



## THE LINCOLN MIDDLE MARKET INDEX SHOWS QUICKENING GROWTH THROUGH SEPTEMBER 2018

Lincoln International's fifth edition of the Lincoln Middle Market Index (MMI) reveals that, in Q3 2018, middle market enterprise values increased 3.4% compared to 6.8% for enterprise values of S&P 500 companies.

### About the Lincoln Middle Market Index

The Lincoln MMI is a first-of-its-kind index to offer a comprehensive, detailed and useful measurement of private middle-market company performance and values.

What has been missing from the privately held company marketplace is a means to identify how its value:

- (1) changes over time
- (2) correlates to the public stock market.

Lincoln designed the Lincoln MMI to solve this problem by measuring the quarterly change in enterprise value for middle market companies primarily owned by private equity firms. Enterprise value ("EV") is the sum of a company's equity value and net debt.

A significant difference between the Lincoln MMI and S&P 500 is that the Lincoln MMI is comprised of smaller, private companies whereas the S&P 500 is comprised of public companies.

## QUARTERLY OVERVIEW

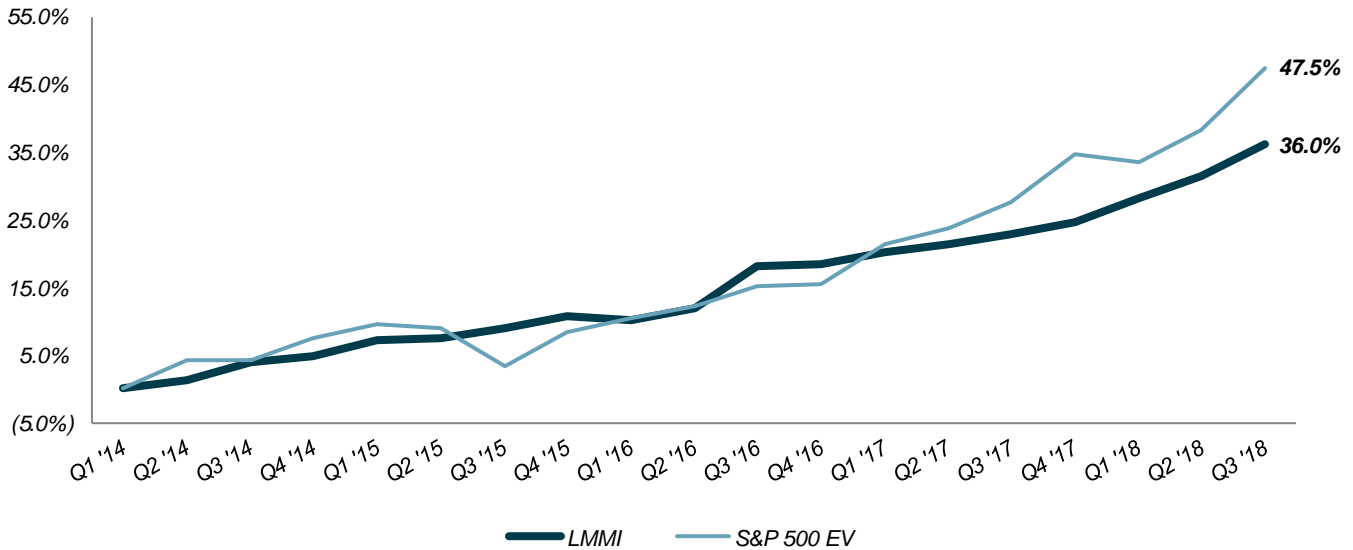
- Fifth Edition: Covers Q3 2018
- Measures quarterly changes in enterprise value of over 400 middle market companies based on a population of over 1,400 companies primarily owned by private equity firms
- Analyzes the impact from the change in company earnings versus market valuation multiples
- Assesses the change in value for six industry sectors

## RESULTS:

# S&P 500 Companies Grew more quickly than Middle Market Companies in Q3 2018

Q3

2018



**NOTE:** Both the Lincoln and S&P 500 EV returns above reflect enterprise values (S&P 500 EV excludes financial companies for which enterprise value is generally not meaningful; including such companies produces qualitatively similar results)

# 7.1%

Compound Annual Growth Rate for the Lincoln MMI since inception

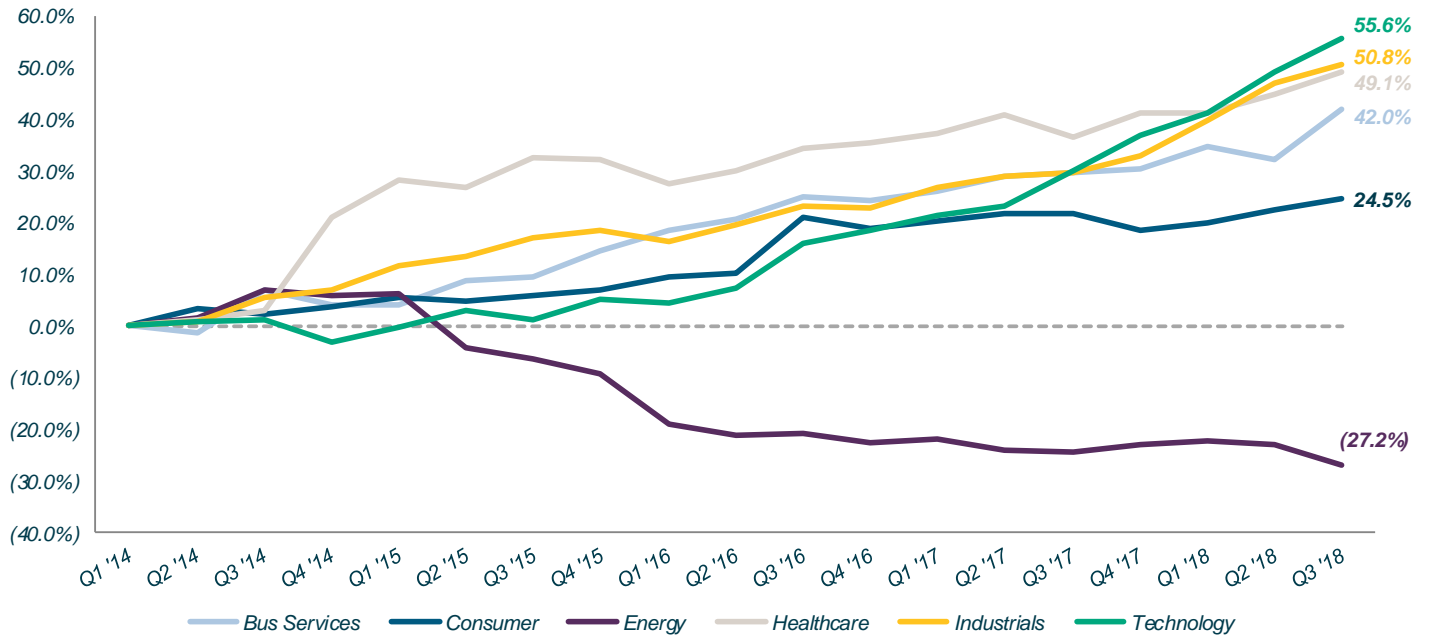
Starting at a value of 10,000 as of March 31, 2014, the Lincoln MMI increased by 36.0% cumulatively to 13,598, as of September 30, 2018.

- The Lincoln MMI grew at a compound annual growth rate of 7.1% since inception as compared to 9.0% for the enterprise values of the S&P 500.
- Over the past year, the Lincoln MMI and S&P 500 enterprise values grew 10.6% and 15.6%, respectively.
- The Lincoln MMI shows that middle market enterprise values have increased at a quickening pace over the last two years. Although the Lincoln MMI lags behind S&P 500 EV growth since inception, the Lincoln MMI's volatility is approximately half that of the S&P 500 EV index. Neither index reflects the market correction and increased volatility of October 2018.

# SECTOR BREAKDOWN: Middle Market Performance by Industry

Q3

2018



7.3%

Value increase for  
Business service  
companies in Q3 2018

The technology segment remains the top performing segment over the last year, increasing by 19.7%. Technology and industrial companies account for approximately one-third of the Lincoln MMI, thus driving a significant portion of the middle market's overall growth in 2018.

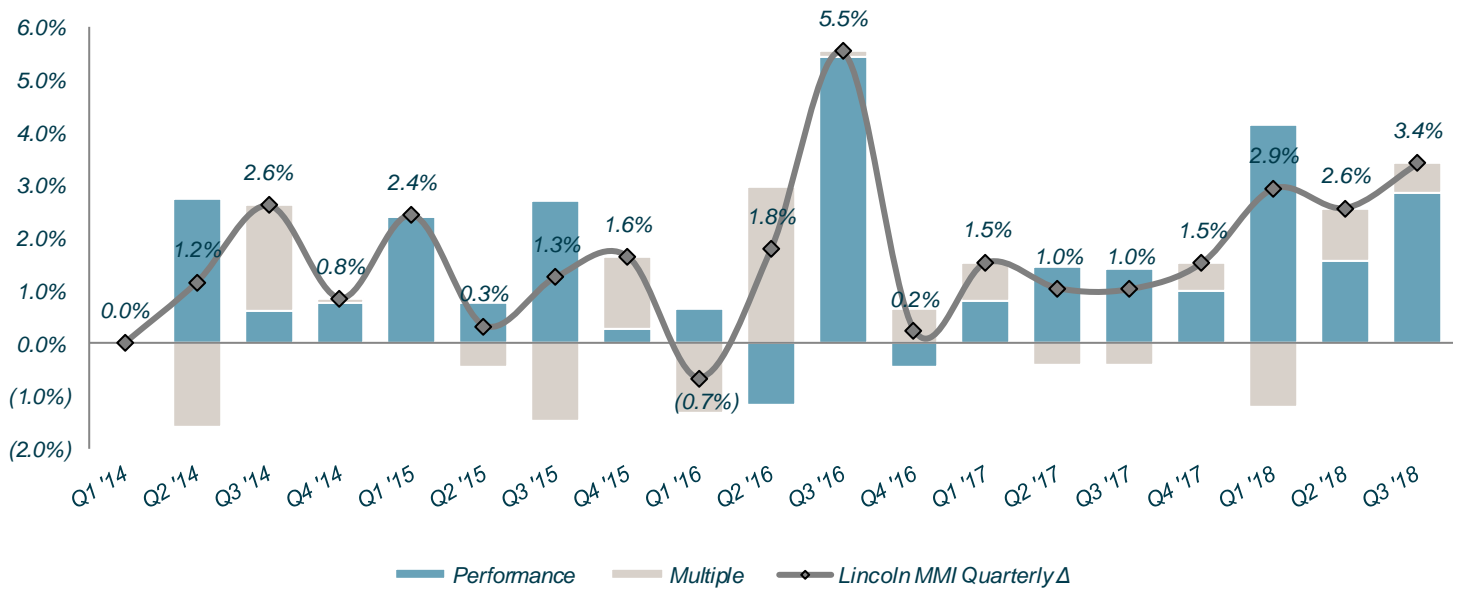
The enterprise values of consumer companies have increased at a slower rate than the Lincoln MMI as a whole for each of the last five quarters. Given that consumer companies comprise one-quarter of the index, their slower growth is dragging down the growth rate of the entire index as well.

Business service companies were the best performing companies in Q3 2018, increasing in value by 7.3%, which was 3.0% more than any other industry.

# EXAMINING THE LINCOLN MMI: EBITDA Multiples versus Earnings

Q3

2018



15%

Expansion of Lincoln  
MMI valuation multiples  
since Q1 2014

The grey line in this graph indicates the quarterly change in the Lincoln MMI; this change is based on changes in performance (i.e., EBITDA) combined with the change in EBITDA multiples.

Since the inception of the Lincoln MMI in Q1 2014, middle market valuation multiples expanded approximately 15%. In Q3 2018, enterprise value multiples expanded for companies in the Lincoln MMI as well as companies in the S&P 500 in aggregate, though multiple expansion was greater for the public markets. Lincoln noted that despite the continued multiple expansion, earnings remain the more meaningful driver in long term middle market enterprise value growth.

# SUMMARY: THE LINCOLN MMI

Q3

2018

## MARKET OBSERVATIONS:

- Year-to-date middle market enterprise value growth through Q3 2018 of 9.2% approximates that of the S&P 500 of 9.4%, as both Lincoln MMI and S&P 500 EV values increased in Q3 prior to the October 2018 stock market correction.
- While performance and multiples both improved for the Lincoln MMI and the S&P 500, multiple expansion was more pronounced in the public markets.
- Lincoln MMI 2018 Q3 growth of 3.4% was the second highest quarterly growth since inception and the strongest growth since Q3 2016.
- The Lincoln MMI continues to demonstrate that valuations of U.S. middle market companies are less volatile because of lower volatility in enterprise value multiples compared to the S&P 500; in the long run, earnings remain the driver of enterprise value growth for all companies.

## INDUSTRY OBSERVATIONS:

- Middle market technology companies have increased in value for ten consecutive quarters, averaging quarterly growth of over 4.0% making technology the strongest performing industry since Q2 2017.
- While private companies in the business services, healthcare, industrials, and technology sectors experienced strong third quarter performance, business service companies grew over 7.0%, which was 3.0% more than any other industry.
- Consumer enterprise value growth continues to lag behind that of all other industries except energy, thus dragging overall middle market performance.

## IN SUMMARY, WE BELIEVE THE LINCOLN MMI:

- Enables investors in private companies and private equity firms to compare or benchmark their investments against an index comprised of hundreds of privately held companies.
- Demonstrates middle market private companies generate returns comparable to major public stock market indices while also being reflective of the United States private equity backed middle market.
- Offers many unique valuation insights into the fair value of private companies for a wide array of stakeholders and investors and represents a significant enhancement to the information available to investors in private companies.

## METHODOLOGY: Data Collection

Q3

2018

### SOURCE OF DATA AND SAMPLE SIZE

On a quarterly basis, Lincoln determines the enterprise fair value of over 1,400 portfolio companies for approximately 100 sponsors (i.e., private equity groups and lenders to private equity groups). These portfolio companies report quarterly financial results to the sponsor or lender. Lincoln obtains this information and computes the enterprise value in accordance with the fair value measurement principles of generally accepted accounting principles. In assessing enterprise value, Lincoln relies on well accepted valuation methodologies such as the market approach and income approach considering each company's historical and projected performance and other qualitative and quantitative factors. Finally, each valuation is then vetted by auditors, company management, boards of directors and regulators. Upon concluding each quarterly valuation cycle, Lincoln aggregates the underlying financial performance and enterprise value data for analysis.

To construct the Lincoln MMI, Lincoln selects a subsection of the companies valued each quarter, including companies each generating earnings before interest, taxes, depreciation and amortization of less than \$100.0 million, disregarding venture-stage businesses and non-operating entities, such as special purpose entities that own real estate and specialty finance assets.

*For more information, visit [www.lincolninternational.com/services/valuations-and-opinions/lincolnmml](http://www.lincolninternational.com/services/valuations-and-opinions/lincolnmml)*

1,400+

Portfolio Companies are evaluated by Lincoln on a quarterly basis to determine their Enterprise Fair Value

~100

Sponsors participate in Lincoln MMI I.E. Private Equity Groups & lenders to Private Equity Groups

## METHODOLOGY:

# Academic advisors

Q3

2018

### PROFESSOR STEVEN KAPLAN

Professor Steven Kaplan is the Neubauer Distinguished Service Professor of Entrepreneurship and Finance at the University of Chicago Booth School of Business. Professor Kaplan conducts research on issues in private equity, venture capital, entrepreneurial finance, corporate governance and corporate finance. He has published papers in a number of academic and business journals. Kaplan is a research associate at the National Bureau of Economic Research and an associate editor of the Journal of Financial Economics. Kaplan teaches advanced MBA and executive courses in entrepreneurial finance and private equity, corporate finance, corporate governance, and wealth management. BusinessWeek named him one of the top 12 business school teachers in the country. Kaplan serves on the boards of Morningstar, Zayo Group and the Illinois Venture Capital Association. He has been a member of the faculty since 1988.

Professor Kaplan received his A.B., *summa cum laude*, in Applied Mathematics and Economics from Harvard College and earned a Ph.D. in Business Economics from Harvard University.

### PROFESSOR MICHAEL MINNIS

Professor Michael Minnis is an Associate Professor of Accounting at the University of Chicago Booth School of Business. Professor Minnis studies the role of accounting information in allocating investment efficiently by both management and capital providers, the use of financial reporting in mitigating information opacity issues of privately-held firms, and the interplay within management in the production and use of financial information. His research includes identifying unique data and methods to empirically examine issues in a novel way.

Professor Minnis received his Ph.D. from the University of Michigan and his B.S. from the University of Illinois, where he graduated with Highest Honors.



## Global Industry Groups

Business Services

Consumer

Energy, Power & Infrastructure

Healthcare

Industrials

Technology, Media & Telecom

## Advisory Services

Mergers & Acquisitions

Debt Advisory

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Valuations & Opinions

Special Situations

## About Lincoln International

We are trusted investment banking advisors to business owners and senior executives of leading private equity firms and public and privately held companies around the world. Our advisory services include mergers and acquisitions, debt advisory, growth equity and restructuring for the mid-market. We also provide valuations and fairness opinions and joint ventures advisory services. As one tightly integrated team of more than 500 professionals across 15 countries, we offer an unobstructed perspective, backed by superb execution and a deep commitment to client success. With extensive industry knowledge and relationships, timely market intelligence and strategic insights, we forge deep, productive client relationships that endure for decades. Connect with us to learn more at [www.lincolninternational.com](http://www.lincolninternational.com).

VOG is a leading independent valuation advisor to managers of illiquid assets and lenders to alternative assets funds. VOG specializes in the valuation of illiquid debt, equity and derivative securities. Additionally, they provide independent fairness and other transaction opinions for a variety of corporate transactions for both public and private companies.

VOG is widely recognized for leveraging Lincoln International's "real world" transaction experience from its M&A and debt advisory practices to assist its clients in the determination of fair value. Lincoln International's highly skilled professionals have extensive experience in determining and supporting fair value measurements for traditional and complex securities.

## Global Locations

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Beijing	Los Angeles	Munich	Stockholm
Chicago	Madrid	New York	Tokyo
Dallas	Milan	Paris	Vienna
Frankfurt	Moscow	São Paulo	Zurich



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