



Industry Update  
**Chemicals**  
Q2 2022

## 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 06/30/22	% of 52 Week High	TEV	Total Assets	LTM Revenue	LTM EBITDA	2022 Est. Revenue	2022 Est. EBITDA
<b>Specialty Chemicals</b>									
The Sherwin-Williams Company	SHW	\$223.91	63.2%	\$74,850	\$22,053	\$20,780	\$3,043	\$21,970	\$3,559
Ecolab Inc.	ECL	\$153.76	64.4%	\$56,697	\$21,164	\$13,533	\$2,724	\$14,254	\$2,853
DuPont de Nemours, Inc.	DD	\$55.58	65.3%	\$41,020	\$44,440	\$17,128	\$3,989	\$13,397	\$3,433
PPG Industries, Inc.	PPG	\$114.34	64.5%	\$37,344	\$21,572	\$17,561	\$2,142	\$18,176	\$2,629
Celanese Corporation	CE	\$117.61	66.6%	\$15,987	\$12,713	\$9,565	\$2,529	\$9,662	\$2,803
<b>Commodity Chemicals</b>									
Dow Inc.	DOW	\$51.61	71.8%	\$50,560	\$62,143	\$60,129	\$11,478	\$59,396	\$11,056
LyondellBasell Industries N.V.	LYB	\$87.46	74.6%	\$40,631	\$37,024	\$53,525	\$8,736	\$55,313	\$8,450
Westlake Corporation	WLK	\$98.02	69.4%	\$17,663	\$20,372	\$15,101	\$4,911	\$16,392	\$4,782
<b>Diversified Chemicals</b>									
Eastman Chemical Company	EMN	\$89.77	69.3%	\$16,677	\$0	\$10,912	\$2,290	\$10,774	\$2,141
The Chemours Company	CC	\$32.02	71.2%	\$8,059	\$7,730	\$6,933	\$1,324	\$7,162	\$1,574
Huntsman Corporation	HUN	\$28.35	68.1%	\$7,445	\$8,721	\$9,343	\$1,380	\$9,294	\$1,517

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 06/30/22	% of 52 Week High	TEV	Total Assets	LTM Revenue	LTM EBITDA	2022 Est. Revenue	2022 Est. EBITDA
<b>Industrial Gases</b>									
Linde plc	LIN	\$287.53	81.6%	\$163,129	\$77,885	\$32,634	\$10,552	\$33,821	\$10,913
Air Products and Chemicals, Inc.	APD	\$240.48	76.0%	\$59,721	\$27,450	\$11,385	\$3,682	\$12,146	\$4,341
<b>Fertilizers &amp; Agricultural Chemicals</b>									
Nutrien Ltd.	NTR	\$79.69	68.0%	\$58,638	\$53,268	\$29,868	\$8,166	\$39,906	\$14,923
Corteva, Inc.	CTVA	\$54.14	84.6%	\$41,270	\$42,633	\$16,078	\$3,765	\$16,963	\$2,926
FMC Corporation	FMC	\$107.01	75.9%	\$17,325	\$10,905	\$5,200	\$1,372	\$5,441	\$1,415

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
<b>Specialty Chemicals</b>									
The Sherwin-Williams Company	SHW	7.3%	69.3%	5.8%	14.6%	-17.8%	1.1x	3.6x	24.6x
Ecolab Inc.	ECL	5.8%	16.2%	11.5%	20.1%	3.4%	1.0x	4.2x	20.8x
DuPont de Nemours, Inc.	DD	3.7%	6.0%	17.9%	23.3%	12.6%	1.2x	2.4x	10.3x
PPG Industries, Inc.	PPG	4.4%	17.2%	12.0%	12.2%	-19.1%	1.2x	2.1x	17.4x
Celanese Corporation	CE	11.1%	42.5%	36.7%	26.4%	48.0%	1.2x	1.7x	6.3x
	<b>Mean</b>	<b>6.5%</b>	<b>30.3%</b>	<b>16.8%</b>	<b>19.3%</b>	<b>5.4%</b>	<b>1.1x</b>	<b>2.8x</b>	<b>15.9x</b>
	<b>Median</b>	<b>5.8%</b>	<b>17.2%</b>	<b>12.0%</b>	<b>20.1%</b>	<b>3.4%</b>	<b>1.2x</b>	<b>2.4x</b>	<b>17.4x</b>
<b>Commodity Chemicals</b>									
Dow Inc.	DOW	8.8%	37.6%	30.2%	19.1%	41.7%	1.3x	0.8x	4.4x
LyondellBasell Industries N.V.	LYB	12.7%	47.4%	51.4%	16.3%	36.4%	1.3x	0.8x	4.7x
Westlake Corporation	WLK	14.3%	33.7%	66.3%	32.5%	132.5%	1.2x	1.2x	3.6x
	<b>Mean</b>	<b>11.9%</b>	<b>39.6%</b>	<b>49.3%</b>	<b>22.6%</b>	<b>70.2%</b>	<b>1.3x</b>	<b>0.9x</b>	<b>4.2x</b>
	<b>Median</b>	<b>12.7%</b>	<b>37.6%</b>	<b>51.4%</b>	<b>19.1%</b>	<b>41.7%</b>	<b>1.3x</b>	<b>0.8x</b>	<b>4.4x</b>
<b>Diversified Chemicals</b>									
Eastman Chemical Company	EMN	0.0%	0.0%	16.5%	21.0%	25.5%	1.4x	1.5x	7.3x
The Chemours Company	CC	8.4%	83.3%	22.4%	19.1%	68.7%	1.8x	1.2x	6.1x
Huntsman Corporation	HUN	8.0%	31.9%	32.7%	14.8%	63.7%	1.2x	0.8x	5.4x
	<b>Mean</b>	<b>5.5%</b>	<b>38.4%</b>	<b>23.9%</b>	<b>18.3%</b>	<b>52.6%</b>	<b>1.5x</b>	<b>1.2x</b>	<b>6.3x</b>
	<b>Median</b>	<b>8.0%</b>	<b>31.9%</b>	<b>22.4%</b>	<b>19.1%</b>	<b>63.7%</b>	<b>1.4x</b>	<b>1.2x</b>	<b>6.1x</b>

Source: Capital IQ

## Valuation Metrics (cont.)

### Return Profile, Trading Metrics

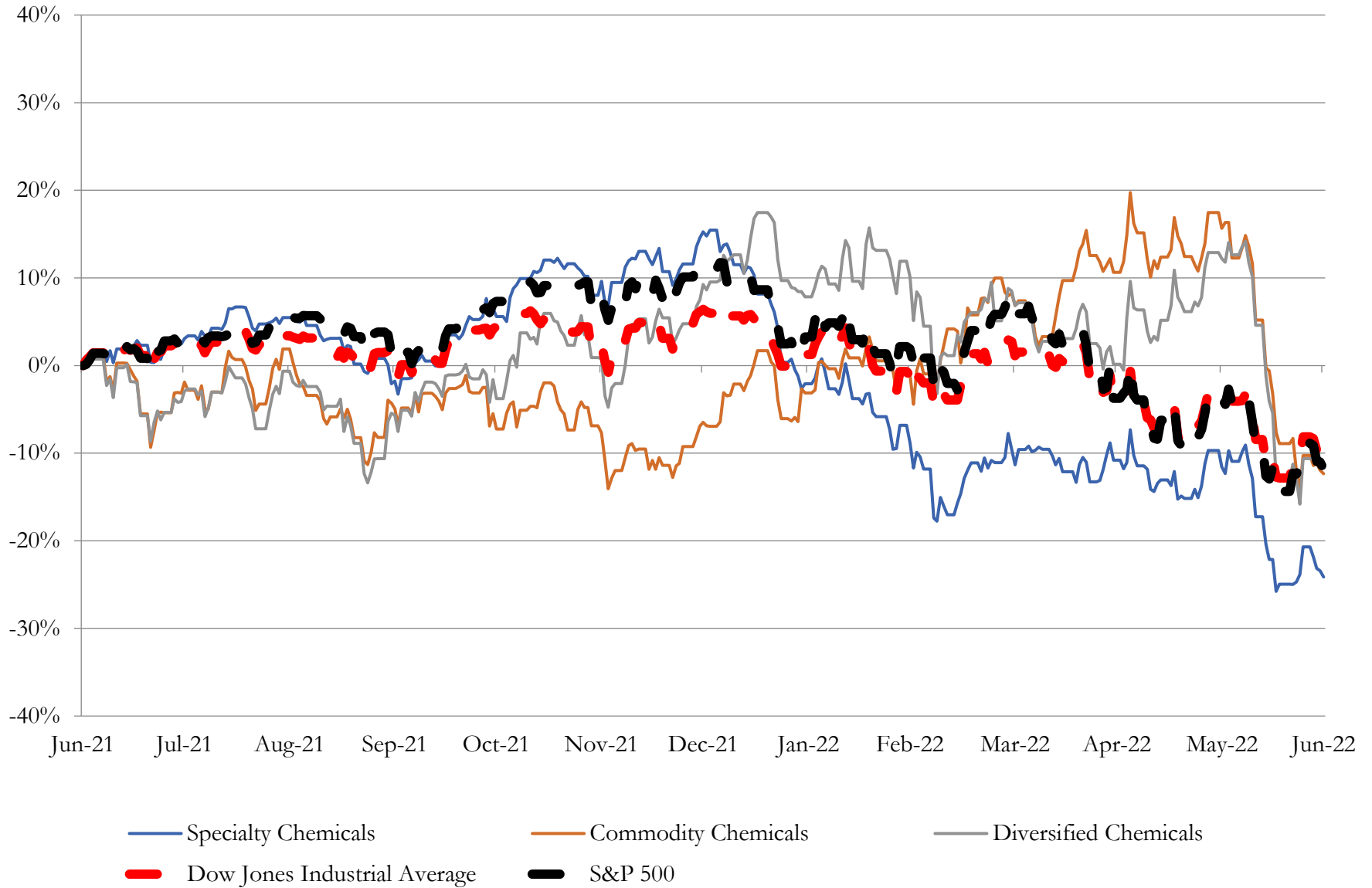
Company Name	Ticker	Return Profile					Trading Multiples		
		Return on Assets	Return on Equity	Revenue Growth	EBITDA Margin	EBITDA Growth	5-yr Beta	TEV / LTM Revenue	TEV / LTM EBITDA
<b>Industrial Gases</b>									
Linde plc	LIN	4.7%	8.3%	12.7%	32.3%	9.7%	0.9x	5.0x	15.5x
Air Products and Chemicals, Inc.	APD	5.5%	15.8%	22.9%	32.3%	5.3%	0.8x	5.2x	16.2x
	Mean	5.1%	12.0%	17.8%	32.3%	7.5%	0.8x	5.1x	15.8x
	Median	5.1%	12.0%	17.8%	32.3%	7.5%	0.8x	5.1x	15.8x
<b>Fertilizers &amp; Agricultural Chemicals</b>									
Nutrien Ltd.	NTR	8.1%	18.9%	45.6%	27.3%	135.4%	0.0x	2.0x	7.2x
Corteva, Inc.	CTVA	3.7%	7.0%	11.4%	23.4%	38.6%	0.7x	2.6x	11.0x
FMC Corporation	FMC	7.0%	27.4%	13.4%	26.4%	14.3%	0.8x	3.3x	12.6x
	Mean	6.3%	13.6%	24.6%	44.2%	57.2%	0.5x	2.6x	10.3x
	Median	7.0%	11.2%	24.9%	26.9%	55.2%	0.7x	2.6x	11.0x

Source: Capital IQ

# 3

## LTM Equity Performance

### Major Indexes



Source: Capital IQ

## 4

## Recent M&amp;A Activity

Last Twelve (12) Months as of June 30, 2022

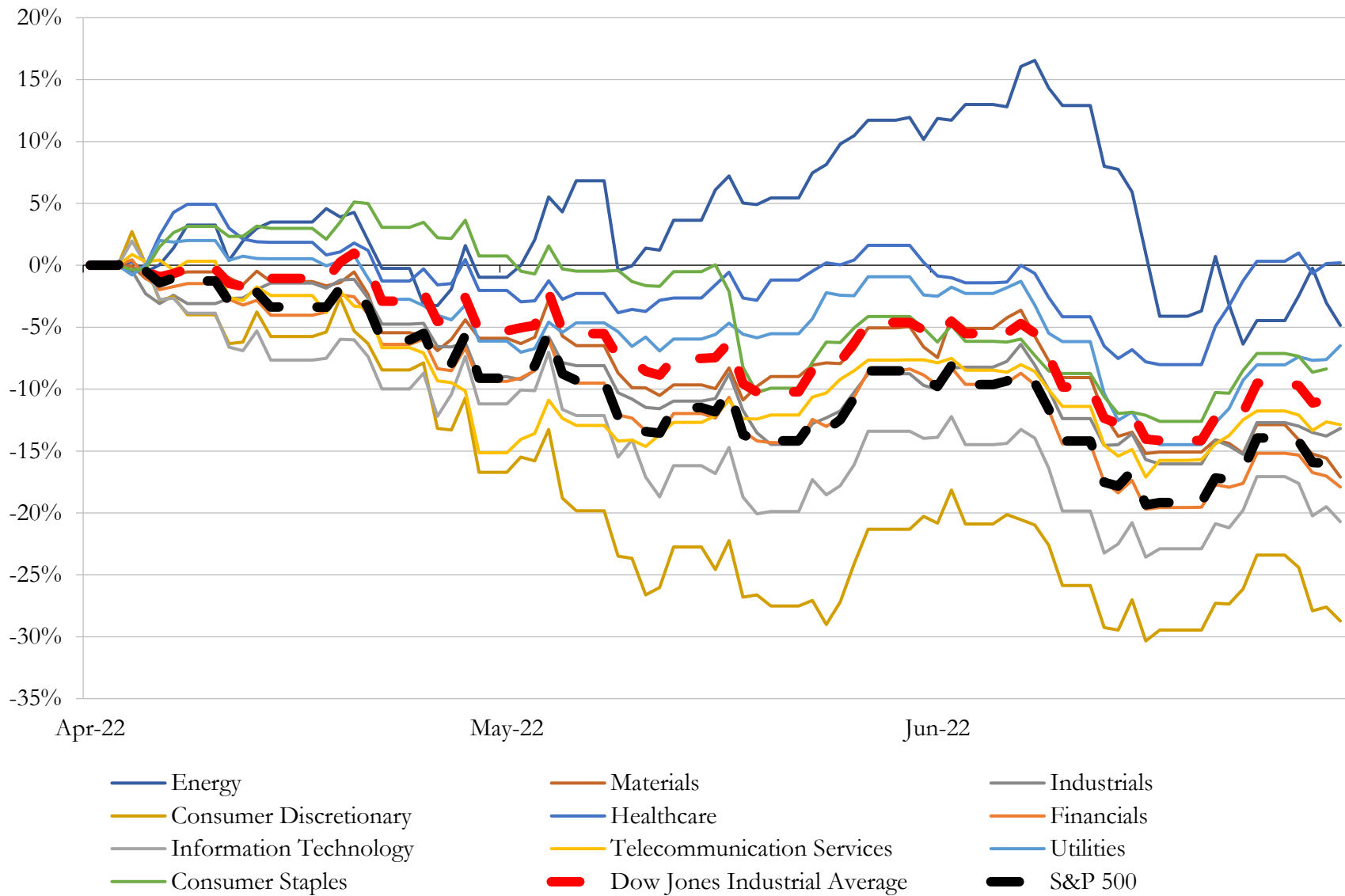
(USD in millions)

Close Date	Target	Acquirer	Implied TEV
Sep-21	W. R. Grace & Co.	Standard Industries Inc.	\$6,436
Nov-21	Solenis International LLC	Sigura Water	\$5,250
Mar-22	Hexion Holdings Corporation	American Securities LLC	\$3,333
Mar-22	Kraton Corporation	DL Chemical Co., Ltd.	\$2,568
Apr-22	Ferro Corporation	Prince International Corporation	\$2,161
Feb-22	Performance Adhesives Business of Ashland LLC	Arkema S.A.	\$1,650
Dec-21	Santoprene TPV Elastomers Business of ExxonMobil Chemical Company, Inc.	Celanese Corporation	\$1,150
Aug-21	Performance Chemicals Business of PQ Group Holdings Inc.	Cerberus Capital Management, L.P.; Koch Minerals & Trading, LLC	\$1,100
Aug-21	Emerald Kalama Chemical, LLC	LANXESS Aktiengesellschaft	\$1,075
Sep-21	Niacet Corporation	Kerry Group plc	\$1,015
Apr-22	Adhesive Resins business of Eastman Chemical Company	Synthomer plc	\$1,000
Nov-21	Tire Additives Business of Eastman Chemical	One Rock Capital Partners, LLC	\$800
Dec-21	Mining Solutions Business of The Chemours Company	Draslovka Holding A.S.	\$521
Dec-21	Clean Technologies Business Of Dupont De Nemours, Inc. (nka:Elessent Clean	U.S.-China Green Investment Management Ltd.; Dussur; BPGC Management	\$510
Apr-22	Raven Engineered Films, Inc.	Industrial Opportunity Partners, LLC; Industrial Opportunity Partners IV	\$350
Sep-21	Aristech Surfaces LLC	Trinseo S.A. (nka:Trinseo PLC)	\$273
Dec-21	Custom Essence Incorporated	Givaudan SA	\$268
Apr-22	Scientific Design Company, Inc.	Saudi Basic Industries Corporation	\$260
Mar-22	dlhBOWLES Inc.	ABC Technologies Holdings Inc.	\$255
Mar-22	dlhBOWLES Inc.	ABC Technologies Holdings Inc.	\$255
Jun-22	Trecora Resources	Balmoral Funds LLC	\$254
May-22	Biomaterials business of DuPont de Nemours, Inc.	Huafon Group Co., Ltd.	\$240
Jul-21	Aurora Innovations Inc./Aurora International, Inc./Gotham Properties LLC	Hydrofarm Holdings Group, Inc.	\$182
Aug-21	Novomer Inc.	Danimer Scientific, Inc.	\$154
Jul-21	Prevenio	John Bean Technologies Corporation	\$127
Oct-21	Fruit Preparation Business of International Flavors & Fragrances Inc.	Frulact S.A.	\$115
Mar-22	Purification Solutions Business of Cabot Corporation (NYSE : CBT)	OEP Capital Advisors, L.P.	\$111
Oct-21	Plymouth Foam Inc.	Foam Fabricators, Inc	\$56
Aug-21	Ace Elastomer Corporation	AirBoss of America Corp.	\$43
Aug-21	Substantially all the assets of Rhizoflora, Inc.	The Scotts Miracle-Gro Company	\$34

Source: Capital IQ

# 5 Change in Market Capitalization by Sector

Last Three (3) Months as of June 30, 2022



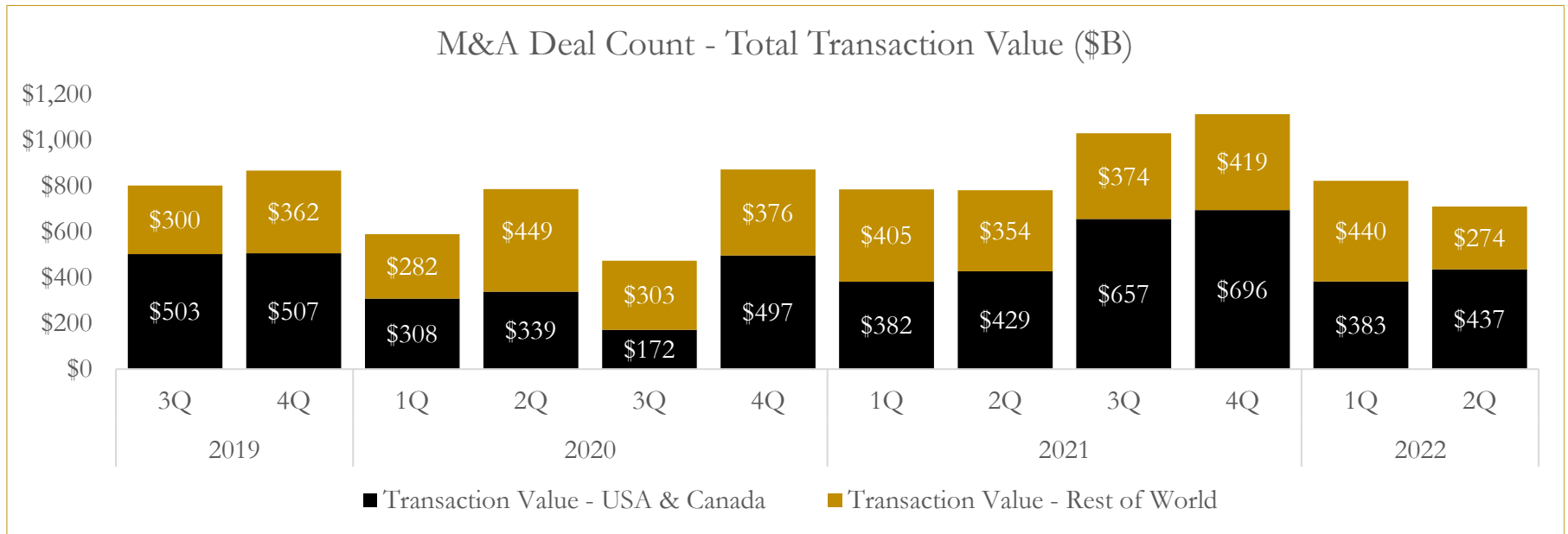
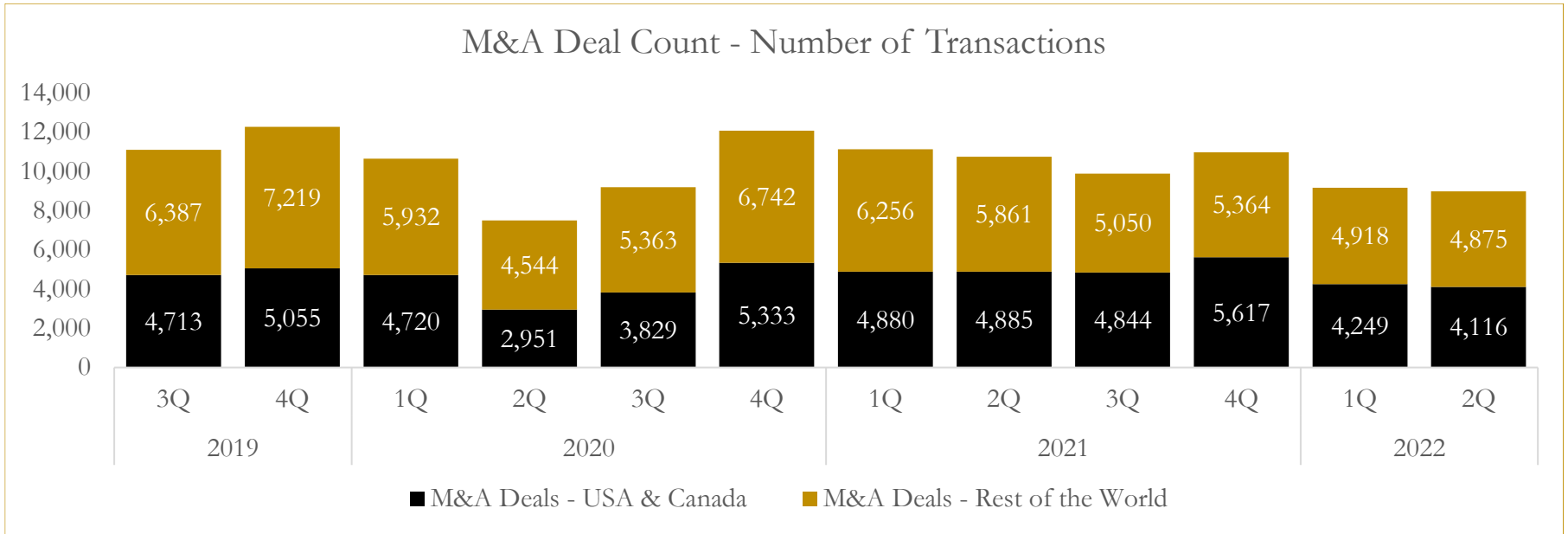
Source: Capital IQ



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## M&A Deal Flow Statistics

Last Three (3) Years as of June 30, 2022



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.

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