22)	Aero Accessories & Repair	Provides repair solutions for fuel, pneumatic and electromechanical components	ATL Partners
Sep-22	National Jet Express	Provides passenger airline services in Australia	Rex Freight & Charter
Sep-22	Skytech	Provides aircraft maintenance and aircraft charter services	Pilatus Aircraft
Sep-22	Certain Assets of Elliot Aviation	Fixed-based operator (FBO) assets and operations at Des Moines International Airport of Elliott Aviation	Modern Aviation
Sep-22	ITP Aero	Provides turbine, rotor and aircraft components and offers MRO services	Bain Capital
Sep-22	Aerotec Europe	Provides MRO services as well as cargo transport	Borromin Capital Management GmbH; Borromin
Sep-22	Certain Assets of Alitalia	Provides aircraft maintenance services in Italy	ATITECH
Sep-22	EXB Solutions	Provides systems engineering and testing services for aerospace and defense industries	Quest Defense Systems
Aug-22	X-Air	Provides base maintenance services and technical support for the European market	ASL Airlines
Aug-22	Four Points Aero Services	Provides MRO services to general aviation aircraft	Elliott Aviation
Aug-22	Certain Assets of Metal Chrome	Provides surface treatment and painting services for aeronautical parts	Mecaprotec Industries
Jul-22	Martinaire Aviation	Provides scheduled air freight, charter services, parts sales and aircraft maintenance	Xwing
Jul-22	Styles Aviation	Provides airframe, avionics, engine and hardware components	Graco Roberts
Jul-22	B&M Painting Company	Provides anti-corrosive fabrications and specification painting for the aerospace industry	Valence Surface Technologies
Jul-22	Eagle Copters Australasia	Provides helicopter leasing, fleet support, maintenance and repair services	Bell Textron
Jul-22	FBOs of Signature Aviation	Fixed-base operations in Nebraska, North Carolina and Connecticut	Atlantic Aviation FBO
Jul-22	Ross Aviation Operations	Provides airport fixed-base operation services in North America	Atlantic Aviation FBO
Jul-22	Electro Enterprises	Distributes interconnect, electromechanical and wire harness products	Fastener Distribution Holdings
Jul-22	TAC Air	Provides aircraft maintenance and FBO services in the United States	Signature Aviation
Jul-22	Vectrus	Provides MRO, base operations and logistics services worldwide	V2X
Jul-22	Skycharter	Provides FBO services, private jet charter, aircraft management and maintenance	Innotech-Execaire Aviation
Jul-22	FBOs of Signature Aviation	Three FBOs in the United States	Atlantic Aviation

Note: Dates in parentheses indicate a closing date after Q3

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Lincoln International's Aerospace & Defense Team

Our expertise in the aerospace and defense sector is backed by immense experience, deep industry relationships and unique insights. Historically high growth visibility, innovation, technology, globalization, geopolitical issues and other factors are creating unique opportunities for investment across the aerospace and defense sector. Our highly experienced aerospace and defense investment bankers leverage their deep professional relationships and expertise to help navigate clients toward strategic solutions based on their unique objectives and circumstances.

Advisory Services

Mergers & Acquisitions
Capital Advisory
Private Funds Advisory
Valuations & Opinions

About Lincoln International

We are trusted investment banking advisors to business owners and senior executives of leading private equity firms and their portfolio companies and to public and privately held companies around the world. Our services include mergers and acquisitions advisory, private funds and capital markets advisory, and valuations and fairness opinions. As one tightly integrated team of more than 800 professionals in more than 20 offices in 15 countries, we offer an unobstructed perspective on the global private capital markets, backed by superb execution and a deep commitment to client success. With extensive industry knowledge and relationships, timely market intelligence and strategic insights, we forge deep, productive client relationships that endure for decades. Connect with us to learn more at www.lincolninternational.com.

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