



Industry Update
Chemicals
Q3 2023

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Financial Performance

Size Profile, LTM Financials, Forward Estimates

(USD in millions, except per share data)

Company Name	Ticker	Size Profile			LTM Operating Data		Forward Estimates		
		Price at 09/30/23	% of 52 Week High	TEV	Total Assets	LTM Revenue	LTM EBITDA	2023 Est. Revenue	2023 Est. EBITDA
Specialty Chemicals									
The Sherwin-Williams Company	SHW	\$255.05	89.9%	\$75,589	\$23,166	\$22,961	\$4,038	\$22,821	\$4,095
Ecolab Inc.	ECL	\$169.40	88.5%	\$55,462	\$21,456	\$14,764	\$2,901	\$15,429	\$3,042
DuPont de Nemours, Inc.	DD	\$74.59	94.7%	\$38,754	\$40,797	\$12,533	\$3,027	\$12,447	\$2,968
PPG Industries, Inc.	PPG	\$129.80	84.9%	\$36,806	\$22,216	\$17,905	\$2,603	\$18,163	\$2,915
Celanese Corporation	CE	\$125.52	95.8%	\$27,002	\$25,649	\$10,297	\$1,637	\$11,208	\$2,544
Commodity Chemicals									
Dow Inc.	DOW	\$51.56	84.7%	\$48,139	\$58,294	\$49,245	\$6,055	\$44,293	\$5,567
LyondellBasell Industries N.V.	LYB	\$94.70	92.8%	\$40,970	\$36,683	\$43,009	\$4,548	\$40,626	\$5,312
Westlake Corporation	WLK	\$124.67	90.1%	\$18,861	\$20,981	\$13,862	\$2,815	\$12,920	\$2,749
Diversified Chemicals									
Eastman Chemical Company	EMN	\$76.72	83.2%	\$13,782	\$14,771	\$9,818	\$1,580	\$9,343	\$1,657
The Chemours Company	CC	\$28.05	71.8%	\$6,943	\$7,660	\$6,294	\$381	\$6,096	\$1,103
Huntsman Corporation	HUN	\$24.40	72.9%	\$5,741	\$7,553	\$6,863	\$569	\$6,321	\$551

Source: Capital IQ

Financial Performance (cont.)

Size Profile, LTM Financials, Forward Estimates

(USD in millions, except per share data)

Company Name	Ticker	Size Profile			LTM Operating Data		Forward Estimates		
		Price at 09/30/23	% of 52 Week High	TEV	Total Assets	LTM Revenue	LTM EBITDA	2023 Est. Revenue	2023 Est. EBITDA
Industrial Gases									
Linde plc	LIN	\$372.35	94.6%	\$199,860	\$78,718	\$33,093	\$11,450	\$33,326	\$12,050
Air Products and Chemicals, Inc.	APD	\$283.40	86.3%	\$72,834	\$30,930	\$12,979	\$3,985	\$12,800	\$4,868
Fertilizers & Agricultural Chemicals									
Nutrien Ltd.	NTR	\$61.76	69.3%	\$42,407	\$53,926	\$32,583	\$7,884	\$28,817	\$6,298
Corteva, Inc.	CTVA	\$51.16	74.8%	\$38,107	\$44,189	\$17,531	\$3,288	\$17,963	\$3,553
FMC Corporation	FMC	\$66.97	49.8%	\$11,699	\$11,952	\$5,358	\$1,242	\$5,234	\$1,313

Source: Capital IQ

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Valuation Metrics

Return Profile, Trading Multiples

Company Name	Ticker	Return Profile					Trading Multiples		
		Return on Assets	Return on Equity	Revenue Growth	EBITDA Margin	EBITDA Growth	5-yr Beta	TEV / LTM Revenue	TEV / LTM EBITDA
Specialty Chemicals									
The Sherwin-Williams Company	SHW	9.5%	80.0%	10.5%	17.6%	32.7%	1.1x	3.3x	18.7x
Ecolab Inc.	ECL	5.8%	16.3%	9.1%	19.7%	6.3%	1.1x	3.8x	19.1x
DuPont de Nemours, Inc.	DD	2.8%	3.8%	-3.9%	24.2%	-1.2%	1.2x	2.1x	14.1x
PPG Industries, Inc.	PPG	5.9%	19.2%	2.0%	14.5%	18.6%	1.2x	N/A	N/A
Celanese Corporation	CE	3.4%	22.6%	7.7%	15.9%	-35.3%	1.3x	2.6x	16.5x
	Mean	5.5%	28.4%	5.1%	18.4%	4.2%	1.2x	2.9x	17.1x
	Median	5.8%	19.2%	7.7%	17.6%	6.3%	1.2x	3.0x	17.6x
Commodity Chemicals									
Dow Inc.	DOW	3.6%	9.2%	-18.1%	12.3%	-47.6%	1.3x	1.0x	8.0x
LyondellBasell Industries N.V.	LYB	5.7%	16.6%	-19.6%	10.6%	-47.8%	1.2x	1.0x	9.0x
Westlake Corporation	WLK	5.5%	13.1%	-8.2%	20.3%	-42.7%	1.3x	1.4x	6.7x
	Mean	5.0%	13.0%	-15.3%	14.4%	-46.0%	1.3x	1.1x	7.9x
	Median	5.5%	13.1%	-18.1%	12.3%	-47.6%	1.3x	1.0x	8.0x
Diversified Chemicals									
Eastman Chemical Company	EMN	4.7%	13.2%	-10.0%	16.1%	-32.1%	1.5x	1.4x	8.7x
The Chemours Company	CC	0.6%	-8.5%	-9.2%	6.1%	-71.1%	2.0x	1.1x	18.2x
Huntsman Corporation	HUN	2.2%	3.3%	-19.9%	8.3%	-58.4%	1.1x	0.8x	10.1x
	Mean	2.5%	2.7%	-13.1%	10.1%	-53.9%	1.5x	1.1x	12.3x
	Median	2.2%	3.3%	-10.0%	8.3%	-58.4%	1.5x	1.1x	10.1x

Source: Capital IQ

Valuation Metrics (cont.)

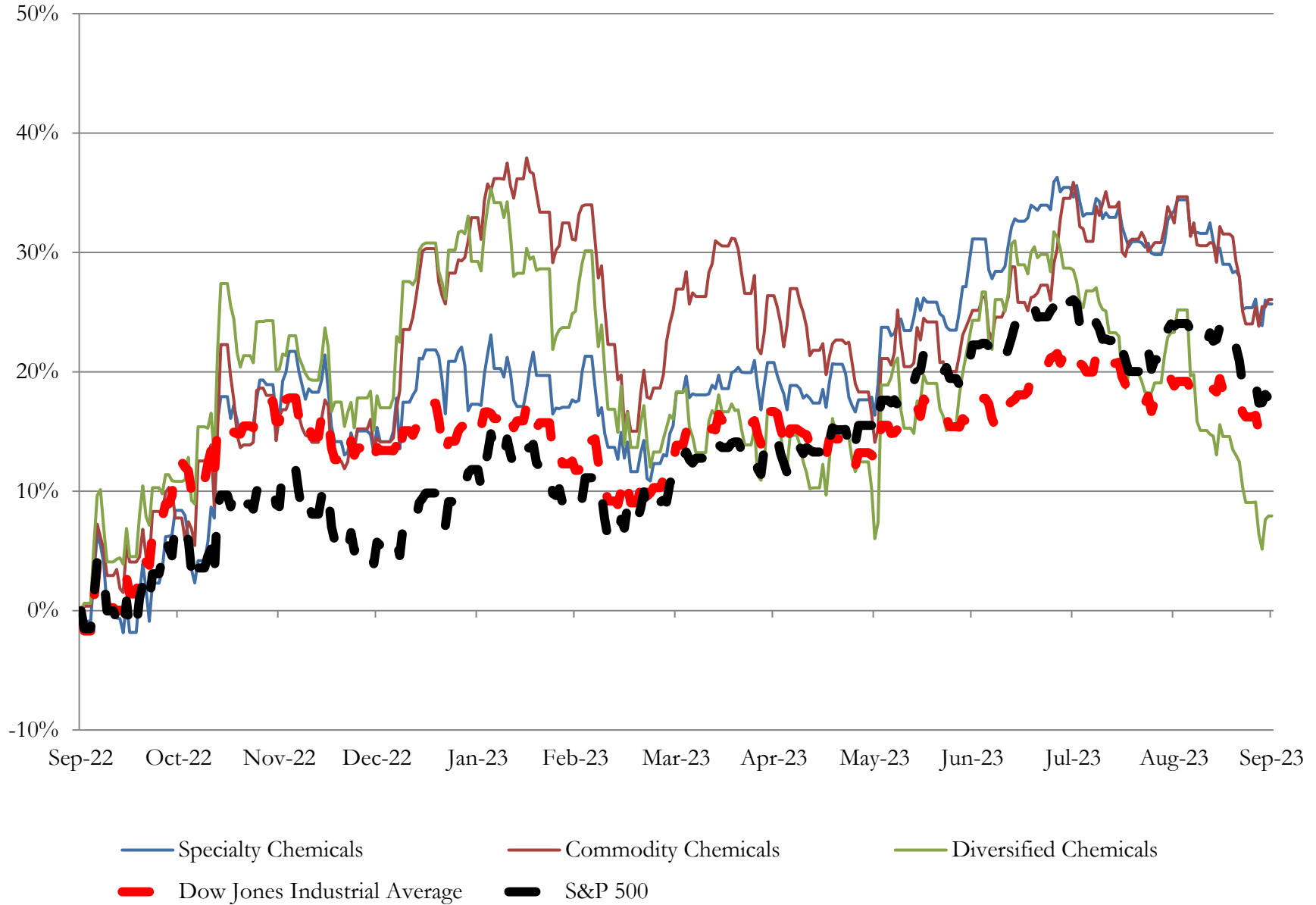
Return Profile, Trading Metrics

Company Name	Ticker	Return Profile					Trading Multiples		
		Return on Assets	Return on Equity	Revenue Growth	EBITDA Margin	EBITDA Growth	5-yr Beta	TEV / LTM Revenue	TEV / LTM EBITDA
Industrial Gases									
Linde plc	LIN	6.0%	14.2%	1.4%	34.6%	8.5%	0.9x	6.0x	17.5x
Air Products and Chemicals, Inc.	APD	5.7%	15.0%	8.4%	30.7%	7.1%	0.9x	5.6x	18.3x
	Mean	5.8%	14.6%	4.9%	32.7%	7.8%	0.9x	5.8x	17.9x
	Median	5.8%	14.6%	4.9%	32.7%	7.8%	0.9x	5.8x	17.9x
Fertilizers & Agricultural Chemicals									
Nutrien Ltd.	NTR	7.0%	14.3%	-5.9%	24.2%	-28.3%	0.0x	1.3x	5.4x
Corteva, Inc.	CTVA	3.1%	4.3%	5.0%	18.8%	-13.2%	0.8x	2.2x	11.6x
FMC Corporation	FMC	5.8%	22.5%	-1.0%	23.2%	-9.8%	0.9x	2.2x	9.4x
	Mean	5.3%	10.7%	10.7%	2.5%	19.0%	0.6x	1.9x	8.8x
Source: Capital IQ	Median	5.8%	9.3%	11.9%	4.5%	-4.9%	0.8x	2.2x	9.4x

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LTM Equity Performance

Major Indexes



Source: Capital IQ

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Recent M&A Activity

Last Twelve (12) Months as of September 30, 2023

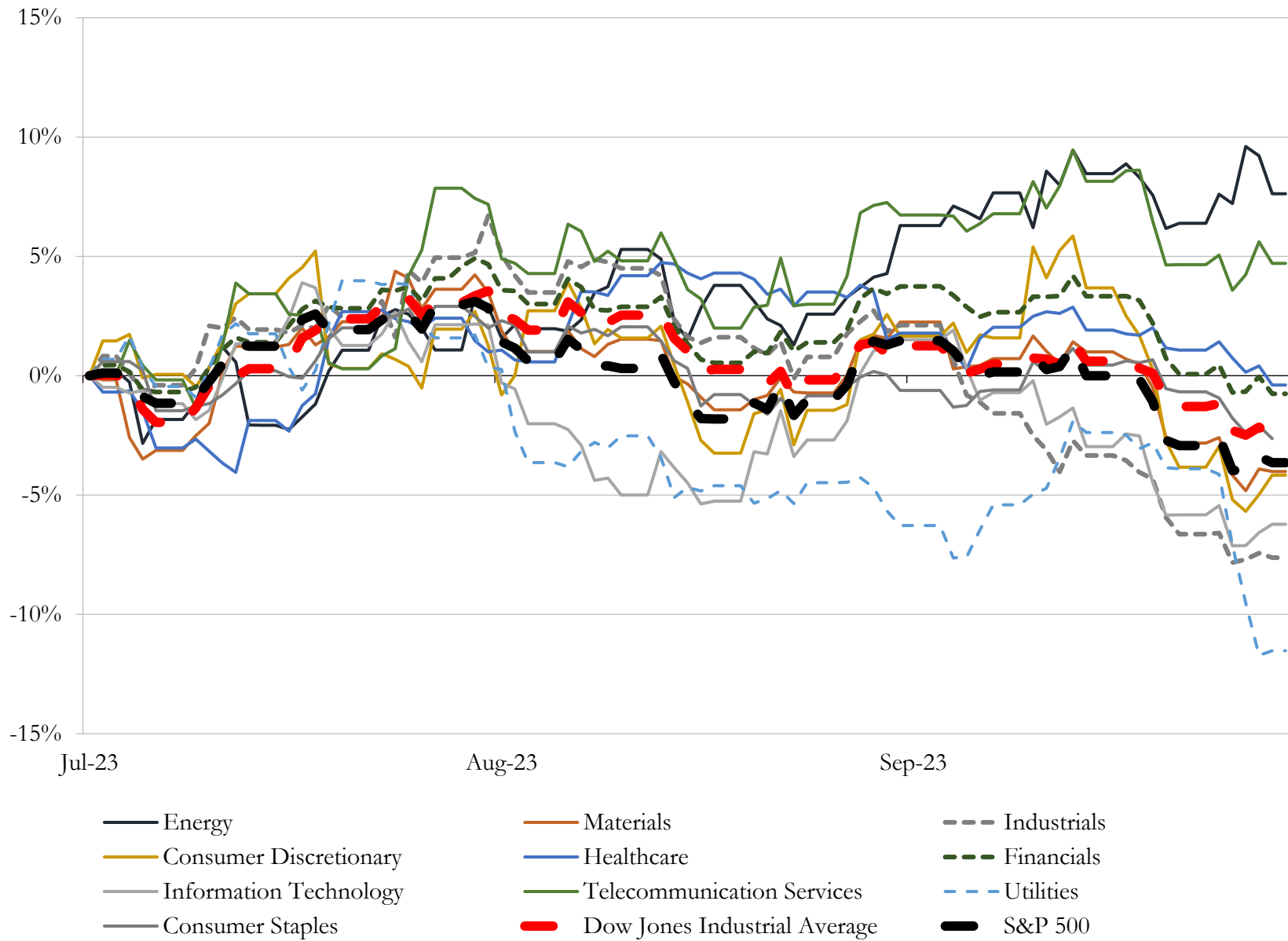
(USD in millions)

Close Date	Target	Acquirer	Implied TEV
Jul-23	Diversey Holdings, Ltd.	Solenis LLC	\$4,516
Mar-23	Global Products Business of Valvoline Inc.	Aramco Overseas Company B.V.	\$2,650
Mar-23	The Stoller Group, Inc.	Corteva, Inc.	\$1,452
Oct-22	Quadion LLC	Trelleborg Sealing Solutions US, Inc.	\$950
Feb-23	Textile Effects Business of Huntsman International LLC	Archroma Germany GmbH; Archroma Operations S.À R.L.	\$718
Mar-23	AgroFresh Solutions, Inc.	Paine Schwartz Partners, LLC; PSP AGFS Holdings, L.P	\$573
Oct-22	Zymergen Inc.	Ginkgo Bioworks Holdings, Inc.	\$273
Feb-23	Laminates, Films and Coated Fabrics Businesses of Synthomer plc	SURTECO North America, Inc.	\$255
Mar-23	ICP Industrial, Inc.	Stahl Holdings B.V.	\$205
Jan-23	American Chrome & Chemicals Inc.	Yildirim Holding A.S.	\$170
Apr-23	Iron Oxide Business of Venator Materials PLC	Cathay Industries	\$140
Aug-23	Glycolic Acid business of The Chemours Company	PureTech Scientific Inc.	\$137
Dec-22	McCann Plastics, Inc.	HEXPOL AB (publ)	\$120
Nov-22	Assets of Elite Polymer Solutions	Allied Tube and Conduit Corporation; Atkore HDPE, LLC	\$92
May-23	Fortress North America, LLC	Compass Minerals International, Inc.	\$74
Oct-22	Attapulgate business assets of BASF SE	Clariant International Ltd	\$60
Feb-23	Enduro Composites, Inc.	Creative Composites Group	\$35
Jul-23	Natech Plastics, Inc.	Stratec SE	\$30
Feb-23	CMT Materials, Inc.	ESCO Technologies Inc.	\$18
Oct-22	Gssi Sealants, Inc.	H.B. Fuller Company	\$7
May-23	NanoShield windshield strengthener and related automotive assets of C-Bond	N/A	\$4
Jul-23	EcoTech Enterprises, Inc.	Hawkins, Inc.	\$3
May-23	Nankai Enviro-Tech Corp.	Tenma Corporation	\$2
Sep-23	Sunniland Corporation	SRS Distribution Inc.	NA
Sep-23	Belle Chemical Company	Arclin, Inc.	NA
Sep-23	Douglas Products and Packaging Company LLC	Brightstar Capital Partners, L.P.	NA
Sep-23	GaffTech, Inc.	Bron Tapes, Inc.	NA
Sep-23	Tower Products Inc.	N/A	NA
Aug-23	Stratasys Direct, Inc.	Lamarjean Group	NA
Aug-23	Regal Chemical Company	SiteOne Landscape Supply, Inc.	NA

Source: Capital IQ

5 Change in Market Capitalization by Sector

Last Three (3) Months as of September 30, 2023

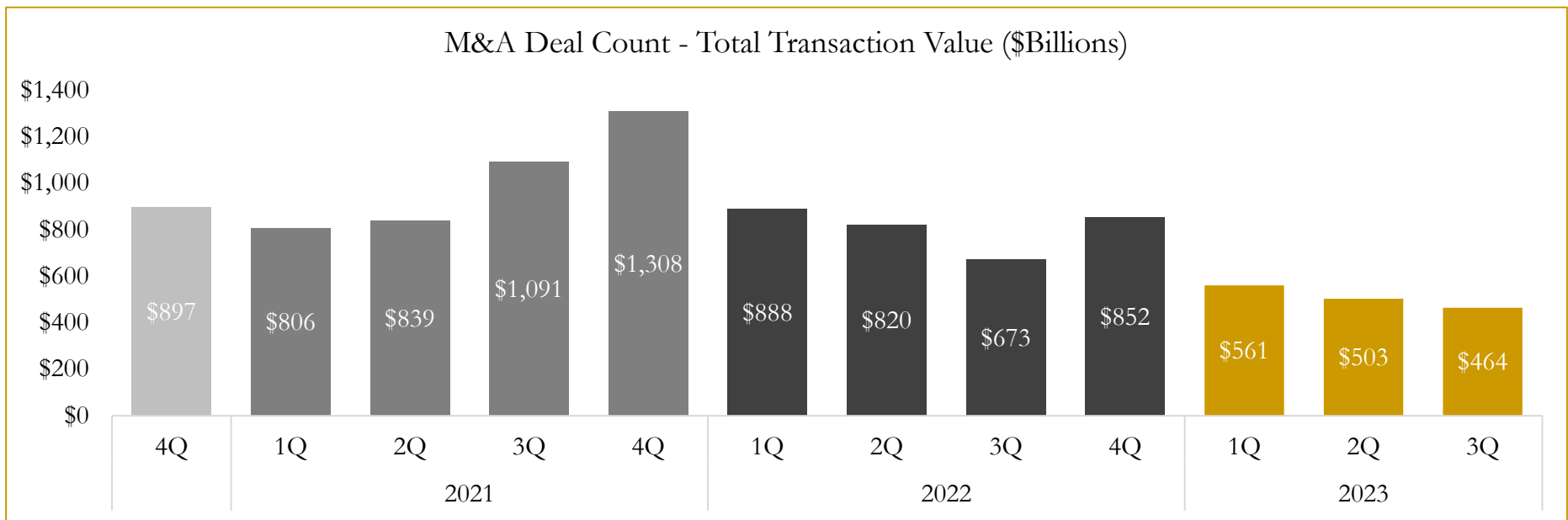
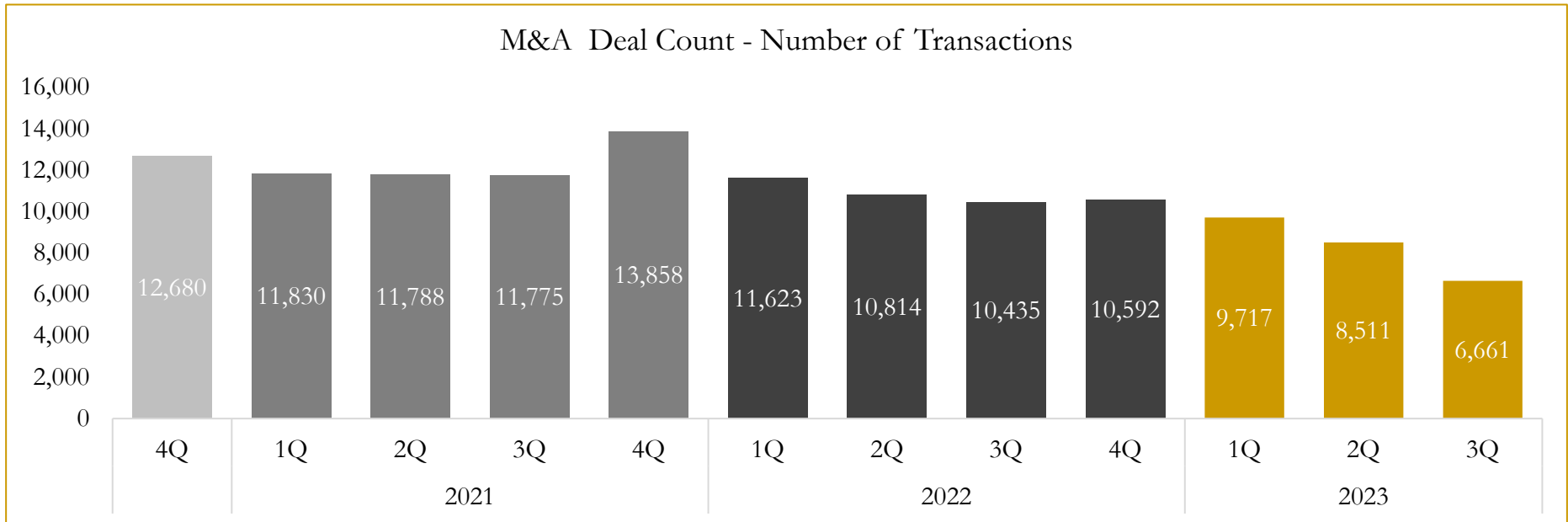


Source: Capital IQ

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M&A Deal Flow Statistics

Last Three (3) Years as of September 30, 2023



Source: Capital IQ

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- **Complex & Illiquid Securities (Level 3)**
- **Cryptoasset /Blockchain Valuations**
 - Locked Token Valuations
- **Enterprise Valuations**
- **Fairness & Solvency Opinions**
 - SPAC Fairness
- **Estate & Gift Valuations**
- **Purchase Price Allocation (ASC 805)**
- **Goodwill Impairment Testing (ASC 350)**
- **Stock-based Compensation (ASC 718, IRC 409A)**

Investment Banking

- **Mergers & Acquisitions**
 - Sell-Side Advisory
 - Sale of Minority Ownership Positions
 - Leveraged Buyouts
 - Majority Recapitalizations
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