



# Industry Multiples of China

November 2022

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# Foreword



## Ricky Lee

Managing Director  
Valuation Advisory Services

### Dear Readers,

This report provides trading multiples for key industrial sectors in China as of September 30, 2022. In the first nine months of the year, China's GDP rose by 3% year on year. The Asian Development Bank projects growth of 3.3% for the full year, which places China above other major economic areas—forecasted increases are 2.7% for the European Union, 1.92% for Japan and 1.6% for the United States.

The moderation of China's growth can be attributed to a mix of global and domestic factors. Economies are facing stiff headwinds due to geopolitical tensions, higher prices for commodities and the lingering impact of the COVID-19 pandemic. Additionally, soaring inflation, increasing interest rates and rising energy costs have weakened consumer demand in many developed markets. As China is the world's biggest exporter of goods, these pressures feed through to the bottom line of Chinese companies.

In the domestic market, aggregate revenue has increased in all industries, and yet, most sectors suffered a drop in aggregate net profit, with the exception of energy, materials and financials. This suggests that businesses are sacrificing profitability in order to maintain activity levels. China's zero-COVID policy has, at times, inhibited growth.

As of September 30, 2022, the China Shanghai Composite Stock Market Index had increased 17% so far this year, to 3,024. In the same period, Hong Kong's benchmark Hang Seng Index fell 26% to 17,223 while the MSCI China Index plummeted 32% to 56.4.

In real estate, the Chinese government has introduced a series of policies to bolster the industry, such as tax refunds, lower interest rates and the easing of restrictions on mortgages. These measures seem to have had the desired effect, with 2022's trading P/E multiple surprisingly higher than the pre-pandemic level, considering the issues that have buffeted the sector and aggregate profit in the sector falling by around 27%. Companies are still trading at a discount of 30%, on average, to their book (or a 0.7 P/B ratio). We can perhaps see light at the end of the tunnel as the government recognizes the sector's critical importance to the wider economy and as a source of local government fiscal income.

While we see a less-than-optimal picture across many capital markets, there are brighter areas of the economy that offer a degree of shelter for investors.

Industrials, for instance, remained stable—reflecting the appeal of a sector that enjoyed a resurgence in production after the pandemic and that is less exposed to consumer confidence.

With price increases in the utilities sector slowing, this is another sector that has remained relatively stable and stands on a neutral to positive footing.

The trading P/E multiple for energy fell this year to 5.9, from 10 prior to the pandemic. Share prices in the sector have not followed the jump in aggregate profit of 56%; this indicates that the sector could be undervalued, based on the historical average and comparison with global peers.

# Foreword

Therefore, industrials, utilities and energy present useful defensive options in the current bear market.

Elsewhere, the picture is gloomier. Health care, in particular, saw a big drop in its P/E multiple—from 58.3 in the first year of the pandemic down to 24.5. It's understandable that the sector would have been overpriced and over-invested in the midst of a global health crisis.

In the materials sector, a cooling construction market, supply chain disruptions and challenges in the steel industry combined to reduce multiples.

P/E multiples in both consumer discretionary and consumer staples have been impacted by constrained consumer spending power and a significant drop in aggregate profit in the sectors, although both figures held their own against pre-pandemic levels. The expected ease of China's zero-COVID policy may reverse the downtrend on valuation.

In the financials sector, exposure to bad loans and distressed assets in the real estate sector continued to have an adverse impact on multiples—a situation exacerbated by corporate clients' weakening demand for loans as the wider economy slows.

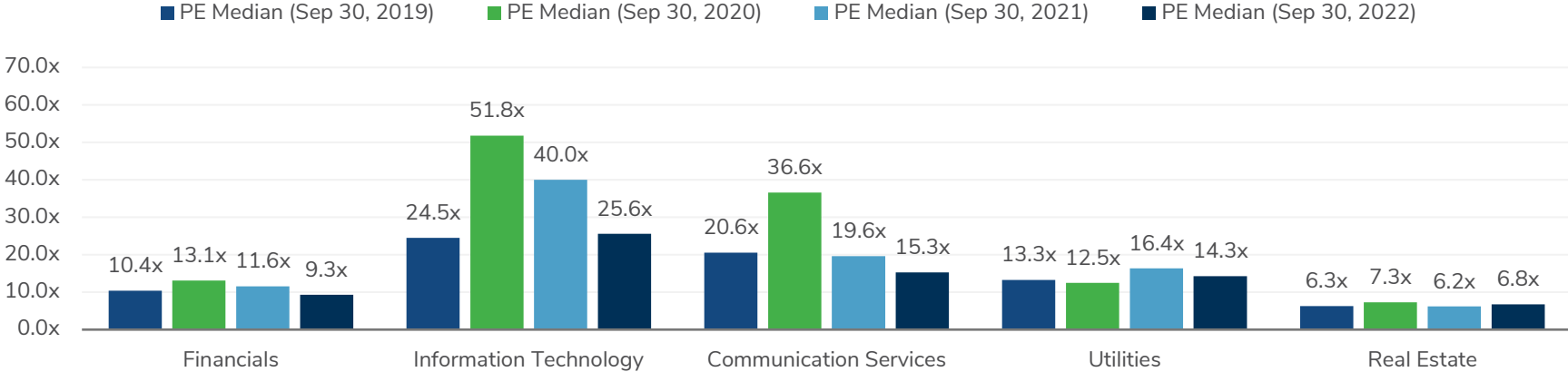
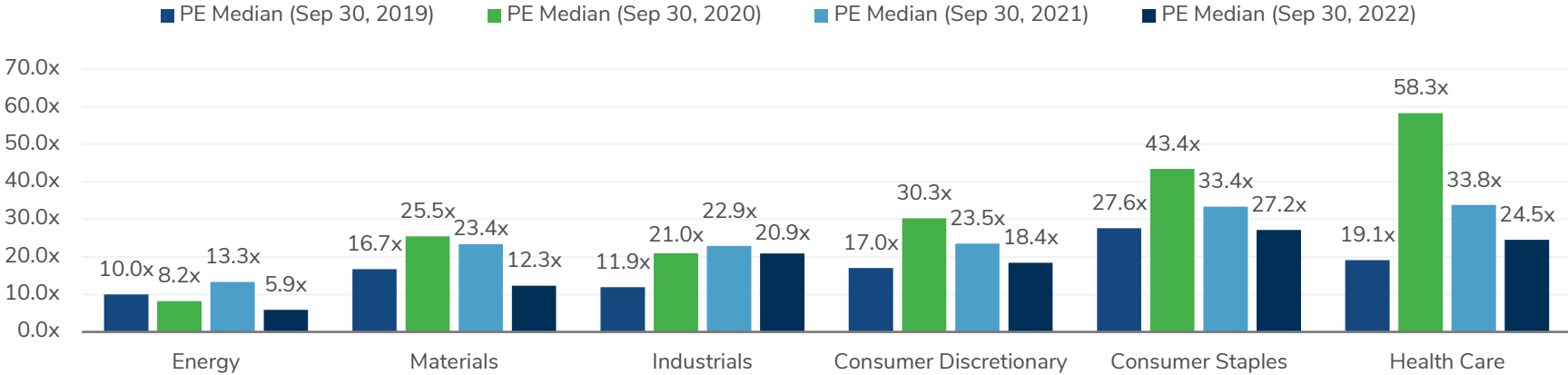
A tighter domestic regulatory landscape and international trade restrictions on certain key components and technologies were the main factors weighing on lower multiples in the information technology and communication services sectors .

We hope this report gives our readers a broad sense of the range of trading multiples for major industries in China and helps you stay ahead with Kroll on valuation. Readers should seek professional assistance and perform detailed valuation analysis before applying multiples on specific valuation subjects. Kroll has both global resources and local expertise to assist clients in meeting their valuation needs, including but not limited to the following areas:

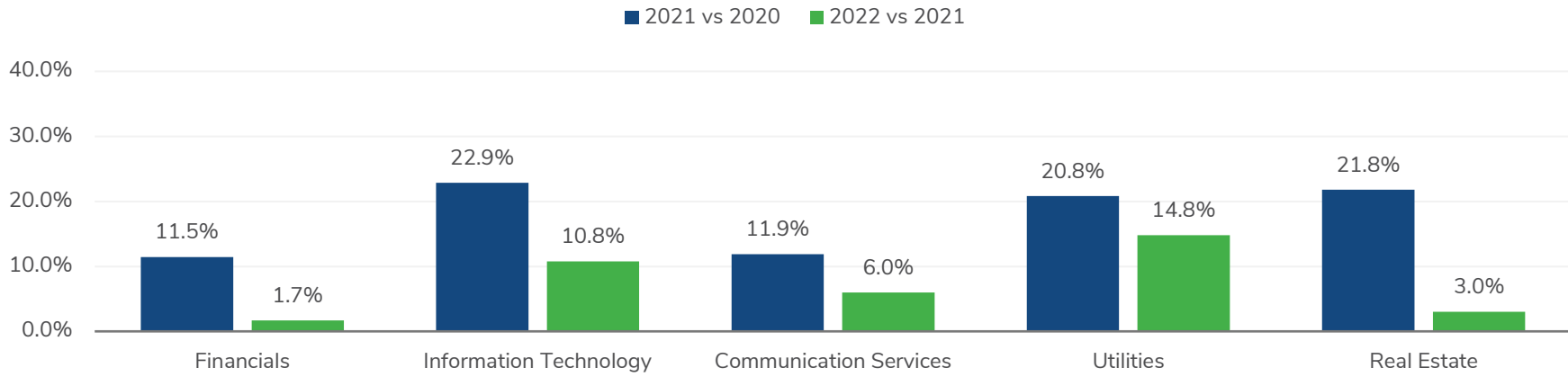
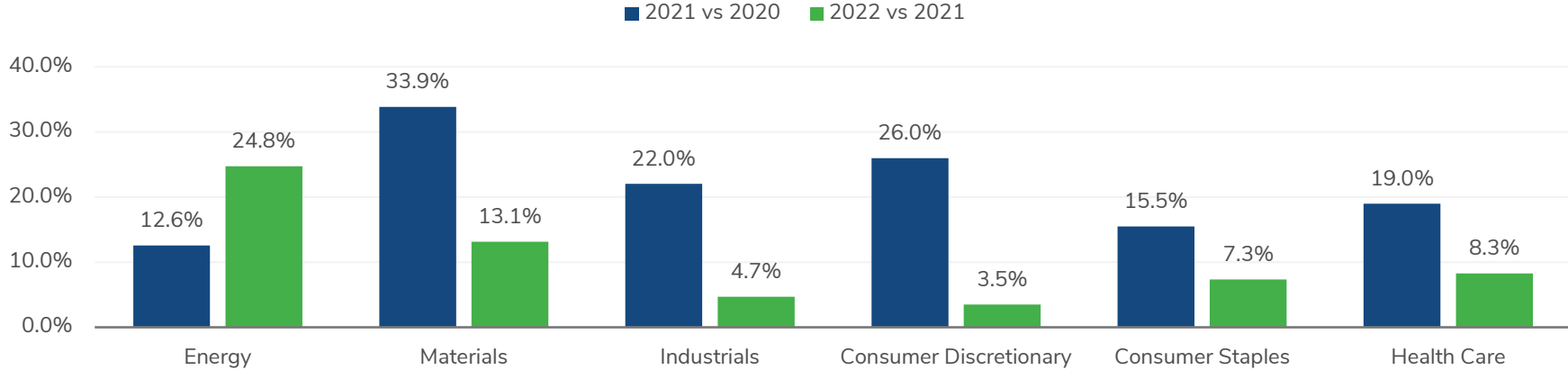
- Pre-IPO ESOP pricing or restructuring of China-based IPO candidates planning to go public in Hong Kong or the U.S.
- Fair-value measurement of equity investment in private companies in compliance with IFRS 9 and SFC's New Fund Manager Code of Conduct
- Indicators of potential impairment in the current fiscal year-end, and whether further robust independent valuation analysis may be needed
- Corporate transactions of Hong Kong-listed companies in accordance with corporate governance best practices

# P/E Multiples Over Time

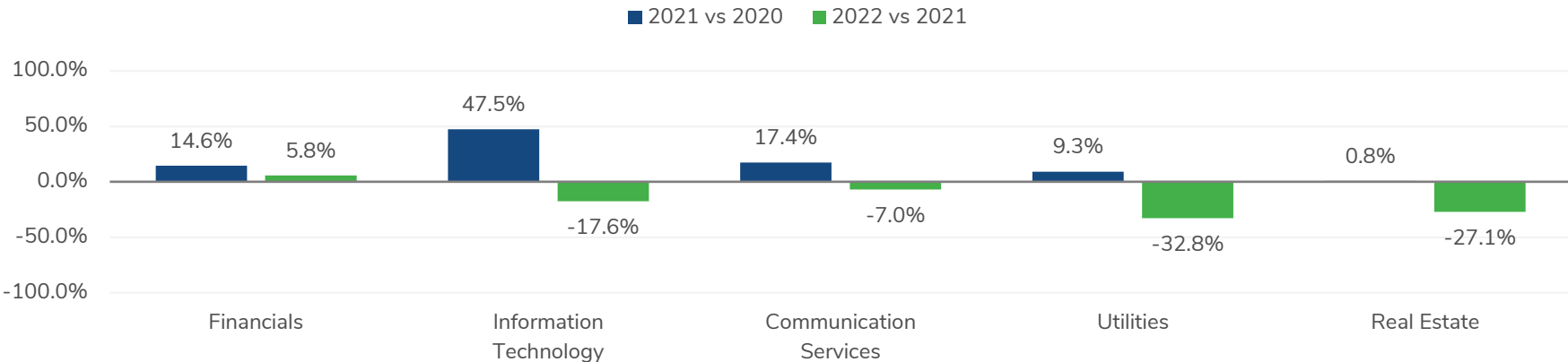
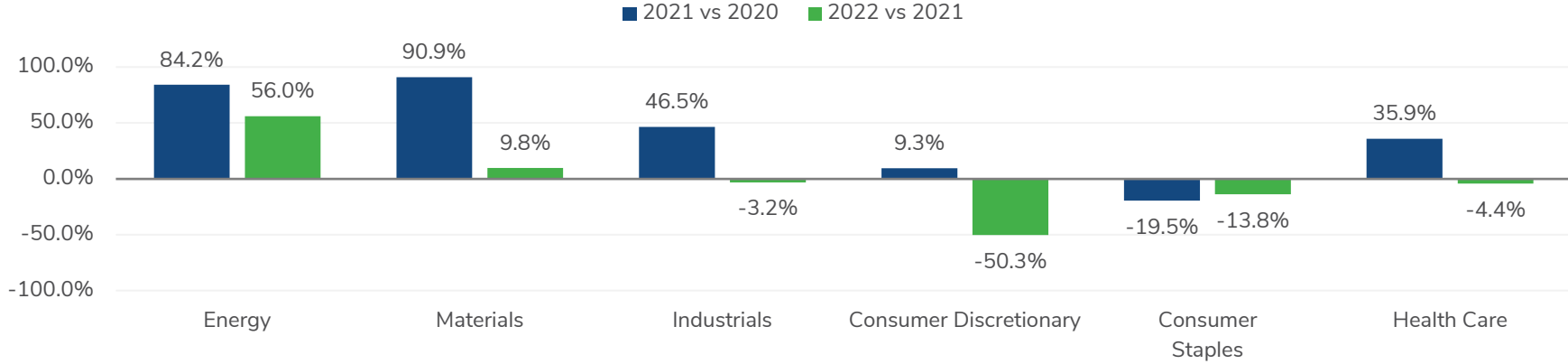
(Including Outliers)



# Revenue Percentage Change Over Time

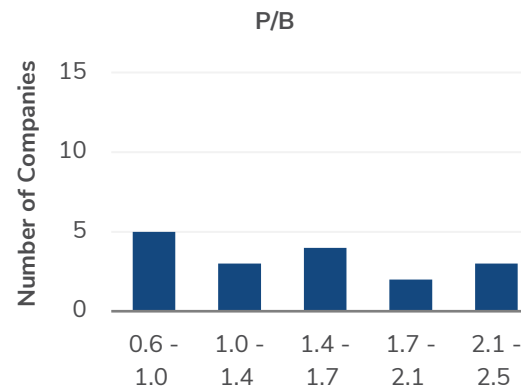
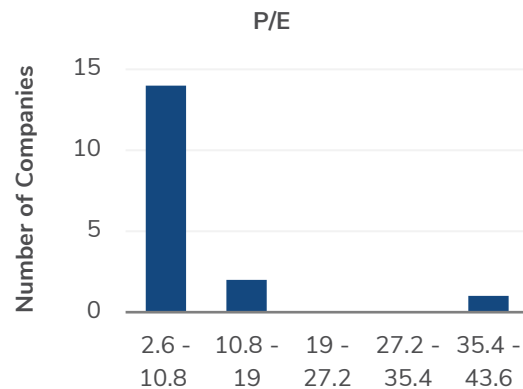
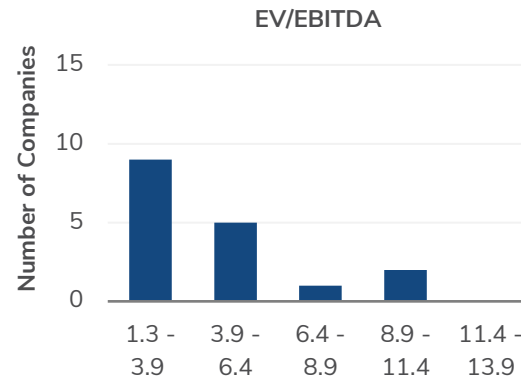
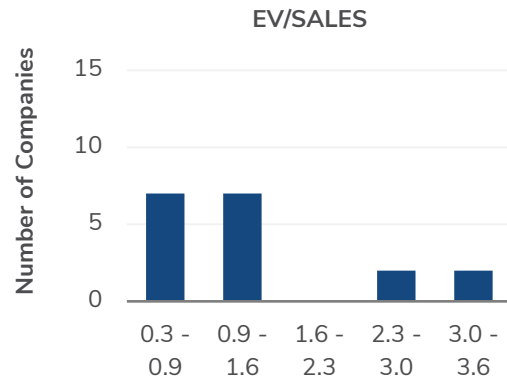


# Net Income Percentage Change Over Time



# Energy

As of September 30, 2022

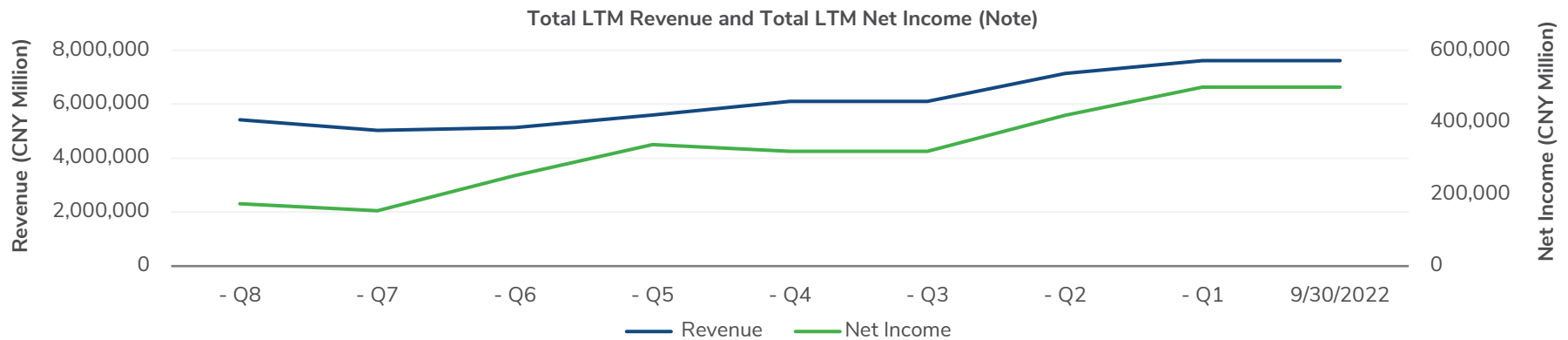
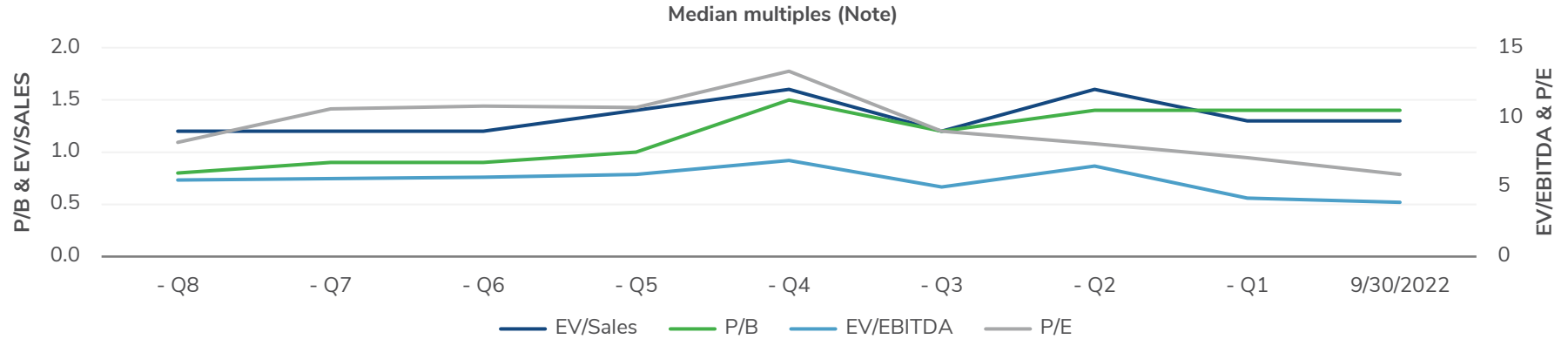


	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	19	19	19	19
Number of Outliers	1	1	2	1
Negative Multiples or Multiple Errors				
High	3.6x	13.9x	43.6x	2.5x
<b>Mean</b>	<b>1.4x</b>	<b>5.0x</b>	<b>9.8x</b>	<b>1.5x</b>
<b>Median</b>	<b>1.2x</b>	<b>3.8x</b>	<b>7.2x</b>	<b>1.4x</b>
Low	0.3x	1.3x	2.6x	0.6x
Low Quartile	0.8x	3.2x	5.9x	0.9x
Upper Quartile	1.5x	5.5x	8.8x	2.0x



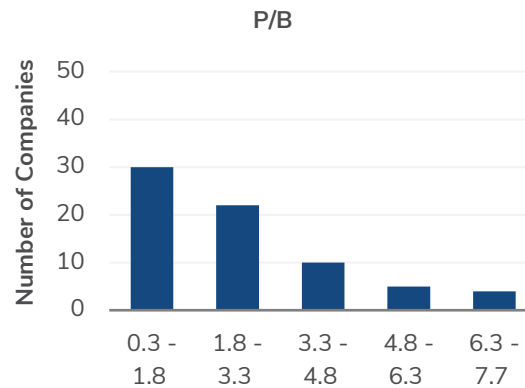
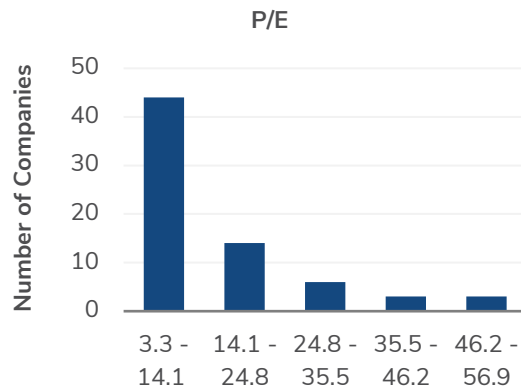
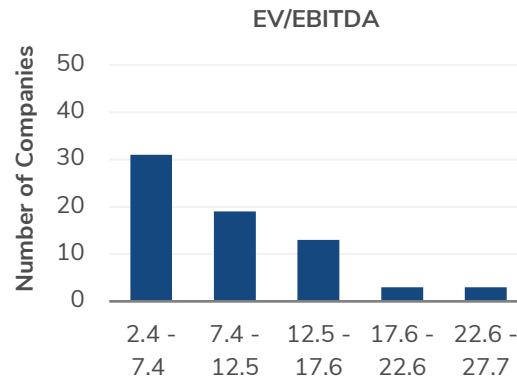
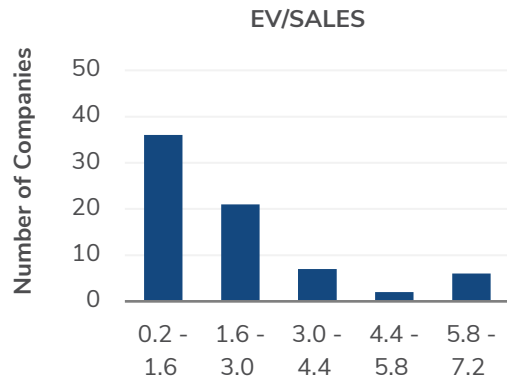
# Energy (cont'd)

As of September 30, 2022



# Materials

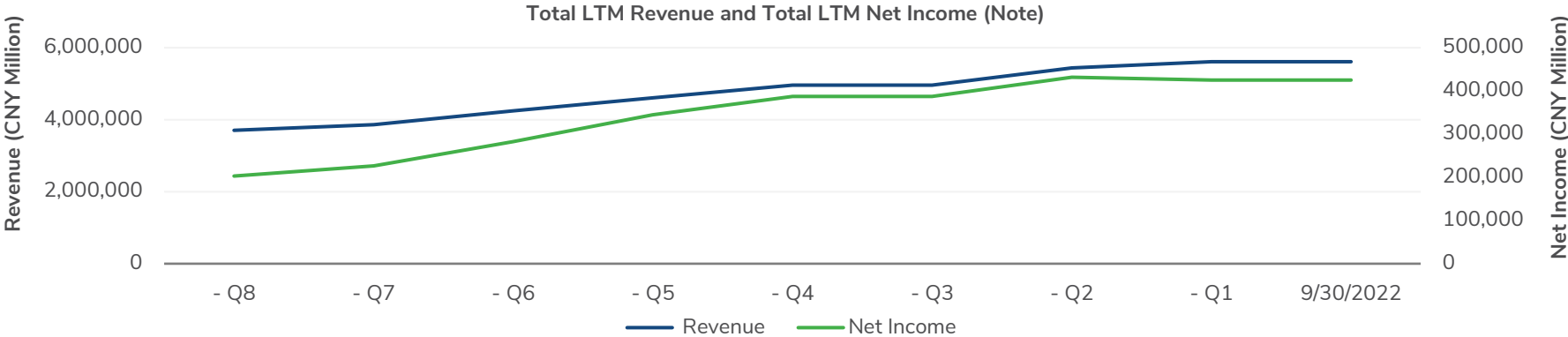
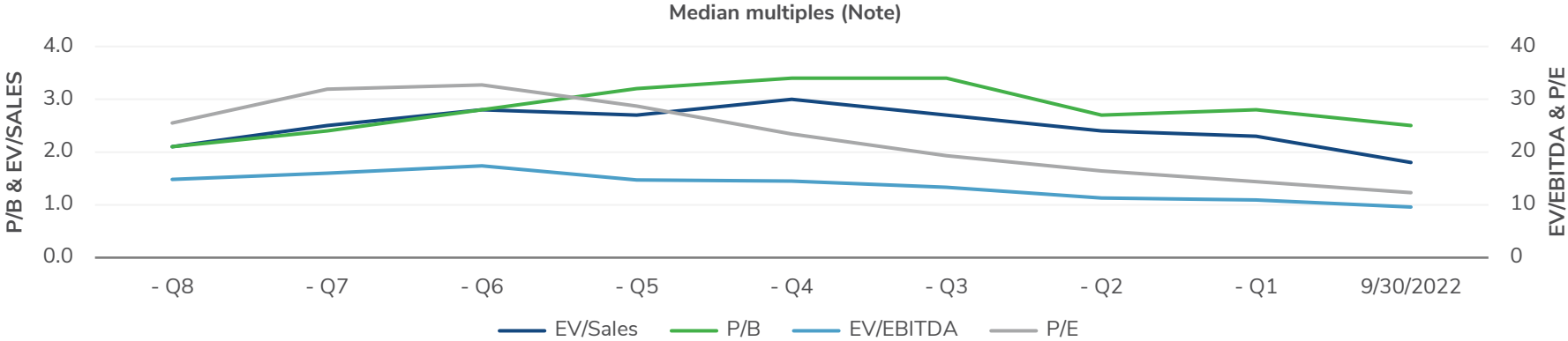
As of September 30, 2022



	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	94	94	94	94
Number of Outliers	8	8	7	6
Negative Multiples or Multiple Errors				
High	7.2x	27.7x	56.9x	7.7x
<b>Mean</b>	<b>2.2x</b>	<b>10.0x</b>	<b>16.0x</b>	<b>2.7x</b>
<b>Median</b>	<b>1.6x</b>	<b>8.6x</b>	<b>11.2x</b>	<b>2.3x</b>
Low	0.2x	2.4x	3.3x	0.3x
Low Quartile	0.9x	5.1x	7.4x	1.1x
Upper Quartile	2.9x	13.8x	19.6x	4.1x

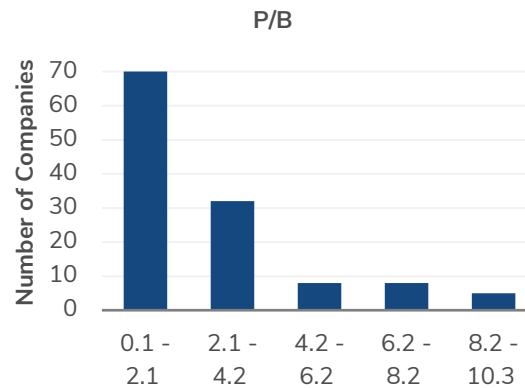
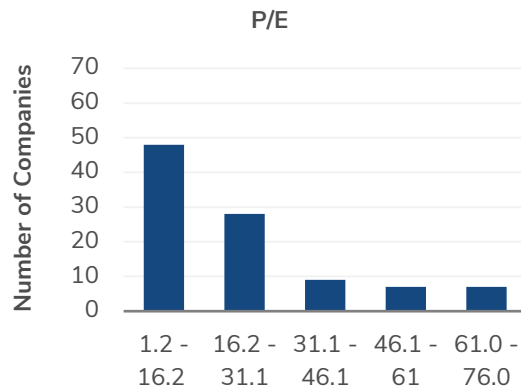
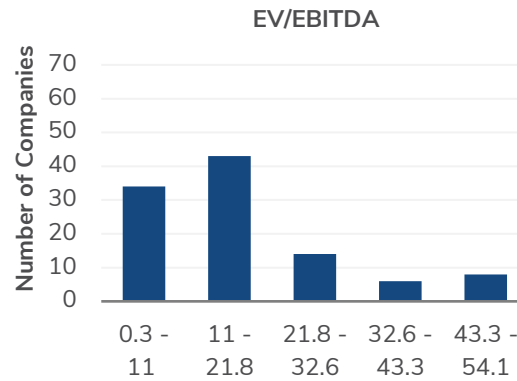
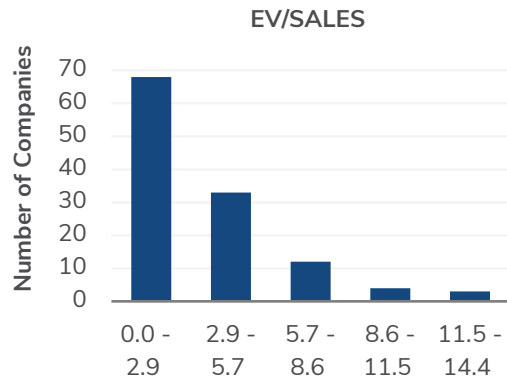
# Materials (cont'd)

As of September 30, 2022



# Industrials

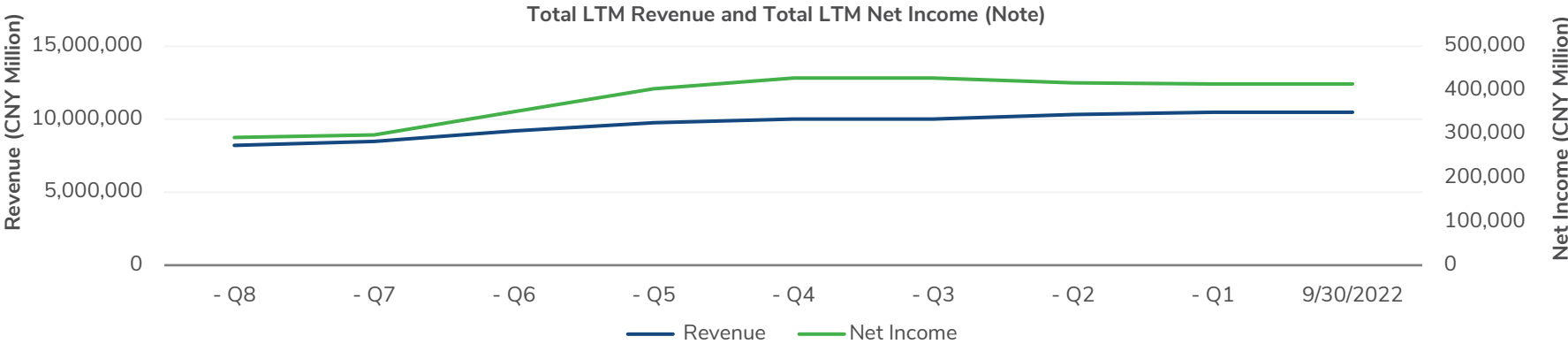
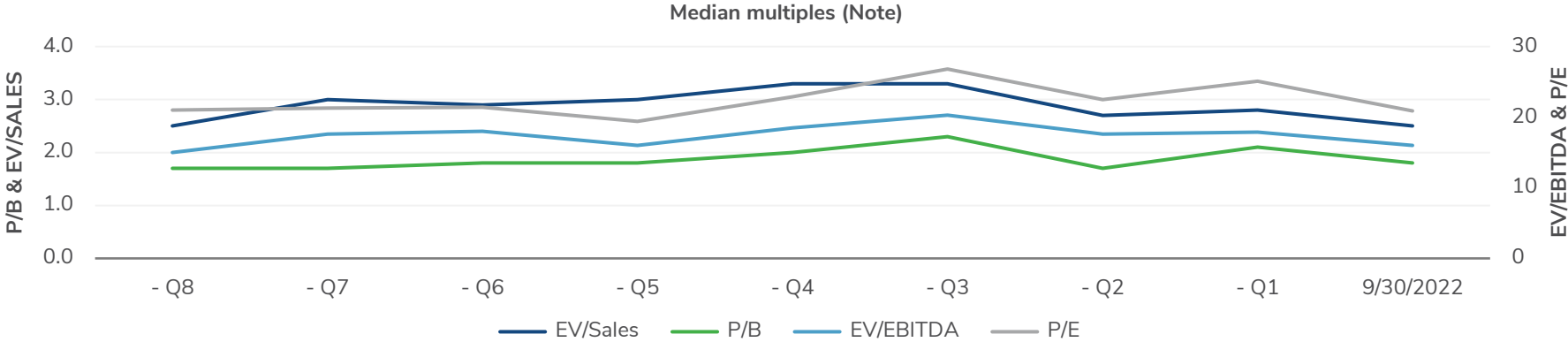
As of September 30, 2022



	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	130	130	130	130
Number of Outliers	8	23	29	5
Negative Multiples or Multiple Errors				
High	14.4x	54.1x	76.0x	10.3x
<b>Mean</b>	<b>3.1x</b>	<b>18.1x</b>	<b>23.1x</b>	<b>2.5x</b>
<b>Median</b>	<b>2.0x</b>	<b>14.8x</b>	<b>16.7x</b>	<b>1.7x</b>
Low	0.0x	0.3x	1.2x	0.1x
Low Quartile	0.9x	9.3x	7.3x	0.8x
Upper Quartile	4.5x	23.0x	30.3x	3.1x

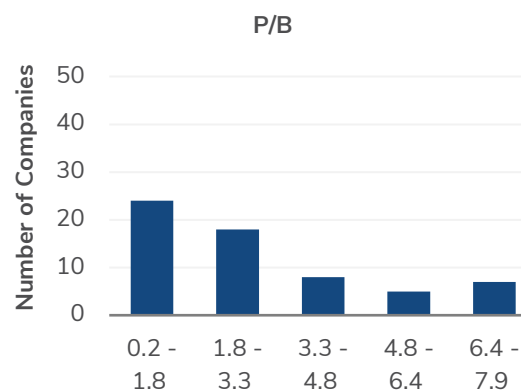
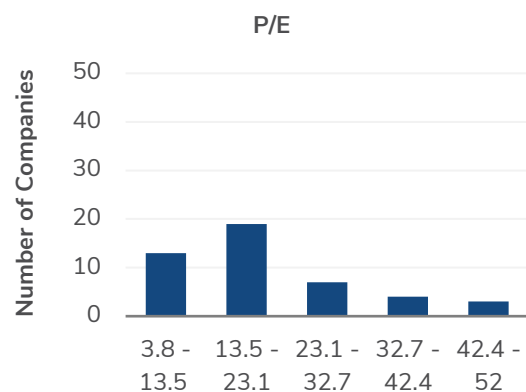
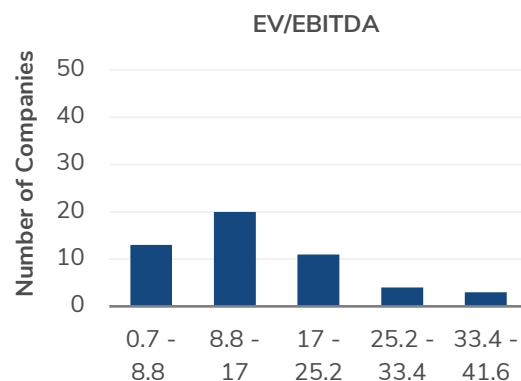
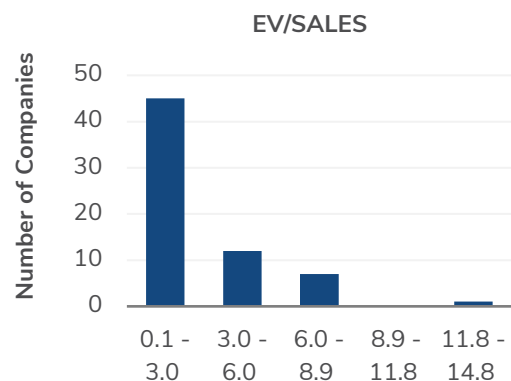
# Industrials (cont'd)

As of September 30, 2022



# Consumer Discretionary

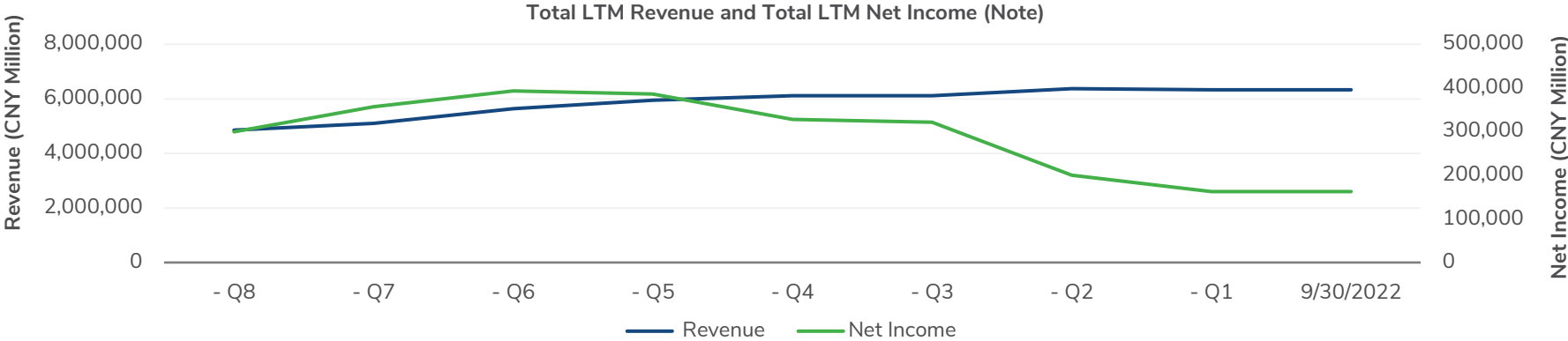
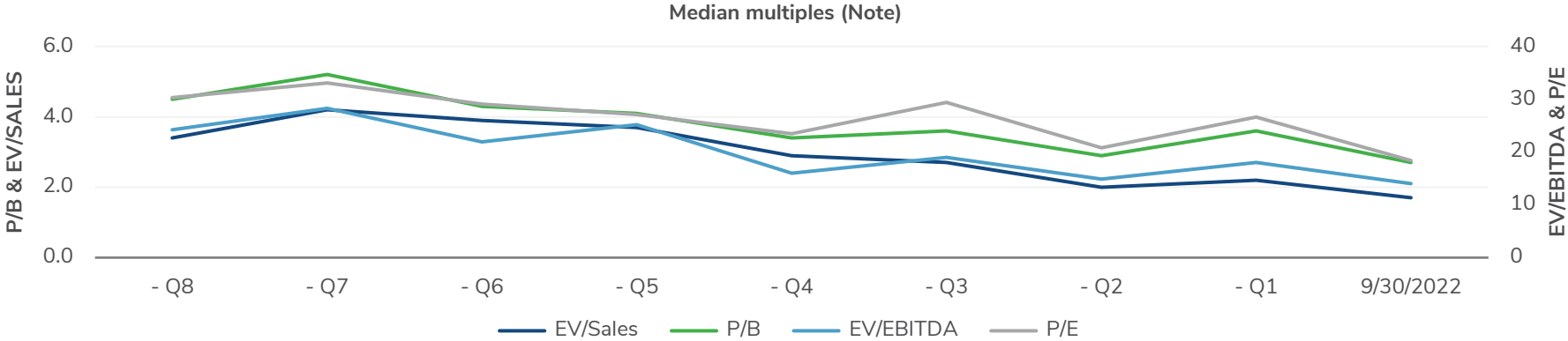
As of September 30, 2022



	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	67	67	67	67
Number of Outliers	2	16	21	4
Negative Multiples or Multiple Errors				
High	14.8x	41.6x	52.0x	7.9x
<b>Mean</b>	<b>2.6x</b>	<b>15.6x</b>	<b>19.9x</b>	<b>3.0x</b>
<b>Median</b>	<b>1.7x</b>	<b>14.0x</b>	<b>18.0x</b>	<b>2.6x</b>
Low	0.1x	0.7x	3.8x	0.2x
Low Quartile	0.8x	8.9x	12.6x	1.2x
Upper Quartile	3.8x	20.3x	24.2x	4.1x

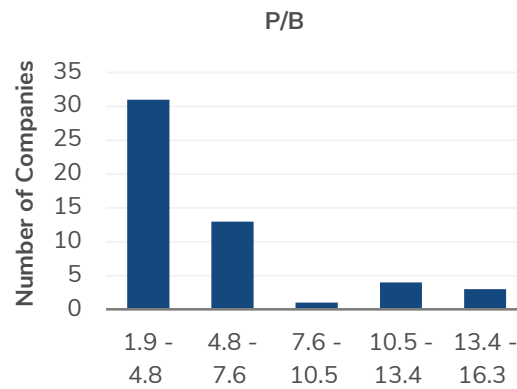
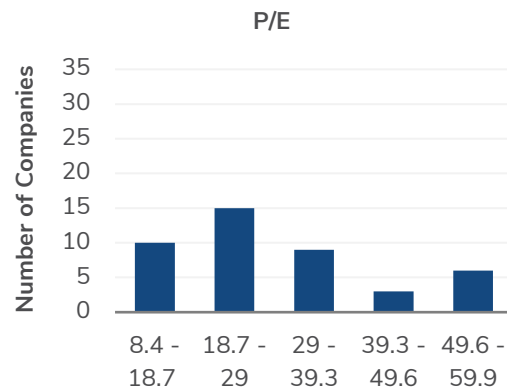
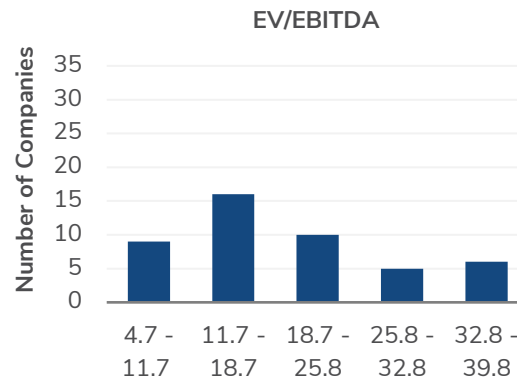
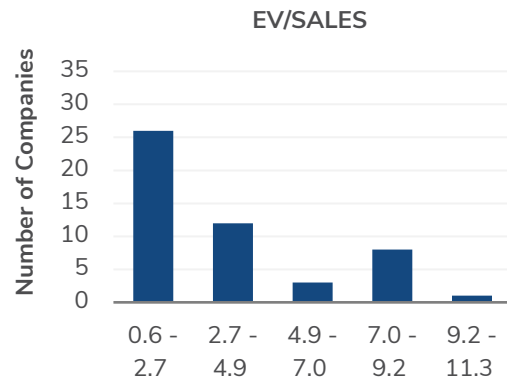
# Consumer Discretionary (cont'd)

As of September 30, 2022



# Consumer Staples

As of September 30, 2022

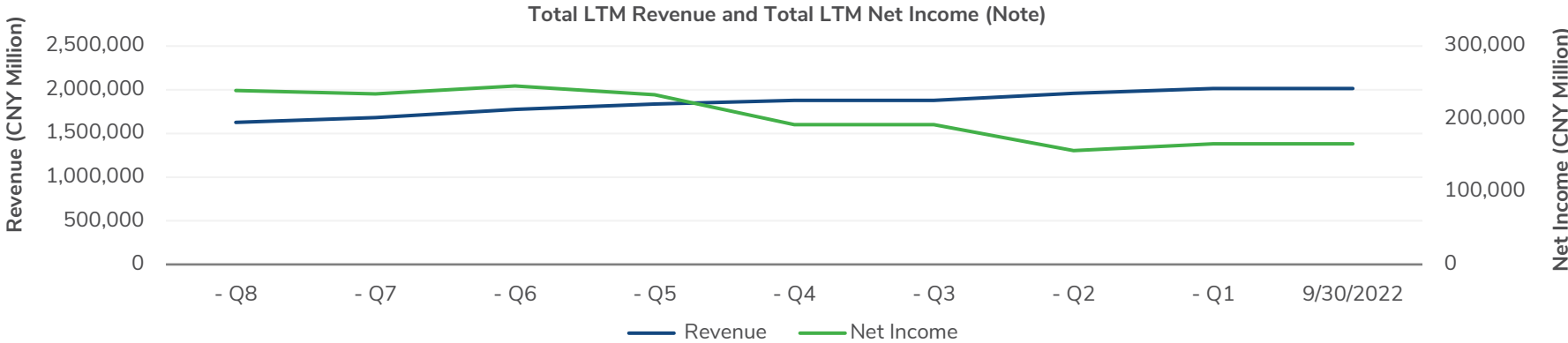
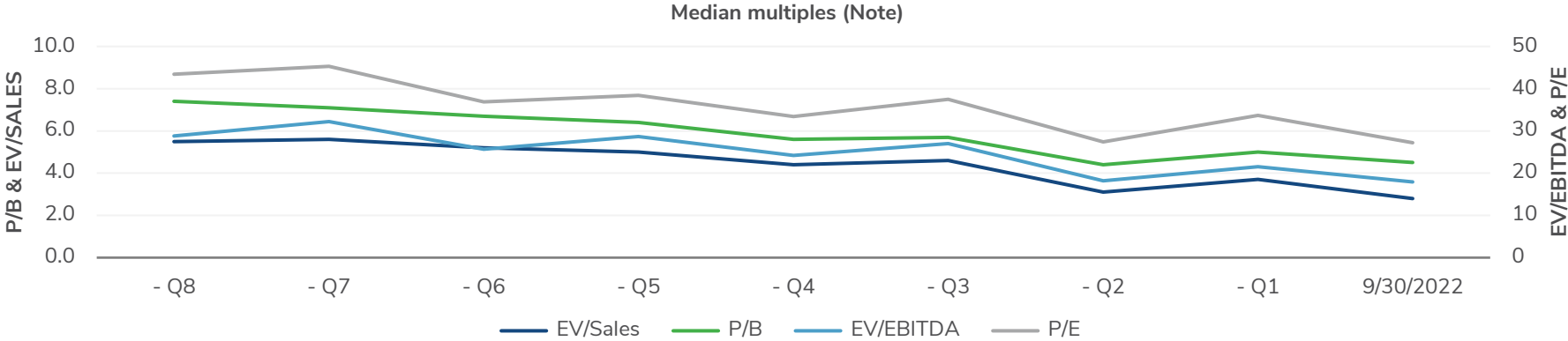


	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	56	56	56	56
Number of Outliers	6	9	13	4
Negative Multiples or Multiple Errors				
High	11.3x	39.8x	59.9x	16.3x
<b>Mean</b>	<b>3.6x</b>	<b>19.9x</b>	<b>29.7x</b>	<b>5.3x</b>
<b>Median</b>	<b>2.6x</b>	<b>17.9x</b>	<b>26.0x</b>	<b>4.3x</b>
Low	0.6x	4.7x	8.4x	1.9x
Low Quartile	1.5x	12.1x	19.7x	2.9x
Upper Quartile	4.5x	25.9x	37.2x	6.2x



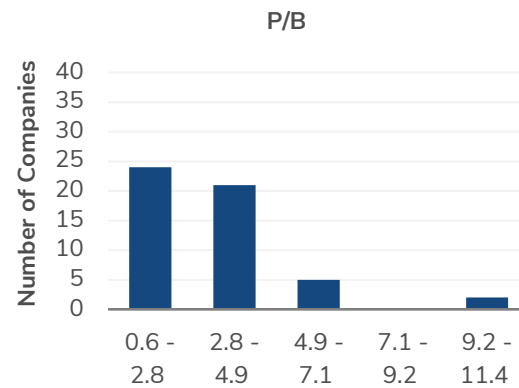
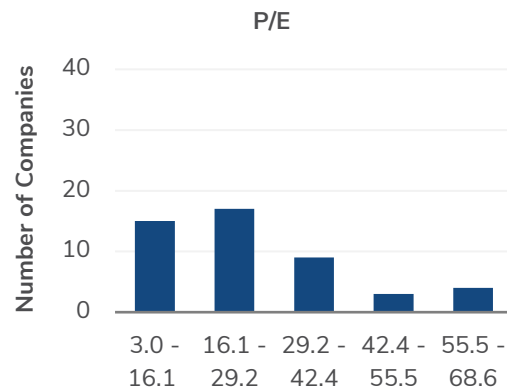
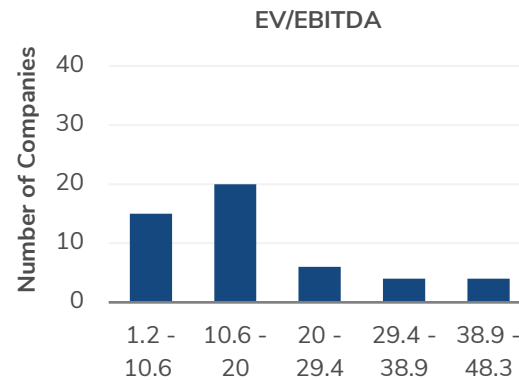
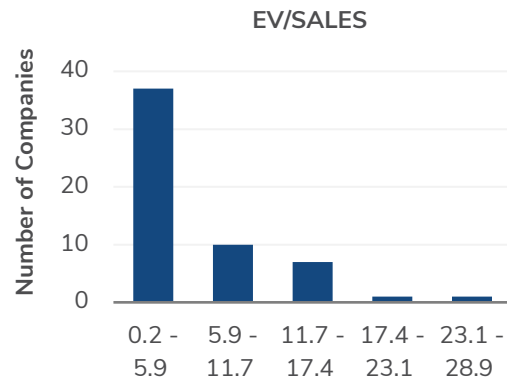
# Consumer Staples (cont'd)

As of September 30, 2022



# Health Care

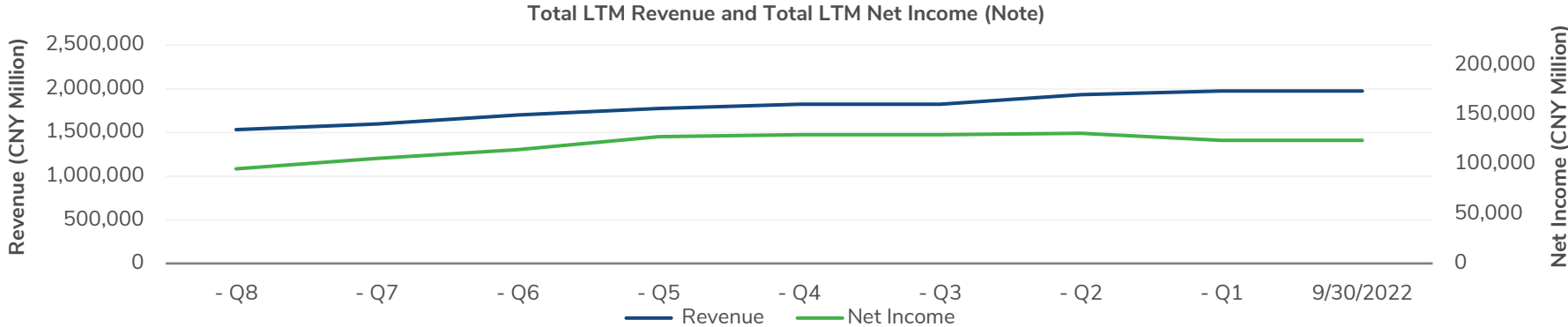
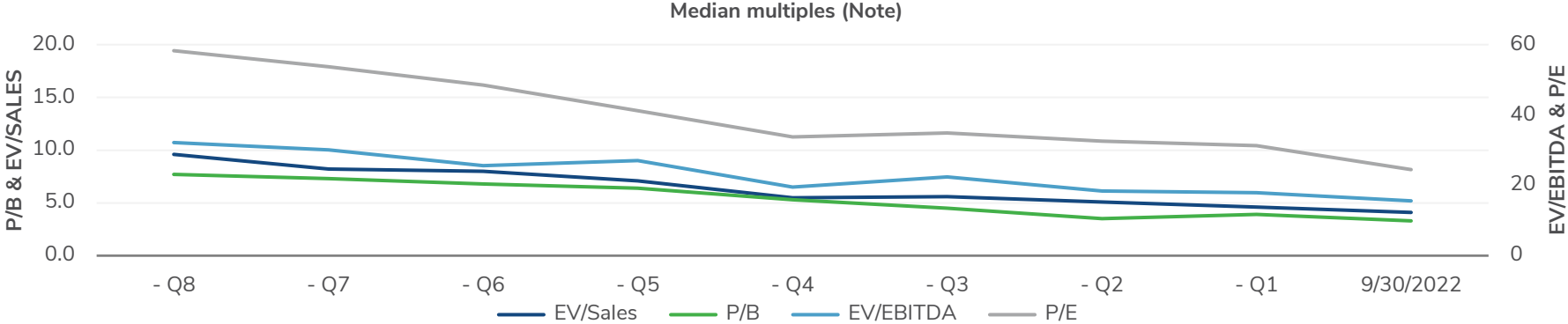
As of September 30, 2022



	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	80	80	80	80
Number of Outliers	4	14	15	7
Negative Multiples or Multiple Errors				
High	28.9x	48.3x	68.6x	11.4x
<b>Mean</b>	<b>6.1x</b>	<b>18.6x</b>	<b>26.2x</b>	<b>3.4x</b>
<b>Median</b>	<b>4.8x</b>	<b>16.3x</b>	<b>23.3x</b>	<b>3.0x</b>
Low	0.2x	1.2x	3.0x	0.6x
Low Quartile	2.0x	10.1x	13.7x	2.0x
Upper Quartile	8.3x	23.7x	35.7x	4.0x

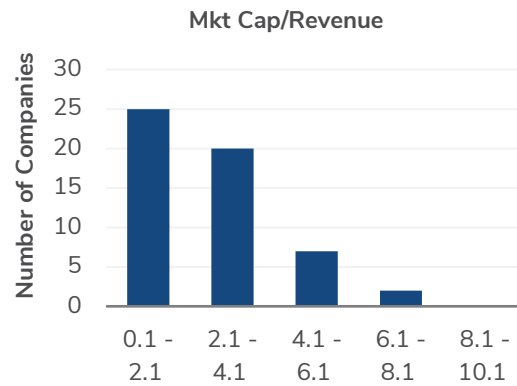
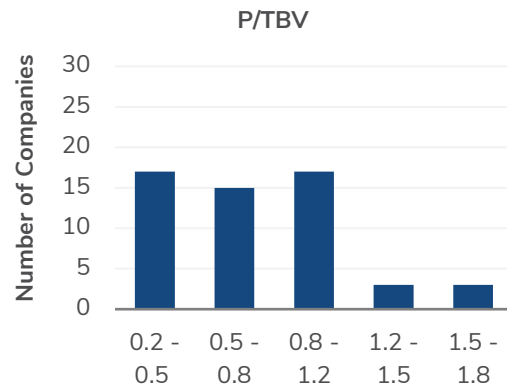
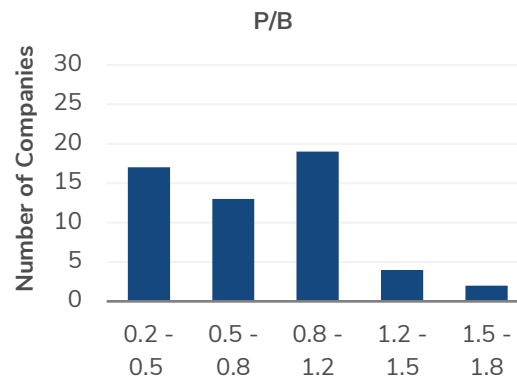
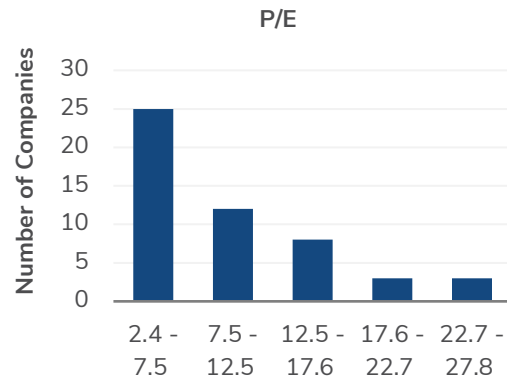
# Health Care (cont'd)

As of September 30, 2022



# Financials

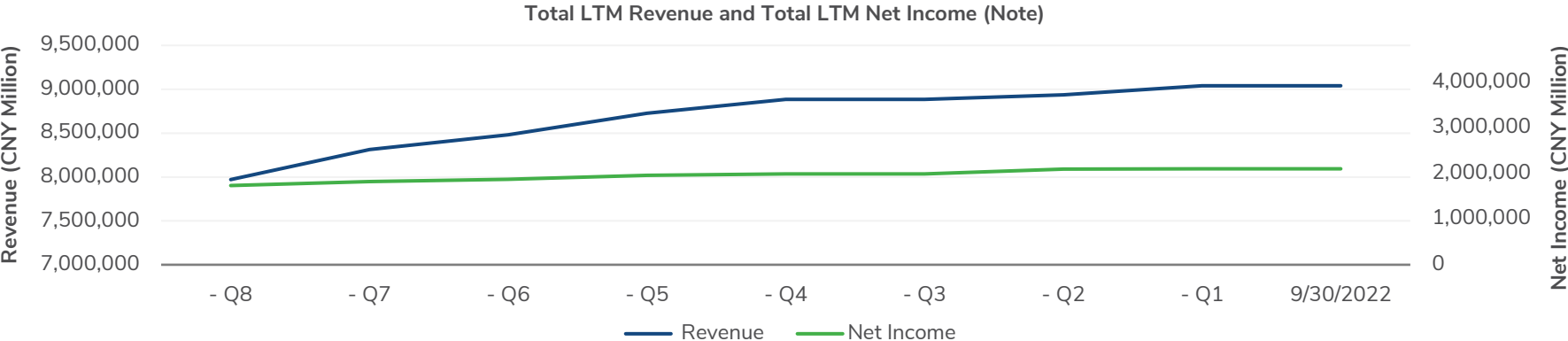
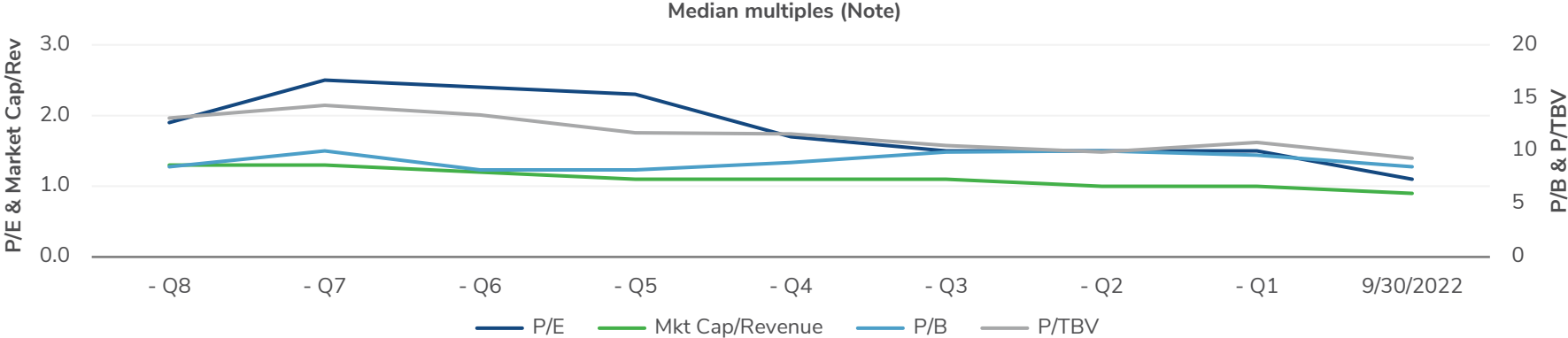
As of September 30, 2022



	P/E	P/B	P/TBV	Mkt Cap/ Revenue
Number of Observations	80	80	80	80
Number of Outliers	11	3	4	6
Negative Multiples or Multiple Errors				
High	27.8x	1.8x	1.8x	10.1x
<b>Mean</b>	<b>10.7x</b>	<b>0.8x</b>	<b>0.9x</b>	<b>3.0x</b>
<b>Median</b>	<b>8.7x</b>	<b>0.9x</b>	<b>0.9x</b>	<b>2.6x</b>
Low	2.4x	0.2x	0.2x	0.1x
Low Quartile	4.9x	0.5x	0.5x	1.5x
Upper Quartile	15.4x	1.1x	1.1x	4.0x

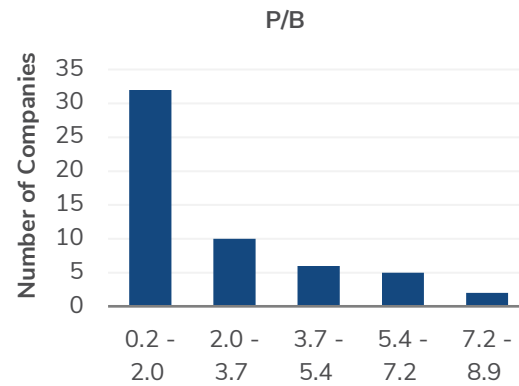
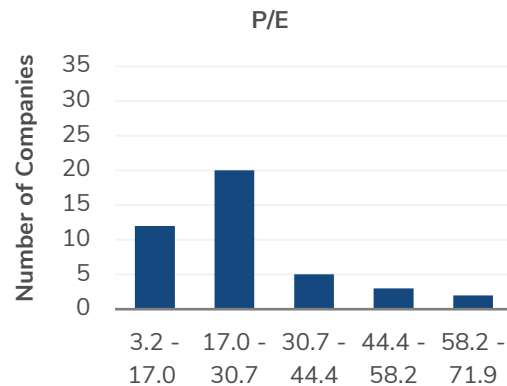
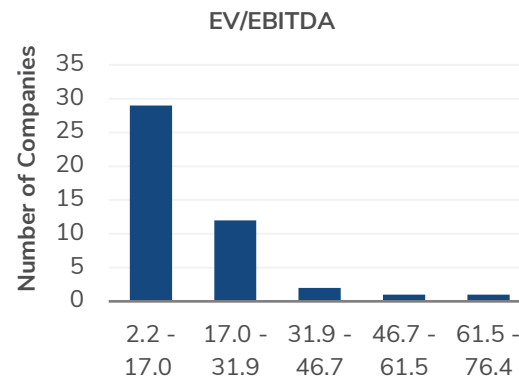
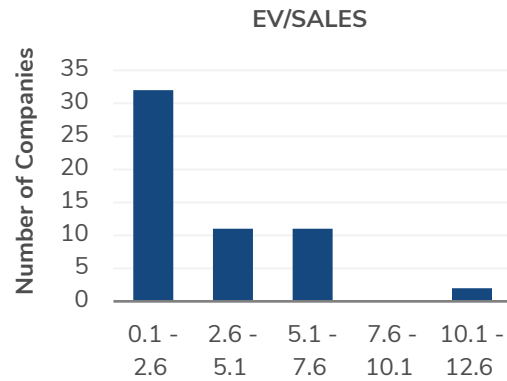
# Financials (cont'd)

As of September 30, 2022



# Information Technology

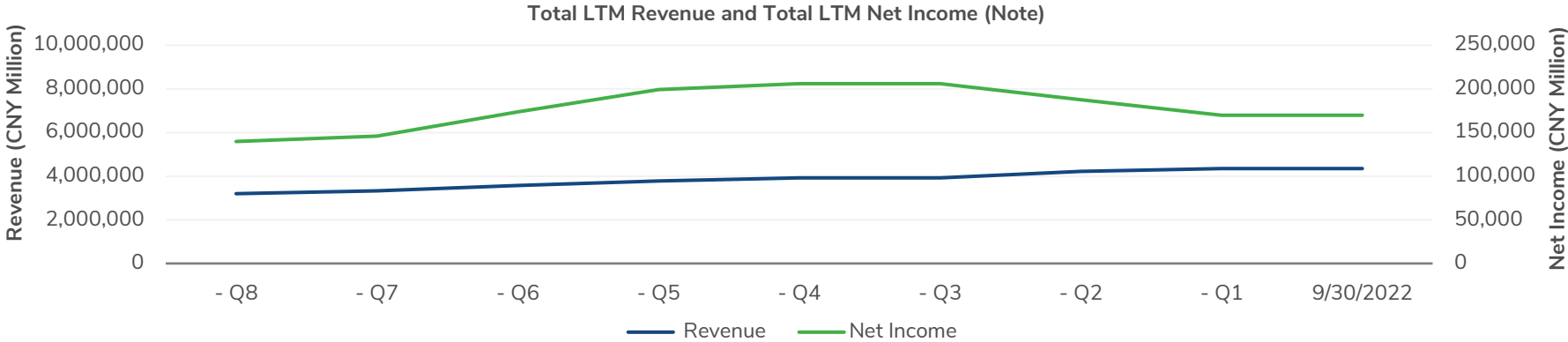
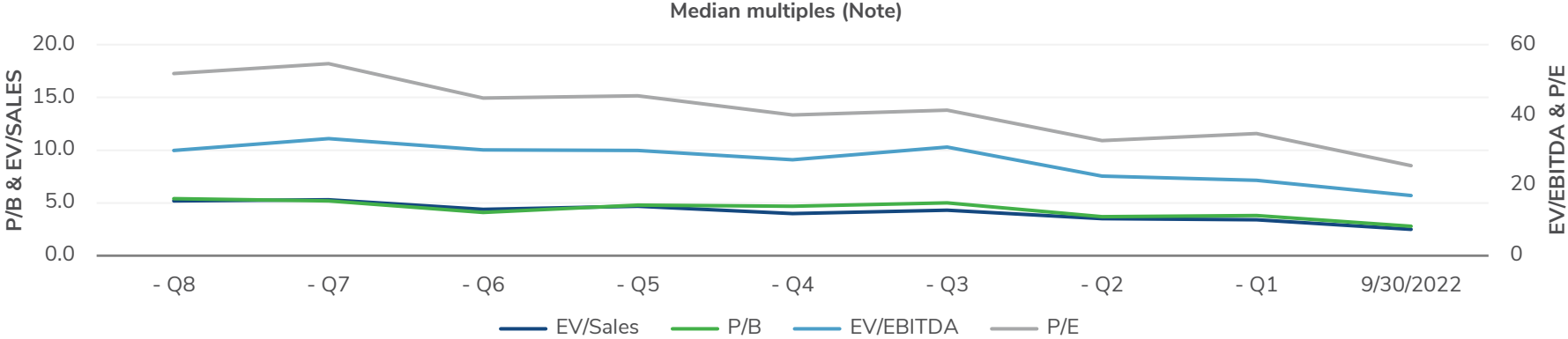
As of September 30, 2022



	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	110	110	110	110
Number of Outliers	9	19	22	7
Negative Multiples or Multiple Errors				
High	12.6x	76.4x	71.9x	8.9x
<b>Mean</b>	<b>3.9x</b>	<b>21.6x</b>	<b>28.3x</b>	<b>3.3x</b>
<b>Median</b>	<b>2.7x</b>	<b>17.8x</b>	<b>24.7x</b>	<b>2.6x</b>
Low	0.1x	2.2x	3.2x	0.2x
Low Quartile	1.2x	11.0x	18.8x	1.5x
Upper Quartile	6.0x	27.1x	37.5x	4.7x

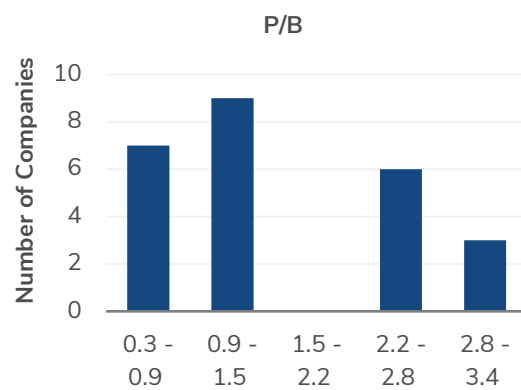
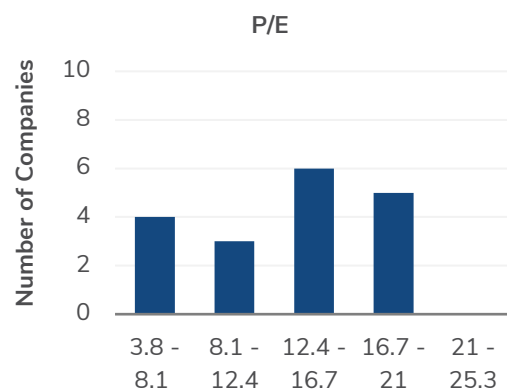
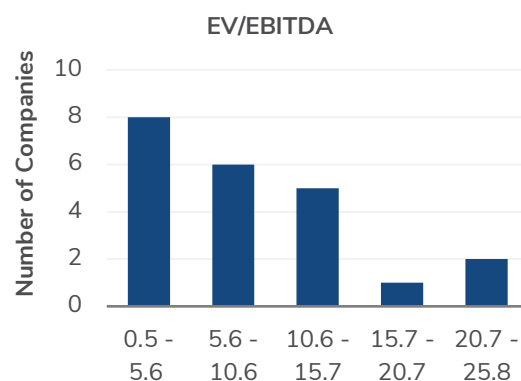
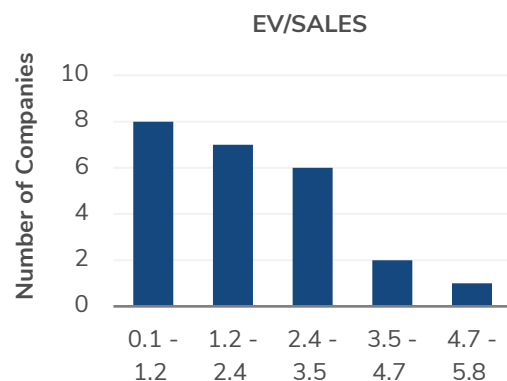
# Information Technology (cont'd)

As of September 30, 2022



# Communication Services

As of September 30, 2022

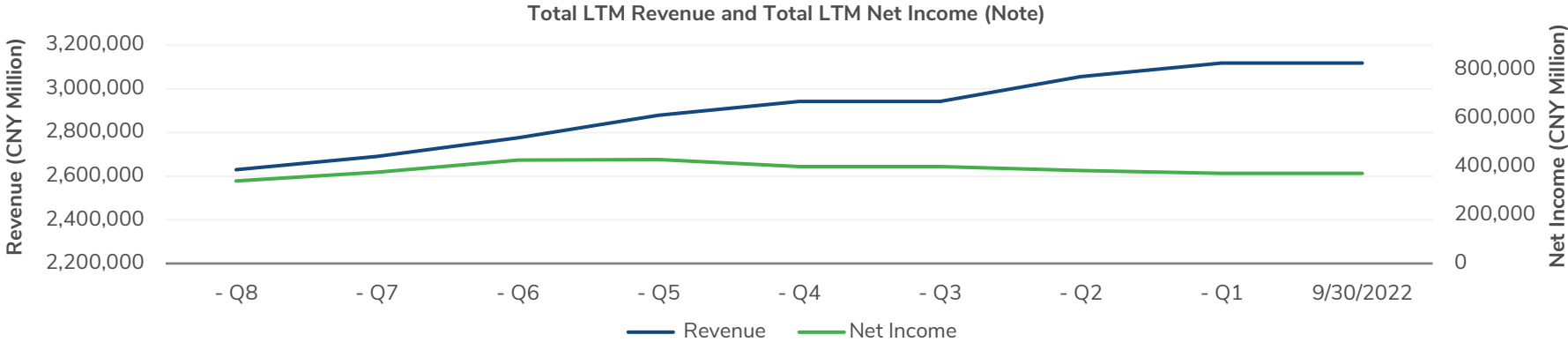
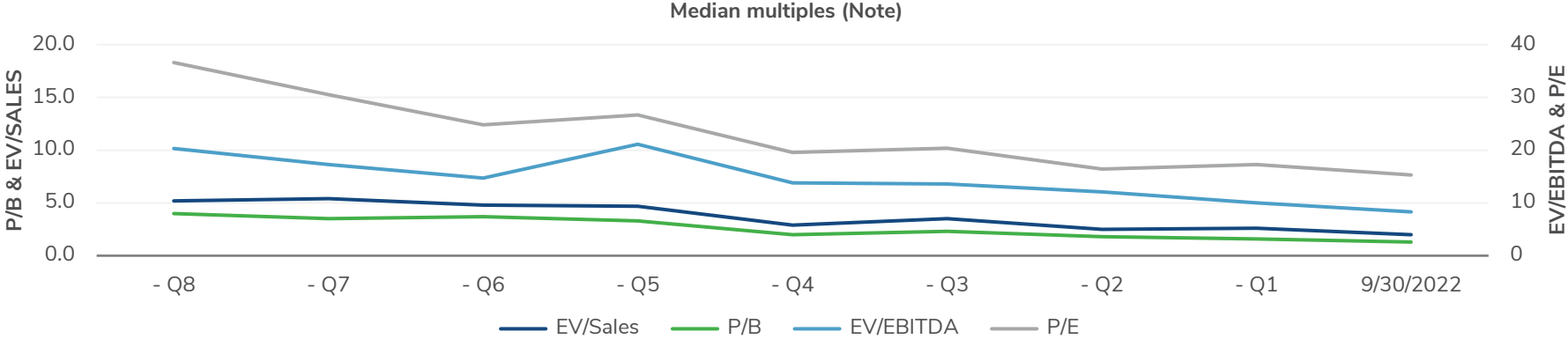


	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	27	27	27	27
Number of Outliers	3	5	8	2
Negative Multiples or Multiple Errors				
High	5.8x	25.8x	25.3x	3.4x
<b>Mean</b>	<b>2.1x</b>	<b>9.3x</b>	<b>13.8x</b>	<b>1.6x</b>
<b>Median</b>	<b>1.8x</b>	<b>8.8x</b>	<b>14.0x</b>	<b>1.3x</b>
Low	0.1x	0.5x	3.8x	0.3x
Low Quartile	1.0x	3.3x	11.1x	0.8x
Upper Quartile	2.9x	13.5x	17.8x	2.4x



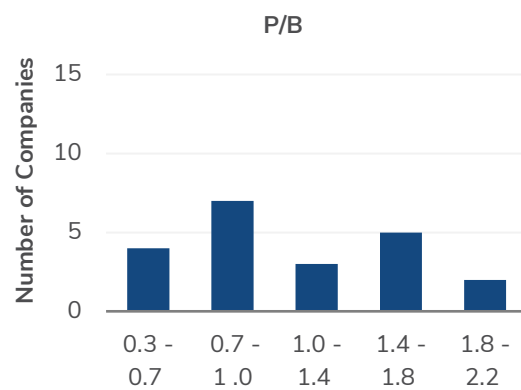
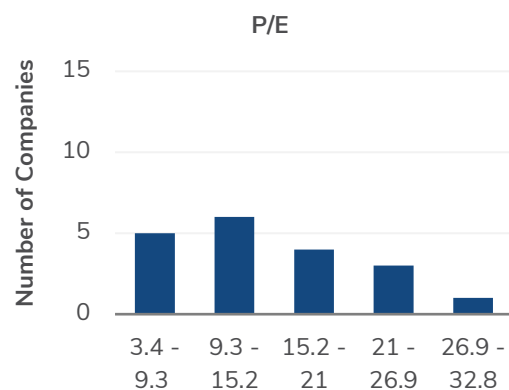
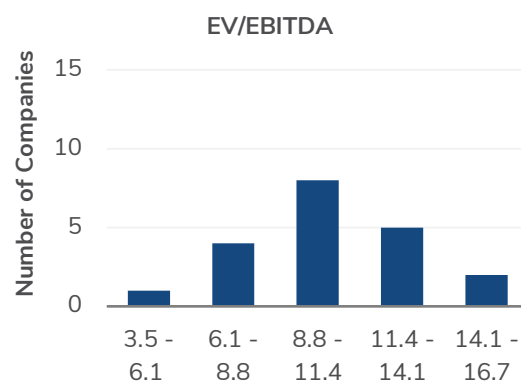
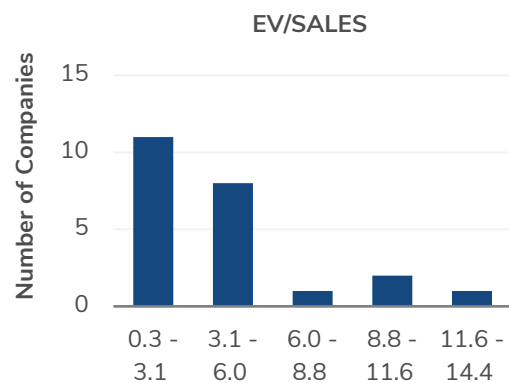
# Communication Services (cont'd)

As of September 30, 2022



# Utilities

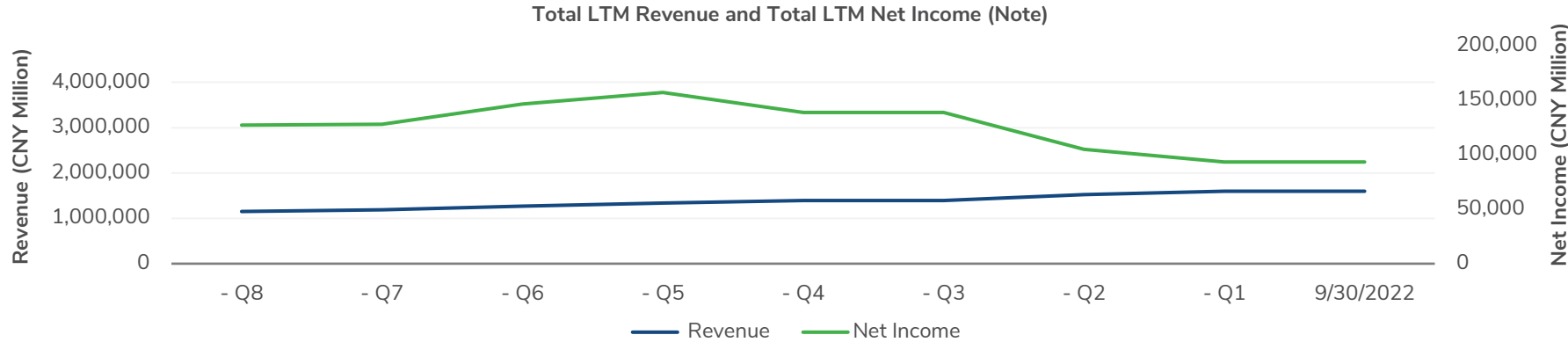
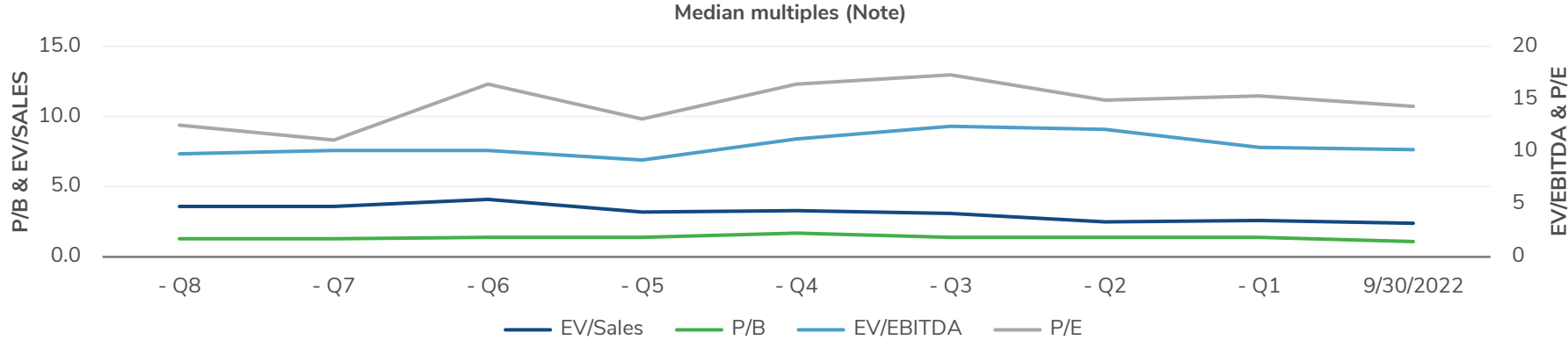
As of September 30, 2022



	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	24	24	24	24
Number of Outliers	1	3	5	3
High	14.4x	16.7x	32.8x	2.2x
<b>Mean</b>	<b>4.0x</b>	<b>10.6x</b>	<b>14.7x</b>	<b>1.1x</b>
<b>Median</b>	<b>3.2x</b>	<b>10.4x</b>	<b>14.3x</b>	<b>1.0x</b>
Low	0.3x	3.5x	3.4x	0.3x
Low Quartile	1.5x	9.1x	9.4x	0.9x
Upper Quartile	4.9x	12.5x	17.1x	1.5x

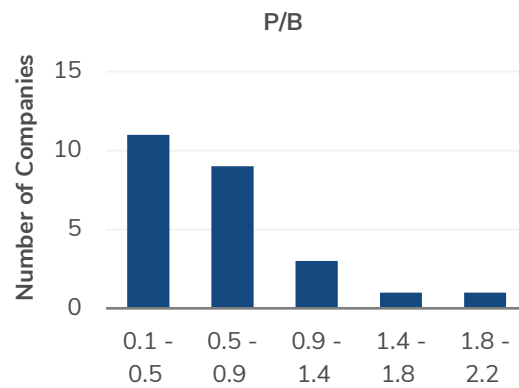
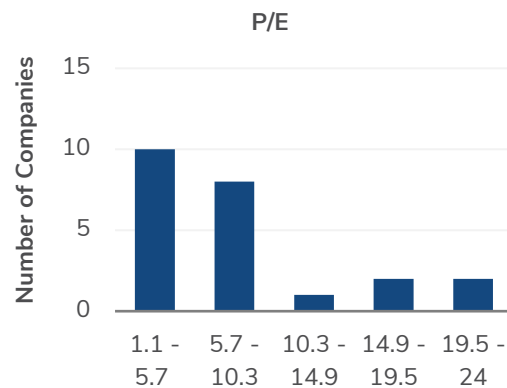
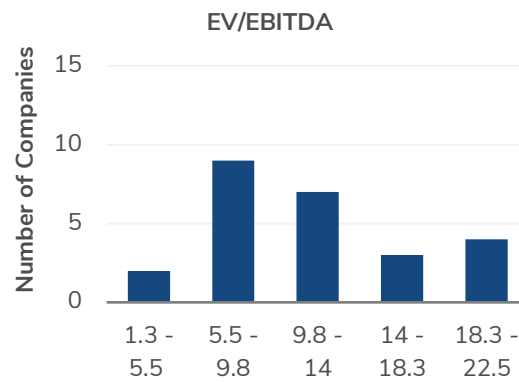
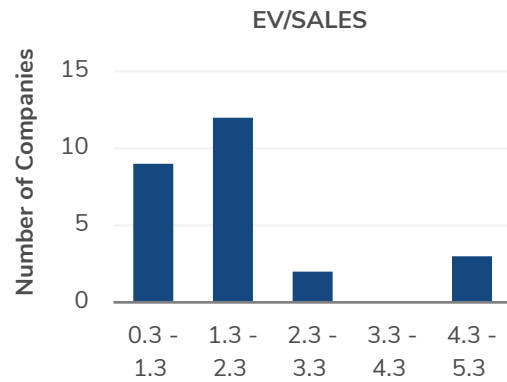
# Utilities (cont'd)

As of September 30, 2022



# Real Estate

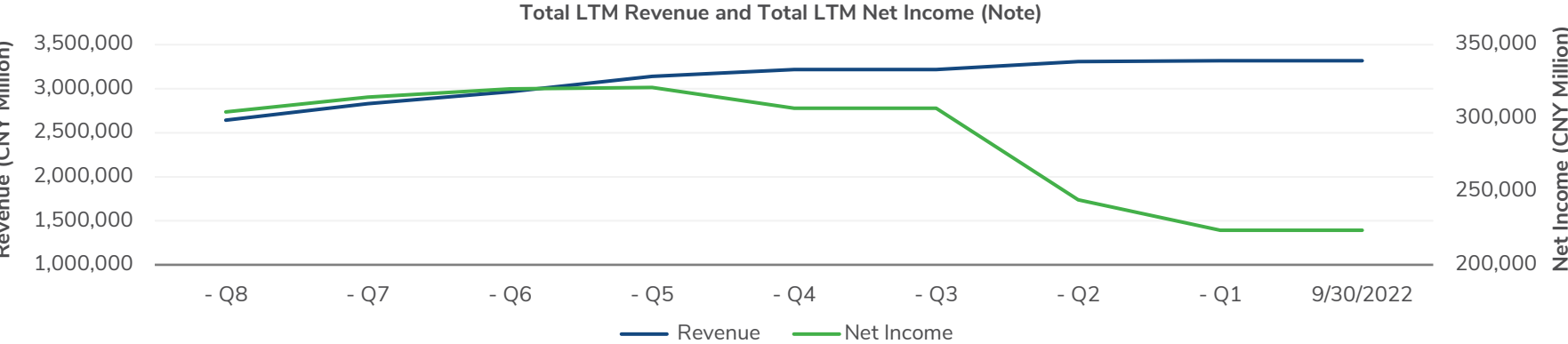
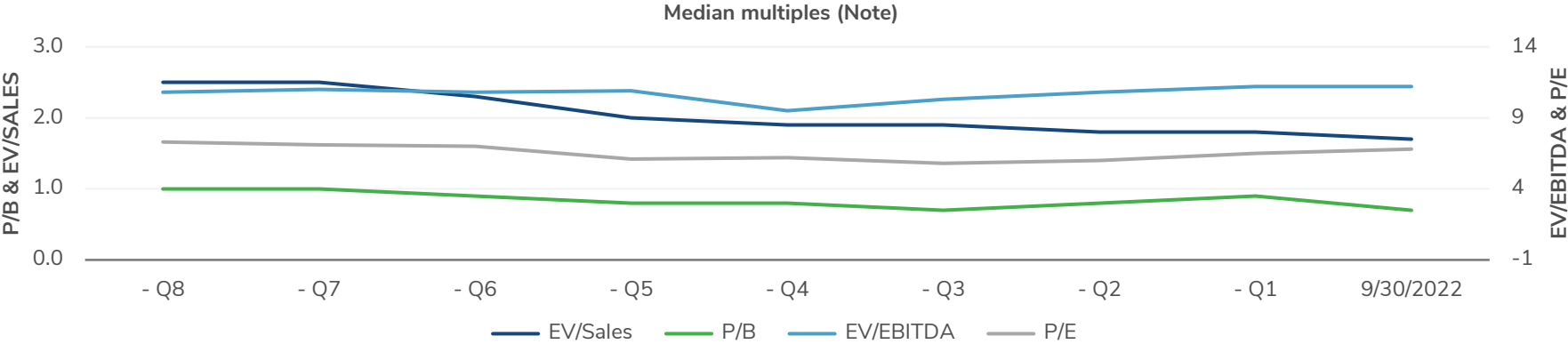
As of September 30, 2022



	EV/ Sales	EV/ EBITDA	P/E	P/B
Number of Observations	28	28	28	28
Number of Outliers	2	3	5	3
Negative Multiples or Multiple Errors				
High	5.3x	22.5x	24.0x	2.2x
<b>Mean</b>	<b>1.9x</b>	<b>11.6x</b>	<b>8.1x</b>	<b>0.7x</b>
<b>Median</b>	<b>1.6x</b>	<b>11.2x</b>	<b>6.7x</b>	<b>0.6x</b>
Low	0.3x	1.3x	1.1x	0.1x
Low Quartile	1.1x	8.7x	3.4x	0.2x
Upper Quartile	2.0x	14.0x	9.5x	0.9x

# Real Estate (cont'd)

As of September 30, 2022



# Industry Definitions

The industry classification for the companies represented in this report is based on the 2017 Global Industry Classification Standard® (GICS®). Below are brief descriptions of sub-industries that form part of a particular industry, based on the 2017 GICS® guidelines.

Consumer Discretionary	
<b>Auto Parts and Equipment</b>	Companies that manufacture parts and accessories for automobiles and motorcycles, including tires and rubber
<b>Automobile Manufacturers</b>	Companies that produce mainly passenger automobiles and light trucks. Also includes companies that produce motorcycles, scooters or three-wheelers
<b>Media</b>	Owners and operators of television or radio broadcasting systems, including programming. Includes radio and television, broadcasting, radio networks and radio stations. Providers of cable or satellite television and satellite radio services. Includes cable networks and program distribution. Also, publishers of newspapers, magazines and books in print or electronic formats. Companies providing advertising, marketing or public relations services
<b>Apparel</b>	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
<b>Household Appliances</b>	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
Financials	
<b>Banks</b>	Large, geographically diverse banks 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 but excludes investment banks
<b>Consumer Finance</b>	Providers of consumer finance services, including personal credit, credit cards, lease financing, travel-related money services and pawn shops
<b>Diversified Financial Services</b>	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
<b>Capital Markets</b>	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

Global Industry Classification Standard® (GICS®) was developed by S&P Dow Jones Indices, an independent international financial data and investment services company and a leading provider of global equity indices, and MSCI, a premier independent provider of global indices and benchmark-related products and services.

# Industry Definitions (cont'd)

## Health Care

<b>Healthcare Facilities and Services</b>	Owners and operators of health care facilities, including hospitals, nursing homes, rehabilitation and retirement centers, and animal hospitals. Providers of patient health care services not classified elsewhere. Includes dialysis centers, lab testing services and pharmacy management services. Also includes companies providing business support services to health care providers, such as clerical support services, collection agency services, staffing services and outsourced sales and marketing services
<b>Pharmaceuticals and Biotechnology</b>	Companies engaged in the research, development or production of pharmaceuticals. Includes veterinary drugs. Companies primarily engaged in the research, development, manufacturing and/or marketing of products based on genetic analysis and genetic engineering. Includes companies specializing in protein-based therapeutics to treat human diseases

## Materials

<b>Chemicals</b>	Companies that primarily produce industrial chemicals and basic chemicals, including but not limited to plastics, synthetic fibers, films, commodity-based paints and pigments, explosives and petrochemicals. Producers of fertilizers, pesticides, potash or other agriculture-related chemicals including industrial gases and other diversified range of chemical products
<b>Construction Material</b>	Manufacturers of construction materials including sand, clay, gypsum, lime, aggregates, cement, concrete and bricks
<b>Metals and Mining</b>	Producers of aluminum and related products, including companies that mine or process bauxite and companies that recycle aluminum to produce finished or semi-finished products. Companies engaged in copper ore mining, production of iron and steel and related products, including metallurgical (coking) coal mining used for steel production, and having other diversified mining operations but excluding gold, silver and other precious metals

## Utilities

<b>Electric and Gas Utilities</b>	Companies that produce or distribute electricity including both nuclear and non-nuclear facilities. Includes companies whose main charter is to distribute and transmit natural and manufactured gas
<b>Independent Power and Renewable Electricity Producers</b>	Companies that operate as independent power producers (IPPs), gas and power marketing and trading specialists and/or integrated energy merchants. Companies that engage in generation and distribution of electricity using renewable sources including, but not limited to, companies that produce electricity using biomass, geothermal energy, solar energy, hydropower and wind power

# Industry Definitions (cont'd)

## All Other Industries

<b>Energy</b>	Companies primarily involved in the production and mining of coal, related products and other consumable fuels related to the generation of energy. Companies engaged in the exploration and production of oil and gas. Companies engaged in the refining and marketing of oil, gas and/or refined products
<b>Household and Personal Products</b>	Producers of packaged foods including dairy products, fruit juices, meats, poultry, fish and pet foods. Producers of non-durable household products, including detergents, soaps, diapers and other tissue and household paper products. Manufacturers of personal and beauty care products, including cosmetics and perfumes
<b>Industrial Machinery</b>	Manufacturers of industrial machinery and industrial components. Includes companies that manufacture presses, machine tools, compressors, pollution control equipment, elevators, escalators, insulators, pumps, roller bearings and other metal fabrications
<b>Construction and Engineering</b>	Companies engaged in primarily non-residential construction. Includes civil engineering companies and large-scale contractors
<b>Communication Services and Information Technology</b>	Companies providing services and infrastructure for the internet industry including data centers and cloud networking and storage infrastructure. Also includes companies providing web hosting services. Excludes companies classified in the software industry
<b>Application Software</b>	Companies engaged in developing and producing software designed for specialized applications for the business or consumer market. Includes enterprise and technical software, as well as cloud-based software. Excludes companies classified in the interactive home entertainment sub-industry. Also excludes companies producing systems or database management software classified in the systems software sub-industry
<b>Real Estate</b>	Companies that develop real estate and sell the properties after development. Also companies engaged in a diverse spectrum of real estate activities including real estate development and sales, real estate management or real estate services, but with no dominant business line



# Methodology

The multiples in this report are based on the MSCI China Index, which aims to cover 85% of the free float market cap across H-shares, A-shares, B-shares, Red-chips, P-chips and foreign listed shares.

Our report provides a detailed overview of the P/B, P/E, EV/EBITDA and EV/sales multiples of companies in the MSCI China Index covering non-financial industries and P/B, P/E, P/TBV and market cap/revenue multiples covering financial industries for which such data is available.

In previous years, comparisons covered a period of two years. This year's report provides a four-year comparison of P/E multiples for most of the industries covered, so that the evaluation can weigh performance against pre-pandemic data.

## Note:

- 1) GICS® was used as the basis for industry definitions. An industry must have a minimum of five company participants to be considered for analysis. For all reported multiples in China, we have considered all companies in the MSCI China Index as of Sept. 30, 2022. The MSCI China Index is constructed based on the integrated China equity universe included in the MSCI Emerging Markets Index, providing a standardized definition of the China equity opportunity set. The index aims to represent the performance of large- and mid-cap segments with H-shares, B-shares, red chips, P chips and foreign listings (e.g., ADRs) of Chinese stocks. To avoid duplication, industry multiples for dual-listed companies are based on the shares listed in the Primary Exchange. Source: Index constituents were captured from MSCI's website: <https://www.msci.com/china>; financial data was derived from Standard & Poor's Capital IQ database.
- 2) Any outliers in the industry have been excluded from the above analysis. Outliers selection criteria: 1) Negative multiples; 2) multiples at 200 or above; 3) the first highest multiple of an individual industry is above 100 and different from the second highest by more than 60%; 4) multiples that exceed two standard deviations over the median
- 3) EV = Enterprise value = Market value of equity plus book value of debt plus book value of preferred stock and minority interest less book value of cash and short-term investments, Sales = Revenue for latest 12 months, EBITDA = Lease-adjusted earnings before interest, taxes, depreciation and amortization for latest 12 months, P/E = Market capitalization/net income to common excluding extraordinary items, P/B = Market capitalization/book value of common equity, Market cap/revenue = Market capitalization/ total revenue, P/TBV = Market capitalization/tangible book value. Financial information of companies reflects the latest available information based on company filings as of Sept. 30, 2022.
- 4) Outliers are excluded in the histograms presented above: "EV/Sales", "EV/EBITDA", "P/E", "P/B", "Mkt Cap/Revenue" and "P/TBV". Outliers are not excluded for time series analysis "Median multiples," in order to accurately assess the change in multiples across time.

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