



Industry Update
Chemicals
Q1 2023

1

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 03/31/23	% of 52 Week High	TEV	Total Assets	LTM Revenue	LTM EBITDA	2023 Est. Revenue	2023 Est. EBITDA
Specialty Chemicals									
The Sherwin-Williams Company	SHW	\$224.77	78.9%	\$72,016	\$23,130	\$22,593	\$3,740	\$21,856	\$3,722
Ecolab Inc.	ECL	\$165.53	89.2%	\$57,882	\$21,252	\$14,493	\$2,829	\$15,318	\$3,007
DuPont de Nemours, Inc.	DD	\$71.77	91.5%	\$33,649	\$41,208	\$12,761	\$3,098	\$12,447	\$3,070
PPG Industries, Inc.	PPG	\$133.58	96.7%	\$38,961	\$22,099	\$17,724	\$2,455	\$18,128	\$2,806
Celanese Corporation	CE	\$108.89	67.5%	\$26,029	\$26,090	\$9,988	\$1,666	\$11,925	\$2,818
Commodity Chemicals									
Dow Inc.	DOW	\$54.82	76.3%	\$51,131	\$59,316	\$53,489	\$7,259	\$49,003	\$6,328
LyondellBasell Industries N.V.	LYB	\$93.89	80.1%	\$41,098	\$36,255	\$47,541	\$5,570	\$44,021	\$5,738
Westlake Corporation	WLK	\$115.98	82.1%	\$18,739	\$20,806	\$15,094	\$3,591	\$13,755	\$3,071
Diversified Chemicals									
Eastman Chemical Company	EMN	\$84.34	74.2%	\$14,768	\$14,983	\$10,278	\$1,710	\$10,310	\$1,836
The Chemours Company	CC	\$29.94	66.6%	\$7,383	\$7,624	\$6,566	\$991	\$6,603	\$1,268
Huntsman Corporation	HUN	\$27.36	71.6%	\$6,127	\$7,763	\$7,437	\$764	\$7,007	\$705

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 03/31/23	% of 52 Week High	TEV	Total Assets	LTM Revenue	LTM EBITDA	2023 Est. Revenue	2023 Est. EBITDA
Industrial Gases									
Linde plc	LIN	\$355.44	98.0%	\$193,737	\$80,308	\$33,346	\$11,153	\$34,479	\$11,960
Air Products and Chemicals, Inc.	APD	\$287.21	87.4%	\$70,061	\$29,435	\$13,134	\$4,002	\$13,303	\$4,866
Fertilizers & Agricultural Chemicals									
Nutrien Ltd.	NTR	\$73.85	63.0%	\$42,951	\$54,586	\$37,012	\$11,513	\$31,365	\$8,377
Corteva, Inc.	CTVA	\$60.31	88.1%	\$44,128	\$45,500	\$17,738	\$3,411	\$18,657	\$3,666
FMC Corporation	FMC	\$122.13	86.6%	\$17,717	\$11,732	\$5,796	\$1,414	\$6,134	\$1,543

Source: Capital IQ

2

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	8.8%	78.8%	11.4%	16.6%	20.9%	1.1x	3.2x	19.2x
Ecolab Inc.	ECL	5.4%	15.3%	11.4%	19.6%	2.8%	1.0x	3.9x	19.6x
DuPont de Nemours, Inc.	DD	2.9%	3.9%	3.6%	24.5%	5.7%	1.2x	2.7x	11.0x
PPG Industries, Inc.	PPG	5.4%	19.2%	2.9%	13.9%	8.5%	1.2x	2.2x	15.9x
Celanese Corporation	CE	5.0%	35.9%	13.3%	20.4%	-18.4%	1.3x	2.6x	12.8x
	Mean	5.5%	30.6%	8.5%	19.0%	3.9%	1.2x	2.9x	15.7x
	Median	5.4%	19.2%	11.4%	19.6%	5.7%	1.2x	2.7x	15.9x
Commodity Chemicals									
Dow Inc.	DOW	4.8%	15.0%	-8.3%	13.5%	-39.3%	1.3x	1.0x	7.0x
LyondellBasell Industries N.V.	LYB	8.7%	31.4%	9.3%	12.2%	-28.3%	1.2x	0.8x	6.6x
Westlake Corporation	WLK	10.0%	24.2%	34.1%	25.9%	12.6%	1.2x	1.1x	4.3x
	Mean	7.8%	23.5%	11.7%	17.2%	-18.3%	1.3x	1.0x	6.0x
	Median	8.7%	24.2%	9.3%	13.5%	-28.3%	1.2x	1.0x	6.6x
Diversified Chemicals									
Eastman Chemical Company	EMN	5.3%	14.4%	1.0%	16.7%	-26.7%	1.5x	1.4x	8.2x
The Chemours Company	CC	6.5%	52.8%	7.1%	16.0%	7.6%	1.9x	1.0x	6.3x
Huntsman Corporation	HUN	5.6%	12.2%	4.6%	13.2%	3.2%	1.1x	0.8x	6.0x
	Mean	5.8%	26.5%	4.2%	15.3%	-5.3%	1.5x	1.1x	6.8x
	Median	5.6%	14.4%	4.6%	16.0%	3.2%	1.5x	1.0x	6.3x

Source: Capital IQ

Valuation Metrics (cont.)

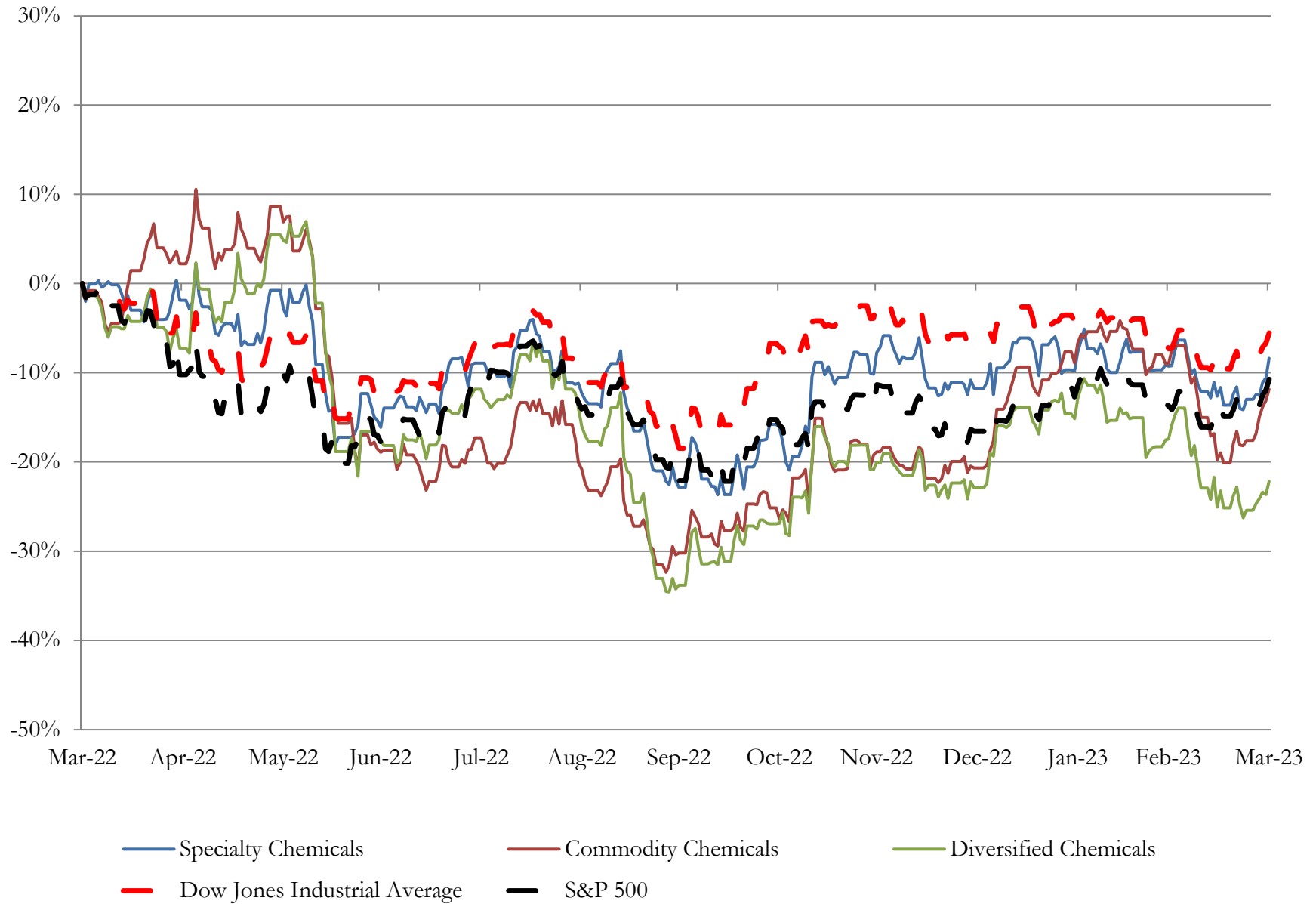
Return Profile, Trading Metrics

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	5.4%	10.8%	5.0%	33.4%	7.4%	0.8x	5.8x	17.4x
Air Products and Chemicals, Inc.	APD	5.8%	15.8%	17.7%	30.1%	6.2%	0.9x	5.4x	17.9x
	Mean	5.6%	13.3%	11.3%	31.8%	6.8%	0.9x	5.6x	17.7x
	Median	5.6%	13.3%	11.3%	31.8%	6.8%	0.9x	5.6x	17.7x
Fertilizers & Agricultural Chemicals									
Nutrien Ltd.	NTR	11.8%	31.0%	37.8%	31.1%	77.4%	0.0x	1.2x	4.0x
Corteva, Inc.	CTVA	3.1%	4.8%	11.5%	19.0%	-14.4%	0.8x	2.4x	12.4x
FMC Corporation	FMC	7.1%	25.6%	15.0%	24.2%	7.1%	0.8x	3.1x	12.7x
	Mean	7.3%	15.8%	23.1%	24.1%	38.5%	0.5x	2.2x	9.7x
Source: Capital IQ	Median	7.1%	14.3%	21.6%	21.6%	42.2%	0.8x	2.4x	12.4x

3

LTM Equity Performance

Major Indexes



Source: Capital IQ

4

Recent M&A Activity

Last Twelve (12) Months as of March 31, 2023

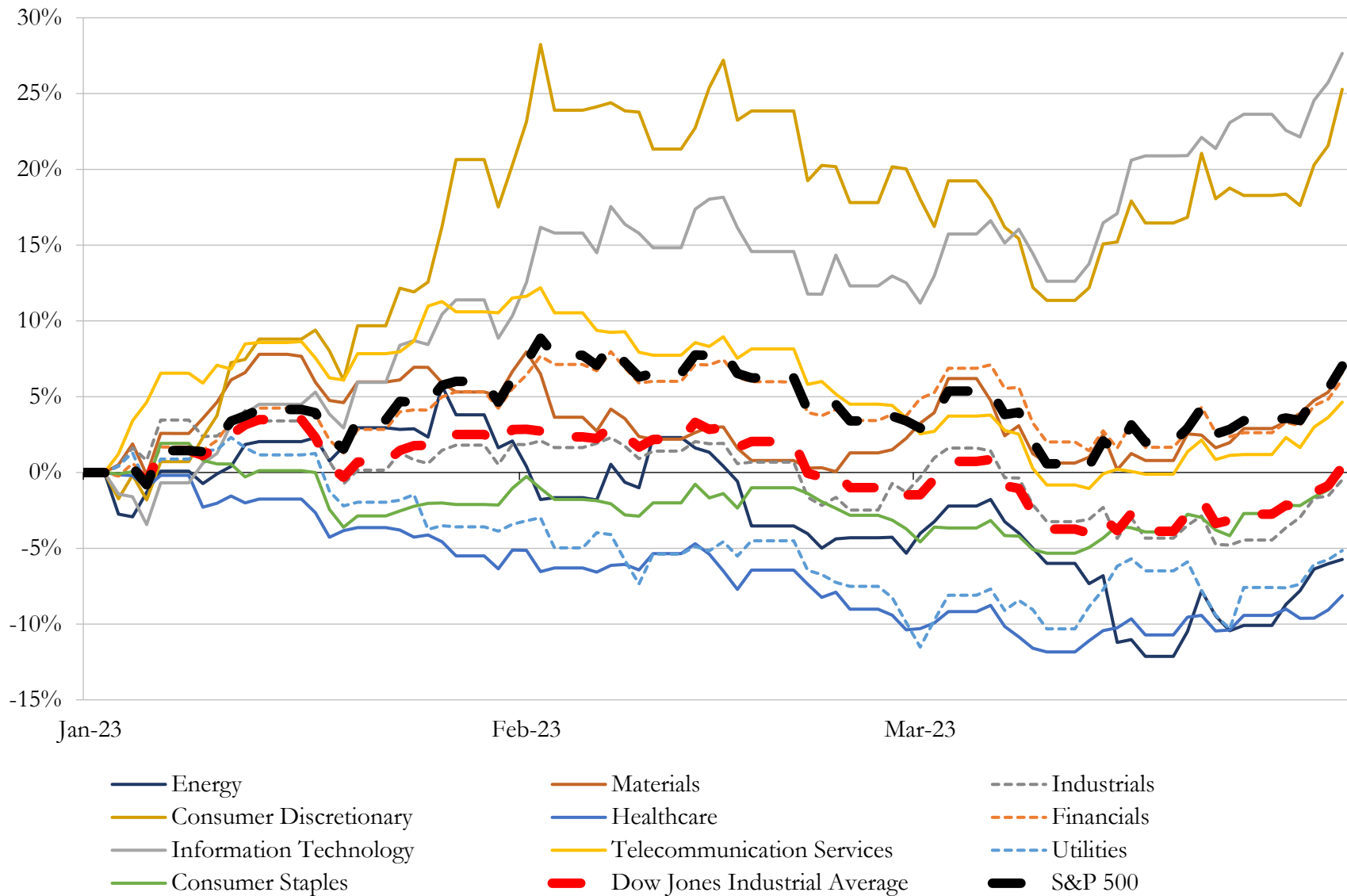
(USD in millions)

Close Date	Target	Acquirer	Implied TEV
Mar-23	Global Products Business of Valvoline Inc.	Aramco Overseas Company B.V.	\$2,650
Sep-22	GCP Applied Technologies Inc.	Compagnie de Saint-Gobain S.A.	\$2,307
Apr-22	Ferro Corporation	Prince International Corporation	\$2,161
Jul-22	Microbial Control Business Unit of International Flavors & Fragrances Inc.	LANXESS Aktiengesellschaft	\$1,300
Mar-23	The Stoller Group, Inc.	Corteva, Inc.	\$1,200
Apr-22	Adhesive Resins business of Eastman Chemical Company	Synthomer plc	\$1,000
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
May-22	Quality Synthetic Rubber, Inc.	Dätwyler Holding AG	\$625
Apr-22	Viaflex, Inc.	Industrial Opportunity Partners, LLC; Industrial Opportunity Partners IV	\$350
Oct-22	Zymergen Inc.	Ginkgo Bioworks Holdings, Inc.	\$273
Jul-22	Marrone Bio Innovations, Inc.	Bioceres Crop Solutions Corp.	\$264
Apr-22	Scientific Design Company, Inc.	Saudi Basic Industries Corporation	\$260
Jun-22	Trecora Resources	Balmoral Funds LLC	\$254
Sep-22	Nucera Solutions LLC	Chase Corporation	\$250
May-22	Biomaterials business of DuPont de Nemours, Inc.	Huafon Group Co., Ltd.	\$240
Mar-23	ICP Industrial, Inc.	Stahl Holdings B.V.	\$205
Jan-23	Chromium business of Elementis plc	Yildirim Holding A.S.	\$170
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
Oct-22	Attapulgate business assets of BASF SE	Clariant International Ltd	\$60
Jan-23	Guardian Protection Products, Inc.	OnPoint Warranty Solutions LLC	\$57
Feb-23	Enduro Composites, Inc.	Hill & Smith PLC	\$35
Feb-23	CMT Materials, Inc.	ESCO Technologies Inc.	\$18
Sep-22	Surfactant Business and Associated Assets of PerformanX Specialty	Stepan Company	\$10
Oct-22	Gssi Sealants, Inc.	H.B. Fuller Company	\$7
May-22	Petro X Solutions, Inc.	Good Hemp, Inc. (nka:Accredited Solutions, Inc.)	\$4
Jul-22	Epicor Incorporated	Evoqua Water Technologies Corp.	\$4
Aug-22	Significant portion of assets of XG Sciences, Inc.	NanoXplore Inc.	\$3
Aug-22	CFOAM Corp.	CONSOL Energy Inc.	\$1

Source: Capital IQ

5 Change in Market Capitalization by Sector

Last Three (3) Months as of March 31, 2023

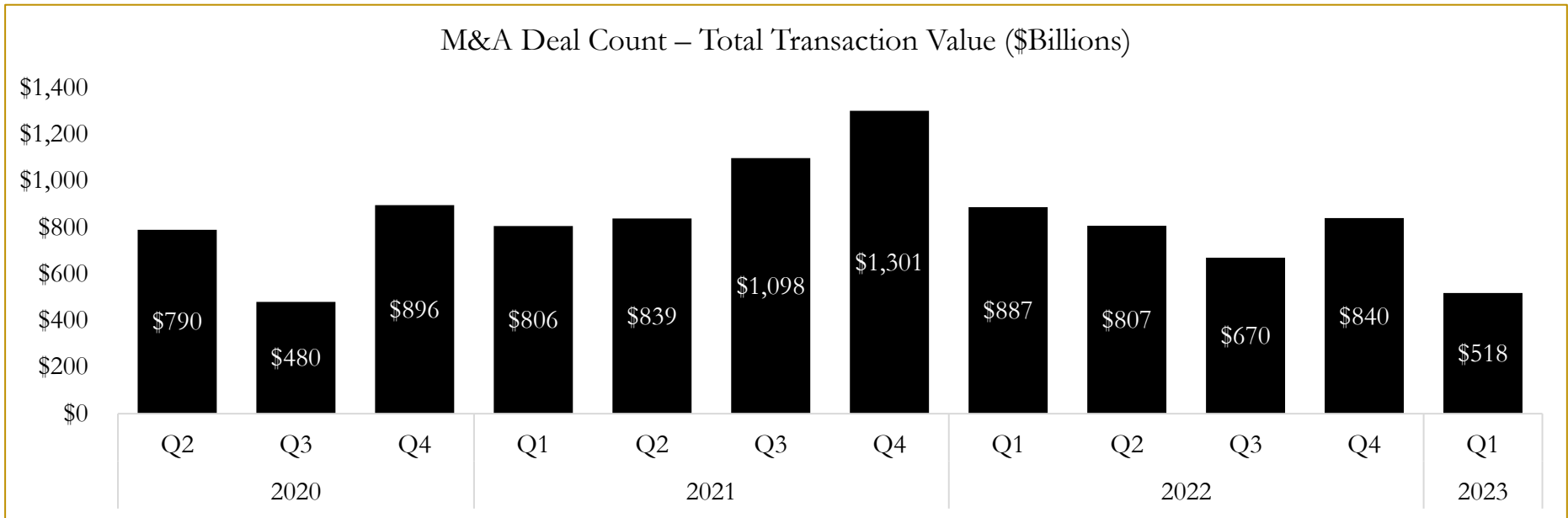
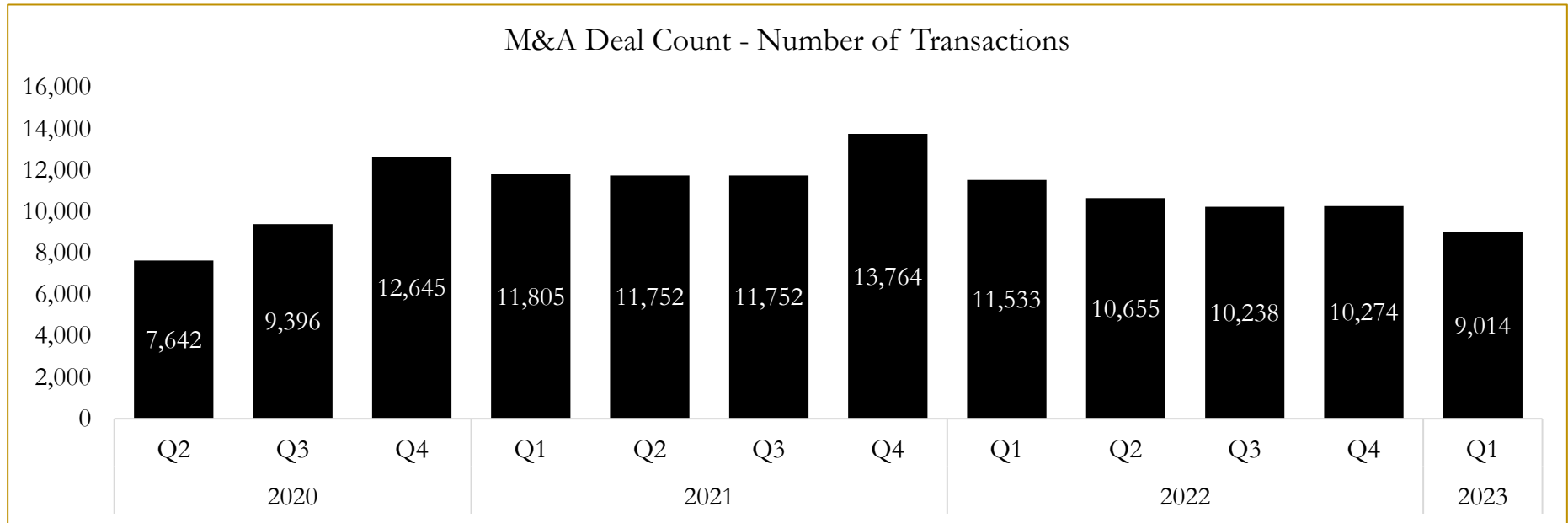


Source: Capital IQ

6

M&A Deal Flow Statistics

Last Three (3) Years as of March 31, 2023



Source: Capital IQ

About Houlihan Capital

Houlihan Capital is a leading, solutions-driven valuation, financial advisory and boutique investment banking firm. We pride ourselves on being thought leaders in an ever-changing landscape.

Houlihan Capital is SOC-compliant, a FINRA and SIPC member and committed to the highest levels of professional ethics and standards.

Valuation & Financial Advisory

We provide an array of services that include enterprise valuations, portfolio valuation, valuation of carried interest, transaction opinions, tax and financial reporting compliance, purchase price allocations, and a wide variety of consulting services through our Financial Advisory Group.

Investment Banking

Through our Investment Banking Group, we offer sell-side/buy-side advisory and capital raises. Through our Special Situations desk, we provide services that fit outside the archetypal verticals, including liquidity solutions, transactional advisory, and secondary market advisory and trading.

Litigation Support

Our team provides support for a wide variety of situations including commercial and shareholder disputes, derivatives and structured finance litigation, and fraudulent conveyance.

Contact:

Andrew Smith

President

asmith@houlihancapital.com

(312) 450-8610

Paul Clark

Managing Director

pclark@houlihancapital.com

(312) 450-8656

Michael Norton

Director, Business Development

mnorton@houlihancapital.com

(312) 450-8628

Monica Blocker

Director, Business Development

mblocker@houlihancapital.com

(312) 450-8699