

October 21, 2022

Analysis of First Half 2022 Valuation Multiples for Specialty Chemical and Commodity Chemical Transactions

Enclosed is Scott-Macon's first half of 2022 update of valuation multiples for specialty chemical and commodity chemical transactions. As shown in the enclosed chart, the median multiple of transaction value ("TEV") to latest twelve months EBITDA ("EBITDA multiple") for specialty chemical transactions which closed in the first half of 2022 was 13.9x compared to 15.0x in the first half of 2021 and 14.4x and 14.3x for specialty chemical transactions which closed in all of 2021 and 2020, respectively, and compares to the median EBITDA multiple for all closed transactions in the ten year period 2012 – 2021 of 10.7x. The median multiple of TEV to latest twelve months sales ("sales multiple") for specialty chemical transactions which closed in the first half of 2022 was 1.9x compared to 2.5x in the first half of 2021, and 2.6x and 1.9x in all of 2021 and 2020, respectively, and the median multiple of all closed transactions of 1.8x for the past decade. The median EBITDA and sales multiples for commodity chemical transactions which closed in the first half of 2022 were 8.8x and 1.0x, respectively, compared to 9.0x and 1.0x, respectively, for commodity chemical transactions which closed in all of 2021.

The median EBITDA multiple in the first half of 2022 was 14.6x for specialty chemical transactions closed with TEV's above \$1 billion compared to 13.7x for transactions with TEV's below \$1 billion. The median sales multiple in the first half of 2022 was 2.2x for specialty chemical transactions closed with TEV's above \$1 billion compared to 1.8x for transactions with TEV's below \$1 billion.

The total TEV of all specialty chemical transactions which closed in the first half of 2022 for which information has been disclosed and for which at least one valuation multiple can be calculated was \$28.9 billion, representing 18 transactions. This compares with the total TEV of specialty chemical transactions of \$5.2 billion representing 8 transactions which closed in the first half of 2021 and the total TEV of specialty chemical transactions of \$22.9 billion representing 17 transactions and \$59.7 billion representing 32 transactions which closed in all of 2021 and 2020, respectively. The median annual TEV of specialty chemical transactions for which at least one valuation multiple can be calculated which closed in the ten-year period 2012 – 2021 was \$43.6 billion and the median annual number of transactions which closed in the same period was 41. The total TEV of all commodity chemical transactions which closed in the first half of 2022 for which information has been disclosed and for which at least one valuation multiple can be calculated was \$8.2 billion representing 5 transactions. Strategic buyers accounted for 83% of the number of specialty chemical transactions closed and for 80% of the number of commodity chemical transactions closed in the first half 2022.

COMPARISON OF MEDIAN CHEMICAL TRANSACTION MULTIPLES 2020–1H 2022

	Sales			EBITDA		
	2020	2021	1H2022	2020	2021	1H2022
Specialty Chemicals						
All Closed Transactions	1.9x	2.6x	1.9x	14.3x	14.4x	13.9x
Over \$1 Billion	2.0x	4.1x	2.2x	16.1x	15.3x	14.6x
Under \$1 Billion	1.7x	2.4x	1.8x	10.6x	14.2x	13.7x
Commodity Chemicals						
All Closed Transactions	1.0x	1.0x	1.0x	9.3x	9.0x	8.8x
Over \$1 Billion	1.4x	1.5x	3.6x	8.1x	9.8x	8.8x
Under \$1 Billion	0.8x	0.7x	0.9x	10.0x	8.8x	8.8x

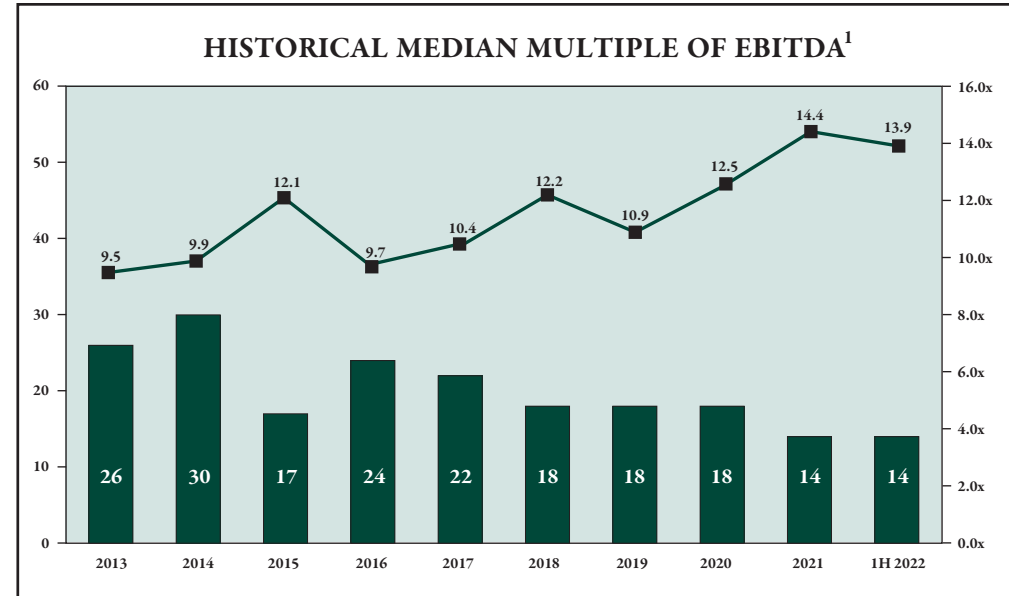
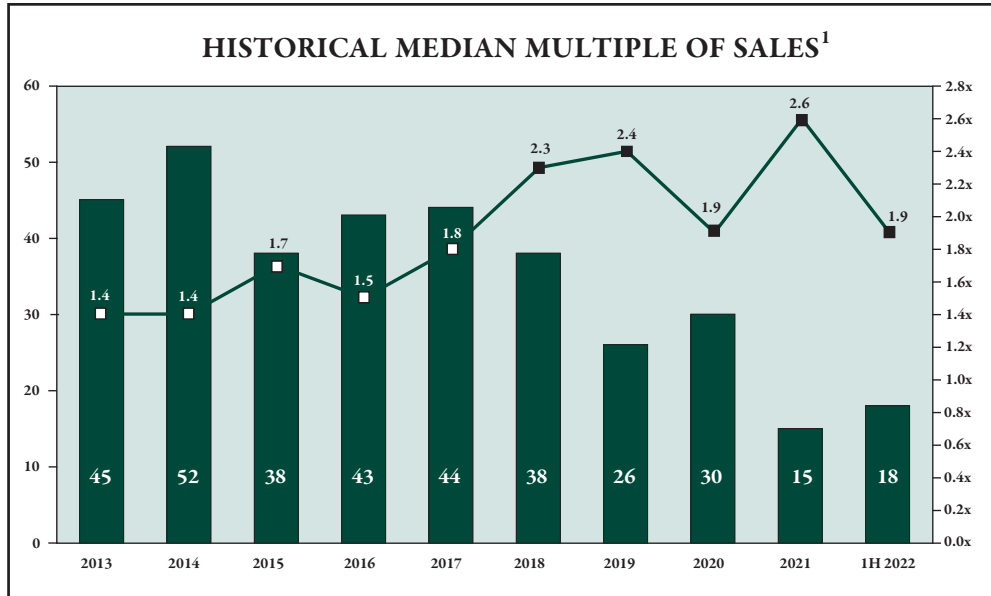
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SPECIALTY CHEMICAL TRANSACTION MULTIPLES 2013–1H 2022



■ Number of Transactions —■ Multiple

1) Transactions for the 1H 2022 and prior years include only those that were closed during the respective year. Whole numbers in the transaction bars refer to the number of data points used in the median calculation.

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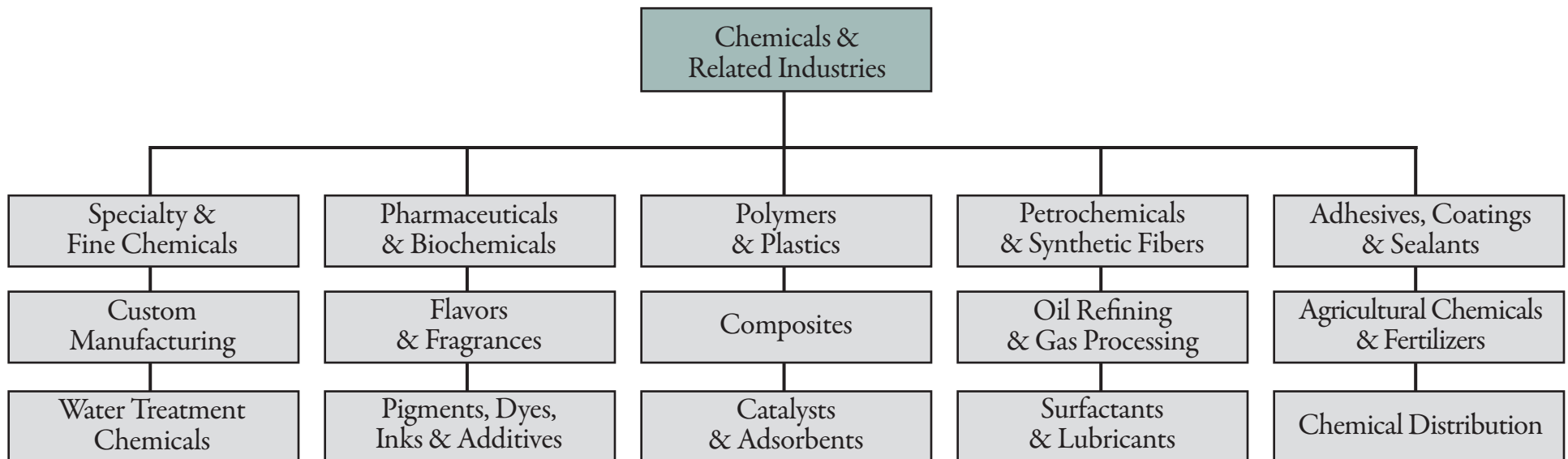
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- Transaction expertise includes:
 - Mergers and acquisitions
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