



Industry Multiples in Europe

Q3 2022

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Foreword



Michael Weaver

Managing Director and

EMEA Valuation Advisory
Services Leader

Dear Readers,

We are pleased to launch the fourth edition of our *Industry Multiples in Europe* quarterly report. This report provides valuable insights into trading multiples for various key industries in Europe as of September 30, 2022. Our analysis uses constituents of the STOXX® Europe Total Market Index (“STOXX® Europe TMI”), which covers about 95% of the free float in Europe, distributed among several industries and sectors, following the definitions by the Global Industry Classification Standard (GICS).

The global economy continues to face challenges. Economic, geopolitical and environmental changes impact global outlook. As noted by the Kroll Institute, “In the midst of a pandemic, a war in Europe and a climate transition that is not nearly as advanced as it needs to be, the nexus between geopolitics, economics and business seems to have tightened. The U.S. remains the largest power economically, militarily and diplomatically, but China is rising and may threaten each of these. All this is against a backdrop of poor global economic performance, with a recession looming in the U.S. and Europe and with China set to post its weakest growth in decades (barring 2020) this year.”¹

According to the International Monetary Fund (IMF) in its *World Economic Outlook* report released in October 2022, the outlook is still uncertain and critically shaped by monetary policies in response to high inflation, the impact of the Russia-Ukraine war, and the impact of pandemic-related lockdowns and disruptions in the global supply chain. The IMF expects that global growth will be 3.2% in 2022, in line with the IMF July’s report, and 2.7% in 2023, 0.2 percentage points lower than its July forecast. For the eurozone, growth is expected to be 3.1% in 2022, reflecting a stronger-than-expected second quarter in most eurozone economies, led by growth in tourism-dependent economies. However, the IMF forecasts growth in 2023 to slow to 0.5%, reflecting the spillover effects from the Russia-Ukraine war and tighter financial conditions. For the United Kingdom, growth is expected to be 3.6% in 2022 and 0.3% in 2023, reflecting reduced purchasing power due to high inflation and the impact of tighter monetary policy on consumer spending and business confidence.

According to the European Central Bank (ECB) in a press release published in October 2022, inflation remains high and will stay above the bank’s inflation target for an extended period.² As mentioned by the ECB, “Soaring energy and food prices, supply bottlenecks and the post-pandemic recovery in demand have led to a broadening of price pressures and an increase in inflation.” The ECB decided in September 2022 to raise interest rates by 75 basis points, and again in October 2022 by the same amount, in order to reduce demand and bring down inflation. Likewise, the Bank of England (BOE) raised its target interest rate by another 50 basis points in September 2022, following the 50 basis points rise in August. The IMF forecasts an average annual inflation of 8.3% in 2022 and 5.7% in 2023 in the eurozone. In the United Kingdom, the expectation is of 9.1% in 2022 and 9.0% in 2023.

With the current uncertainty, equity markets remain volatile. The volatility index on the EURO STOXX 50® index known as the VSTOXX® remains higher than the level observed back in the end of 2021, by approximately 60% at the end of September 2022. The STOXX® Europe TMI decreased by 5% since the end of Q2 2022 and 21% since the beginning of 2022.

In terms of EV/EBITDA multiples, multiples have generally decreased over the third quarter of 2022. In general, almost all sectors/industry groups presented in this report observed a decrease in their multiples during the third quarter of 2022. The sector with the largest decrease in Q3 2022 was information technology (2.5x decrease), heavily impacted by software companies. Given current uncertainties, investors are taking less risk on technology companies, which typically perform worse when interest rates are higher, and borrowing is more expensive.

Our report provides a detailed overview of the EV/revenues, EV/EBITDA, P/E and P/B multiples of companies in the STOXX® Europe TMI covering non-financial industries and market capitalization/revenues, P/TBV, P/E and P/B multiples covering financial industries for which such data is available. We also provide an eight-quarter lookback at the trends of these multiples for the industries covered.

We hope you find this report helpful in understanding the range of trading multiples for major industries in Europe. If you would like to receive further information or discuss any of the findings, please contact us.

¹ <https://www.kroll.com/en/insights/publications/10-biggest-geopolitical-risks-by-likelihood-and-impact>

² <https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.mp221027-df1d778b84.en.html>

Sources: International Monetary Fund – *World Economic Outlook Update* – “Countering the Cost-of-Living Crisis”, October 2022; European Central Bank; Bank of England; Capital IQ; Kroll analysis

Summary: Median Multiples by Sector/Industry Groups

As of September 30, 2022

Sector/Industry Group	EV/Revenues	EV/EBITDA	P/E	P/B
Communication Services	2.0x	7.2x	15.9x	1.7x
Media and Entertainment	2.0x	8.0x	18.6x	1.9x
Telecommunication Services	2.1x	6.1x	12.4x	1.6x
Consumer Discretionary	1.0x	7.2x	10.5x	1.4x
Automobiles & Components	0.6x	5.9x	8.9x	0.7x
Consumer Durables & Apparel	1.2x	7.6x	11.4x	1.7x
Consumer Services	2.0x	11.2x	15.3x	1.7x
Retailing	0.7x	7.8x	10.5x	2.0x
Consumer Staples	1.2x	8.4x	15.1x	1.8x
Food and Staples Retailing	0.5x	6.0x	11.2x	1.5x
Food, Beverage and Tobacco	1.3x	8.0x	14.8x	1.7x
Household and Personal Products	1.9x	12.0x	19.7x	2.1x
Energy	1.4x	3.5x	6.2x	1.1x
Health Care	3.2x	13.2x	25.1x	3.0x
Health Care Equipment and Services	1.9x	12.6x	24.8x	2.4x
Pharmaceuticals, Biotechnology and Life Sciences	4.4x	14.5x	25.1x	3.8x
Industrials	1.0x	8.3x	14.3x	2.0x
Capital Goods	1.1x	8.6x	14.8x	2.0x
Commercial & Professional Services	1.2x	8.6x	15.1x	2.4x
Transportation	1.0x	5.3x	8.6x	1.4x
Information Technology	2.1x	12.4x	21.9x	3.1x
Semiconductors & Semiconductor Equipment	3.4x	9.8x	17.1x	3.3x
Software & Services	2.2x	13.9x	23.9x	3.2x
Technology Hardware & Equipment	1.8x	12.4x	19.7x	2.7x
Materials	0.9x	4.9x	7.7x	1.1x
Real Estate	13.3x	23.1x	13.2x	0.6x
Utilities	2.4x	9.1x	13.0x	1.8x
Electric, Gas and Water Utilities ¹	1.4x	8.7x	10.4x	1.5x
Independent Power & Renewable Electricity Producers ¹	6.8x	14.6x	42.0x	2.3x
Financials Sector/Industry Group	Market Cap/Revenues	P/TBV	P/E	P/B
Financials	1.8x	1.1x	8.5x	0.9x
Banks	1.9x	0.7x	7.4x	0.6x
Capital Markets ¹	2.8x	2.1x	10.6x	1.5x
Diversified Financial Services ¹	1.3x	1.0x	6.9x	0.9x
Insurance	0.8x	2.5x	10.9x	1.1x

¹ According to GICS nomenclature, these are classified as "Industry," which is one level below "Industry Group."

Country Snapshot: France

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The CAC 40 index reflects the performance of the 40 largest and most actively traded shares listed on the Euronext Paris and is the most widely used indicator of the Paris stock market. It is typically used as the benchmark stock market index in France. The percentage of French companies in the STOXX® Europe TMI is 8%, with all of the constituents of the CAC 40 being comprised within the European index.






In the first three quarters of 2022, the CAC 40 decreased by 19.4% (in price terms), compared to the 21.2% decrease in the STOXX® Europe TMI. France's real GDP is expected to grow by 2.5% in 2022 and 0.7% in 2023, according to the IMF's latest *World Economic Outlook* (October 2022).

CAC 40 Spotlight

5Y Evolution: CAC 40 and STOXX® Europe TMI



Top Five Industries

Industry	Market Cap (€ bn) ¹	% of CAC 40	Number of Companies
 Consumer Durables and Apparel	490	26%	3
 Capital Goods	299	16%	9
 Household and Personal Products	177	10%	1
 Energy	122	7%	1
 Pharmaceuticals, Biotechnology and Life Sciences	110	6%	2

CAC 40
Market Cap¹

€1,865
billion
(bn)

¹As of the report reference date.

Sources: Capital IQ; International Monetary Fund – “World Economic Outlook,” October 2022; Kroll analysis

Country Snapshot: Germany

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The DAX is a total return index of 40 selected German blue-chip stocks traded on the Frankfurt Stock Exchange and is typically used as the benchmark stock market index in Germany. The percentage of German companies in the STOXX® Europe TMI is 10%, with 95% of the constituents of the DAX being comprised within the European index. In September 2021, the number of constituents in the DAX index increased from 30 to 40 companies.






In the first three quarters of 2022, the DAXK (DAX in price terms) decreased by 26.2%, compared to the 21.2% decrease in the STOXX® Europe TMI. Germany's real GDP is expected to grow by 1.5% in 2022 and decrease by 0.3% in 2023, according to the IMF's latest World Economic Outlook (October 2022).

DAX Spotlight

5Y Evolution: DAXK and STOXX® Europe TMI¹



Top Five Industries

Industry	Market Cap (€ bn) ²	% of DAX	Number of Companies
 Automobiles and Components	204	15%	5
 Materials	200	14%	5
 Capital Goods	195	14%	6
 Pharmaceuticals, Biotechnology and Life Sciences	151	11%	4
 Insurance	118	9%	3

DAX
Market Cap²

€1,380
bn

¹Although the DAX (total return index) is more widely recognized, for consistency purposes we refer to the DAXK (price index).

²As of the report reference date.

Sources: Capital IQ; International Monetary Fund – "World Economic Outlook," October 2022; Kroll analysis

Country Snapshot: Italy

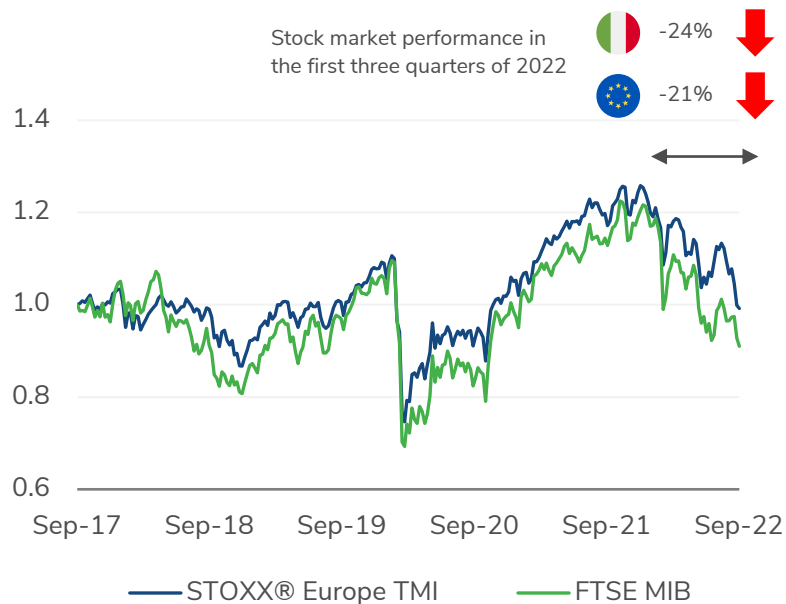
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The FTSE MIB index consists of the 40 most liquid and capitalized stocks listed on the Borsa Italiana. It is typically used as the benchmark stock market index in Italy. The percentage of Italian companies in the STOXX® Europe TMI is 6%, with 98% of the constituents of the FTSE MIB being comprised within the European index.






In the first three quarters of 2022, the FTSE MIB decreased (in price terms) by 24.5%, compared to the 21.2% decrease in the STOXX® Europe TMI. Italy's real GDP is expected to grow by 3.2% in 2022 and decrease by 0.2% in 2023, according to the IMF's latest *World Economic Outlook* (October 2022).

FTSE MIB Spotlight

5Y Evolution: FTSE MIB and STOXX® Europe TMI



Top Five Industries

Industry	Market Cap (€ bn) ¹	% of FTSE MIB	Number of Companies
 Utilities	80	16%	6
 Automobile and components	77	16%	3
 Banks	74	15%	6
 Energy	55	11%	3
 Insurance	35	7%	3

FTSE MIB
Market Cap¹

€491 bn

¹As of the report reference date.

Sources: Capital IQ; International Monetary Fund – “World Economic Outlook,” October 2022; Kroll analysis

Country Snapshot: Spain

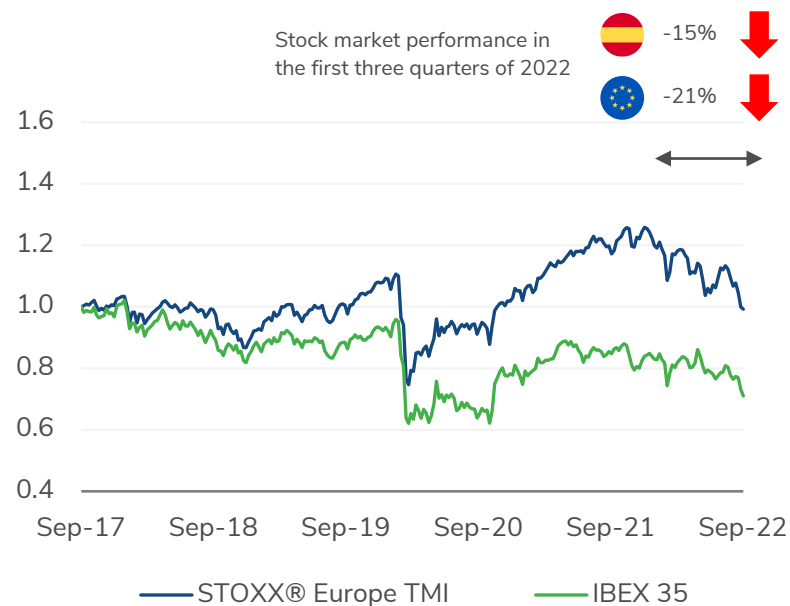
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The IBEX 35 is the official index of the Spanish Continuous Exchange. The index is comprised of the 35 most liquid stocks traded on the continuous market. It is typically used as the benchmark stock market index in Spain. The percentage of Spanish companies in the STOXX® Europe TMI is 4%, with 100% of the constituents of the IBEX 35 being comprised within the European index.






In the first three quarters of 2022, the IBEX 35 decreased (in price terms) by 15.5%, compared to the 21.2% decrease in the STOXX® Europe TMI. Spain's real GDP is expected to grow by 4.3% in 2022 and 1.2% in 2023, according to the IMF's latest *World Economic Outlook* (October 2022).

IBEX 35 Spotlight

5Y Evolution: IBEX 35 and STOXX® Europe TMI



Top Five Industries

Industry	Market Cap (€ bn) ¹	% of IBEX 35	Number of Companies
 Utilities	28%	136	8
 Banks	21%	103	5
 Retailing	14%	66	1
 Telecommunication Services	8%	40	2
 Capital Goods	8%	40	5

IBEX 35
 Market Cap¹

€487 bn

¹As of the report reference date.

Sources: Capital IQ; International Monetary Fund – “World Economic Outlook,” October 2022; Kroll analysis

Country Snapshot: United Kingdom

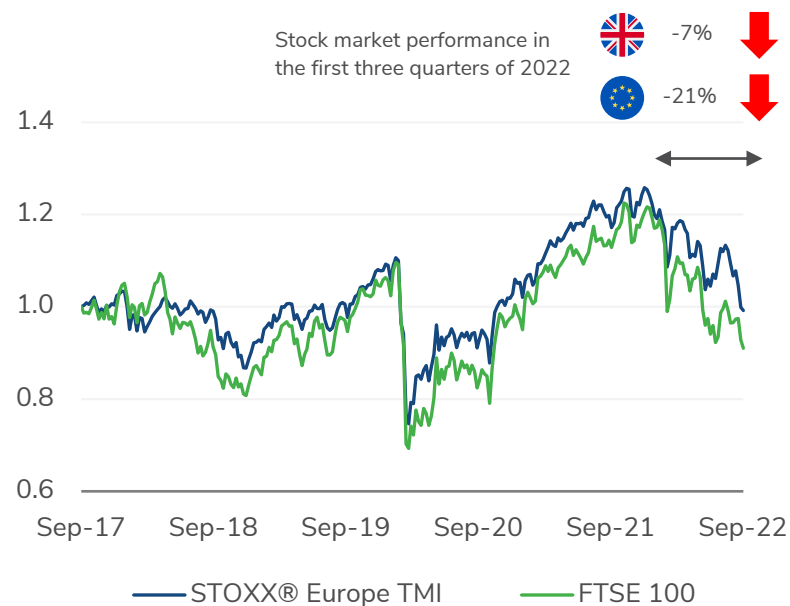
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The FTSE 100 index is a capitalization-weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange. It is typically used as the benchmark stock market index in the UK. The percentage of UK companies in the STOXX® Europe TMI is 15%, with 94% of the constituents of the FTSE 100 being comprised within the European index.






In the first three quarters of 2022, the FTSE 100 decreased (in price terms) by 6.6%, compared to the 21.2% decrease in the STOXX® Europe TMI. The UK's real GDP is expected to grow by 3.6% in 2022 and 0.3% in 2023, according to the IMF's latest *World Economic Outlook* (October 2022).

FTSE 100 Spotlight

5Y Evolution: FTSE 100 and STOXX® Europe TMI



Top Five Industries

Industry	Market Cap (€ bn) ¹	% of FTSE 100	Number of Companies
 Energy	278	13%	3
 Materials	278	13%	11
 Pharmaceuticals, Biotechnology and Life Sciences	239	11%	3
 Food, Beverage and Tobacco	219	10%	5
 Banks	206	10%	5

FTSE 100
Market Cap¹

€2,166
bn

¹As of the report reference date. Exchange rate as of September 30, 2022, provided by Capital IQ.
 Sources: Capital IQ; International Monetary Fund – “World Economic Outlook,” October 2022; Kroll analysis

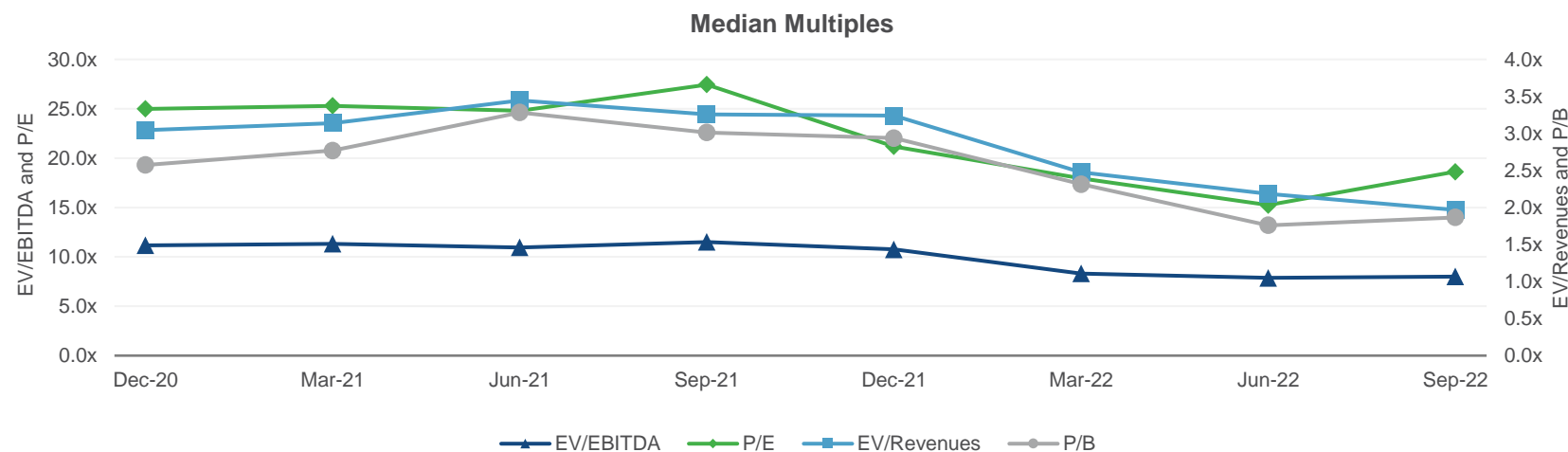
Media and Entertainment

Q3 2022

Media and Entertainment

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	54	54	54	54
Number of Outliers ²	7	8	18	10
High	12.5x	29.5x	87.0x	9.8x
Third Quartile	3.5x	15.3x	43.3x	3.1x
Mean	2.9x	10.7x	25.4x	2.7x
Median	2.0x	8.0x	18.6x	1.9x
First Quartile	1.0x	5.1x	11.5x	1.2x
Low	0.4x	2.0x	4.1x	0.6x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

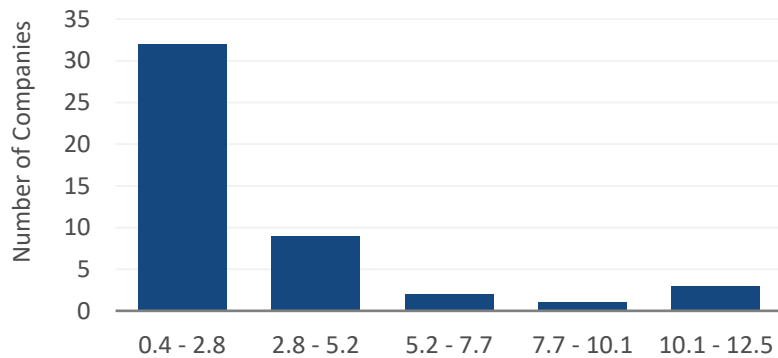
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

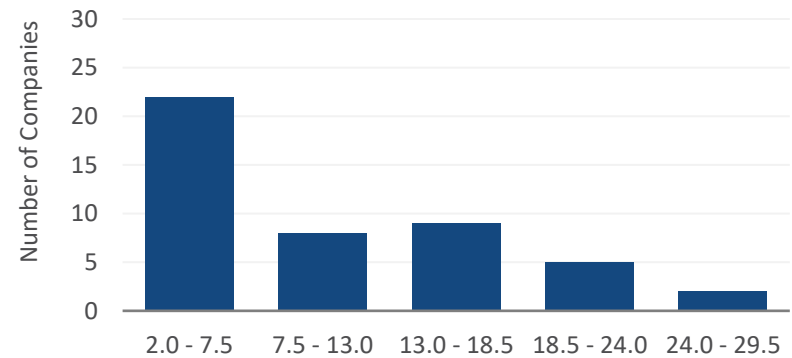
Media and Entertainment

As of September 30, 2022

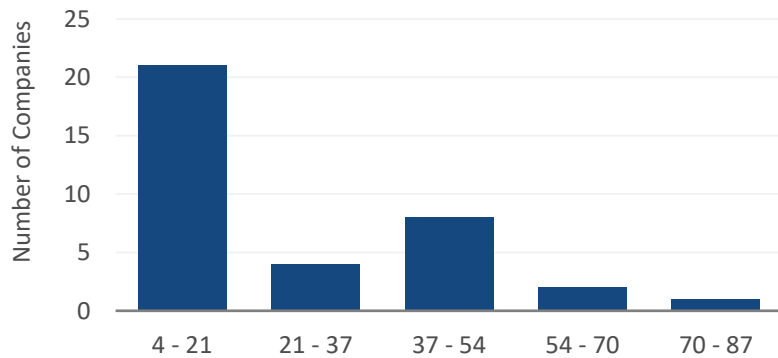
EV/Revenues



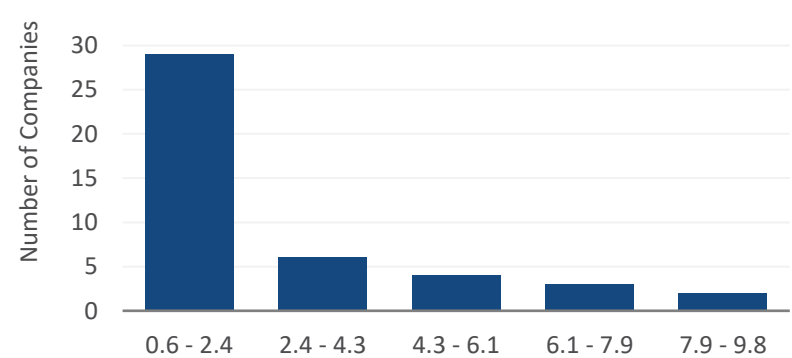
EV/EBITDA



P/E



P/B



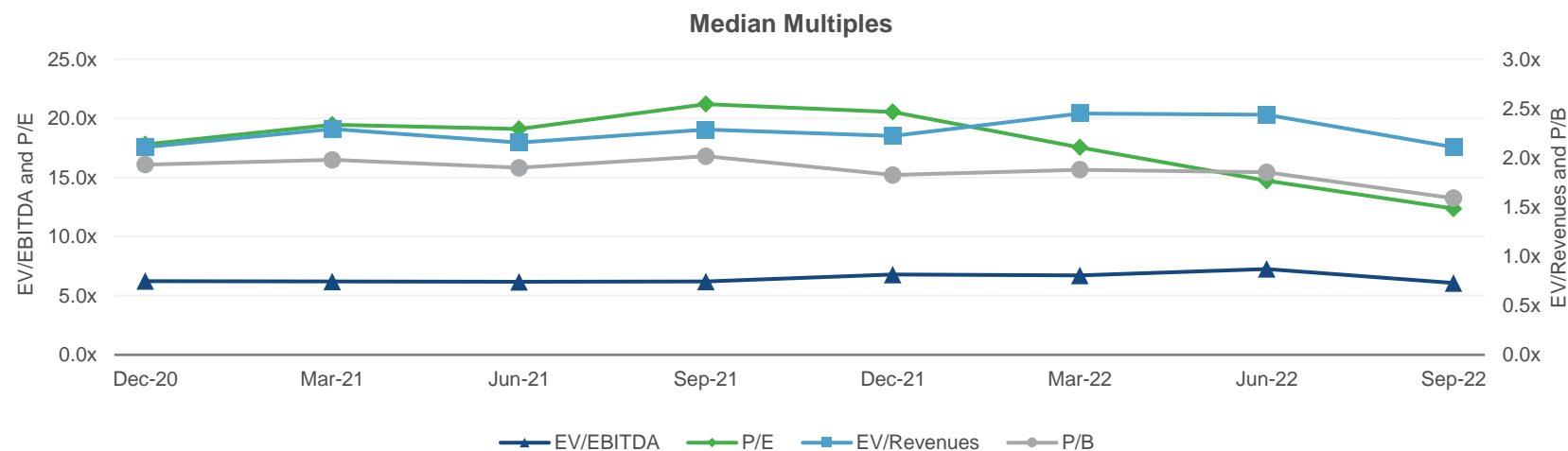
Telecommunication Services

Q3 2022

Telecommunication Services

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	24	24	24	24
Number of Outliers ²	4	4	6	5
High	5.8x	12.1x	38.2x	6.4x
Third Quartile	2.9x	7.5x	16.0x	2.2x
Mean	2.4x	6.4x	15.4x	2.0x
Median	2.1x	6.1x	12.4x	1.6x
First Quartile	1.5x	4.4x	11.4x	1.0x
Low	1.1x	3.6x	5.5x	0.7x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

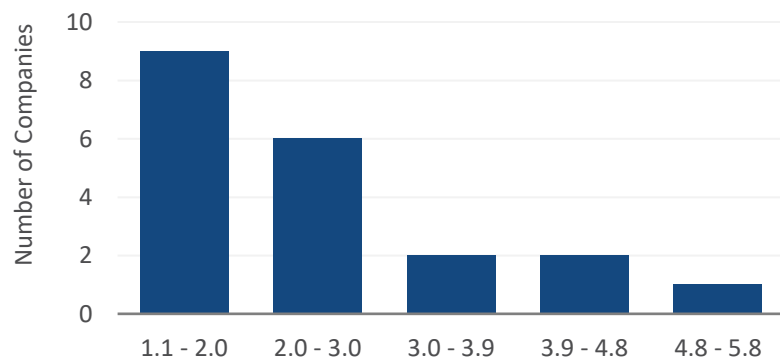
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Sources: Capital IQ; Bloomberg; Kroll analysis

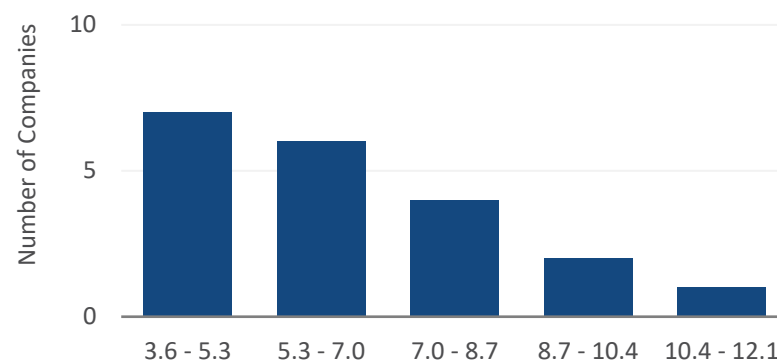
Telecommunication Services

As of September 30, 2022

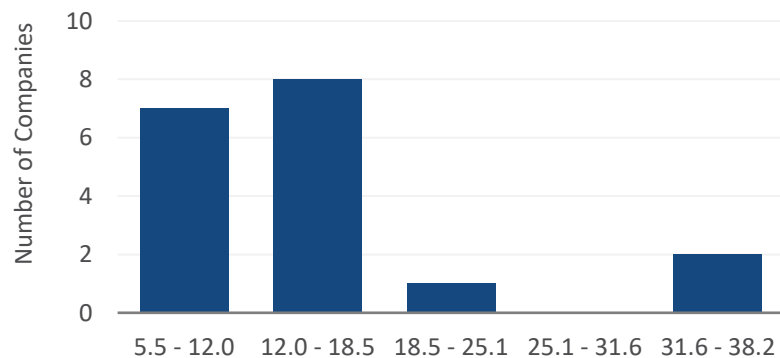
EV/Revenues



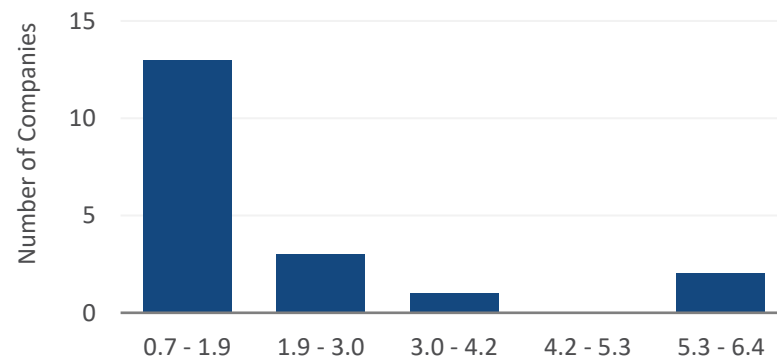
EV/EBITDA



P/E



P/B



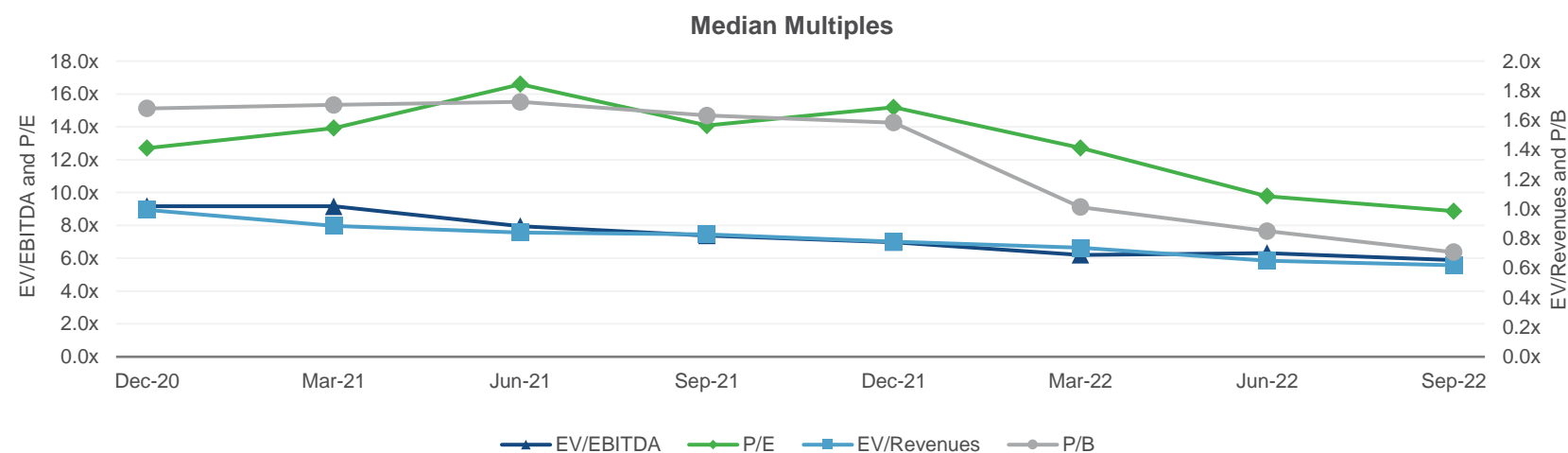
Automobiles and Components

Q3 2022

Automobiles and Components

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	28	28	28	28
Number of Outliers ²	4	4	9	4
High	1.2x	17.9x	109.7x	1.8x
Third Quartile	0.9x	6.8x	10.8x	1.0x
Mean	0.7x	6.3x	16.4x	0.8x
Median	0.6x	5.9x	8.9x	0.7x
First Quartile	0.5x	4.7x	7.4x	0.6x
Low	0.3x	3.5x	3.9x	0.4x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

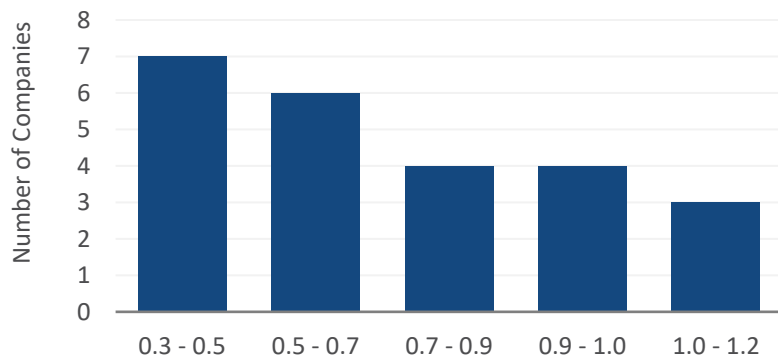
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Sources: Capital IQ; Bloomberg; Kroll analysis

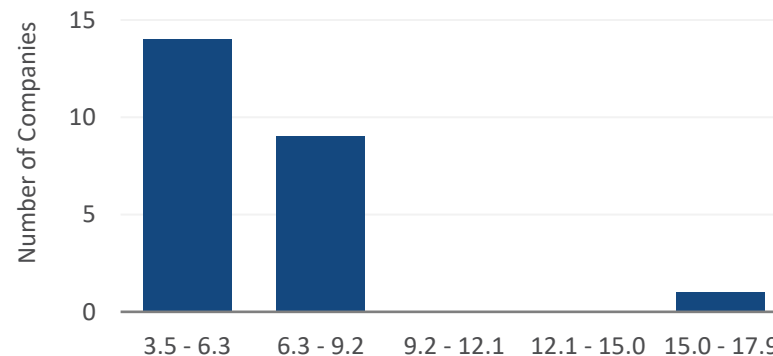
Automobiles and Components

As of September 30, 2022

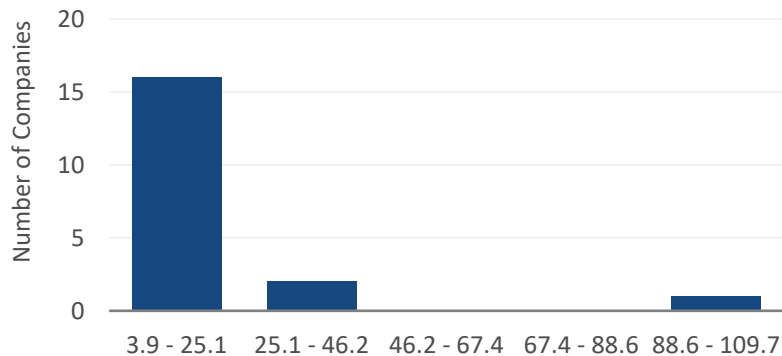
EV/Revenues



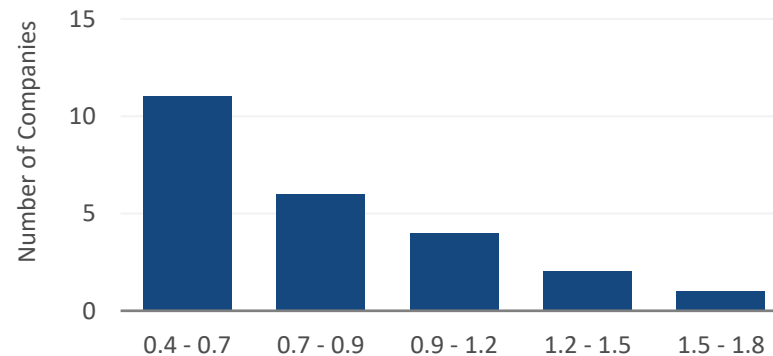
EV/EBITDA



P/E



P/B



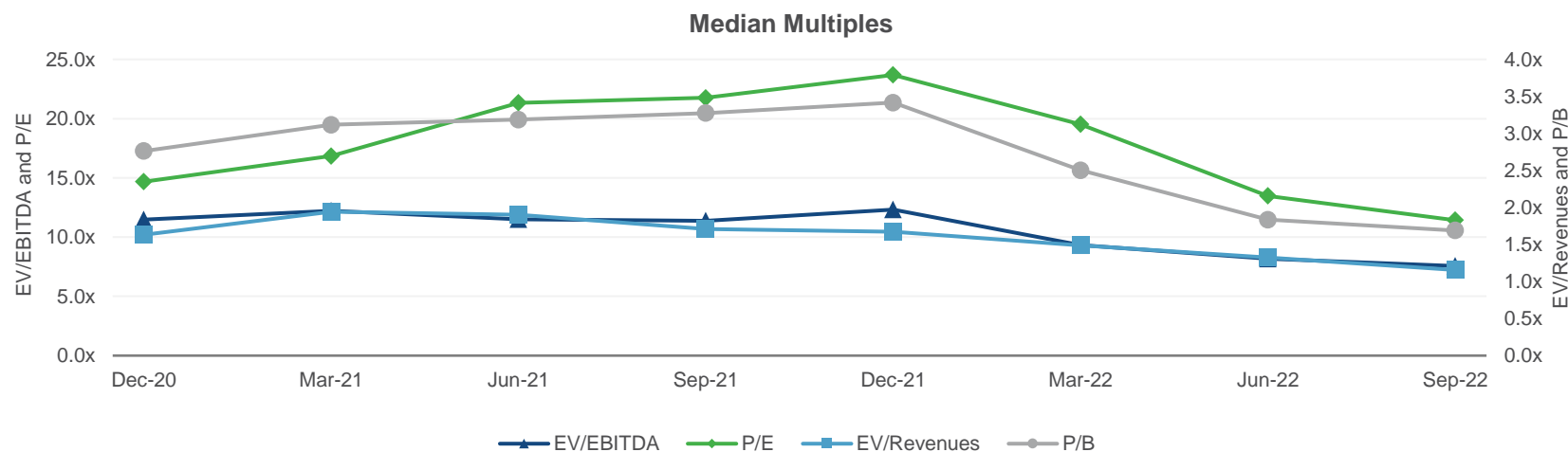
Consumer Durables and Apparel

Q3 2022

Consumer Durables and Apparel

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	57	57	57	57
Number of Outliers ²	6	7	12	9
High	5.0x	13.5x	24.2x	9.8x
Third Quartile	1.7x	9.6x	17.1x	3.9x
Mean	1.4x	7.9x	12.8x	2.7x
Median	1.2x	7.6x	11.4x	1.7x
First Quartile	0.7x	5.9x	8.0x	1.0x
Low	0.4x	2.8x	4.2x	0.6x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

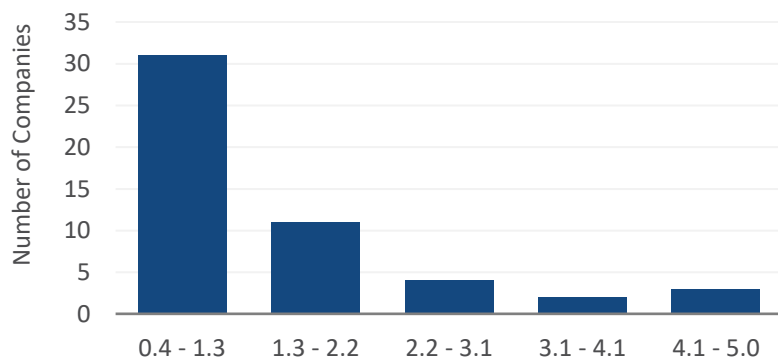
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Sources: Capital IQ; Bloomberg; Kroll analysis

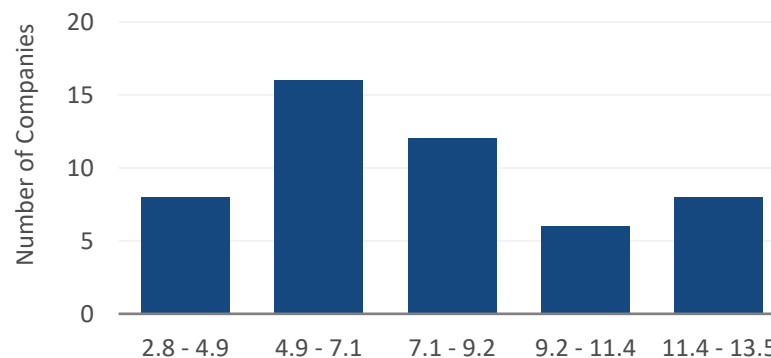
Consumer Durables and Apparel

As of September 30, 2022

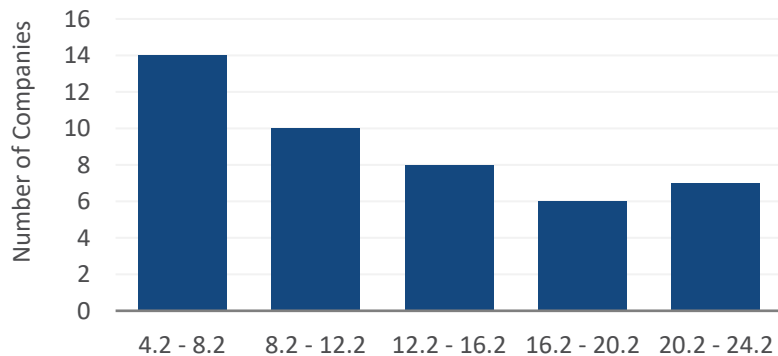
EV/Revenues



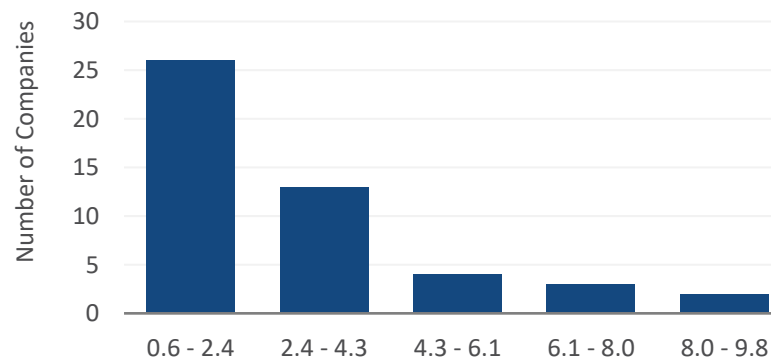
EV/EBITDA



P/E



P/B



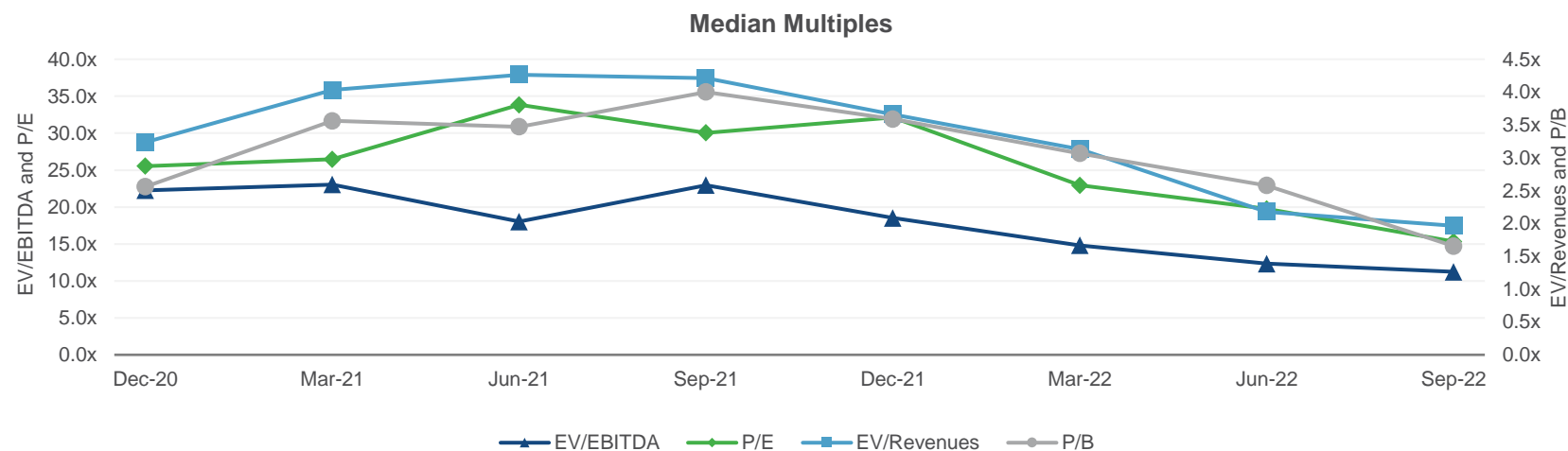
Consumer Services

Q3 2022

Consumer Services

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	37	37	37	37
Number of Outliers ²	4	6	19	7
High	5.7x	26.6x	38.9x	7.4x
Third Quartile	2.7x	14.7x	20.7x	2.9x
Mean	2.1x	12.0x	16.7x	2.4x
Median	2.0x	11.2x	15.3x	1.7x
First Quartile	1.2x	7.1x	9.8x	1.1x
Low	0.5x	4.8x	5.8x	0.5x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

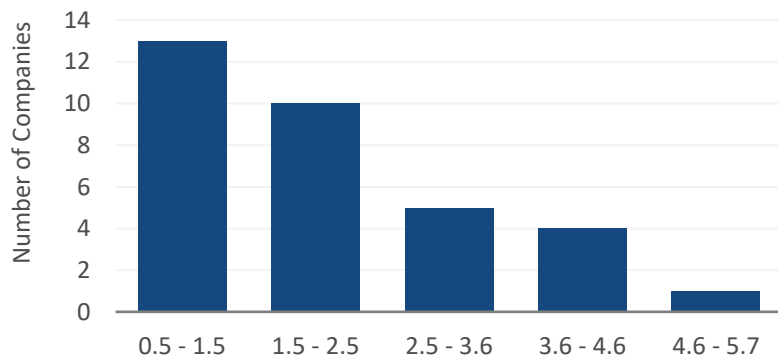
² Outliers have been excluded from the included multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

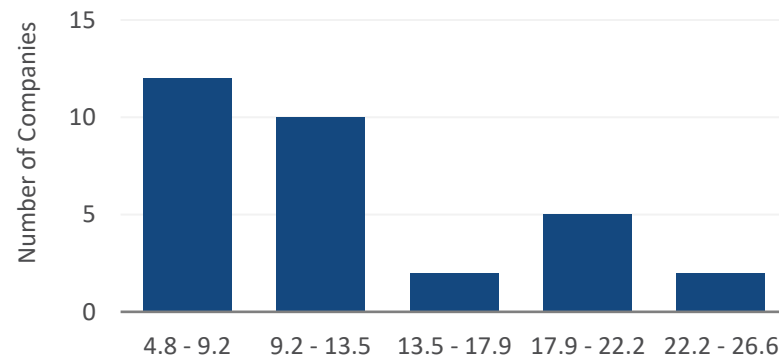
Consumer Services

As of September 30, 2022

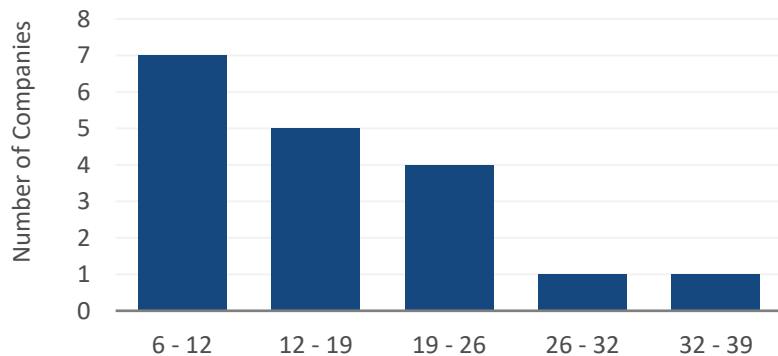
EV/Revenues



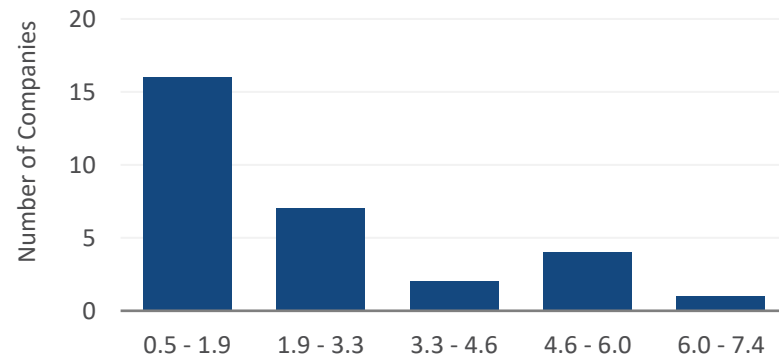
EV/EBITDA



P/E



P/B



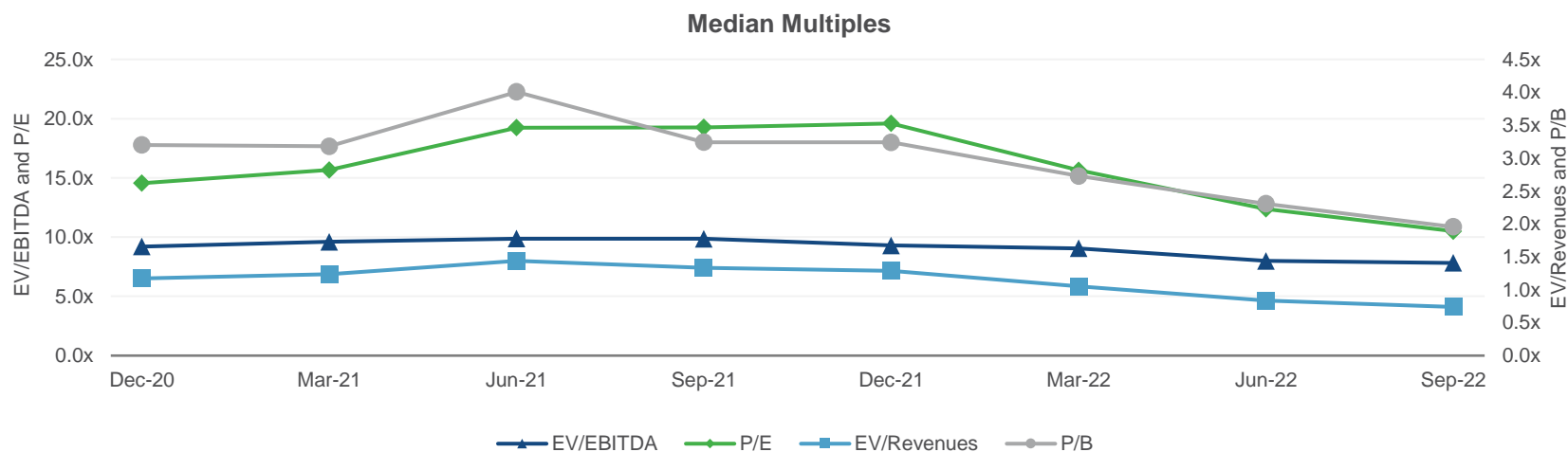
Retailing

Q3 2022

Retailing

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	58	58	58	58
Number of Outliers ²	6	10	18	9
High	2.1x	33.5x	36.5x	7.2x
Third Quartile	1.5x	9.2x	17.8x	2.9x
Mean	0.9x	8.3x	13.9x	2.2x
Median	0.7x	7.8x	10.5x	2.0x
First Quartile	0.5x	5.1x	8.6x	0.9x
Low	0.2x	3.4x	5.2x	0.3x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

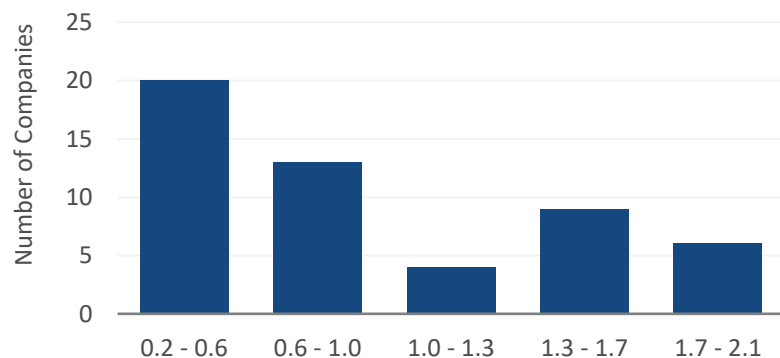
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

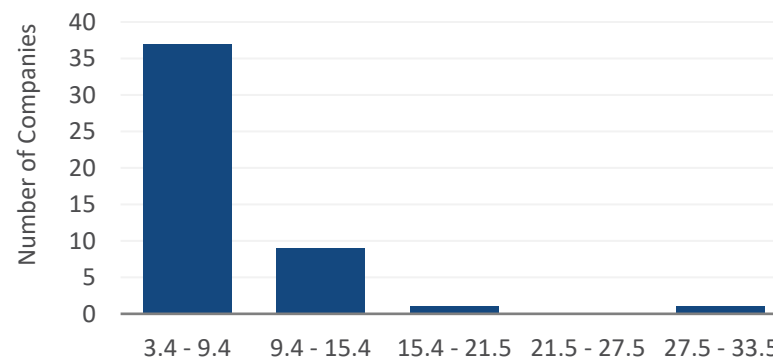
Retailing

As of September 30, 2022

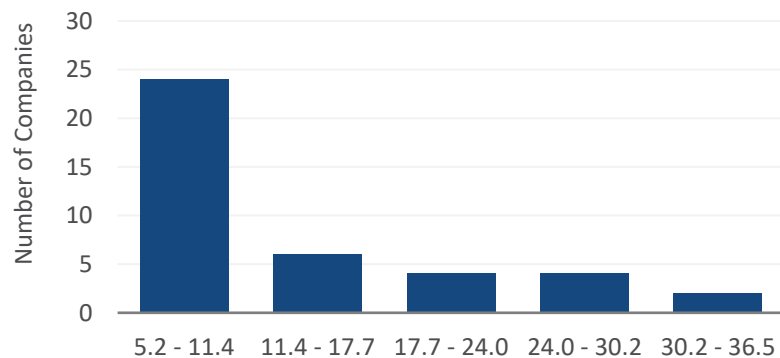
EV/Revenues



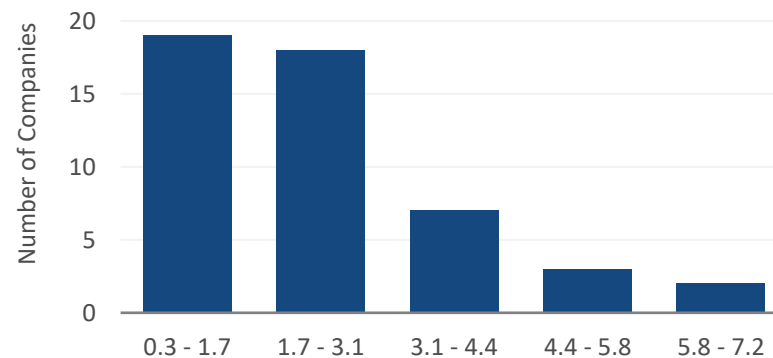
EV/EBITDA



P/E



P/B



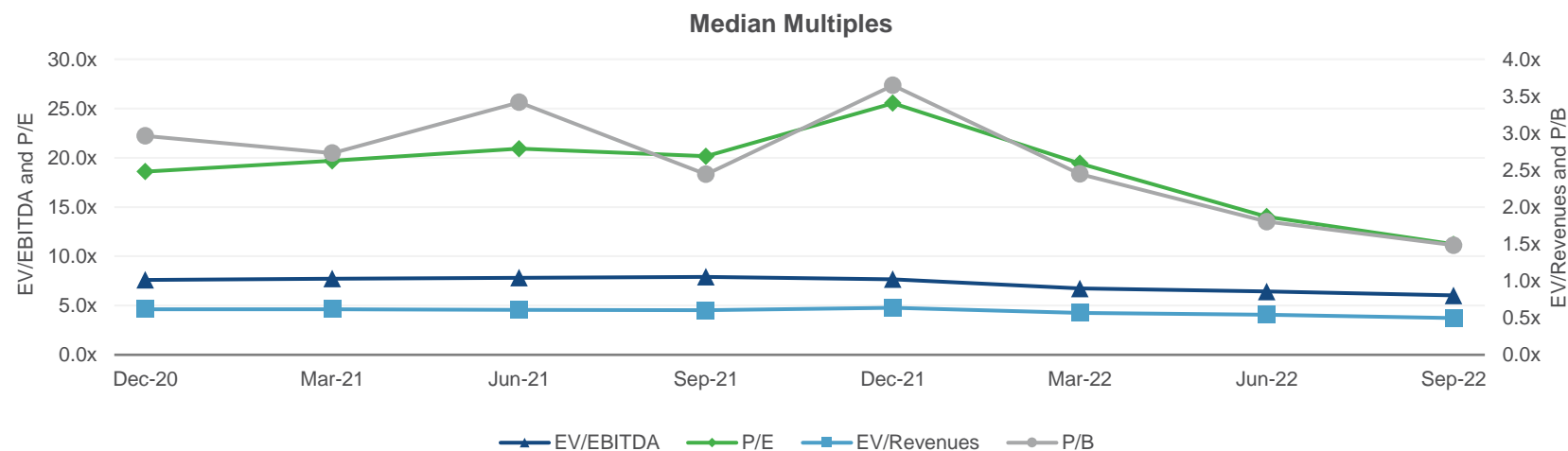
Food and Staples Retailing

Q3 2022

Food and Staples Retailing

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	19	19	19	19
Number of Outliers ²	2	5	6	3
High	1.7x	10.7x	28.3x	7.6x
Third Quartile	0.6x	7.9x	20.7x	2.5x
Mean	0.6x	6.5x	13.8x	2.3x
Median	0.5x	6.0x	11.2x	1.5x
First Quartile	0.3x	4.7x	8.5x	1.0x
Low	0.2x	3.9x	5.2x	0.5x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

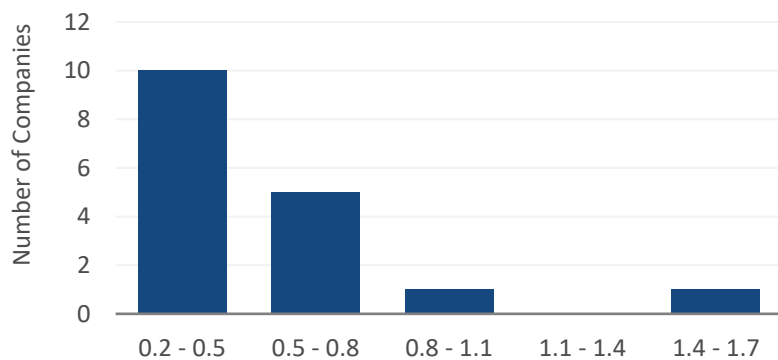
² Outliers have been excluded from the included multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

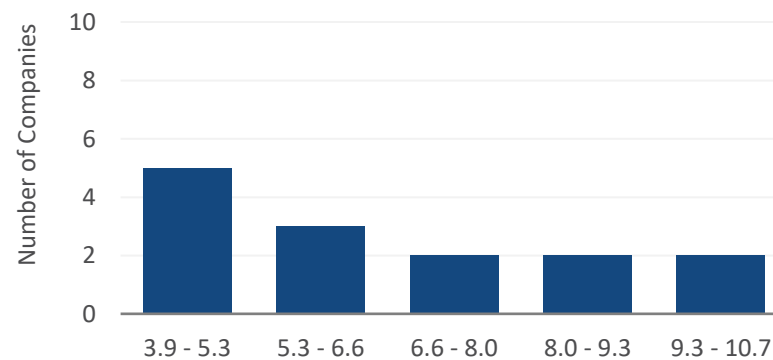
Food and Staples Retailing

As of September 30, 2022

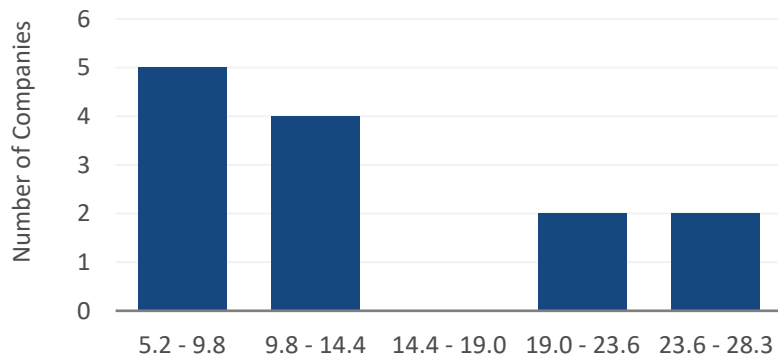
EV/Revenues



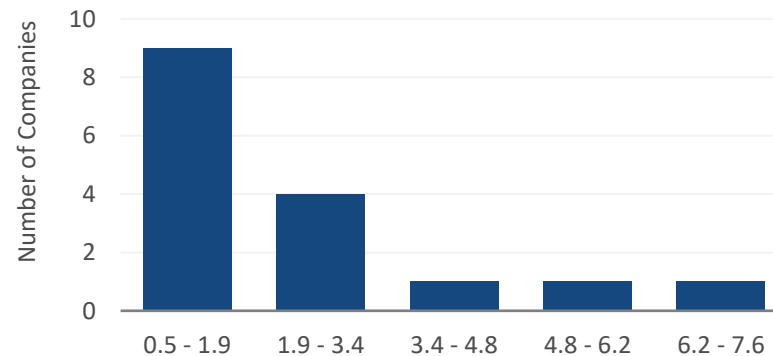
EV/EBITDA



P/E



P/B



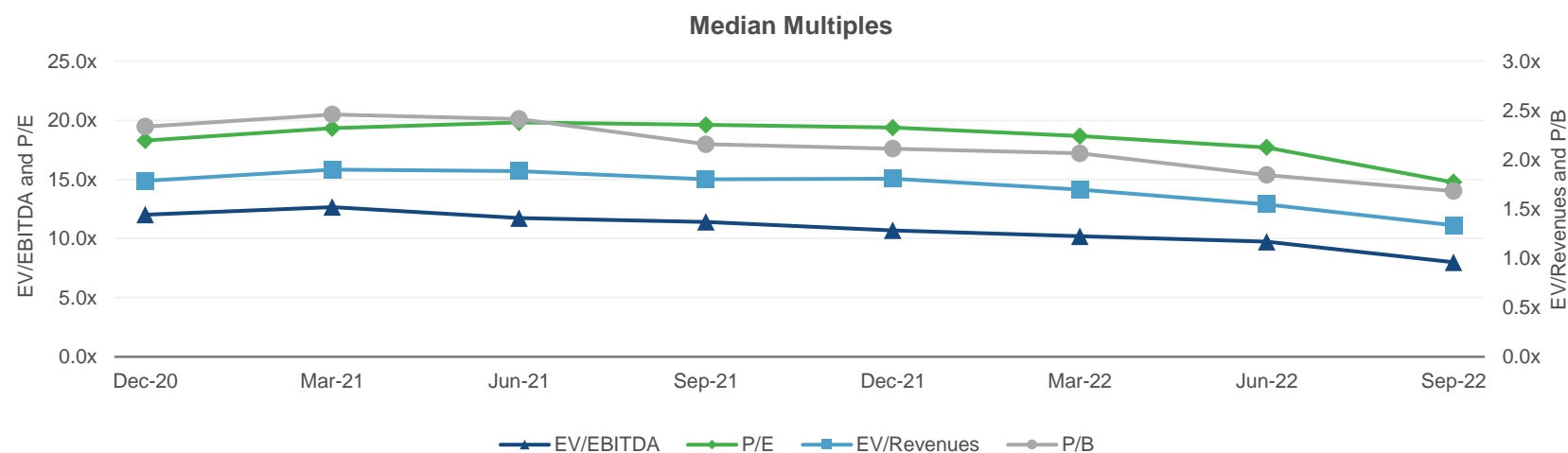
Food, Beverage and Tobacco

Q3 2022

Food, Beverage and Tobacco

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	58	58	58	58
Number of Outliers ²	6	8	14	9
High	6.9x	18.7x	33.2x	6.0x
Third Quartile	2.4x	10.6x	20.0x	2.7x
Mean	1.8x	9.1x	15.9x	2.0x
Median	1.3x	8.0x	14.8x	1.7x
First Quartile	0.8x	6.3x	11.3x	1.0x
Low	0.3x	4.3x	5.4x	0.4x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

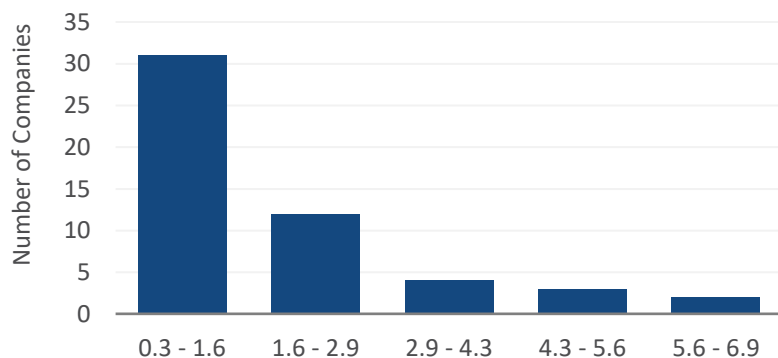
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

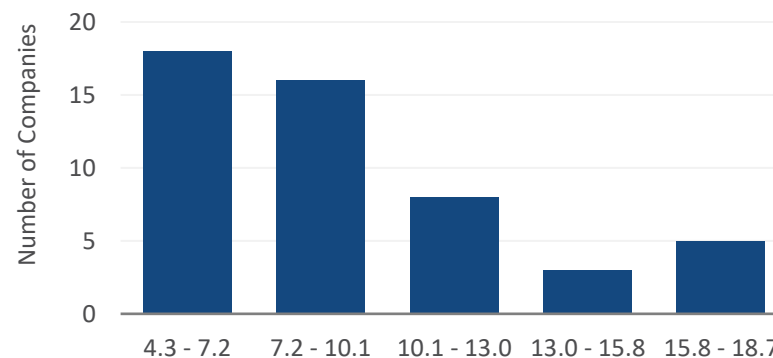
Food, Beverage and Tobacco

As of September 30, 2022

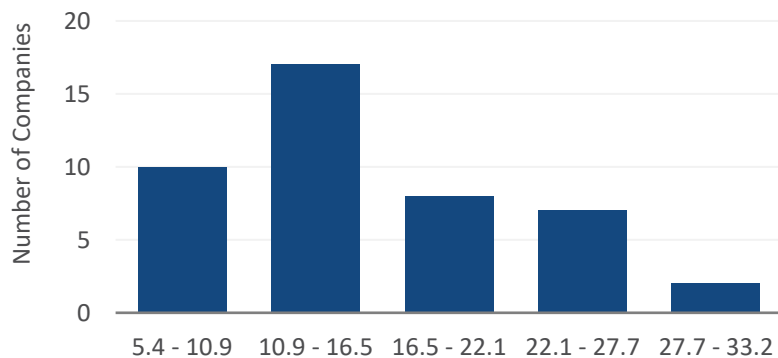
EV/Revenues



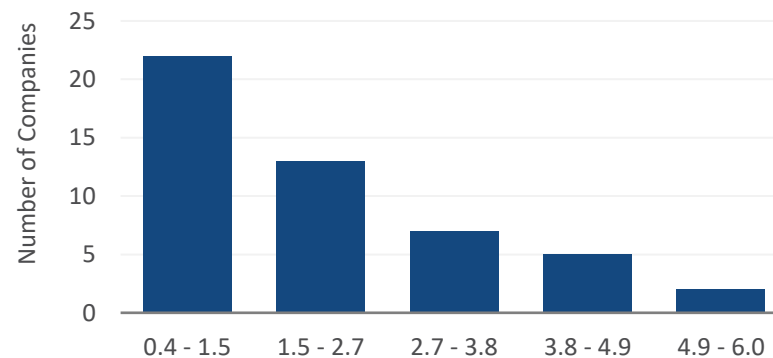
EV/EBITDA



P/E



P/B



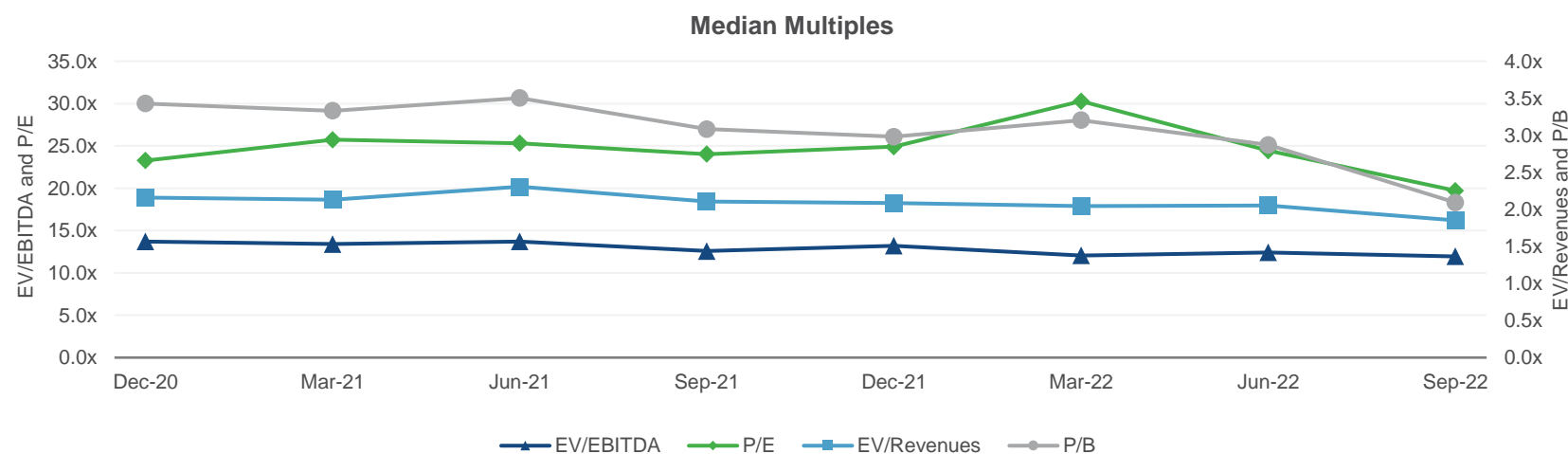
Household and Personal Products

Q3 2022

Household and Personal Products

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	12	12	12	12
Number of Outliers ²	2	2	4	2
High	4.4x	21.1x	32.5x	5.8x
Third Quartile	2.5x	12.6x	23.7x	4.3x
Mean	2.2x	12.8x	21.7x	2.8x
Median	1.9x	12.0x	19.7x	2.1x
First Quartile	1.4x	11.2x	17.2x	1.4x
Low	0.6x	9.8x	16.3x	0.9x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

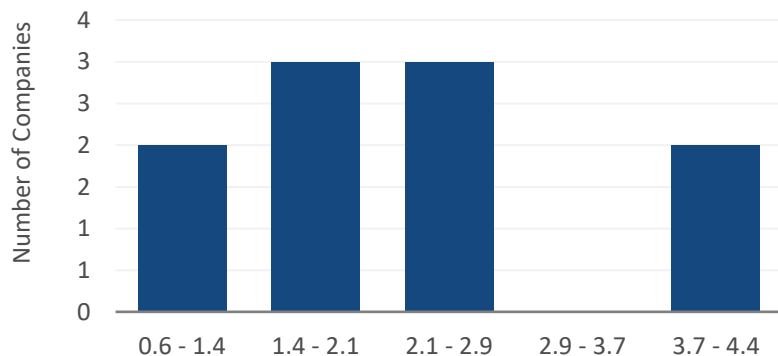
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

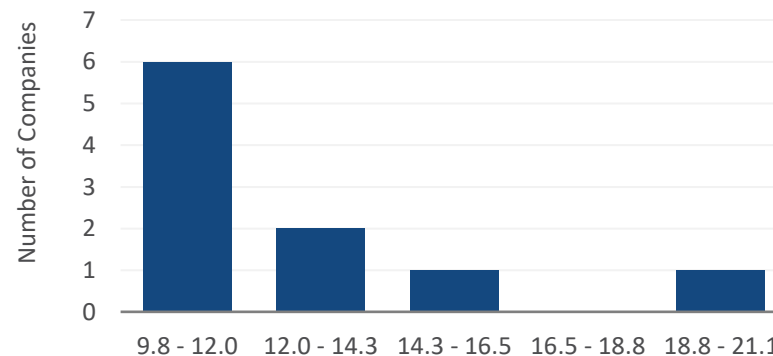
Household and Personal Products

As of September 30, 2022

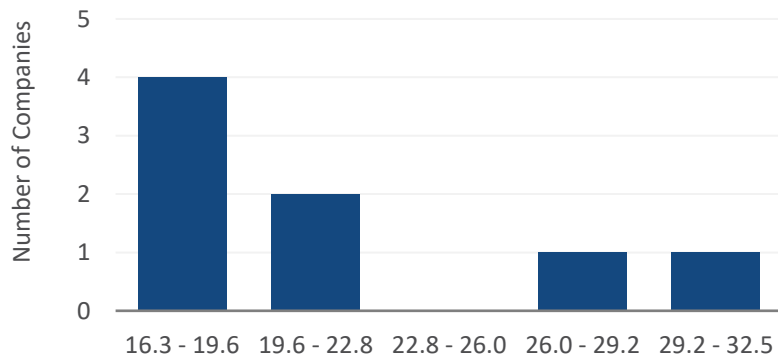
EV/Revenues



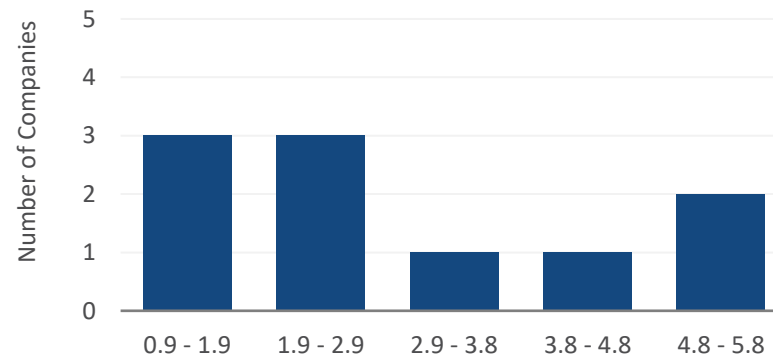
EV/EBITDA



P/E



P/B



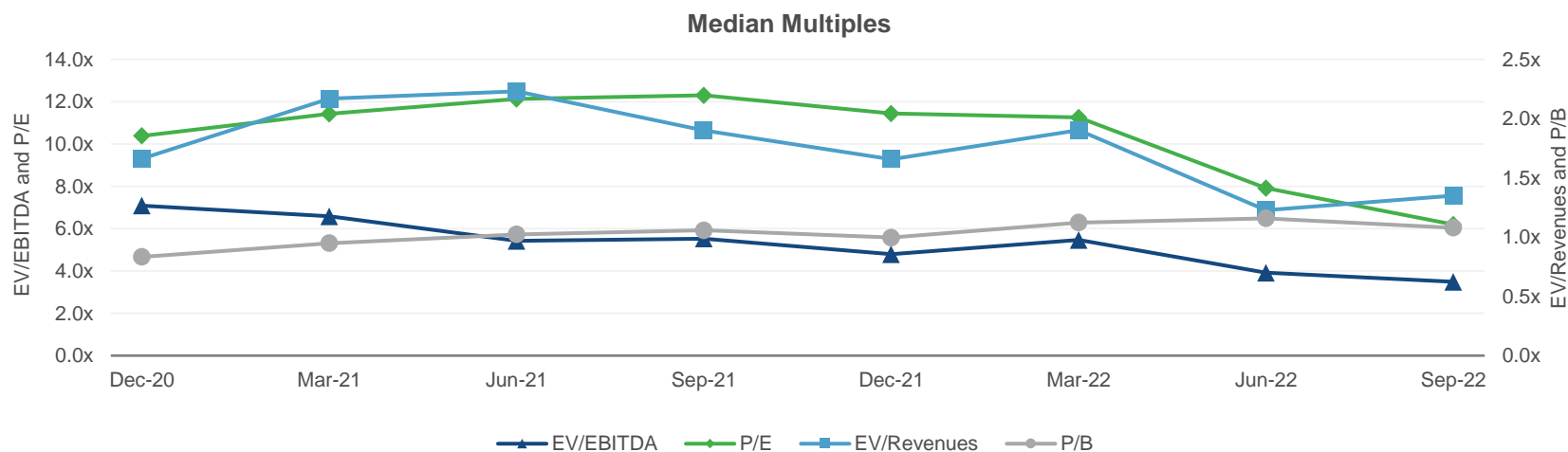
Energy

Q3 2022

Energy

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	57	57	57	57
Number of Outliers ²	9	14	20	9
High	10.4x	19.9x	35.0x	4.4x
Third Quartile	2.3x	8.0x	10.4x	1.6x
Mean	2.1x	5.6x	9.4x	1.4x
Median	1.4x	3.5x	6.2x	1.1x
First Quartile	0.5x	2.2x	4.2x	0.8x
Low	0.1x	0.6x	2.1x	0.4x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

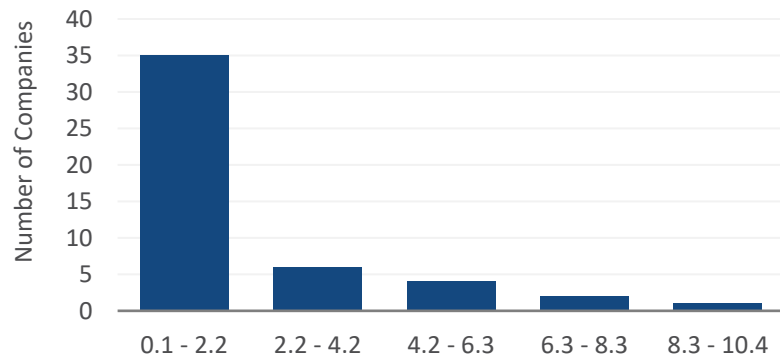
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

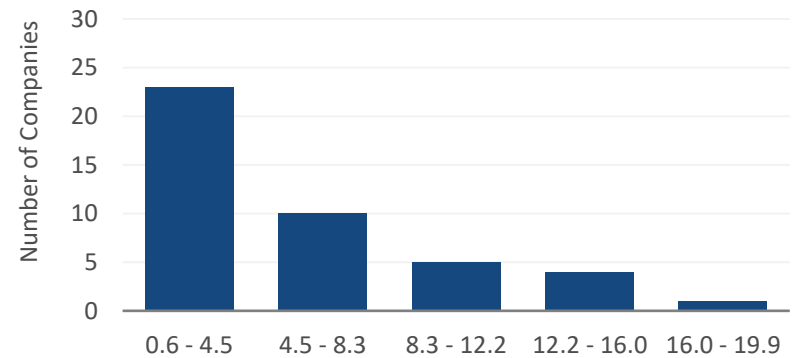
Energy

As of September 30, 2022

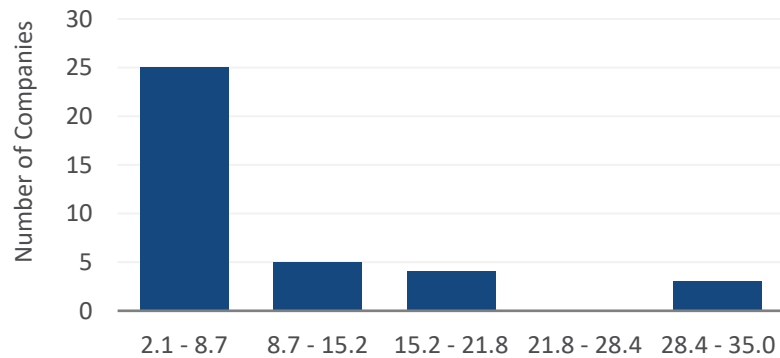
EV/Revenues



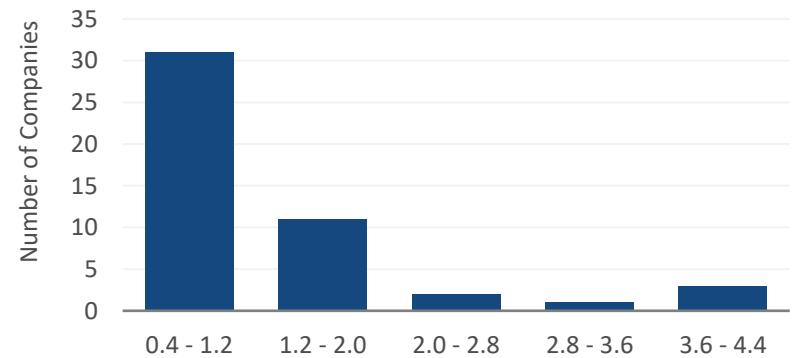
EV/EBITDA



P/E



P/B



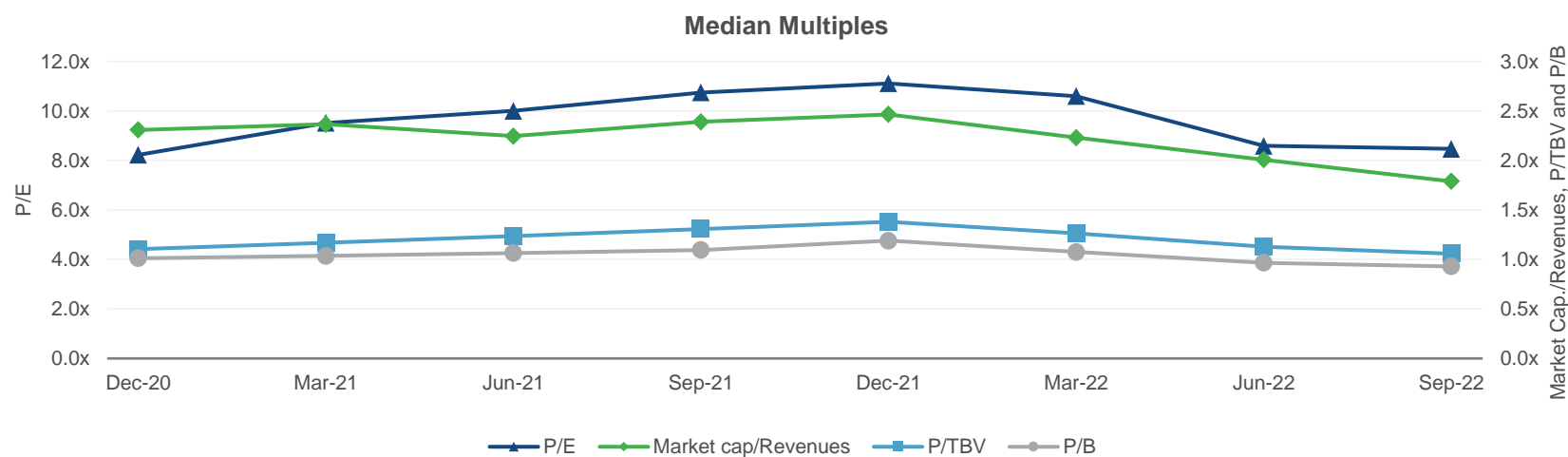
Financials

Q3 2022

Financials

As of September 30, 2022

	Market Cap./Revenues	P/TBV	P/E	P/B
Number of Observations ¹	189	189	189	189
Number of Outliers ²	32	36	44	27
High	8.0x	7.4x	28.5x	4.4x
Third Quartile	2.8x	2.2x	12.2x	1.5x
Mean	2.2x	1.7x	10.0x	1.1x
Median	1.8x	1.1x	8.5x	0.9x
First Quartile	1.0x	0.7x	6.2x	0.6x
Low	0.4x	0.3x	3.3x	0.3x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

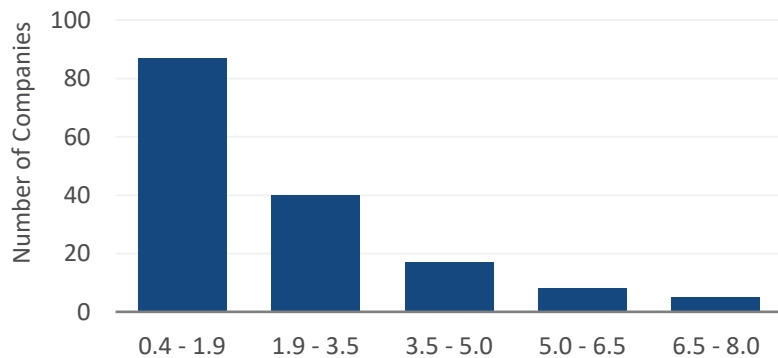
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

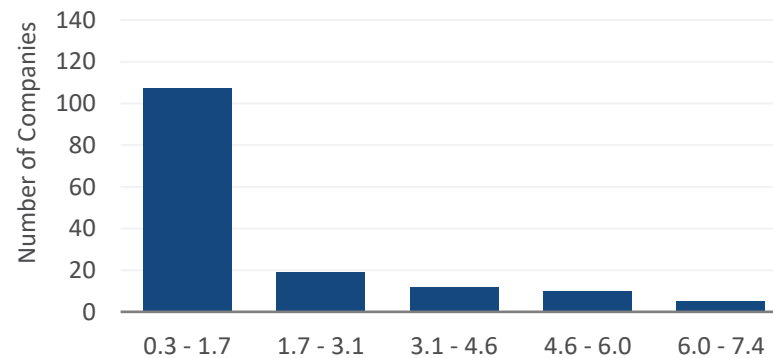
Financials

As of September 30, 2022

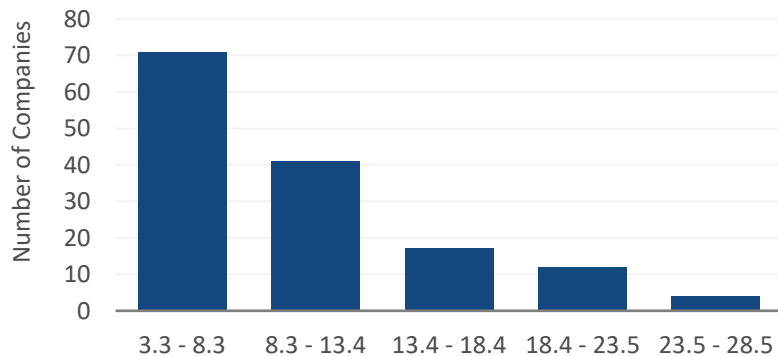
Market Cap./Revenues



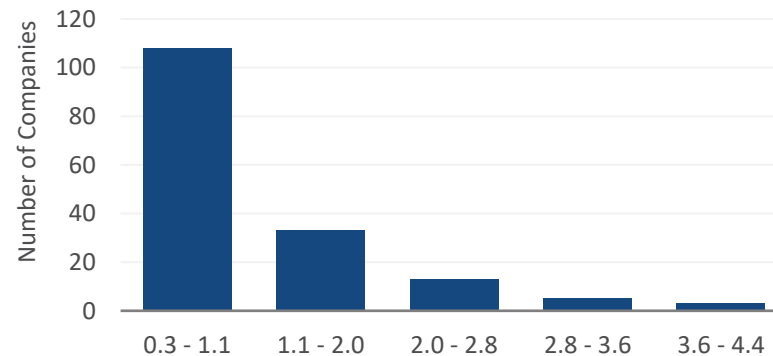
P/TBV



P/E



P/B



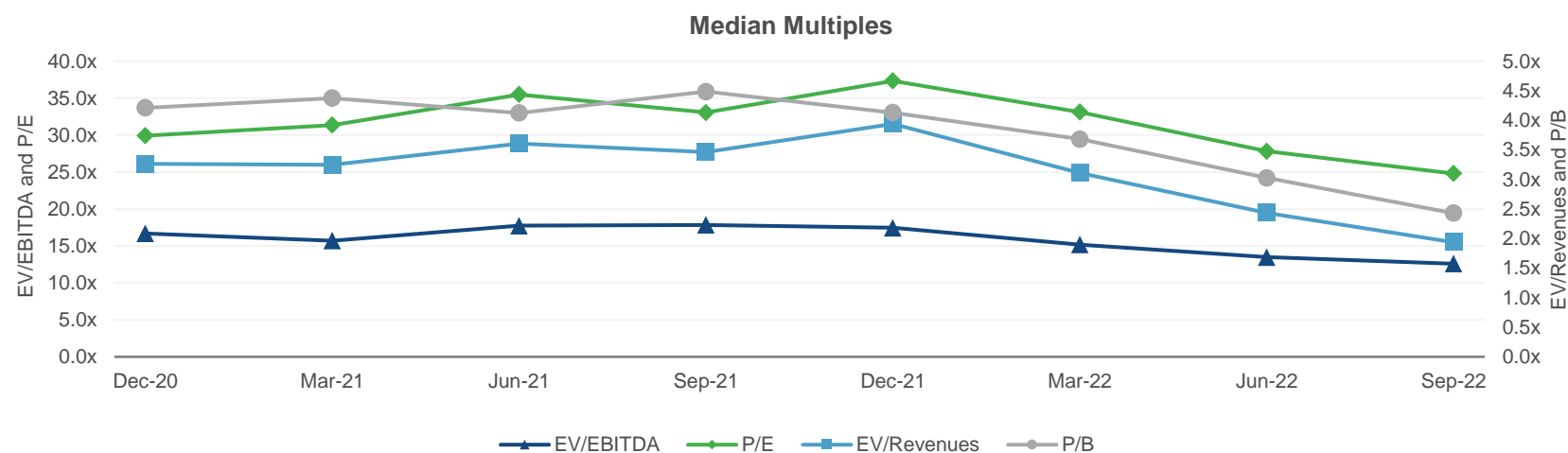
Health Care Equipment and Services

Q3 2022

Health Care Equipment and Services

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	50	50	50	50
Number of Outliers ²	6	6	10	8
High	8.1x	35.4x	81.1x	8.4x
Third Quartile	3.6x	15.6x	33.0x	3.7x
Mean	2.5x	13.7x	28.3x	2.8x
Median	1.9x	12.6x	24.8x	2.4x
First Quartile	1.3x	9.8x	18.2x	1.4x
Low	0.2x	7.1x	10.8x	0.6x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

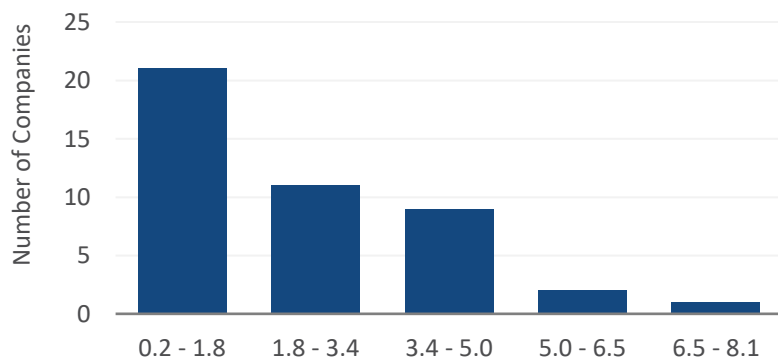
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

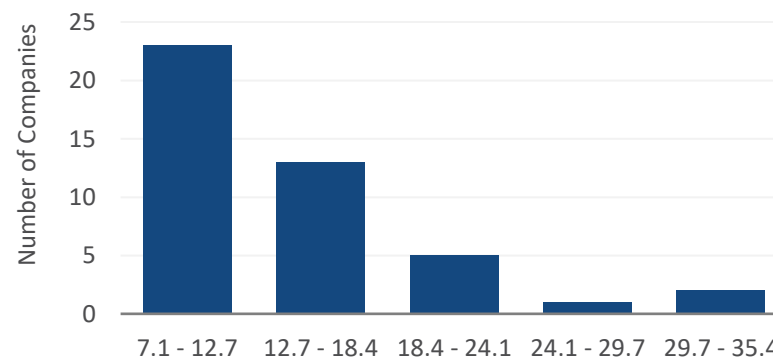
Health Care Equipment and Services

As of September 30, 2022

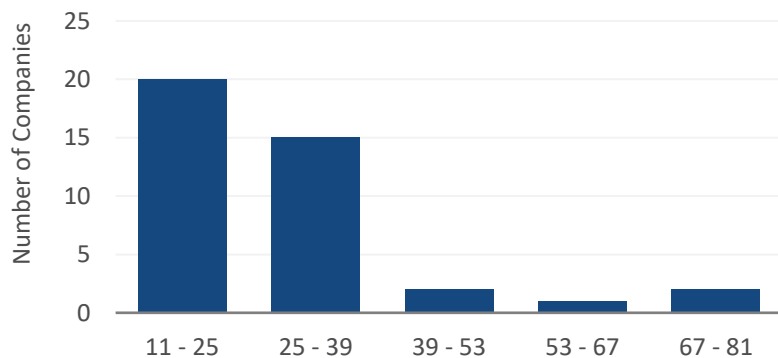
EV/Revenues



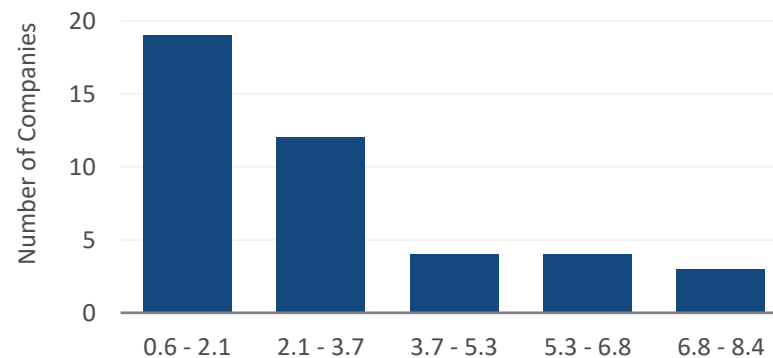
EV/EBITDA



P/E



P/B



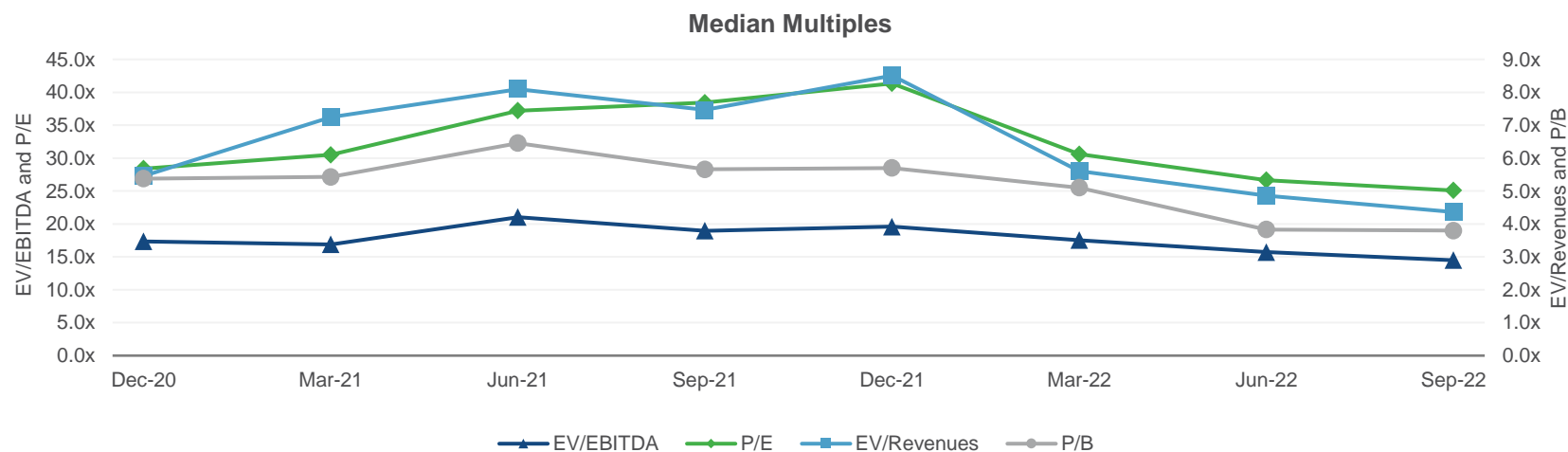
Pharmaceuticals, Biotechnology and Life Sciences

Q3 2022

Pharmaceuticals, Biotechnology and Life Sciences

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	76	76	76	76
Number of Outliers ²	13	27	33	16
High	57.6x	56.2x	261.1x	17.4x
Third Quartile	8.3x	26.4x	46.8x	6.1x
Mean	7.4x	19.9x	40.2x	5.0x
Median	4.4x	14.5x	25.1x	3.8x
First Quartile	2.7x	10.5x	17.2x	2.3x
Low	1.6x	6.4x	8.2x	1.1x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

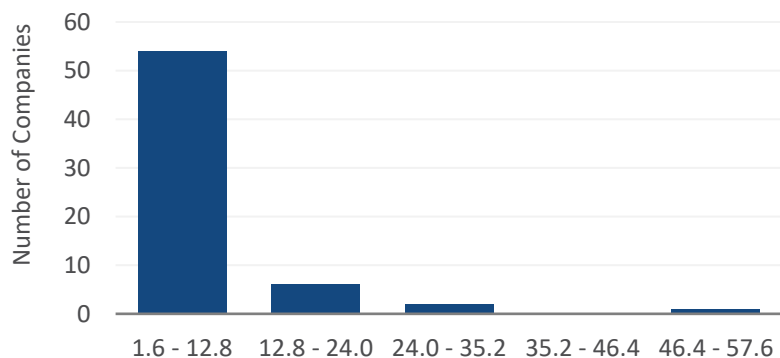
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

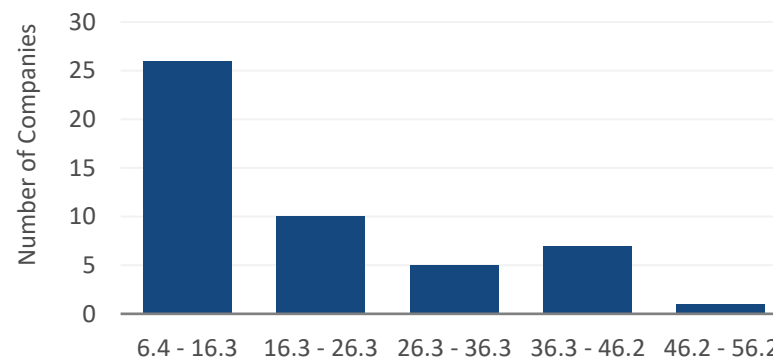
Pharmaceuticals, Biotechnology and Life Sciences

As of September 30, 2022

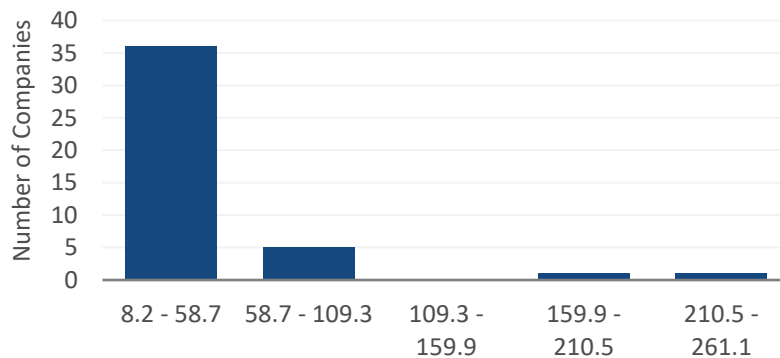
EV/Revenues



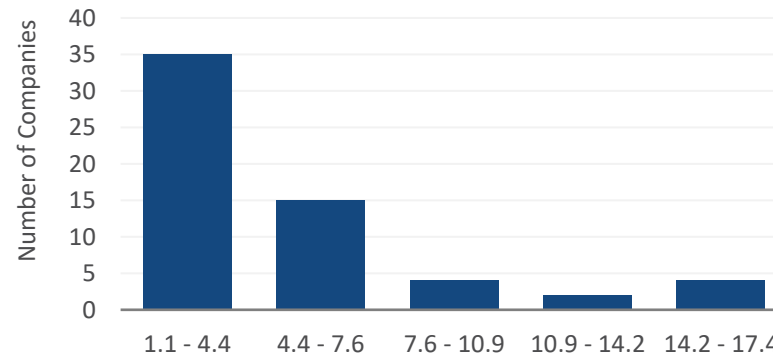
EV/EBITDA



P/E



P/B



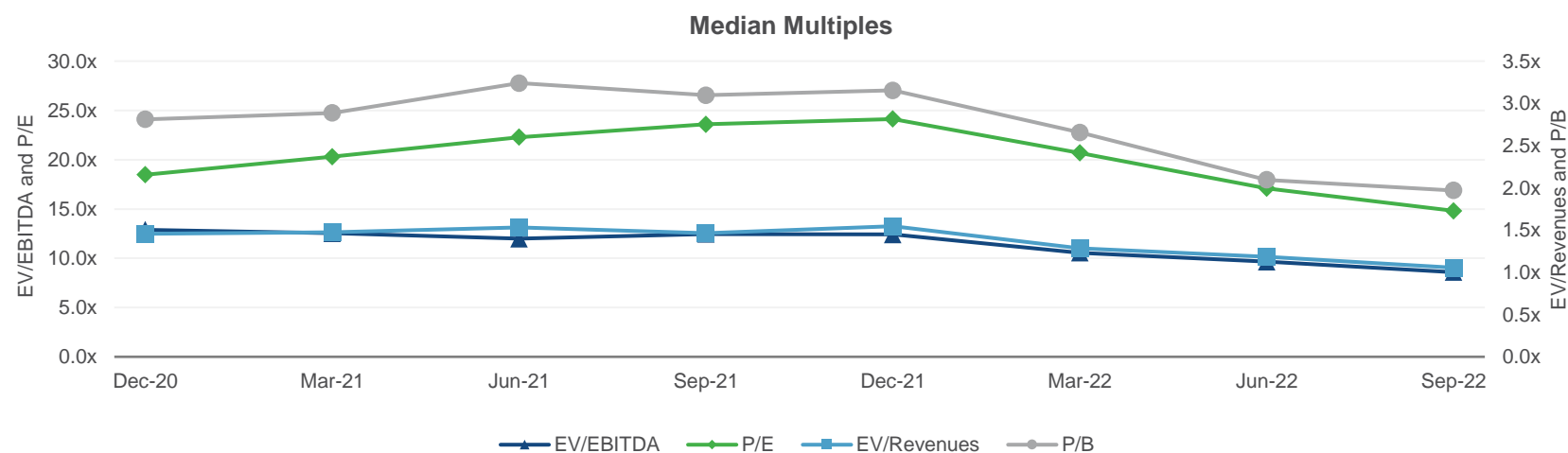
Capital Goods

Q3 2022

Capital Goods

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	218	218	218	218
Number of Outliers ²	24	30	56	31
High	5.9x	27.4x	47.2x	8.4x
Third Quartile	1.8x	12.5x	22.6x	3.0x
Mean	1.4x	10.2x	18.0x	2.5x
Median	1.1x	8.6x	14.8x	2.0x
First Quartile	0.7x	6.6x	11.3x	1.2x
Low	0.2x	3.5x	6.3x	0.6x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

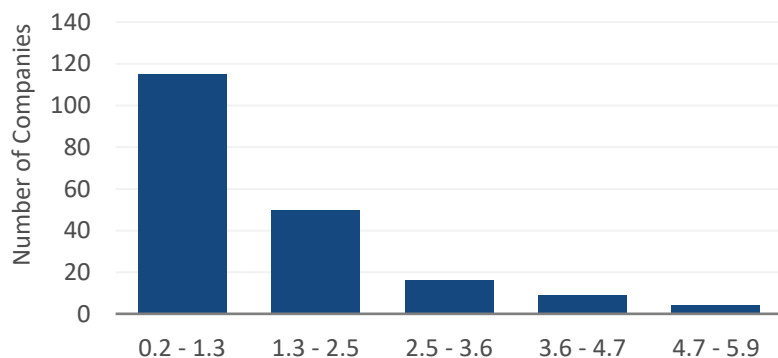
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

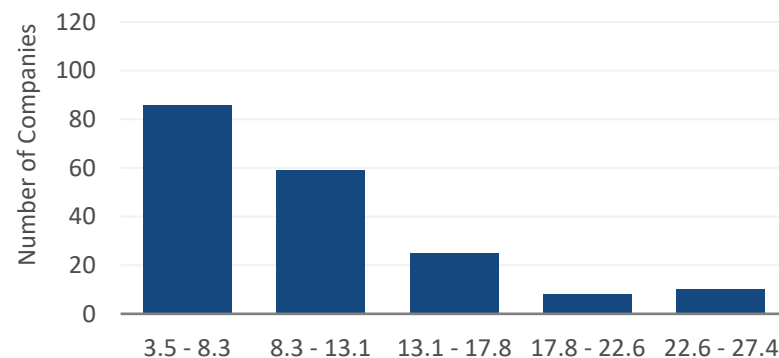
Capital Goods

As of September 30, 2022

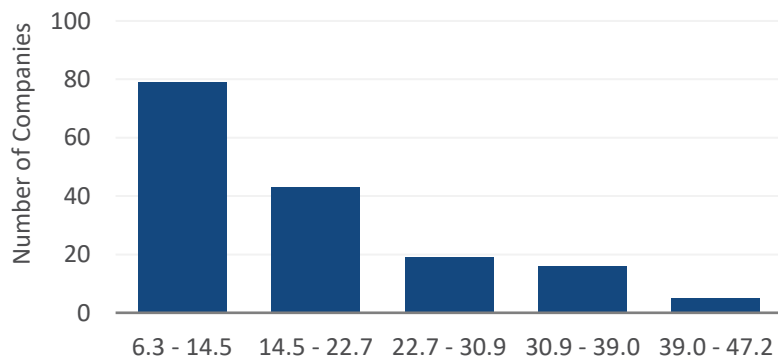
EV/Revenues



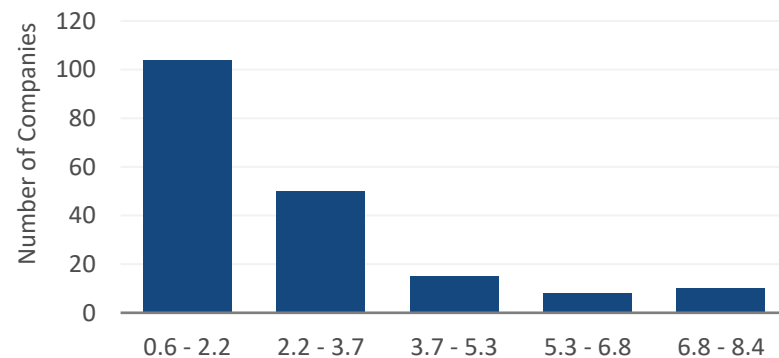
EV/EBITDA



P/E



P/B



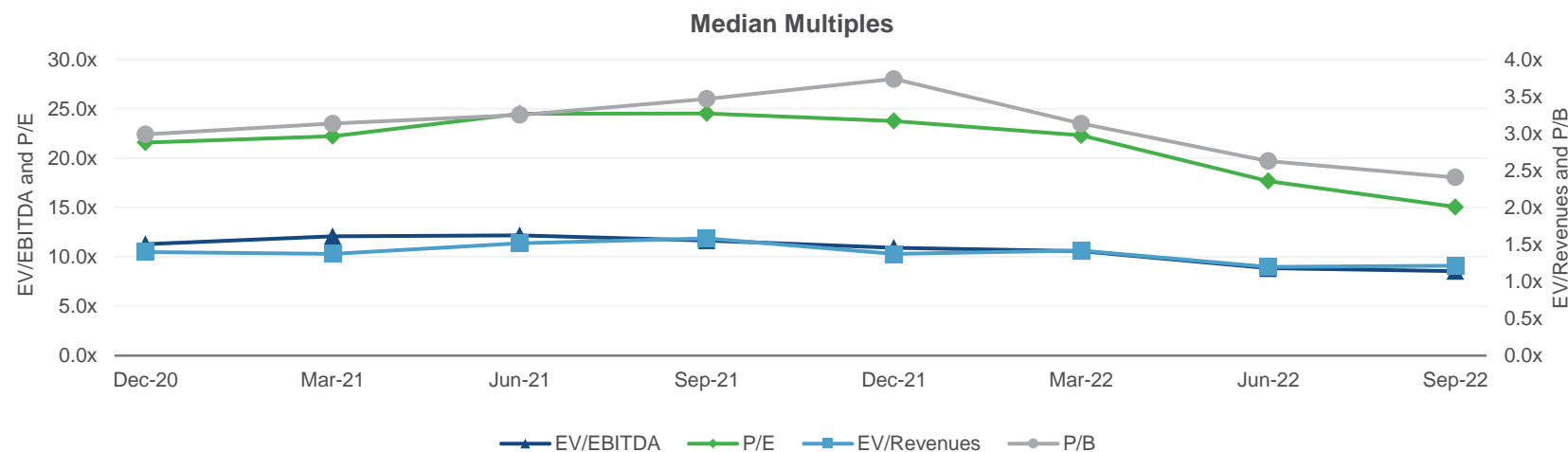
Commercial and Professional Services

Q3 2022

Commercial and Professional Services

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	56	56	56	56
Number of Outliers ²	6	8	9	7
High	6.2x	17.7x	34.0x	8.9x
Third Quartile	2.9x	12.3x	24.5x	3.4x
Mean	1.9x	9.4x	18.3x	3.0x
Median	1.2x	8.6x	15.1x	2.4x
First Quartile	0.7x	6.0x	12.1x	1.5x
Low	0.3x	3.9x	7.4x	0.8x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

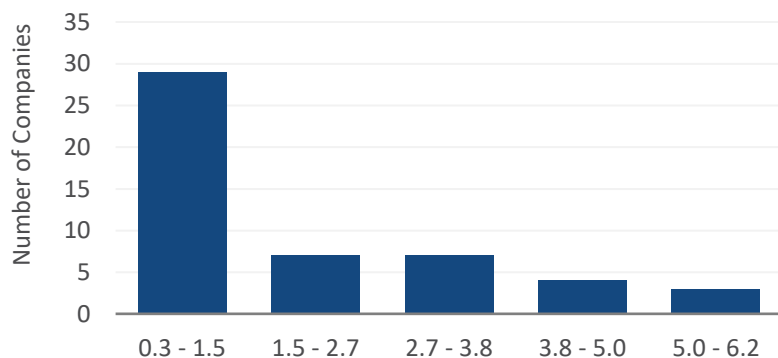
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

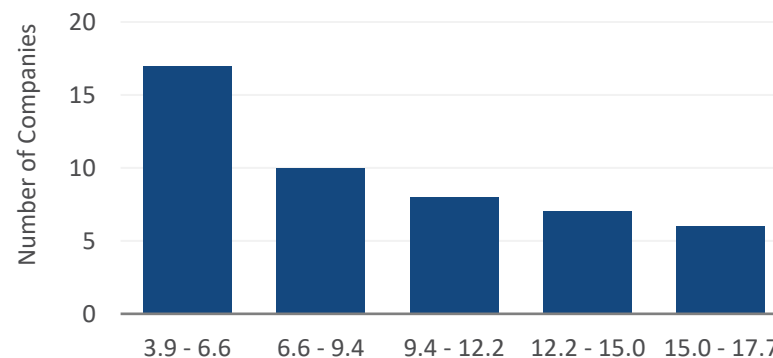
Commercial and Professional Services

As of September 30, 2022

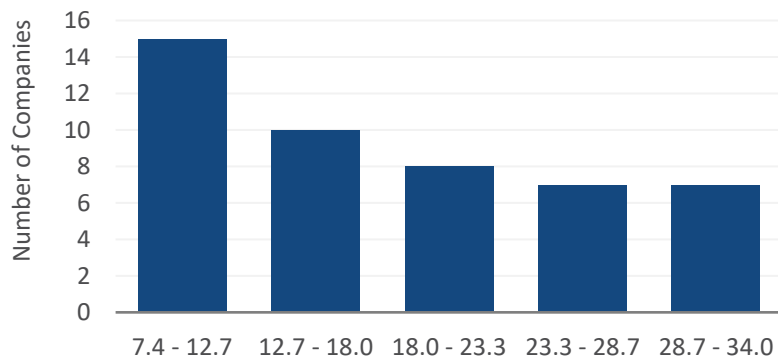
EV/Revenues



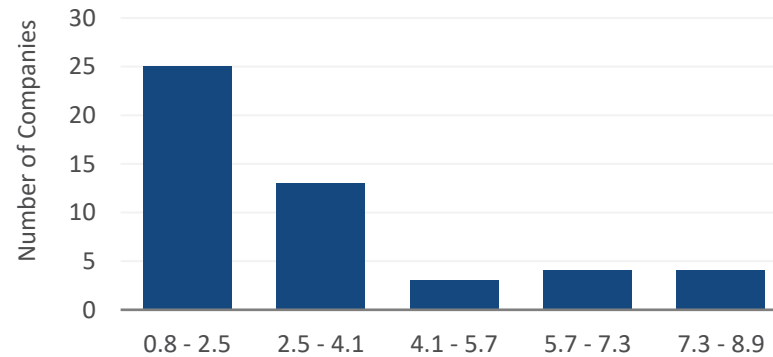
EV/EBITDA



P/E



P/B



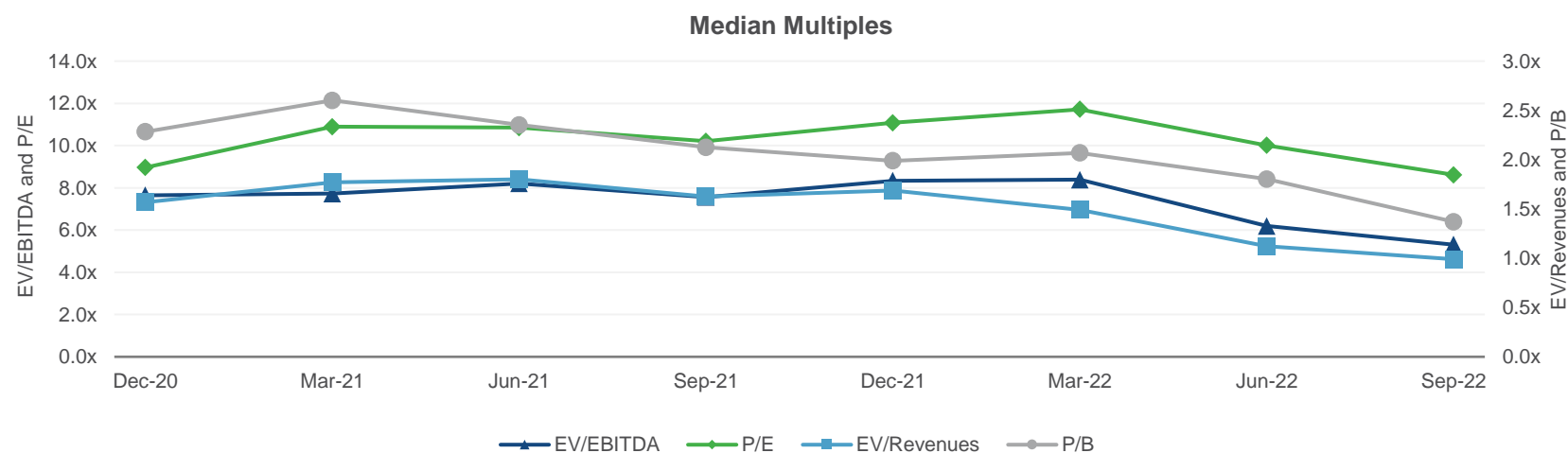
Transportation

Q3 2022

Transportation

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	45	45	45	45
Number of Outliers ²	8	9	15	9
High	6.8x	19.6x	45.9x	5.2x
Third Quartile	1.4x	8.2x	13.1x	2.5x
Mean	1.6x	6.7x	12.5x	1.9x
Median	1.0x	5.3x	8.6x	1.4x
First Quartile	0.6x	4.1x	5.5x	1.0x
Low	0.3x	1.6x	2.4x	0.7x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

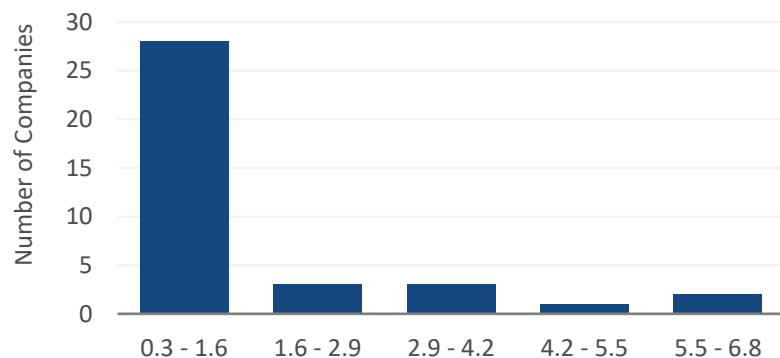
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

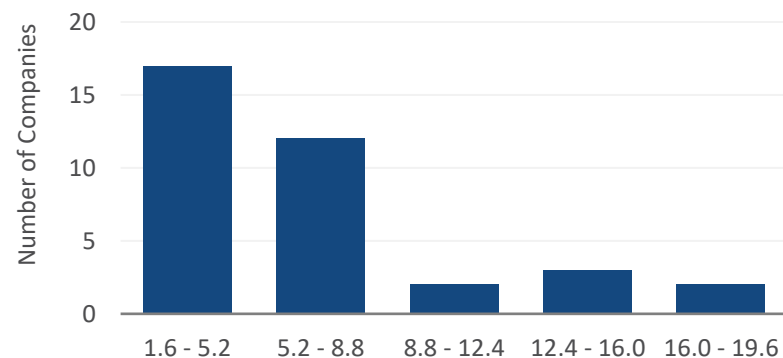
Transportation

As of September 30, 2022

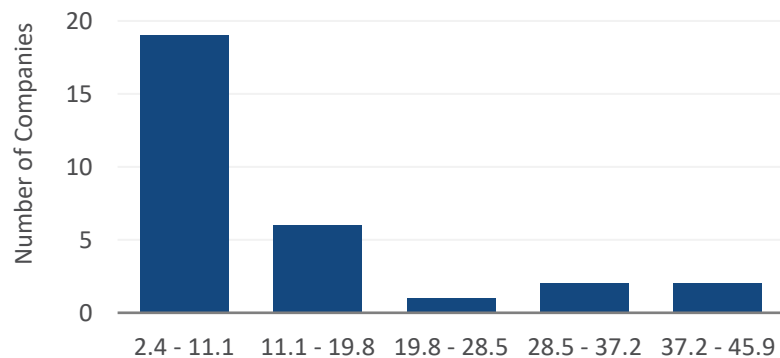
EV/Revenues



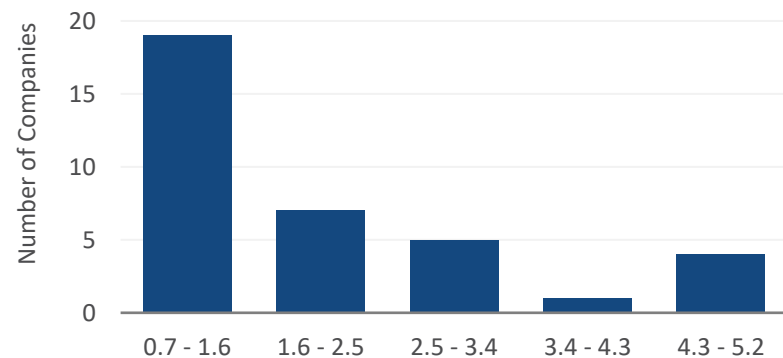
EV/EBITDA



P/E



P/B



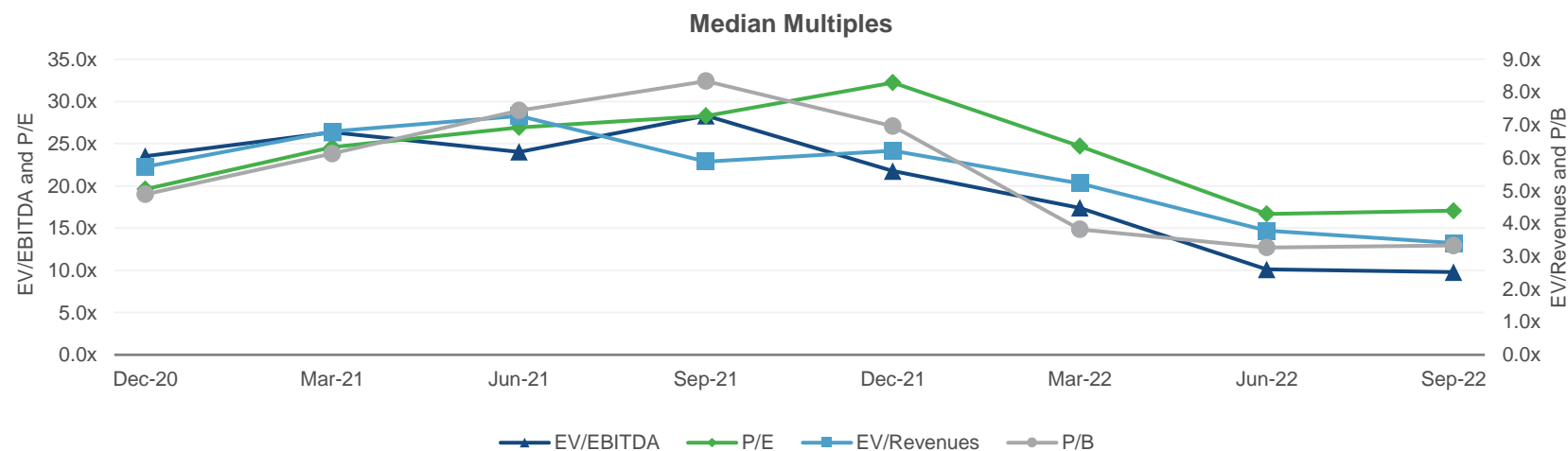
Semiconductors and Semiconductor Equipment

Q3 2022

Semiconductors and Semiconductor Equipment

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	20	20	20	20
Number of Outliers ²	2	5	7	2
High	10.4x	25.8x	32.1x	8.0x
Third Quartile	4.9x	13.7x	22.9x	4.5x
Mean	3.8x	11.2x	18.5x	3.5x
Median	3.4x	9.8x	17.1x	3.3x
First Quartile	1.6x	6.9x	12.9x	2.2x
Low	0.8x	3.5x	9.6x	0.9x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

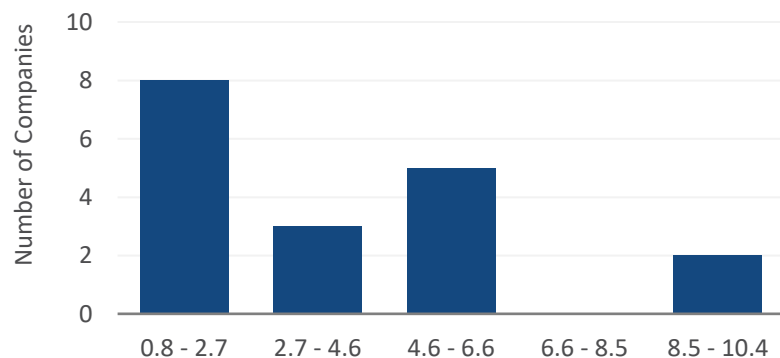
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

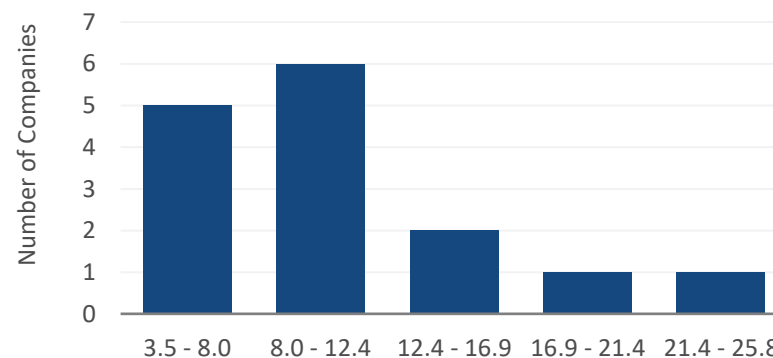
Semiconductors and Semiconductor Equipment

As of September 30, 2022

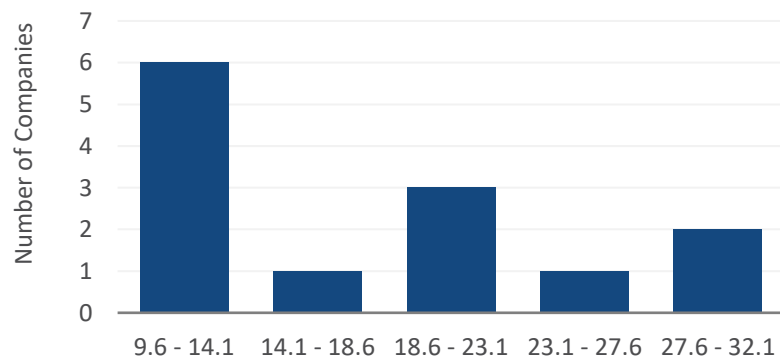
EV/Revenues



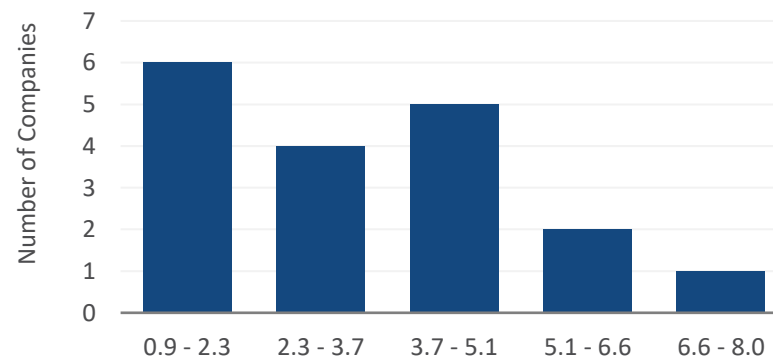
EV/EBITDA



P/E



P/B



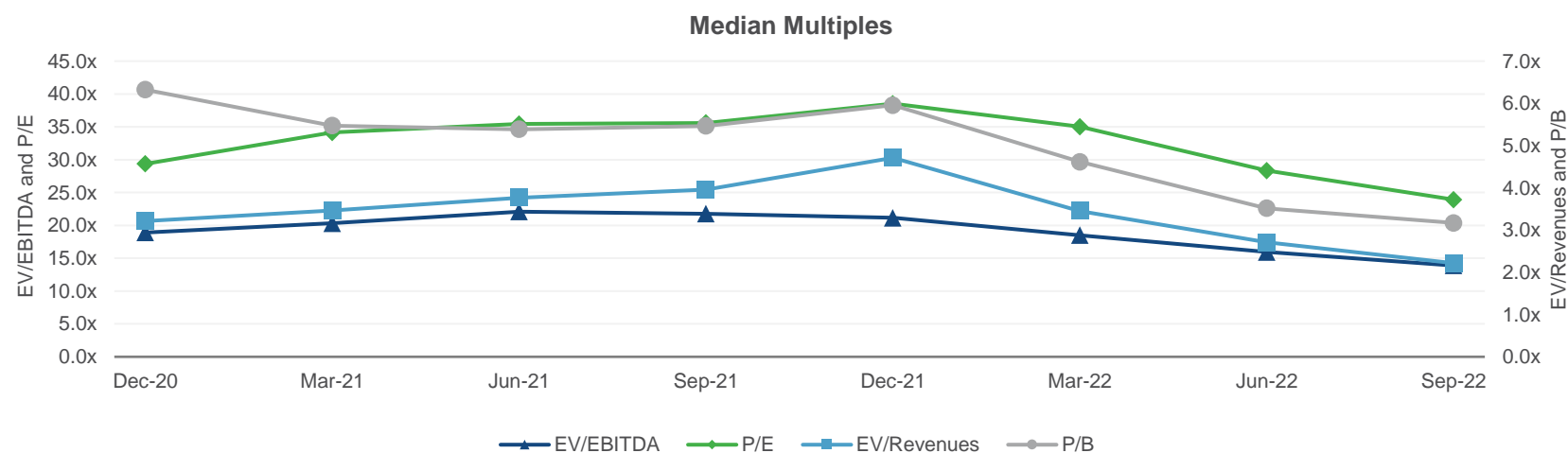
Software and Services

Q3 2022

Software and Services

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	76	76	76	76
Number of Outliers ²	8	13	21	10
High	11.6x	49.3x	91.9x	22.6x
Third Quartile	4.6x	19.3x	36.9x	7.4x
Mean	3.3x	16.2x	31.7x	5.4x
Median	2.2x	13.9x	23.9x	3.2x
First Quartile	1.1x	9.7x	19.6x	1.6x
Low	0.3x	4.6x	10.2x	0.7x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

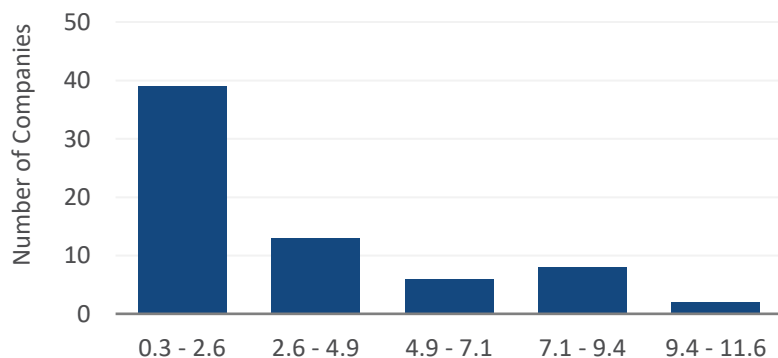
² Outliers have been excluded from the included multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

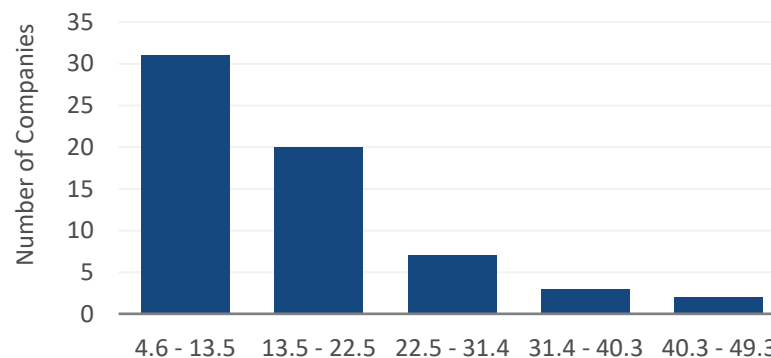
Software and Services

As of September 30, 2022

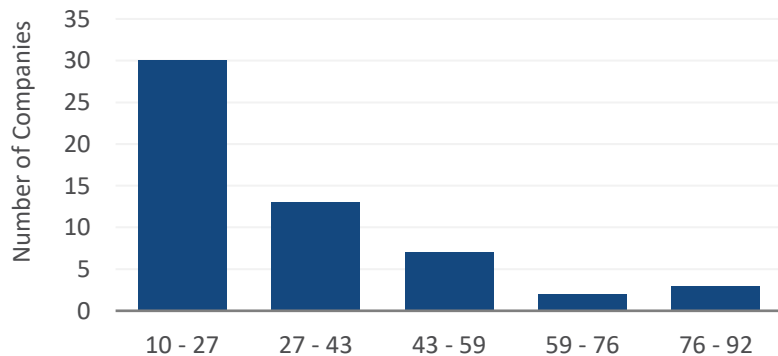
EV/Revenues



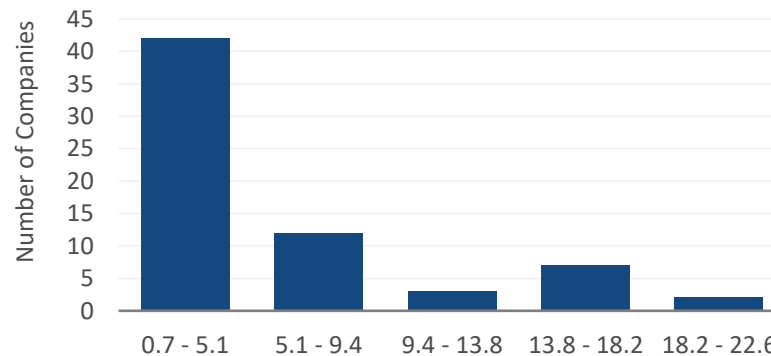
EV/EBITDA



P/E



P/B



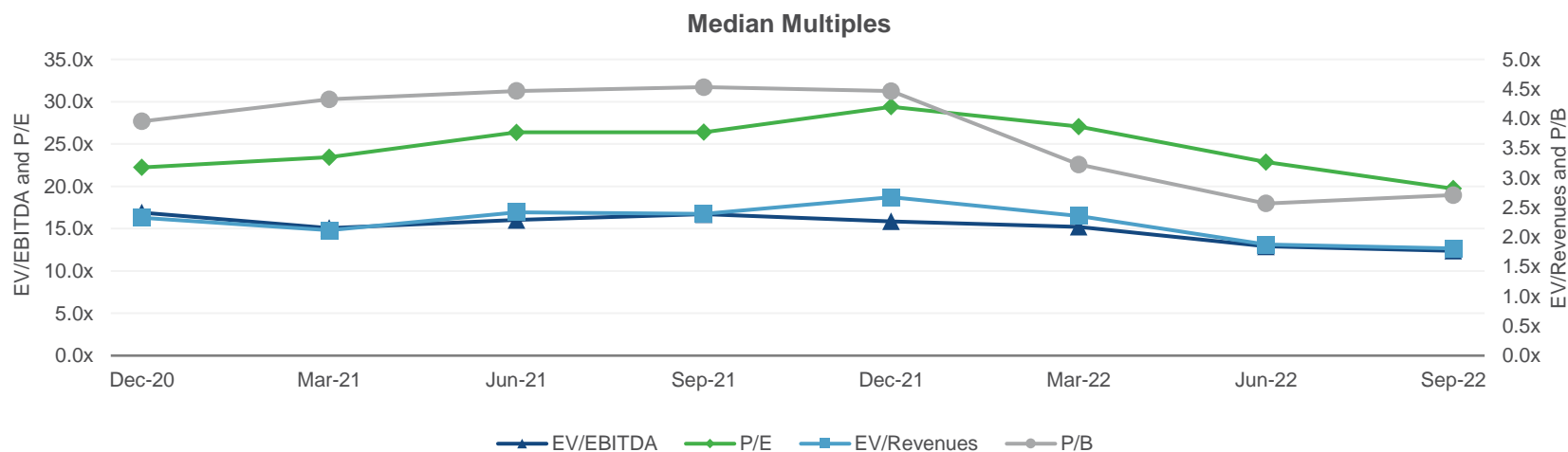
Technology Hardware and Equipment

Q3 2022

Technology Hardware and Equipment

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	47	47	47	47
Number of Outliers ²	6	9	10	8
High	4.9x	36.6x	71.3x	8.5x
Third Quartile	2.7x	16.5x	30.2x	4.3x
Mean	2.1x	13.8x	24.5x	3.3x
Median	1.8x	12.4x	19.7x	2.7x
First Quartile	1.2x	10.4x	15.9x	1.8x
Low	0.4x	4.7x	6.9x	0.8x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

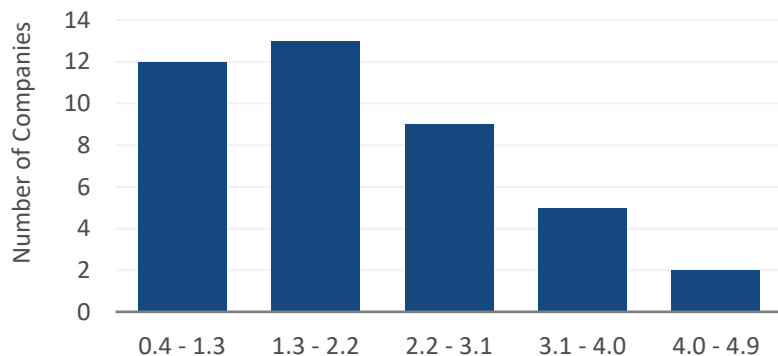
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

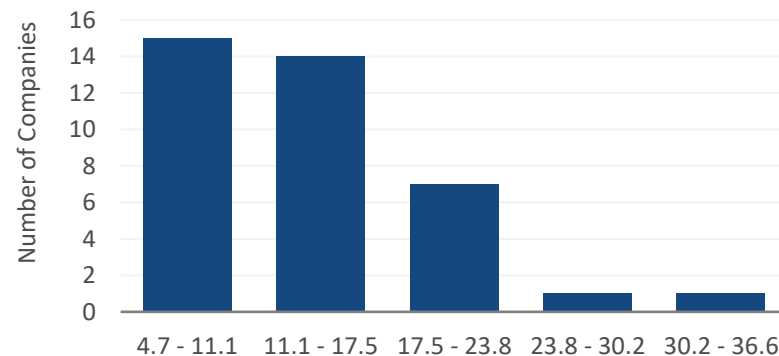
Technology Hardware and Equipment

As of September 30, 2022

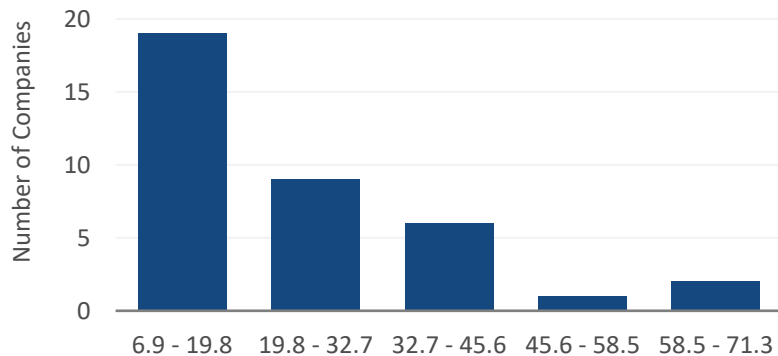
EV/Revenues



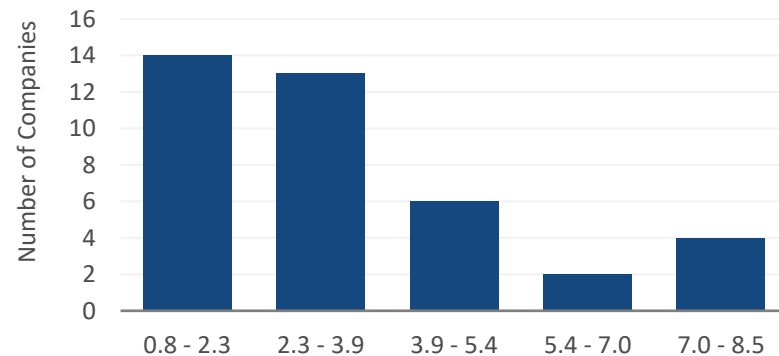
EV/EBITDA



P/E



P/B



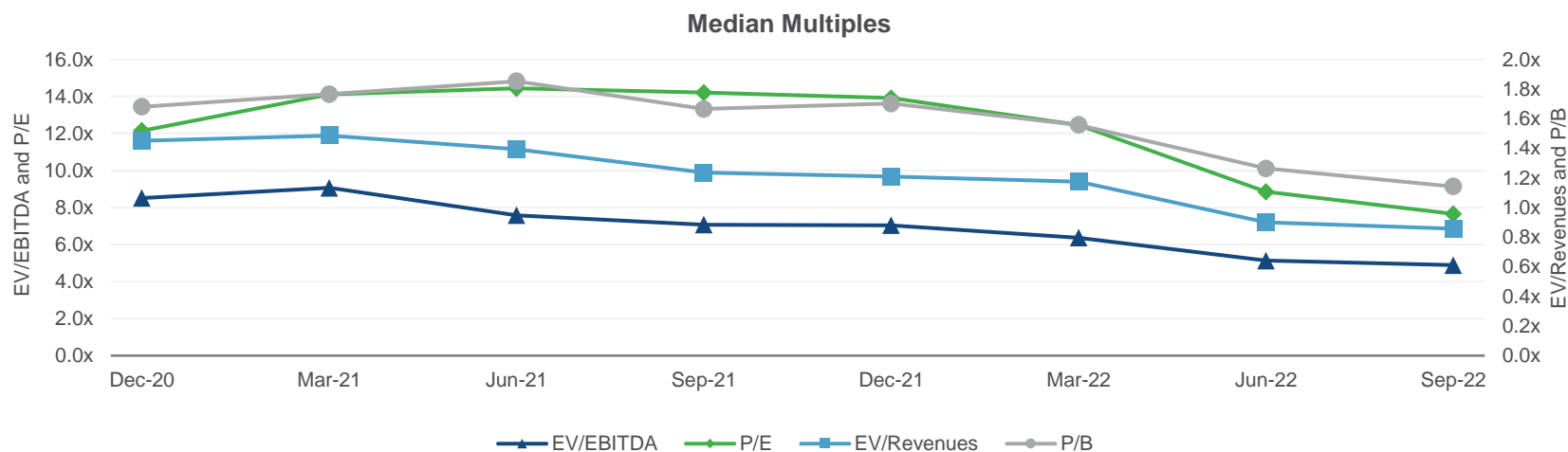
Materials

Q3 2022

Materials

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	105	105	105	105
Number of Outliers ²	12	12	15	15
High	4.5x	17.7x	30.9x	3.6x
Third Quartile	1.3x	7.6x	13.5x	1.9x
Mean	1.1x	5.8x	9.8x	1.4x
Median	0.9x	4.9x	7.7x	1.1x
First Quartile	0.5x	2.9x	4.5x	0.8x
Low	0.2x	1.1x	1.8x	0.4x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

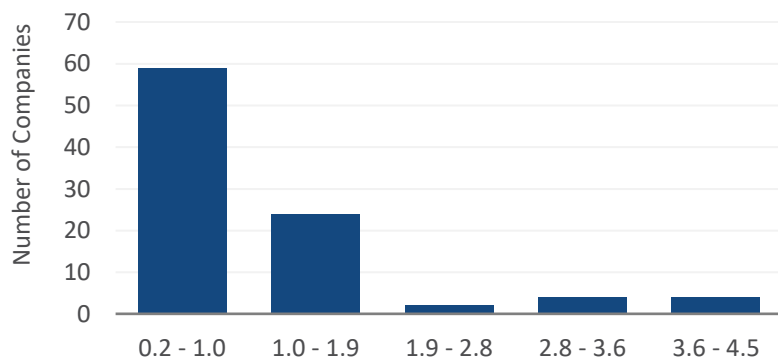
² Outliers have been excluded from the included multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

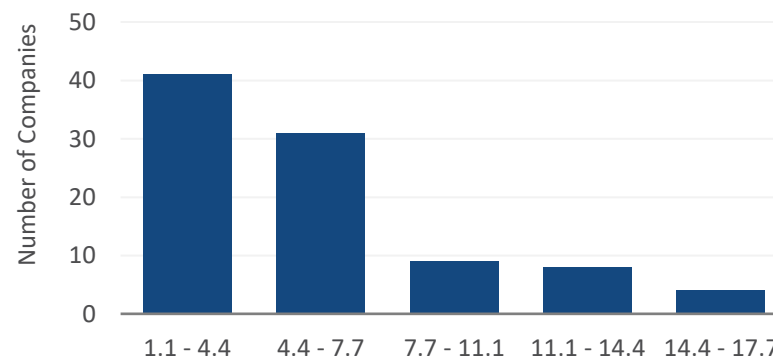
Materials

As of September 30, 2022

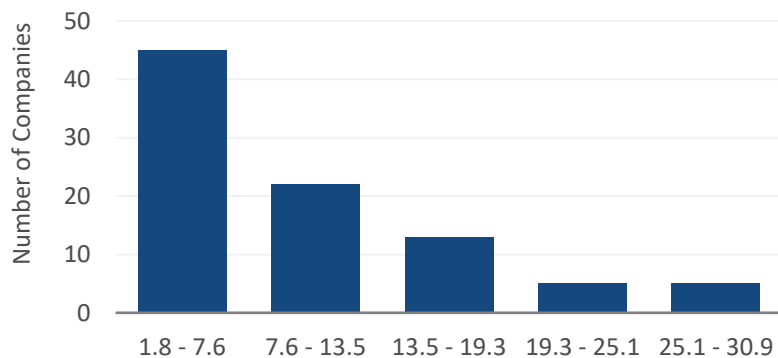
EV/Revenues



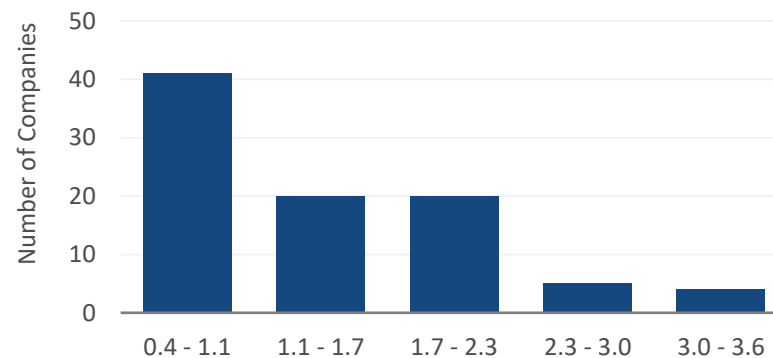
EV/EBITDA



P/E



P/B



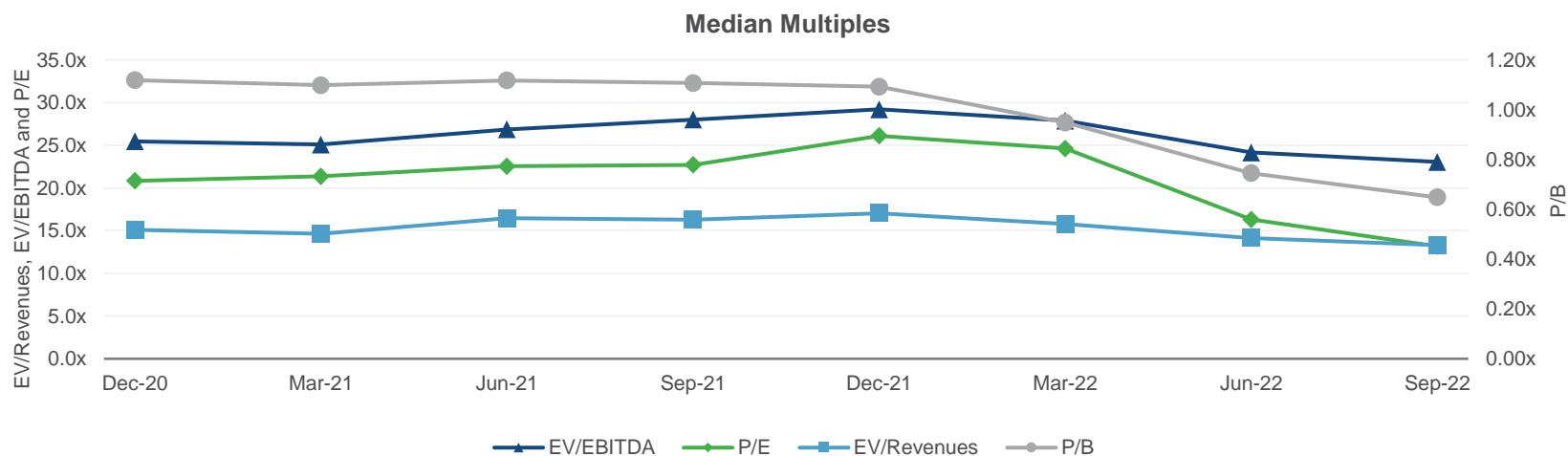
Real Estate

Q3 2022

Real Estate

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	91	91	91	91
Number of Outliers ²	11	18	15	10
High	24.4x	37.5x	36.8x	1.3x
Third Quartile	16.1x	27.4x	18.4x	0.9x
Mean	13.4x	22.7x	14.6x	0.7x
Median	13.3x	23.1x	13.2x	0.6x
First Quartile	10.4x	17.3x	9.4x	0.5x
Low	4.6x	8.3x	5.8x	0.3x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

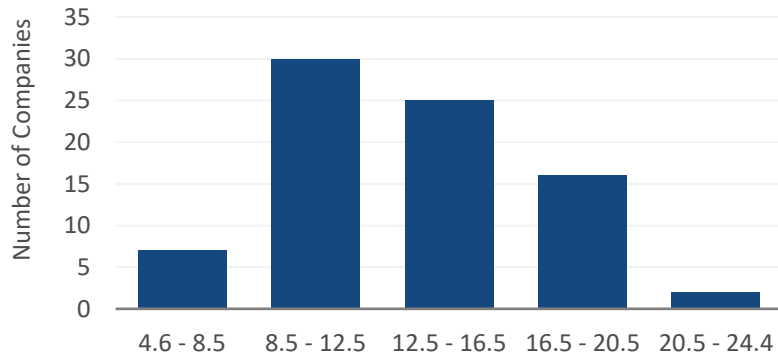
² Outliers have been excluded from the concluded multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

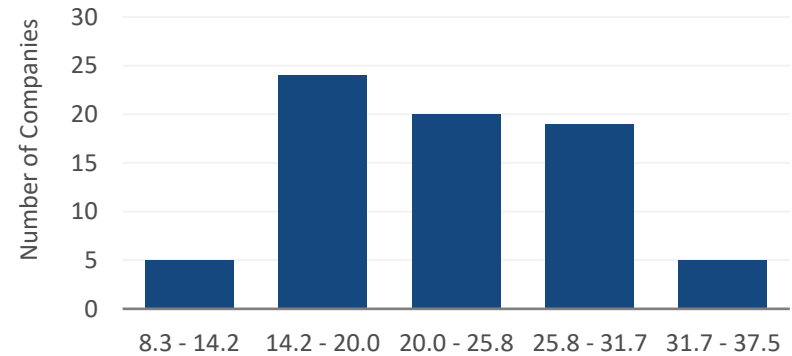
Real Estate

As of September 30, 2022

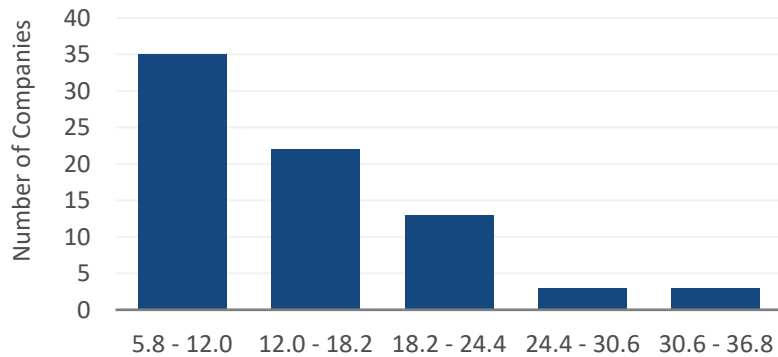
EV/Revenues



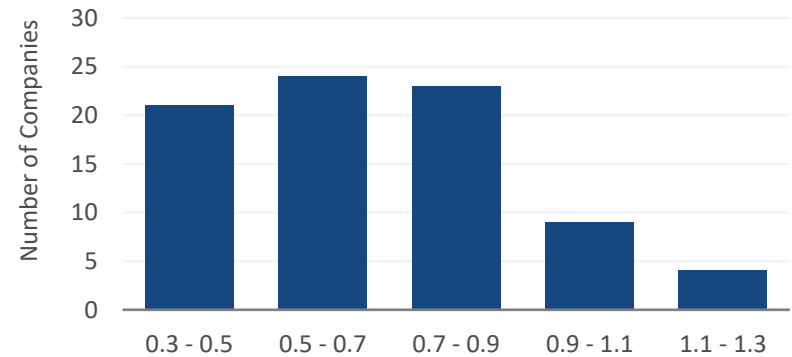
EV/EBITDA



P/E



P/B



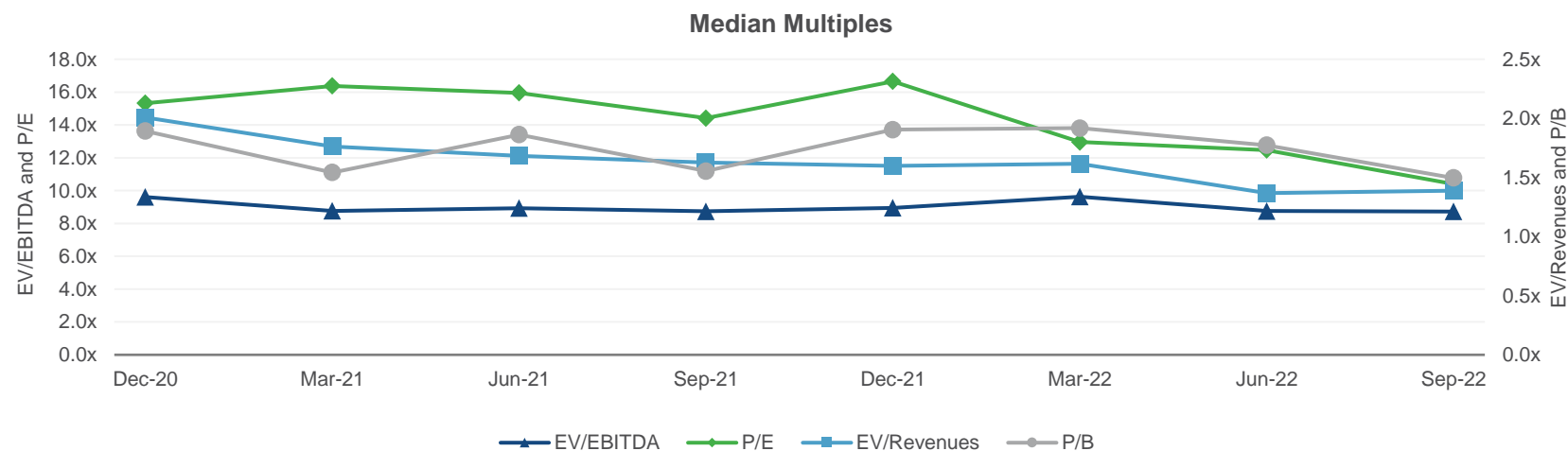
Electric, Gas and Water Utilities

Q3 2022

Electric, Gas and Water Utilities

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	36	36	36	36
Number of Outliers ²	5	5	8	4
High	7.0x	20.6x	36.8x	6.2x
Third Quartile	3.8x	11.7x	14.2x	2.0x
Mean	2.3x	9.3x	13.0x	1.8x
Median	1.4x	8.7x	10.4x	1.5x
First Quartile	0.6x	6.6x	7.0x	1.1x
Low	0.1x	2.4x	3.4x	0.2x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

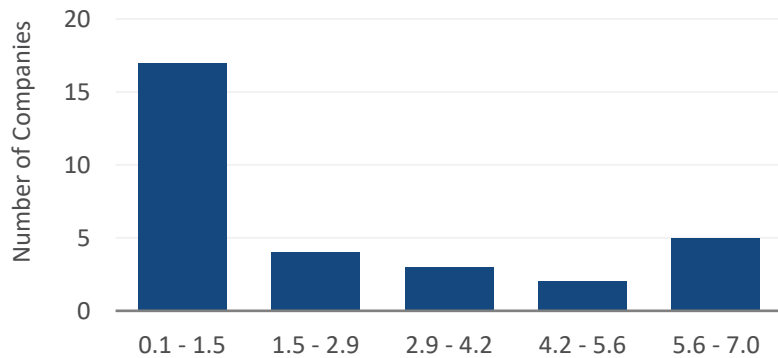
² Outliers have been excluded from the included multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

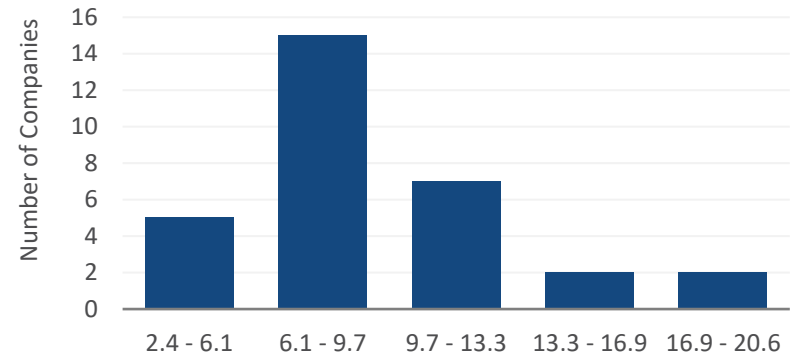
Electric, Gas and Water Utilities

As of September 30, 2022

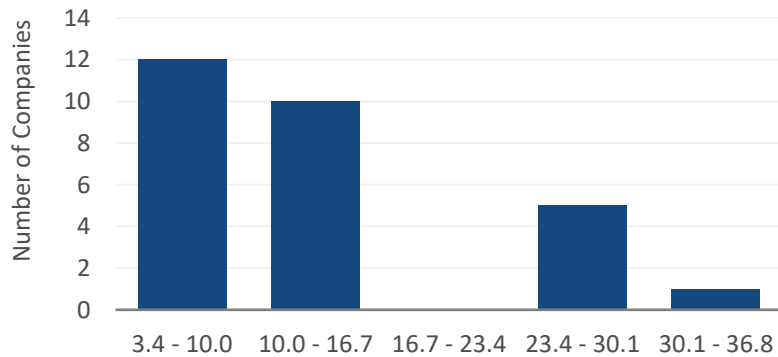
EV/Revenues



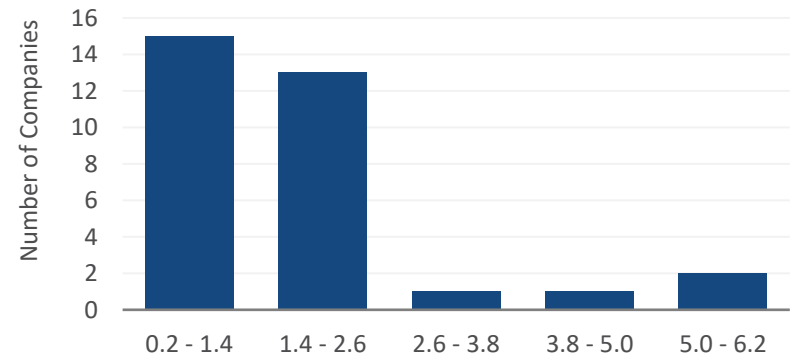
EV/EBITDA



P/E



P/B



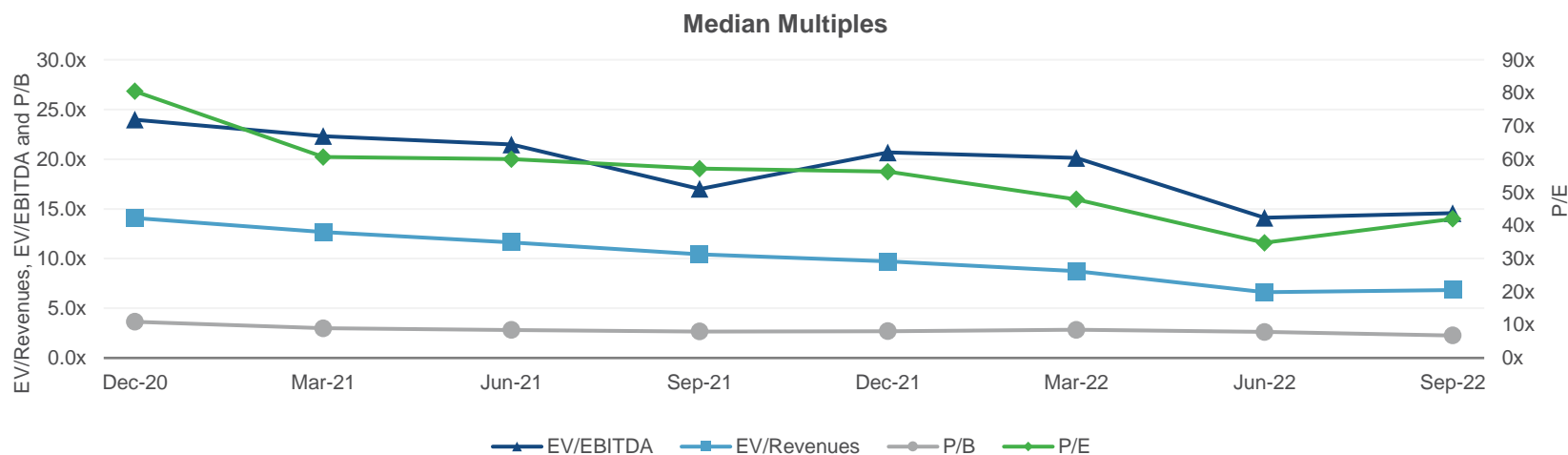
Independent Power and Renewable Producers

Q3 2022

Independent Power and Renewable Producers

As of September 30, 2022

	EV/Revenues	EV/EBITDA	P/E	P/B
Number of Observations ¹	15	15	15	15
Number of Outliers ²	3	2	3	2
High	16.2x	27.5x	101.6x	3.8x
Third Quartile	8.6x	20.0x	49.0x	3.1x
Mean	7.3x	14.7x	42.7x	2.4x
Median	6.8x	14.6x	42.0x	2.3x
First Quartile	5.0x	9.4x	19.5x	1.9x
Low	0.8x	2.8x	9.6x	1.3x



¹ A sector/industry group must have a minimum of five company participants to be calculated.

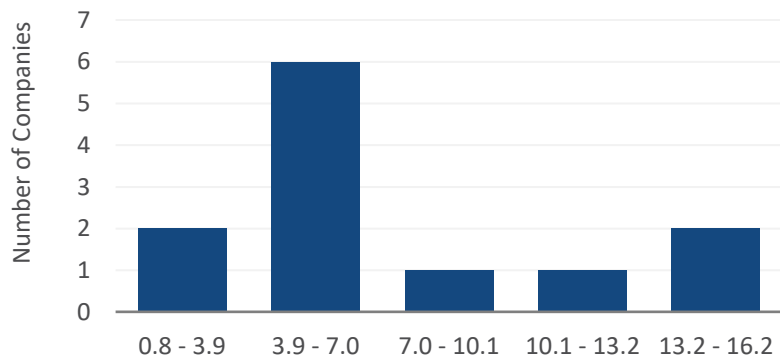
² Outliers have been excluded from the included multiples. Please refer to "Criteria" for outlier criteria and definitions.

Sources: Capital IQ; Bloomberg; Kroll analysis

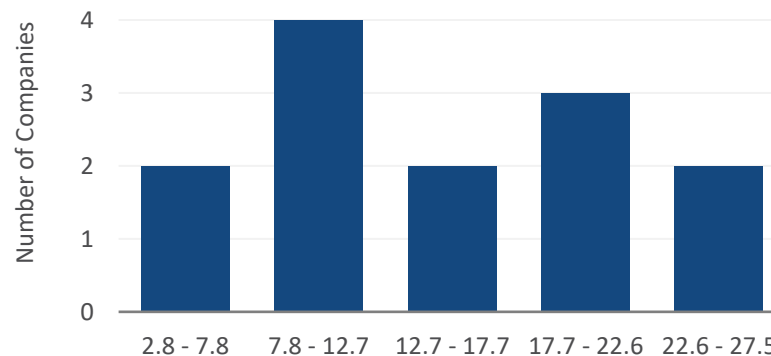
Independent Power and Renewable Producers

As of September 30, 2022

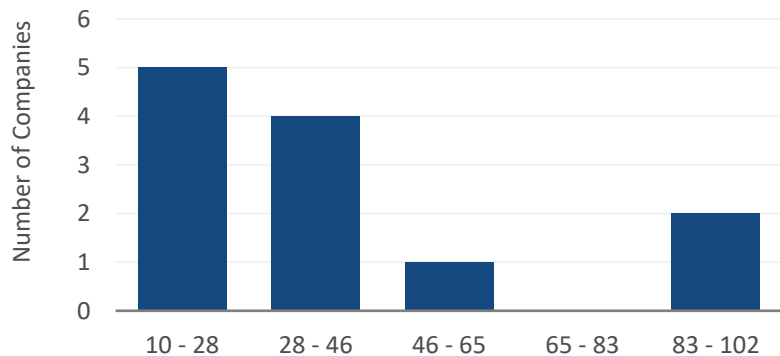
EV/Revenues



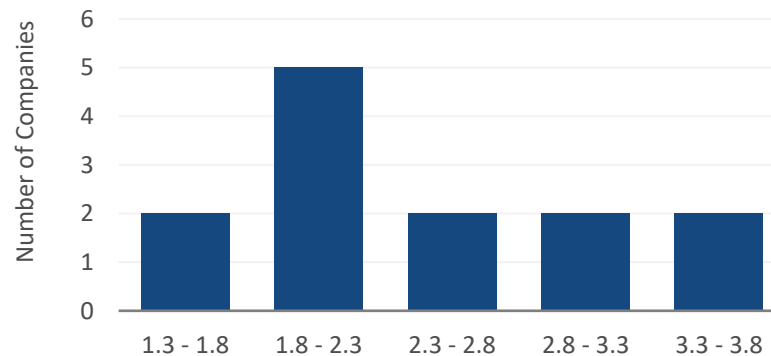
EV/EBITDA



P/E



P/B



Criteria

- For all reported multiples, we have considered the constituents of the STOXX® Europe TMI as of the report reference date. The STOXX® Europe TMI represents the Western and Eastern Europe region, covering approximately 95% of the free-float market capitalization of European companies.¹ Companies were grouped by sectors, industry groups or industries, as defined by the Global Industry Classification Standard, considering that each grouping would have enough constituents and granularity to attain the objective of this report.²
- Companies are only considered in the computation of the different multiples if the following criteria are met: market capitalization is above the fifth percentile, at least 25% free float, and average daily volume is above 0.1% of the float (data derived from Standard & Poor's Capital IQ and Bloomberg databases).
- Observations deemed to be outliers have been excluded from the above analysis. Outlier criteria include: (i) negative multiples, (ii) multiples below the fifth percentile and (iii) multiples above the 95th percentile.
- EV = Enterprise Value = Market value of equity plus book value of debt, minority interests, preferred stock, less cash and cash equivalents, loans and notes receivables, and long- and short-term investments.³ Revenues = Revenue for latest 12 months. EBITDA = Earnings before interest, taxes, depreciation and amortization for latest 12 months (provided by Capital IQ, adjusted for non-recurring items). P/E = Share price divided by earnings per share on a diluted basis. P/B = Share price/book value per share on a diluted basis where book value per share equals total book value of equity divided by diluted number of shares. P/TBV = Share price/book value minus intangible assets, per share on a diluted basis.
- Multiples have been computed in companies' filing currencies and considering figures last fully reported as at the publication of this report.

¹ Although most of the companies in the STOXX® Europe TMI Index prepare financial statements in accordance with IFRS, some use other accounting standards, such as U.S. GAAP and other local standards. Generally, since only a small proportion of the companies in the index do not use IFRS, the inclusion of those companies did not have a material impact on the statistics reported. Companies filing in accordance with U.S. GAAP accounted for approximately 1% of the total number of companies in the index. Companies following other reporting standards were treated using a similar approach as those filing in accordance with IFRS. Companies filing in accordance with Belgium, Denmark, Luxembourg, Poland and Switzerland GAAP represented approximately 4% of the total number of companies in the index. Swiss GAAP companies do not capitalize operating lease obligations in their balance sheets, unlike companies reporting under IFRS or US GAAP. We have not made a specific lease adjustment to multiples of companies reporting under Switzerland GAAP, as the impact of such adjustment would be insignificant due to the low number of such companies in the STOXX® Europe TMI Index.

² The GICS structure is comprised of 11 sectors, 24 industry groups, 69 industries and 158 sub-industries.

³ Book value of debt includes lease liabilities.

Industry Definitions

The industry classification for the companies represented in this report is based on the GICS. A summary of the sectors, as well as a brief description of those relevant industry groups that are part of a particular sector, according to the GICS guidelines, is found below:

Communication Services	
Media and Entertainment	Companies providing advertising, marketing or public relations services. Owners and operators of television or radio broadcasting systems, including programming and services. Publishers of newspapers, magazines and books in print or electronic formats. Companies that engage in producing and selling entertainment products and services, including gaming products and mobile applications.
Telecommunication Services	Providers of primarily cellular or wireless telecommunication services and operators of primarily fixed-line telecommunications networks.
Consumer Discretionary	
Automobiles and Components	Companies related to the production of passenger automobiles and light trucks, motorcycles, scooters or three-wheelers, as well as companies manufacturing parts and components for those vehicles, including tires and rubber.
Consumer Durables and Apparel	Manufacturers of electric household appliances and related products. Includes manufacturers of durable household products, power and hand tools, including garden improvement tools, but excludes TVs and other audio and video products. Manufacturers of apparel, accessories and luxury goods. Includes companies primarily producing designer handbags, wallets, luggage, jewelry and watches and manufacturers of textile and related products.
Consumer Services	Owners and operators of leisure and accommodation activities such as hotels, bars and restaurants, cruise ships, leisure facilities, casinos and gaming facilities, among others.
Retailing	Companies involved in owning and operating department stores, general merchandise stores and specialty stores. It also includes companies providing retail services primarily through the internet, mail order and TV home shopping retailers.

Industry Definitions

Consumer Staples	
Food and Staples Retailing	Owners and operators of food and drug retail stores, pharmacies, hypermarkets and super centers selling food and a wide-range of consumer staple products. Distributors of food products to other companies and not directly to the consumer.
Food, Beverage and Tobacco	Producers of beer and malt liquors, distillers, vintners, producers of alcoholic and non-alcoholic beverages, including mineral waters. Producers of agricultural products and producers of packaged foods, including dairy products, fruit juices, meats, poultry, fish and pet foods. Manufacturers of cigarettes and other tobacco products
Household and Personal Products	Producers of non-durable household products, including detergents, soaps, diapers and other tissue and household paper products not included elsewhere. Manufacturers of personal and beauty care products, including cosmetics and perfumes.
Energy	
Energy	Companies engaged in exploration and production, refining and marketing, and storage and transportation of oil and gas and coal and consumable fuels. It also includes companies that offer oil and gas equipment and services.
Financials	
Banks	Commercial diverse with a national footprint whose revenues are derived primarily from conventional banking operations, have significant business activity in retail banking and small and medium corporate lending, and provide a diverse range of financial services. This also includes regional banks that tend to operate in limited geographic regions and excludes investment banks.
Diversified Financial Services	Financial exchanges for securities, commodities, derivatives and other financial instruments, and providers of financial decision support tools and products including ratings agencies. Providers of a diverse range of financial services and/or with some interest in a wide range of financial services including banking, insurance, and capital markets, but with no dominant business line.
Consumer Finance	Providers of consumer finance services, including personal credit, credit cards, lease financing, travel-related money services and pawn shops.

Industry Definitions

Financials (cont.)	
Capital Markets	Financial institutions primarily engaged in diversified capital markets activities, including a significant presence in at least two of the following areas: large/major corporate lending, investment banking, brokerage and asset management. Includes financial exchanges for securities, commodities, derivatives and other financial instruments.
Insurance	Companies providing insurance and reinsurance services of any kind as well as insurance and reinsurance brokerage firms.
Health Care	
Health Care Equipment and Services	Companies including health care providers and services, companies that manufacture and distribute health care equipment and supplies and health care technology companies.
Pharmaceuticals, Biotechnology and Life Sciences	Companies involved in the research, development, production and marketing of pharmaceuticals and biotechnology products.
Industrials	
Capital Goods	Companies related to the manufacturing or distribution of goods. The sector is diverse, containing companies that manufacture machinery used to create capital goods, electrical equipment, aerospace and defense, engineering and construction projects.
Commercial and Professional Services	Companies involved in supporting businesses with specialized skills such as human capital management, research and consulting services, office services, security and protection services, environmental and maintenance services.
Transportation	Companies involved in providing mainly goods and passenger transportation through air, sea or land. Companies owning and operating the infrastructures needed for transportation, such as airports, ports, railtracks or roads.

Industry Definitions

Information Technology	
Semiconductors and Semiconductor Equipment	Manufacturers of semiconductors, semiconductor equipment and related products, including manufacturers of solar modules and cells as well as manufacturers of the raw material and equipment used in the solar power industry.
Software and Services	Companies offering software and information technology services as well as infrastructure for the internet, including data centers, cloud networking and storage infrastructure.
Technology Hardware and Equipment	Companies involved in manufacturing communication equipment, cellular phones, personal computers, computer components, peripherals, electronic equipment and components as well as technology distributors.
Materials	
Materials	Companies that manufacture chemicals, construction materials, glass, paper, forest products and related packaging products, and metals, minerals and mining companies, including producers of steel.
Real Estate	
Real Estate	Companies engaged in real estate development and operation. It also includes companies offering real estate-related services and Equity Real Estate Investment Trusts (REITs).
Utilities	
Electric, Gas and Water Utilities	Companies involved in producing or distributing electricity, in the distribution of gas, in redistributing water to the end-consumer, as well as utility companies with significantly diversified activities in addition to core electric utility, gas utility and/or water utility operations.
Independent Power and Renewable Electricity Producers	Independent power producers and energy traders and companies that engage in generation and distribution of electricity using renewable sources.



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