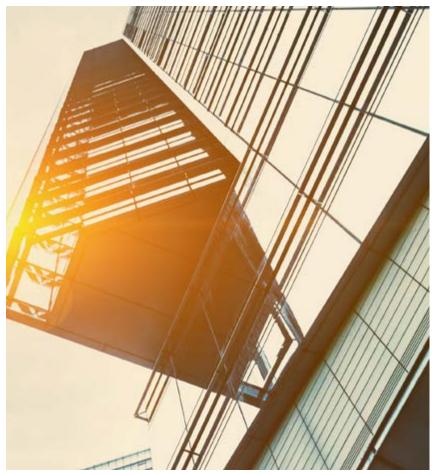
# **LINCOLN** INTERNATIONAL







#### **INSIDE THIS ISSUE**

- Quarterly Overview
- Private Middle Market Company Value Results
- Performance by Industry: Sector Breakdown
- Examining the Lincoln MMI: EBITDA Multiples vs. Earnings
- Summary of the Lincoln MMI
- Methodology: Data Collection and Academic Advisors





## **OVERALL GROWTH AMONG PRIVATE** MIDDLE MARKET COMPANIES REMAINS ROBUST, BUT INDUSTRY RESULTS VARY SIGNIFICANTLY

Lincoln International's 10th edition of the Lincoln Middle Market Index (Lincoln MMI) reveals that in Q4 2019, middle market enterprise values increased 1.7%, compared to an 7.3% increase for enterprise values of S&P 500 companies. Although earnings improved for both sets of companies, S&P 500 valuation multiples increased materially whereas the increase in middle market valuation multiples was less pronounced, the opposite of the prior quarter's results but consistent with the greater volatility of public company multiples. Enterprise value growth by industry became increasingly disparate during 2019 as investors favored non-cyclical, high cash flow industries

#### About the Lincoln Middle Market Index

The Lincoln MMI is a first-of-its-kind index measuring changes in the enterprise values of private middle market companies over time - and a barometer of the performance of private middle market companies generally. The Lincoln MMI enables private equity firms and other investors to benchmark how private company investments are performing against peers, and how this performance correlates to the S&P 500.

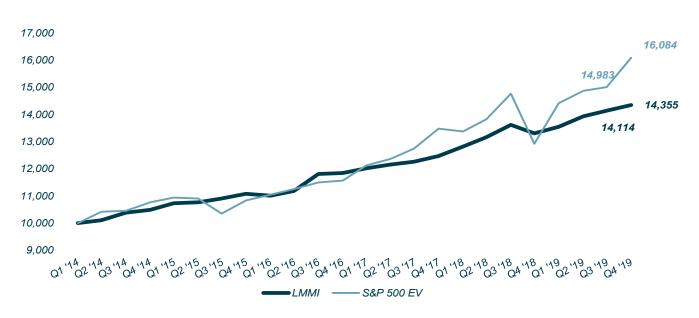
Lincoln designed the Lincoln MMI to solve this problem by measuring the quarterly change in enterprise values for private middle market companies primarily owned by private equity firms. Enterprise value ("EV") is the sum of a company's equity value and debt

#### **QUARTERLY OVERVIEW**

- Tenth Edition: Covers Q4 2019
- Measures quarterly changes in the enterprise values of approximately 475 middle market companies, based on a population of over 1,800 companies primarily owned by private equity firms
- Analyzes the impact from the change in company earnings versus market valuation multiples
- Assess the change in value for six industry sectors



# RESULTS: Valuations continued to increase in Q4 2019 for both the S&P 500 EV & Lincoln MMI



**NOTE:** Both the Lincoln MMI 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 similar result)

	QoQ	ϒοΥ
Lincoln MMI	1.7%	8.0%
S&P 500 EV	7.3%	24.6%

Starting at a value of 10,000 as of March 31, 2014, the Lincoln MMI increased by 43.6% cumulatively to 14,355, as of December 31, 2019.

The Lincoln MMI grew at a compound annual growth rate of 6.5% since inception as compared to 9.9% for the enterprise values of the S&P 500.

Over the past year, the Lincoln MMI increased by 8.0% whereas enterprise values of the S&P 500 increased by 24.6% as the S&P 500 outpaced the Lincoln MMI this quarter. The S&P had its strongest year since the inception of the Lincoln MMI in part due to the recovery from the volatility of Q4 2018.

The Lincoln MMI shows that middle market enterprise values remain less volatile than those of the S&P 500; the Lincoln MMI's volatility is less than half that of the S&P 500 EV index as multiples have tended to be more stable than public company multiples. As a result, the Sharpe Ratio, which measures excess return per unit of risk, of the Lincoln MMI is superior to that of the S&P 500 EV index

While both indexes since inception show relatively comparable growth in enterprise values, private equity owned companies traditionally have more leverage than public companies and, therefore, generate relatively greater equity gains.



 $Q_{4}$ 

2019

# SECTOR BREAKDOWN: The disparity between cyclical and non-cyclical industries expanded materially in 2019

80.0% 71.4% 60.0% 52.0% 51.6% 40.0% 20.0% 17.7% 0.0% (20.0%) (31.9%) (40.0%) a<sup>1</sup>·1<sup>4</sup> a<sup>2</sup>·1<sup>4</sup> a<sup>3</sup>·1<sup>4</sup> a<sup>4</sup>·1<sup>4</sup> a<sup>1</sup>·1<sup>5</sup> a<sup>2</sup>·1<sup>5</sup> a<sup>3</sup>·1<sup>5</sup> a<sup>4</sup>·1<sup>5</sup> a<sup>1</sup>·1<sup>6</sup> a<sup>2</sup>·1<sup>6</sup> a<sup>3</sup>·1<sup>6</sup> a<sup>4</sup>·1<sup>6</sup> a<sup>1</sup>·1<sup>6</sup> a<sup>1</sup>·1<sup>6</sup> a<sup>1</sup>·1<sup>7</sup> a<sup>3</sup>·1<sup>7</sup> a<sup>4</sup>·1<sup>1</sup> a<sup>1</sup>·1<sup>8</sup> a<sup>2</sup>·1<sup>8</sup> a<sup>3</sup>·1<sup>8</sup> a<sup>4</sup>·1<sup>8</sup> a<sup>1</sup>·1<sup>9</sup> a<sup>2</sup>·1<sup>9</sup> a<sup>3</sup>·1<sup>9</sup> a<sup>4</sup>·1<sup>9</sup> Bus Services -Consumer Energy Healthcare Industrials Technology

	QoQ	YoY
Bus Services	1.4%	10.3%
Consumer	0.2%	(1.6%)
Energy	(3.4%)	(0.1%)
Healthcare	3.0%	16.6%
Industrials	(2.1%)	(5.7%)
Technology	1.5%	9.2%

The disparity in enterprise value growth between high cash flow industries as compared to more cyclical industries became increasingly apparent in Q4 and throughout 2019. Cash flow rich industries of business services, healthcare, and technology have sustained EV multiples well above long-term historical averages.

An analysis of fundamental performance illustrates that even while more than half of portfolio companies are growing revenue and EBITDA across Lincoln's proprietary database, the magnitude of earnings growth, as tracked in Lincoln's proprietary database, has slowed in four of the last six quarters. Moreover, positive revenue and EBITDA growth trends can be isolated to higher cash flowing industries such as technology, healthcare and business services, whereas a lower or even negative growth can be observed in cyclical industries such as industrials and energy

Healthcare had its strongest year since 2014 as a result of both strong fundamental performance as well as multiple expansion. The healthcare segment experienced multiple expansion of about half a turn and 8.4% year-over-year revenue growth in Q4 2019, the strongest revenue growth of any segment and nearly 3% better than the next segmentas growth slows.



Q4

# EXAMINING THE LINCOLN MMI: Examining the Lincoln MMI - EBITDA Multiples versus Earnings



# 20%+

Expansion of Lincoln MMI valuation multiples since Q1 2014 The grey line in Graph 3 indicates the quarterly change in Lincoln MMI enterprise values; this change is based on changes in performance (i.e., EBITDA) combined with the change in EBITDA multiples.

Despite notable multiple contraction in Q4 2018, middle market valuation multiples have increased by 20%+ since the inception of the Lincoln MMI in Q1 2014. Throughout 2019, enterprise value growth in the middle market was driven relatively equally by multiple expansion and EBITDA growth.

However, multiple expansion was far more pronounced for public companies in Q4 2019. Earnings also grew for S&P 500 companies in each quarter of 2019 as they did for the middle market, but earnings growth was a far more negligible contributor to enterprise value growth for S&P 500 companies.

Professor Steve Kaplan, Neubauer Distinguished Service Professor of Entrepreneurship and Finance at the University of Chicago Booth School of Business, who assists and advises Lincoln on the Lincoln MMI stated, "Consistent with our prior observations, the public markets was predominantly driven by higher valuation multiples whereas the middle market's performance continues to be largely driven by earnings growth."



Q4

2019

# SUMMARY: The Lincoln MMI



#### INDUSTRY BREAKDOWN ON AN ENTERPRISE VALUE BASIS:

- A material bifurcation has developed between the performance of non-cyclical, high cash flow businesses in Technology, Healthcare, and Business Services which have grown by 8.8% over the last year compared to the performance of cyclical, lower-margin businesses in Consumer, Energy, and Industrials which have shrunk over the last year.
- The Consumer industry remains the largest drag on overall middle market performance given it constitutes ~20% of the Lincoln MMI and has declined in enterprise value in three of the last four quarters demonstrating the negative impacts of higher tariffs and lower retail traffic

## **OBSERVATIONS:**

- Since its inception in Q1 2014, the Lincoln MMI has shown that middle market enterprise value multiples have been less volatile than public company multiples and that earnings, which have grown for both public and private companies in every quarter since early 2017, are the primary factor driving long term value creation
- Multiple expansion was far more pronounced in Q4 2019 for public companies than for middle market companies driving the S&P 500 EV's strongest year since the inception of the Lincoln MMI.

## ENTERPRISE VALUE RESULTS :

- The Lincoln MMI enterprise value index increased 1.7% for Q4 2019 versus 7.3% for the S&P 500. Over the last year, the S&P 500 EV outperformed the Lincoln MMI, increasing by 24.6% whereas the Lincoln MMI increased by 8.0%.
- In spite of numerous economic wide exogeneous events, such as tariffs and Brexit, middle market companies, in general, continue to persevere and perform well; given how late in the year the coronavirus epidemic occurred, its economic impact relative to US middle market companies had not yet been felt by the end of 2019.
- Middle market fundamentals remain as strong as ever; the percentage of companies reporting year-over-year EBITDA growth reached a record high in Q4 2019.

## THE LINCOLN MMI:

- Enables investors in private companies, including private equity firms, to benchmark their investments against their peers and the S&P 500 on both enterprise value and equity value bases;
- Demonstrates that middle market private companies generate returns comparable to major public stock market indices with less volatility;
- 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.





## SOURCE OF DATA AND SAMPLE SIZE

On a quarterly basis, Lincoln determines the enterprise fair value of over 1,800 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 determines the appropriate enterprise value multiple so as to compute 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/lincolnmmi

1,800+

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





## 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.

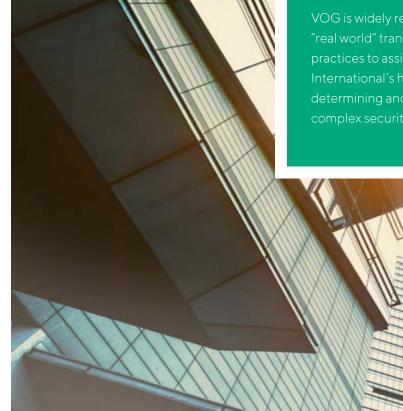


#### **GLOBAL INDUSTRY GROUPS**

Business Services Consumer Energy, Power & Infrastructure Healthcare Industrials Technology, Media & Telecom

#### **ADVISORY SERVICES**

Mergers & Acquisitions Capital Advisory Joint Ventures & Partnering Valuations & Opinions



#### **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.

VOG is a leading independent valuation advisor to managers of illiquid assets and lenders to alternative assets funds. VOG specializes in 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.





IMPORTANT DISCLOSURE: The Lincoln Middle Market Index is an informational indicator only, and does not constitute investment advice or an offer to sell or a solicitation to buy any security. It is not possible to directly invest in the Lincoln Middle Market Index. Some of the statements above contain opinions based upon certain assumptions regarding the data used to create the Lincoln Middle Market Index, and these opinions and assumptions may prove incorrect. Actual results could vary materially from those implied or expressed in such statements for any reason. The Lincoln Middle Market Index has been created on the basis of information provided by third-party sources that are believed to be reliable, but Lincoln International has not conducted an independent verification of such information. Lincoln International makes no warranty or representation as to the accuracy or completeness of such third-party information.

