CHEMICALS & MATERIALS

Quarterly Review





- Building & Infrastructure Chemicals Overview
- Chemicals & Materials Market Update
- Select O2 2024 M&A Transactions

LINCOLN INTERNATIONAL STATEMENT

The level of fragmentation and diverse sub-sub-sectors to play provides ample opportunity for value creation. By certain estimates, the top 30 players in the construction chemicals industry account for only 55% of the global market share. This leaves significant opportunity for synergies to be achieved by further consolidation given the reasonably clear view with respect to go-to-market in this category. With a thoughtful approach to managing the effectiveness and environmental friendliness of inputs, the proprietary nature of formulations / compounds, go-to-market mix and trends between R&R vs. new construction, an effective and focused platform can be built. While slightly longer holds may be needed depending on the path taken, with patience and the proper compounds and systems, there should be a reasonable return.

Building & Infrastructure Chemicals Overview

by Lincoln International's global chemicals and materials team

Building and infrastructure chemicals and materials represent an attractive way to invest into the long-term growth trends inherent in the sector. By certain estimates, the housing and infrastructure products market is estimated to be over \$80 billion as of 2024. The broader themes of residential vs. commercial; retail vs. wholesale and professional vs. DIY are important sector segmentation considerations, in addition to the characteristics of efficacy, cost-profile, proprietary-nature and level of eco-friendliness commonly considered across the chemicals and materials market.



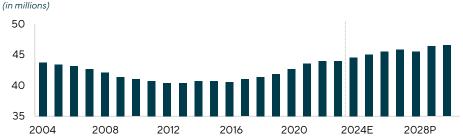






This sector is a direct way to play a number of macro, on-trend themes including population growth, urbanization, demographic change and ESG. To underscore, it is important to be diligent as to specific geographic trends with the current business, as well as truly near-term growth opportunities. While these trends are global and secular in nature, there are distinct rates of growth that apply to each product and application. Specific to the underlying chemistries, it is important to understand how green / environmentally friendly they are, and where less-so, the path towards reformulating, with a near-similar effectiveness and eco-friendliness, can be achieved. While many of these points are well understood at the committee level, it is important to reinforce them with vigor. Understanding that several of these investment themes should be resonant with investors, demographic changes are critically important to underline, as the U.S. enters the years of peak household formation.

U.S. POPULATION AGE 35-44: PEAK HOUSEHOLD FORMATION YEARS(1)



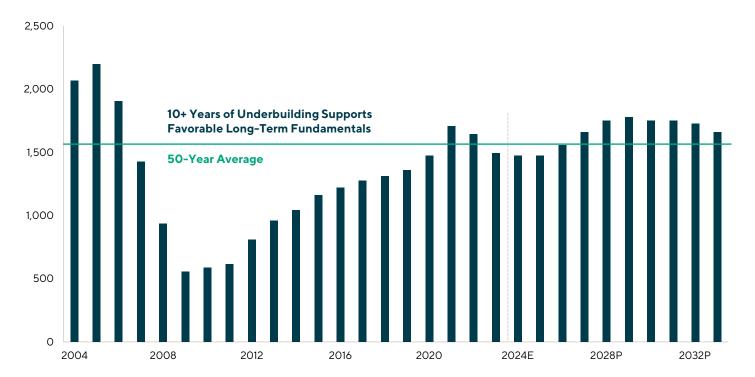
End-uses cover residential, commercial, infrastructure and industrial applications. The two primary ways to play from the chemicals and materials side are to seek diversification that provides protection throughout economic cycles or to pursue a more pure-play strategy that can create a streamlined narrative for the sizable strategics in this space. Having a bead with respect to the traditional commercial lag vs. residential, and broader spending pushes (or restrictions) for the infrastructure segment can help to inform the respective timing of opportunities. While a true optimist might see a glass-half-full view with the ASCE infrastructure grades in the U.S. moving from a D+ in 2017 to a C- in 2021, there is still substantial work to be done (and even the upcoming 2025 grade from the ASCE will not be one to put on the fridge). The U.S. Infrastructure bill should continue to provide meaningful tailwinds in this sector, though there remains a high level of need. On the industrial side, it may often be beneficial to go to a more market-by-market view; though certainly the PMI does a respectable job at a more macro level of gauging sentiment. For the residential side in particular, steeling oneself for the necessary long-term recovery in the underbuilt housing market in the U.S. can pay dividends.

(1) Westlake Corporation



ANNUAL U.S. HOUSING STARTS

(in thousands)



Primary product categories include sealants, adhesives, hardeners, coatings, interior systems, external insulation, flooring systems, glazing, roofing and waterproofing. These chemicals and products serve both the interior and exterior categories, covering sidings, windows, stone veneer, indoor pipe and fittings, municipal pipe and fittings, decking, building wire, interior trim, exterior trim, shutters and vents, roofing and accessories and aluminum protective materials. For each of these segments, there are specific sealants, adhesives, plastics, composites and resins that ensure proper performance characteristics and cost profiles depending on the end-use and application. There is also a growing focus on eco-friendly solutions, which includes the long-term energy benefits of proper insulation, as well as the use of more green and sustainable inputs to these core product categories (e.g., water-based solutions, bioplasticizers, non-VOC CASE products).

Regarding go-to-market, it is particularly common in this segment to see a mix of one-step and two-step distribution models. Put simply, the one-step model would see the product sold from the manufacturer to the retailer (or end-customer); a two-step distribution model goes through a distributor before reaching the end-customer. Understanding the path to the end-customer is important in assessing building product chemical opportunities, as this can impact the available margin opportunity even with a shift in tactics. This is not to say that one should only pursue opportunities that avail themselves more naturally to a one-step distribution model, as there are certain sectors within the building products market that are best served via a two-step distribution model.

There are several sizable players in this sector, though the overall market is still highly fragmented, with a long tail of specialty suppliers. Major players include BASF, Kingspan, Laticrete, Mapei, Owens-Corning, RPM, Saint-Gobain, Sika, Vulcan and Westlake. There has been consolidation towards the larger side of the market (e.g., Sika / MBCC, Saint-Gobain / Fosroc, Saint-Gobain / GCP Applied Technologies, Westlake / Hexion's Epoxy Business Segment, Westlake / Boral). As is indicated by the size of these selected transactions, there is an important role for financial sponsors to play in the decade to come in this sector.























Market Intelligence

What began as a rough quarter ended with the S&P 500 reaching an all-time high. Despite persistently high inflation dimming the prospects of interest rate cuts, infatuation with all things artificial intelligence led to a 3.9% increase in the S&P 500. This success was accompanied by a 2.8% increase in the inflation-adjusted Real Gross Domestic Product driven by increased consumer spending. The May Core Consumer Price Index came in at 3.4%, the lowest year-over-year level since August 2021. However, these positive metrics may obscure some troubling patterns. Most notably, 27% of the S&P 500 was at one point composed of just six tech stocks (Microsoft, Apple, Nvidia, Amazon, Meta and two classes of Alphabet). Delving deeper, S&P 500 companies related to artificial intelligence gained 14% in market value in Q2, whereas the rest lost 1.2%. So, while the U.S.'s economic growth is something to be lauded, the market should be weary of over-concentrating its attention.

Compared to the rest of the public market, the chemicals and materials sector remained relatively static in Q2. Lincoln's Chemical Index ended the guarter down 0.2%, with minerals and agricultural chemicals struggling, while oilfield chemicals and construction chemicals outperformed. The performance of oilfield drilling and production chemicals will continue to be in the spotlight as global energy demand is projected to grow annually by 3.6% through 2026. Chemicals was one of eight industries to report growth in June, and among the six largest manufacturing sectors, chemicals was the only one to report increased production. Import prices rose by 0.4% in June after four consecutive months of decline. Export prices decreased by 0.5% for a second consecutive month. Producers reported a softening across most segments, particularly in chemicals produced for housing, automotive and advanced materials; however, the pharmaceuticals segment remained robust.

Whether the boost in energy-affiliated chemicals is sustainable may depend on a given chemical company's exposure to renewable energy. Despite the increased global demand for energy, governments are still primarily incentivizing green energy-focused companies. For example, the U.S. Bureau of Land Management has finalized the Renewable Energy Rule, which will cut fees for wind and solar projects developed on federal land by up to 80%, effective July 1, 2024. Moreover, to source the materials for green-energy projects, the U.S. government and India are looking to finalize a bilateral agreement to drive supply chains for rare-earth metals used for green technologies, such as batteries for electric vehicles, wind turbines and solar panels. But the relationship between green energy and chemicals is not just related to the endproduct, but also the energy input being used to make chemical factories run; in June, the European Chemical Industry Council (Cefic) partnered with RE-Source to help

the chemical sector procure more renewable energy. On the flip side, the European petrochemical margins are suffering from too much capacity and insufficient demand. Europe has an oversupply of steam cracking capacity, which breaks down large, saturated hydrocarbons into unsaturated hydrocarbons. European capacity is currently at around 70% - 75%, while typically the industry would expect to be in the 80% - 90% range.

During economic uncertainty, as seen in April, the chemicals and materials sector's ability to serve diverse downstream markets helps mitigate demand declines. Rapid urbanization and significant infrastructure investments, especially in roads, bridges and dams, are fueling demand for construction chemicals. These high-performance chemicals are crucial for enhancing building resilience against severe weather. With the majority of basic and specialty chemicals consumed by the industrial sector, optimism for the sector's growth outlook remains strong as domestic industrial production remains resilient and an anticipated Central Bank rate cut in September will further boost production.

Rapid urbanization and significant infrastructure investments, especially in roads, bridges and dams, are fueling demand for construction chemicals. These high-performance chemicals are crucial for enhancing building resilience against severe weather.

Sources: American Chemistry Council, Bureau of Land Management, Capstone Partners, Cefic, CNBC, S&P Global, Solvay, The Hindu, The Street, The Trust Company of the South, The Wallstreet Journal



PUBLIC COMPANY VALUATION STATISTICS AS OF 6/30/2024

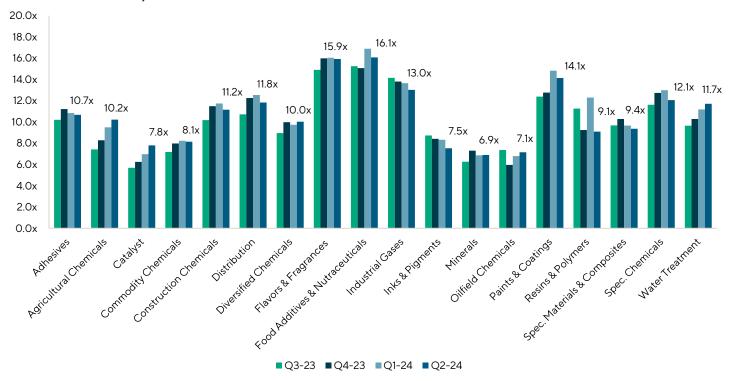
Sector	Number of Companies	Quarterly Stock Performance	% of 52 Week High	EV / LTM		P/E	Net Debt / LTM	Q2 2024 LTM Growth		Q2 2024 LTM Margin	
Sector				Revenue	EBITDA	Multiple	EBITDA	Revenue	EBITDA	Gross	EBITDA
Adhesives	4	11.4%	93.3%	1.96x	10.7x	28.3x	1.6x	4.2%	7.3%	37.4%	17.5%
Agricultural Chemicals	14	(22.8%)	75.4%	1.87x	10.2x	14.0x	1.2x	4.9%	11.7%	23.2%	14.9%
Catalyst	3	(43.9%)	56.7%	0.79x	7.8x	23.4x	0.5x	7.7%	17.0%	2.4%	(0.2%)
Commodity Chemicals	13	1.7%	82.3%	1.30x	8.1x	17.8x	2.3x	4.3%	16.7%	21.2%	15.0%
Construction Chemicals	11	35.7%	88.3%	2.21x	11.2x	18.6x	1.9x	5.6%	8.4%	32.6%	18.0%
Distribution	5	18.0%	82.9%	1.43x	11.8x	19.7x	2.6x	6.0%	10.4%	22.2%	10.4%
Diversified Chemicals	16	(17.7%)	74.4%	1.24x	10.0x	21.9x	2.5x	6.5%	20.8%	22.7%	11.9%
Flavors & Fragrances	9	12.0%	89.7%	2.82x	15.9x	26.5x	0.1x	4.2%	8.3%	40.6%	16.7%
Food Additives & Nutraceuticals	3	(14.3%)	77.7%	4.20x	16.1x	_(1)	1.9x	7.1%	9.6%	42.8%	25.0%
Industrial Gases	6	12.0%	85.3%	3.87x	13.0x	22.1x	2.0x	9.0%	10.9%	39.9%	26.4%
Inks & Pigments	5	22.0%	90.8%	0.65x	7.5x	13.6x	1.0x	4.4%	11.0%	19.1%	8.6%
Minerals	8	(41.5%)	54.7%	1.56x	6.9x	19.7x	1.6x	11.6%	19.4%	22.8%	22.0%
Oilfield Chemicals	4	88.2%	82.5%	1.21x	7.1x	17.0x	1.2x	7.7%	11.6%	25.6%	13.9%
Paints & Coatings	8	8.1%	84.2%	2.61x	14.1x	20.1x	1.5x	5.3%	6.6%	38.7%	15.8%
Resins & Polymers	9	(13.6%)	75.0%	1.05x	9.1x	14.9x	6.3x	6.1%	30.0%	15.7%	8.8%
Spec. Materials & Composites	8	(5.5%)	86.3%	1.54x	9.4x	22.3x	2.5x	6.6%	13.1%	24.5%	14.1%
Spec. Chemicals	10	(11.2%)	78.8%	2.18x	12.1x	24.7x	2.5x	7.9%	13.8%	30.6%	15.7%
Water Treatment	4	18.1%	93.5%	2.27x	11.7x	22.3x	1.8x	3.4%	4.4%	27.5%	17.1%
Mean		(0.2%)	79.6%	1.85x	10.6x	20.0x	2.1x	6.2%	13.8%	26.8%	15.0%

⁽¹⁾ P/E multiple excluded due to high degree of recent volatility



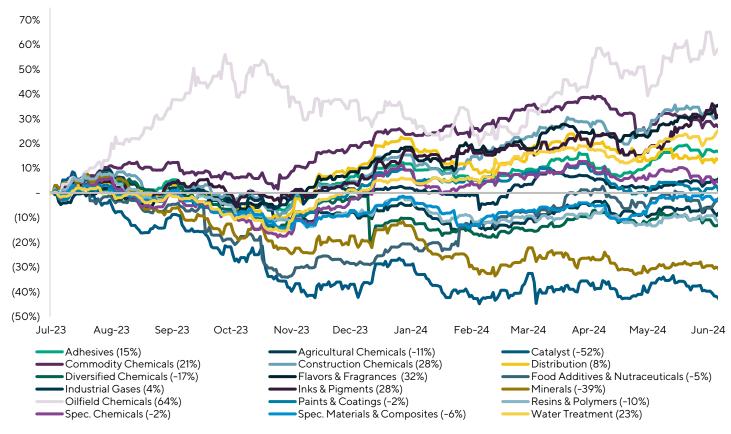
Chemicals & Materials Market Update

ENTERPRISE VALUE / LTM EBITDA



 $Note: The\ above\ multiples\ are\ based\ on\ the\ mean\ for\ the\ past\ four\ quarters\ for\ each\ corresponding\ sub-sector$

1-YEAR STOCK PERFORMANCE BY CHEMICALS SUB-SECTOR



Note: Calculated based on an average of publicly traded companies in the sector



SELECT Q2 2024 M&A TRANSACTIONS (USD in millions)

Closing Date/	Target	Acquiring	Target	Acquirer	Enterprise	EV / LTM		EBITDA
Status	- Tangot	Company	Location	Location	Value	Revenue	EBITDA	Margi
Announced	Mitsui Chemicals	Maeda Kosen	Japan	Japan	\$34	0.61x	-	-
Announced	Plant Health Care	PI Industries	US	India	40	3.56x	-	-
Announced	Fosroc International	Saint-Gobain	UK	France	1,028	2.11x	11.3x	18.7%
Announced	CP Kelco	Tate & Lyle	Denmark	UK	1,879	2.43x	10.0x	24.3%
Announced	Circulus	Dow	US	US	-	-	-	-
Announced	Yeast Extracts Business of DSM	Lesaffre	Switzerland	France	-	-	-	-
Announced	CPS Chemicals	Azelis	South Africa	Belgium	-	-	-	-
Announced	Jiangsu Jaour	Chengdu Guibao	China	China	-	-	-	-
Announced	Vesta Chemicals	Stockmeier	Netherlands	Germany	-	-	-	-
Announced	Donatelle Plastics	DuPont	US	US	-	-	-	-
Announced	AgraForm	Growmark	US	US	-	-	-	-
Announced	Achema	MET Group	Lithuania	Switzerland	-	-	-	-
Announced	McCol Metals	Heraeus Precious Metals	Canada	Germany				
Announced	Fiven	Kymera	Norway	US	-	-	-	_
Announced	Metex Noovistago	Avril Services	France	France	-	-	-	-
Announced	Textile and Fabrics Business of Cilander	Chargeurs	Switzerland	France	-	-	-	-
Announced	Yamanaka Hutech	JSR	Japan	Japan	-	-	-	-
Announced	Carbon Business of Sprint Environmental	Calgon Carbon	US	US	_	-	-	-
Announced	Naturevo	Sumitomo	Romania	Japan				
Announced	Active Minerals	J.M. Huber Corporation	US	US	-	-	-	-
Announced	J.W. Ostendorf and Renaulac Business of Hempel	Fidelium	France	Germany	-	-	-	-
Announced	Quimica Delta	Brenntag	Mexico	Germany	-	-	-	_
Announced	Nutraceuticals Business of Ashland	Turnspire Capital Partners	US	US	-	-	-	-
Announced	Medicated Feed Additive Operations of Zoeti	Phibro Animal Health	US	US	350	0.88x	-	-
Announced	Latex Compounding Operations of Synthomer	Matco	UK	Belgium	29	-	5.7x	_
Announced	Phosphate Business of Maaden Waad Al Shamal	Ma'aden	Saudi Arabia	Saudi Arabia	6,122	-	-	-
Announced	Flexible Packaging Laminating Adhesives Business of Dow Chemical	Arkema	US	France	-	-	-	-
Announced	Cobapharma	IMCD	Spain	Spain	-	-	-	-
Announced	Elite Organic	DKSH	Malaysia	Switzerland	-	-	-	_
Announced	Distribution Business of DBH	Azelis	Germany	Belgium				



SELECT Q2 2024 M&A TRANSACTIONS (CONT.) (USD in millions)

Closing Date/	Target	Acquiring	Target	Acquirer	Enterprise	EV / LTM		EBITDA
Status	Target	Company	Location	Location	Value	Revenue	EBITDA	Margir
Announced	Qenos	Logos Group	Australia	Australia	-	-	-	-
Announced	ChampionX	SLB	US	US	\$8,248	2.21x	10.3x	21.5%
Announced	Petrochemical Businesses of TotalEnergies	INEOS	France	UK	-	-	-	-
Announced	US Silica	Apollo	US	US	1,919	1.34x	4.7x	28.3%
Announced	LUBCON	Fuchs	Germany	Germany	-	-	-	-
Announced	Aerogel Korea	KBG	South Korea	South Korea	6	1.09x	-	-
Jun-24	Swed Handling	Telko	Sweden	Finland	58	0.93x	-	-
Jun-24	Foamco Industries	Domfoam	Canada	Canada	-	-	-	-
Jun-24	Bondloc	Meridian Adhesives Group	UK	US	-	-	-	-
Jun-24	ChlorKing	Hayward Holdings	US	US	61	-	-	-
Jun-24	Silex	Euston Ventures	UK	UK	-	-	-	-
Jun-24	Nuance Solutions	Hospeco Brands Group	US	US	-	-	-	_
Jun-24	Proionic	Arkema	Austria	France	-	-	-	-
Jun-24	Selechimica	IMCD	Italy	Netherlands	-	-	-	-
Jun-24	Cargo	Roshkim	Russia	Russia	-	-	-	-
Jun-24	Auto Care Business of KIK	Recochem	US	Canada	-	-	-	-
Jun-24	Sloplast	R-Investments	Russia	Russia	-	-	-	-
Jun-24	Lilleborg	Solenis	Norway	US	57	0.99x	-	-
Jun-24	Aqua Chempacs	Solenis	US	US	-	-	-	-
Jun-24	American Oxygen	Novair	US	France	-	-	-	-
Jun-24	Vernici Caldart	Itago	Italy	Italy	-	-	-	-
Jun-24	Polyma Kunstsoff	Telko	Germany	Finland	-	-	-	_
Jun-24	Intercoastal Trading	Hawkins	US	US	-	-	-	-
Jun-24	Bioenergy Enzymes Business of BASF	Lallemand	US	Canada	-	-	-	_
Jun-24	Aerontec	Biesterfeld	South Africa	Germany	-	-	-	-
Jun-24	Alder	Fantoni	Italy	Italy	-	-	-	-
May-24	Assets of Bio Med Sciences	Wacker Chemie	US	Germany	-	-	-	-
May-24	Banyan Plastics	Stein Fibers	US	US	-	-	-	_
May-24	Azenco Outdoor	Hunter Douglas	US	Netherlands	-	-	-	-
May-24	ND Industries	H.B. Fuller	US	US	256	3.65x		



SELECT Q2 2024 M&A TRANSACTIONS (CONT.) (USD in millions)

Closing Date/	Tarmet	Acquiring Company	Target Location	Acquirer	Enterprise Value	EV / LTM		EBITDA
Status	Target			Location		Revenue	EBITDA	Margin
May-24	GCI	Chemanol	Saudi Arabia	Saudi Arabia	-	-	-	-
May-24	Korea Vietnam Fertilizer	PetroVietnam Ca Mau Fertilizer	Vietnam	Vietnam	-	-	-	-
May-24	MPM	KCC Corporation	US	South Korea	-	-	-	-
May-24	CoverFlexx	Axalta	US	US	\$295	3.78x	-	-
May-24	Impact Fluid Solutions	Dorf Ketal Chemicals	US	India	-	-	-	-
May-24	Approved Color	Chroma Color	US	US	-	-	-	-
May-24	BAF Industries	Appearance Technology Group	US	US	-	-	-	-
May-24	Loda	Down2Earth Capital	Belgium	Belgium	-	-	-	-
May-24	Reagent Chemical	Wynnchurch Capital	US	US	-	-	-	-
May-24	Ricardo Molina	Caldic	Spain	Netherlands	-	-	-	-
Apr-24	European Diatomite Perlite Business of Kuraray	Imerys	France	France	55	-	-	-
Apr-24	Manucor	Plastchim-T	Italy	Bulgaria	-	-	-	-
Apr-24	JinYoung Bio	Syensqo	South Korea	Belgium	-	-	-	-
Apr-24	MDC Interior Solutions	Norwest Equity Partners	US	US	-	-	-	-
Apr-24	Flavor Producers	Glanbia	US	Ireland	355	4.12x	18.0x	22.9%
Apr-24	Foremark	CC Industries	US	US	-	-	-	-
Apr-24	СРІ	Merichem	US	US	-	-	-	-
Apr-24	Fungicide Business of Corteva	UPL	US	Mauritius	-	-	-	-
Apr-24	LidoChem	Valudor	US	US	-	-	-	-
Apr-24	Lavesan	Gazechim	Italy	France	-	-	-	-
Apr-24	Kermel	FCDE	France	France	-	-	-	-
Apr-24	Phoenix Group Polyester Plant	Vicostone	Vietnam	Vietnam	-	-	-	-
Apr-24	Tecnofilm	Versalis	Italy	Italy	-	-	-	-
Apr-24	BioTek	Custom Agronomics	US	US	-	_	-	_
Apr-24	Seal for Life	Henkel	US	Germany	1,102	-	-	-
Apr-24	Kwik Bond Polymers	Sika	US	Switzerland	-	-	-	-
Apr-24	Lucas Meyer Cosmetics	Clariant	Canada	Switzerland	810	8.10x	16.3x	49.7%
Apr-24	Lawrence Industries	Brenntag	UK	Germany	-	-	-	-
Apr-24	Emulsifiers Business of Corbion	Kingswood Capital	Netherlands	US	362	-	-	-

Source: Capital IQ, Mergermarket, Pitchbook and company data

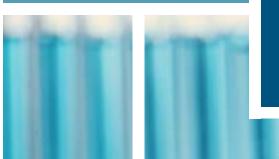


About Lincoln International

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 1,000 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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