LINCOLN INTERNATIONAL

Q1 2022

LSDI

LINCOLN SENIOR DEBT INDEX

INTRODUCING:

The Lincoln Senior Debt Index

Lincoln International LLC is pleased to release the quarterly Lincoln Senior Debt Index (LSDI). The LSDI represents years of research and analysis of data and was developed by professionals from Lincoln's Valuations & Opinions Group in collaboration with Professor Pietro Veronesi, Chicago Board of Trade Professor of Finance at the University of Chicago, Booth School of Business. "Excluding the COVID-19 impacted quarter of the first quarter of 2020, LSDI returns for the first quarter of 2022 were at their lowest levels since year end 2015 due to the impact of rising interest rates." said Professor Veronesi.

The LSDI provides insight into the direct lending market as it is a fair value index consisting of four components:

- Total return (income return plus capital gain return);
- Price (i.e., fair value);
- Spread; and,
- Yield to maturity.

Each of the four components are then categorized into three types of senior loans:

- All senior loans – consisting of first lien, unitranche and second lien loans;
- Senior loans consisting of first lien and unitranche loans; and,
- Second lien loans.

In addition, we provide additional descriptive statistics including: (1) loan-to-value, (2) the impact of interest rate and credit changes on total return, (3) the results of stress testing spread changes in the current and subsequent quarters and (4) default rates.

The U.S. non-investment grade corporate loan market has two segments: the broadly syndicated loan (BSL) market, which attracts larger companies (i.e., as an approximation companies with EBITDA greater than $100 million) and direct lending market (i.e., companies less than $100 million of EBITDA). While correlated, there are subtle but significant differences between the two markets. Both markets primarily provide floating rate loans; however, divergences exist in terms of market liquidity, company size and credit facility size. Given the greater liquidity in the BSL market, pricing and terms are a function of technical market and competitive factors, whereas the more illiquid direct lending market has a stronger orientation to assessing company fundamentals.

In contrast to the S&P / LSTA U.S. Leveraged Loan 100 Index which is comprised of companies borrowing in the BSL market, the constituents in the LSDI are virtually all companies borrowing in the direct lending market.

The direct lending market is a significant source of capital to private equity-backed mid-market companies. The LSDI benefits market participants by providing information to facilitate a greater understanding of the attributes of this important source of capital to the private sector.

How We Obtain the Information

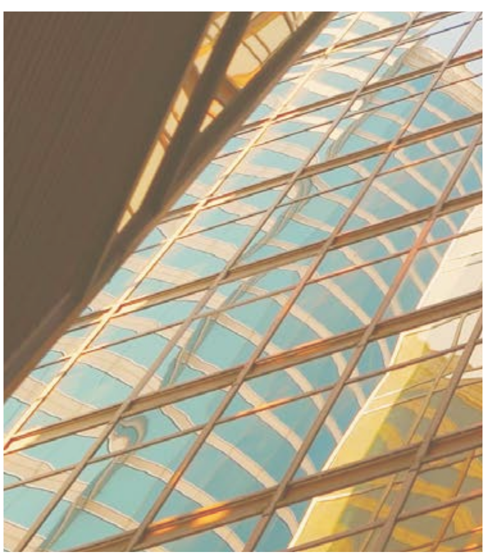
On a quarterly basis, Lincoln values over 3,500 private companies primarily owned by over 125 alternative investment funds and lenders to funds. Most of these companies are levered via borrowings from the direct lending market. A significant percentage of the LSDI constituents are based upon valuations of loans provided for non-public business development companies and other private investment vehicles and therefore are not disclosed in public filings.

For many of the private companies valued quarterly, Lincoln advises on the fair value of at least one senior debt security in the capital structure. All valuations conform with generally accepted accounting principles and fair value principles and have been reviewed by fund management, fund boards, limited partners and auditors.

Additional information can be found in our methodology discussion (below) and on our website.

98.4

Average Fair Value of Loans in the Index as of Q1 2022



LINCOLN SENIOR DEBT INDEX – KEY OBSERVATIONS – ALL LOANS – FIRST QUARTER 2022

- Returns from improving credit fundamentals offset negative returns from rising interest rates — the two primary risks in this asset class are interest rate risk and credit risk. For the quarter ending March 31, 2022, the LSDI return was 0.8%, of which quarterly returns from interest rate risk were (1.8)% offset by positive returns from increasing earnings of 2.6%
  - The strong corporate earnings performance was consistent with our findings from our Lincoln Private Market Index (LPMI) our enterprise value fair value index. The quarterly increase for the LPMI, was 1.7%. For more information on the LPMI visit **An Overview of the Lincoln Private Market Index** on the Lincoln's web site
- Direct lending loans have yielded on average a 4.1% positive yield premium as compared to yields for loans within the S&P / LSTA U.S. Leveraged Loan Index
- While prices in both the syndicated loan market and direct lending market declined, the price decline of the LSDI was only $0.27 to 98.44 whereas the broadly syndicated loan market declined by $1.04 to 97.60. It continues to be our observation that price and return volatility is much lower in the direct lending market relative to the broadly syndicated loan market

Performance

The LSDI increased from 166.8 as of December 31, 2021 to 168.1 as of March 31, 2022.

Fair value price range

The LSDI closed out the quarter at a value of 98.4 from 98.7 as of December 31, 2021.

RESULTS:
Total Returns

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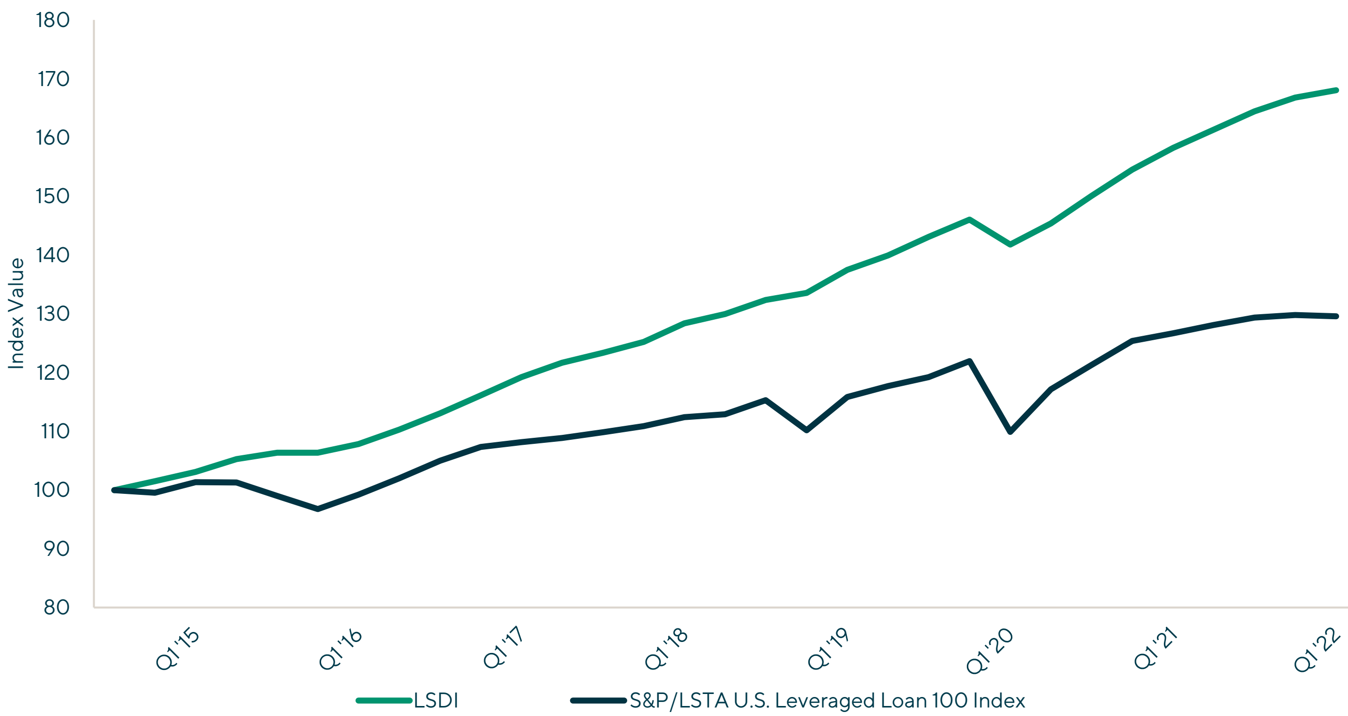
Comparison of Total Return – LSDI (All Loans) to S&P / LSTA U.S. Leveraged Loan 100 Index



Observations:

Investment return is generated from two sources: (1) capital gains and losses; and, (2) income return. In the leverage lending asset class, income returns dominate capital gains or losses, resulting in a positive quarterly total return.

Since the inception of the LSDI, both the S&P / LSTA U.S. Leverage Loan 100 Index, which measures the performance of the BSL market and the direct lending market have experienced an increase in total return. While returns in the broadly syndicated loan market experienced (0.2)% returns due to rising interest rates, the LSDI returned 0.8% due to substantially higher yields generated by direct lending loans relative to broadly syndicated loans.

Given the likelihood of rising interest rates and the negative impact on value, we expect returns to remain positive, but lower than historical periods during quarters interest rates were declining.

- Given the higher cost of debt for mid-market direct lending loans versus loans in the BSL market, yields are significantly greater in the direct lending market, accounting for the LSDI generating a total return higher than the BSL market

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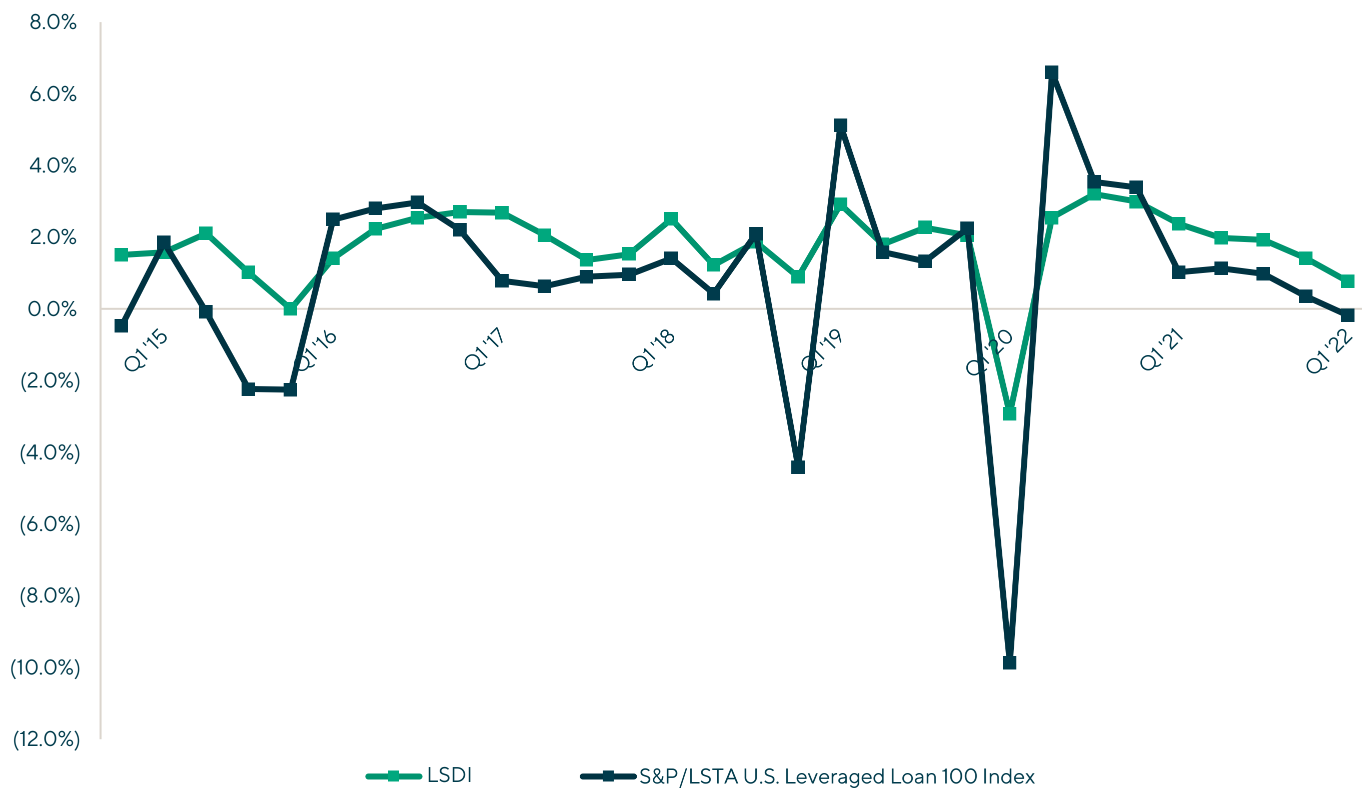
Total Returns (cont.)

Correlation and Comparison of Quarterly Returns – Lincoln Senior Debt Index (All Loans) to Broadly Syndicated Loan Market



Observations:

- While the correlation between the Senior Lending Index and S&P LSTA 100 Investment is high at approximately 85%:
  - The LSDI is significantly less volatile; while generating higher returns
  - Investments in the direct lending market experience higher returns and lower volatility than the BSL market
  - The direct lending market experiences negative returns much less frequently than the BSL market, given its higher yields
  - Since the inception of the LSDI in Q3 2014 through Q1 2022, only Q1 2020 reported a negative quarterly return whereas the BSL market has experienced seven quarters of negative returns

RESULTS:
Yields

Q1
2022

Comparison of Yields – Lincoln Senior Debt Index (All Loans) to Broadly Syndicated Loan Market

Observations:

- Since its inception of the index, the average yield of the LSDI has been approximately 9.3%
- Due to rising interest rates, the yield of the LSDI was 8.8% in the first quarter of 2022 a significant increase from 8.0% as of the fourth quarter of 2021
- Over time, loans in the direct lending market yield approximately 4.0% to 5.0% more than broadly syndicated loans

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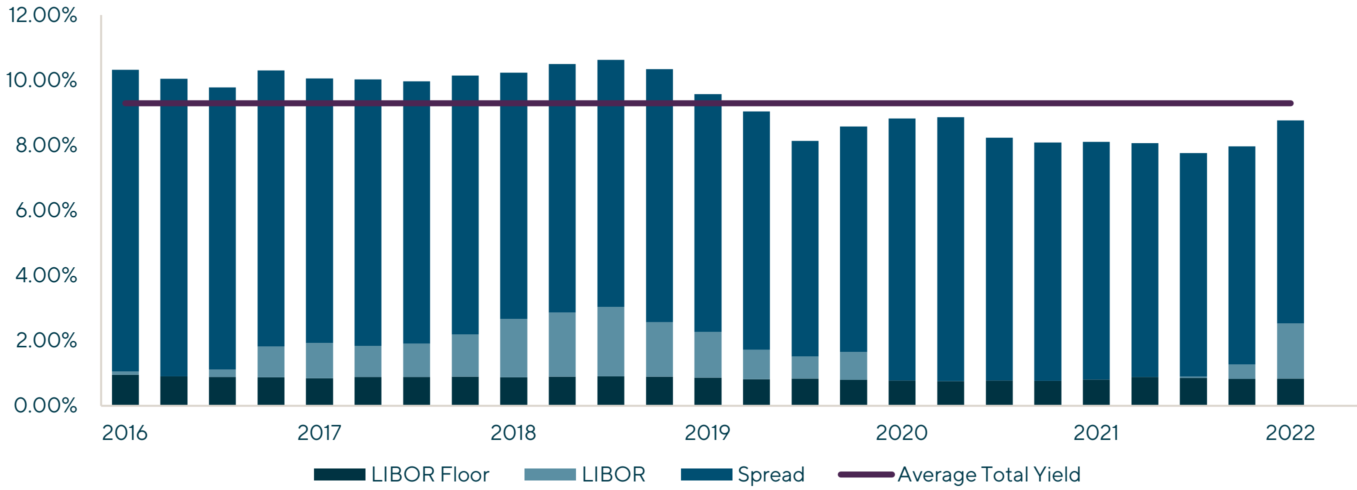
Decomposing Yields in the Direct Lending Market – LIBOR Floors and Spreads

Decomposing Yield – LIBOR, LIBOR Floors and Spreads – All Loans



Note: LIBOR Floor reflects weighted average for each period while LIBOR reflects the extent to which LIBOR was above the floor

Observations:

- The average yield of the LSDI has been approximately 9.3%
- As interest rates continue to rise, London Interbank Offered Rate (LIBOR) floors (generally 1.0%) have little economic benefit. Three month LIBOR as of March 31, 2022 was 2.5% meaning that 1.0% floors contribute no benefit to returns. In periods of declining or low interest rates, as LIBOR declines below 1.0%, the benefit to yield resulting from the LIBOR floor will partially mitigate a decline in LIBOR
- While the average yield in the direct lending market has remained in a band between 8.0% and 10.0%, the components of the yield vary as LIBOR and spreads change
- As the LIBOR curve continued to steepen in the first quarter of 2022, rising interest rates offset a decrease in spreads as spreads declined to 6.2%, in the first quarter of 2022, versus 6.7% as of December 31, 2021
- Over time, the direct lending market has become increasingly competitive as the supply of capital has increased along with the number of market participants. Spreads for the quarter ending March 31, 2022 were the lowest in the history of the SDI at 6.2% versus an average spread of 7.7%. Since the inception of the LSDI, we have witnessed declining spreads for the last nine quarters
- In the direct lending market, the change in spreads has a greater impact on the fair value of a loan versus changes in LIBOR. As direct lending loans are based on a floating rate, LIBOR, from a valuation point of view, the loan's discounted cash flow model contains LIBOR in the numerator and denominator, thus canceling each other out. However, the numerator is LIBOR plus the contractual spread, whereas the denominator is LIBOR plus the market required spread — the fair value spread. Therefore, it is the change in the denominator or credit spread that positively or negatively impacts fair value

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Fair Value – Price – Trends

Fair Value - LSDI (All Loans) Compared to the S&P / LSTA U.S. Leveraged Loan Index

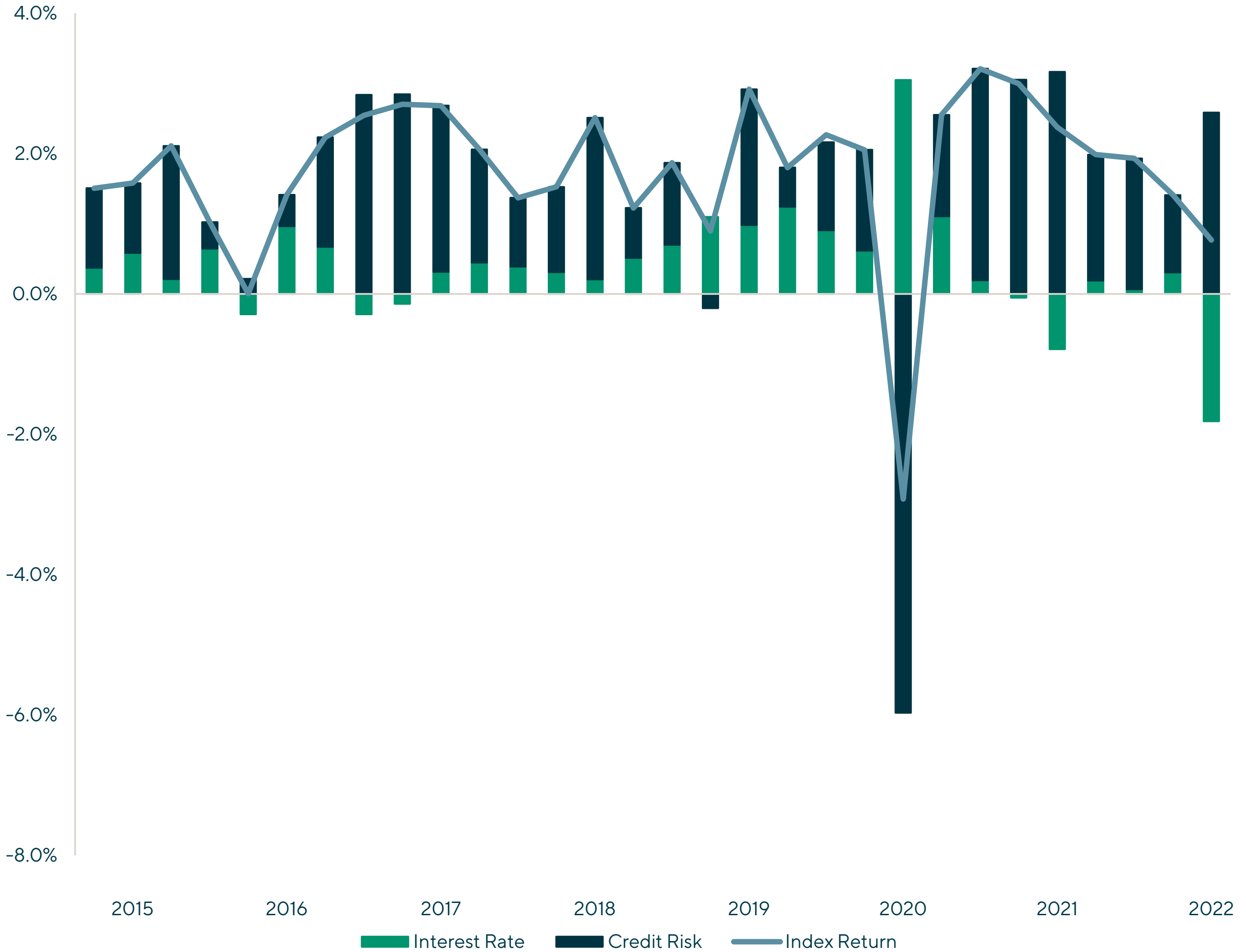
Note: Price based on fair value of the LSDI and average bid of the S&P / LSTA U.S. Leveraged Loan Index

Observations:

- The LSDI was 98.4% as of March 31, 2022 versus 98.7% as of December 31, 2021
- Over time, prices, on a fair value basis, have generally ranged between 97.5% to 98.8%
- There are several reasons for this phenomenon whereby loans in the direct lending market do not experience the same price volatility as observed in the BSL market:
  - Loans in the direct lending market trade much less frequently than loans in the BSL market
  - Investors in the BSL market have a greater ability to liquidate their investment should they decide to exit, as trading is a viable option. In contrast, investments in direct lending funds are structured whereby investor redemptions are limited. Therefore, capital flows are not as volatile as the BSL market

Bifurcation of the Impact on Total Return Due to Credit Risk and Interest Rate Risk

Decomposition of Index Returns: Interest Rate versus Credit Risk

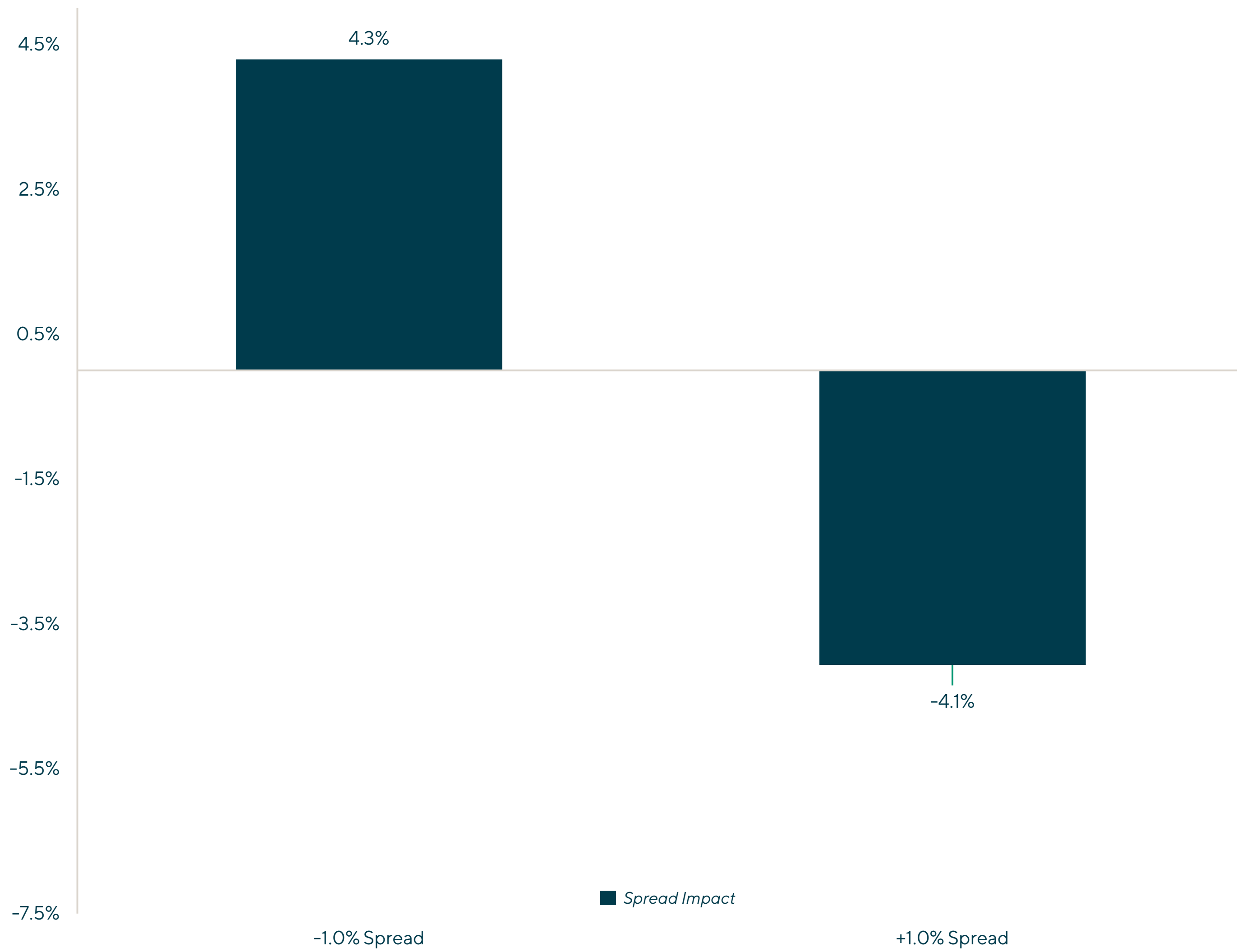


Observations:

- The LSDI quarterly return was 0.8% the lowest return (excluding the COVID-19 quarter of Q1 2020) since the fourth quarter of 2015
- The increase in the LSDI return is due to improvements in credit of 2.6%, offset by a (1.8)% return due to interest rate risk caused by increasing interest rates

RESULTS: Spread Sensitivity

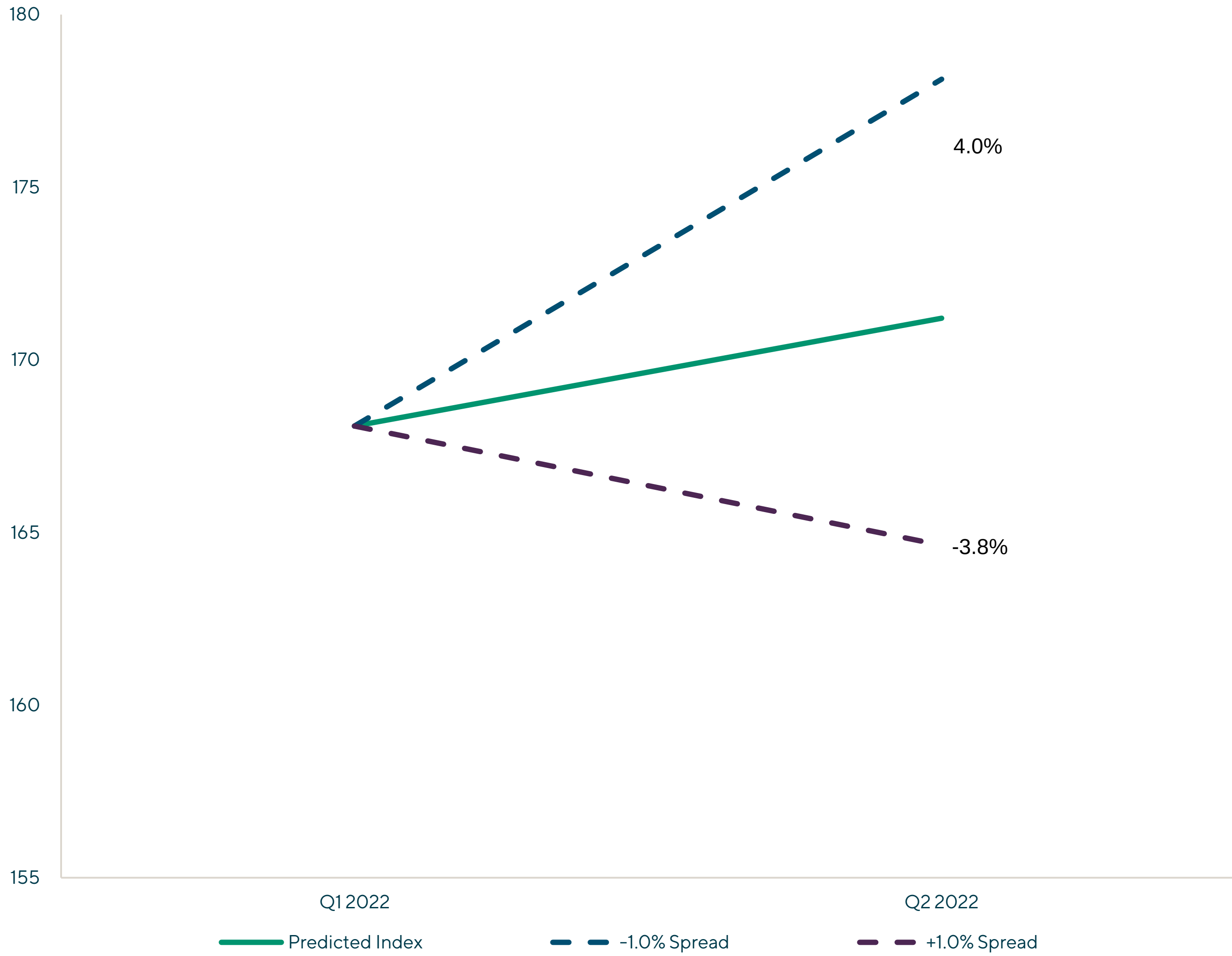
Q1 2022 Lincoln Senior Debt Index Spread Sensitivity



Observations:

Measuring the immediate impact on total returns, as of March 31, 2022, a 1.0% increase in spreads would decrease the value of the LSDI by 4.1%. Conversely, the impact from a 1.0% decline in spreads would have increased the LSDI by 4.3%.

Projected Q1 2022 Lincoln Senior Debt Index Spread Sensitivity



Observations:

Measuring the impact on total returns as of the next quarter, if LIBOR remains unchanged between March 31, 2022 and June 30, 2022, a 1.0% increase in spreads would decrease the predicted value of the LSDI by 3.8%. Conversely, the predicted impact from a 1.0% decrease in spreads would be an increase of 4.0%.

RESULTS:
Default Rates

Direct Lending Default Experience

Date	Size Weighted Defaults	
Quarter	Default	Compliant
Q2 18'	5.8%	94.2%
Q3 18'	5.5%	94.5%
Q1 18'	5.8%	94.2%
Q1 19'	5.0%	95.0%
Q2 19'	8.2%	91.8%
Q3 19'	6.1%	93.9%
Q1 19'	5.4%	94.6%
Q1 20'	5.0%	95.0%
Q2 20'	9.4%	90.6%
Q3 20'	9.0%	91.0%
Q1 20'	5.6%	94.4%
Q1 21'	4.1%	95.9%
Q2 21'	3.1%	96.9%
Q3 21'	3.2%	96.8%
Q4 21'	2.2%	97.8%
Q1 22'	2.5%	97.5%
Average Q2 2018 to Q1 2022	**5.4%**	
Average Q1 2021 to Q1 2022	**3.0%**	

Note: Defaults defined as loan covenant defaults (not monetary defaults).

Observations:

- Over the last six months the default rate has stabilized in the low-to-mid 2.0% range.
- The fair values of first lien term loans that have defaulted were approximately 89.0% consistent with prior quarters.

SUMMARY:
Q1 2022 Lincoln Senior Debt Index

From 2014 through March 31, 2022, a portfolio of direct lending loans has yielded higher returns and lower volatility relative to broadly syndicated loans.

The LSDI provides market participants many unique valuation insights into the fair value of direct lending loans and represents a significant enhancement to the information available within an opaque market.

Source of Data and Sample Size

On a quarterly basis, Lincoln determines the enterprise fair value of over 3,500 portfolio companies for approximately 125 private equity sponsors and lenders. These portfolio companies report quarterly financial results to the sponsor (i.e., private equity group) or lender. Lincoln obtains company and loan level information to create the LSDI.

All information is prepared in accordance with the fair value measurement principles of generally accepted accounting principles. Finally, each valuation is then vetted by auditors, company management, boards of directors and regulators.

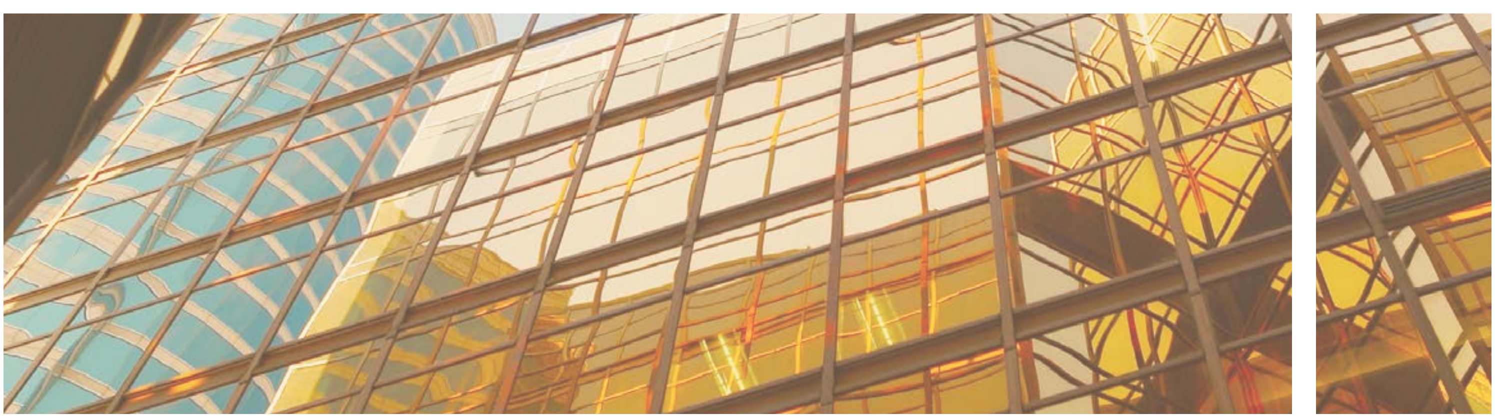
Additional information about the methodology of the LSDI can be found at: **https://www.lincolninternational.com/perspectives/an-overview-of-the-lincoln-senior-debt-index/**

Academic Advisor

Professor Pietro Veronesi is the Chicago Board of Trade Professor of Finance at the University of Chicago, Booth School of Business. He is also a research associate of the National Bureau of Economic Research and a research fellow of the Center for Economic and Policy Research.

Professor Veronesi's research has appeared in numerous publications, including the *Journal of Political Economy, American Economic Review, Quarterly Journal of Economics, Journal of Finance, Journal of Financial Economics and Review of Financial Studies*. He is the recipient of several awards, including the 2015 AQR Insight award, the 2012 and 2003 Smith Breeden prizes from the *Journal of Finance*; the 2008 WFA award; the 2006 Barclays Global Investors Prize from the EFA; the 2006 Fama / DFA prizes from the *Journal of Financial Economics* and the 1999 Barclays Global Investors / Michael Brennan First Prize from the *Review of Financial Studies*. Professor Veronesi teaches both masters- and Ph.D.-level courses. He is the recipient of the 2009 McKinsey Award for Excellence in Teaching.

His undergraduate work was in economics at Bocconi University where he received a laurea magna cum laude with honor in 1992. He earned a master's degree with distinction in 1993 from the London School of Economics. He joined the Chicago Booth faculty upon obtaining his Ph.D. in Economics from Harvard University in 1997.



ABOUT LINCOLN INTERNATIONAL

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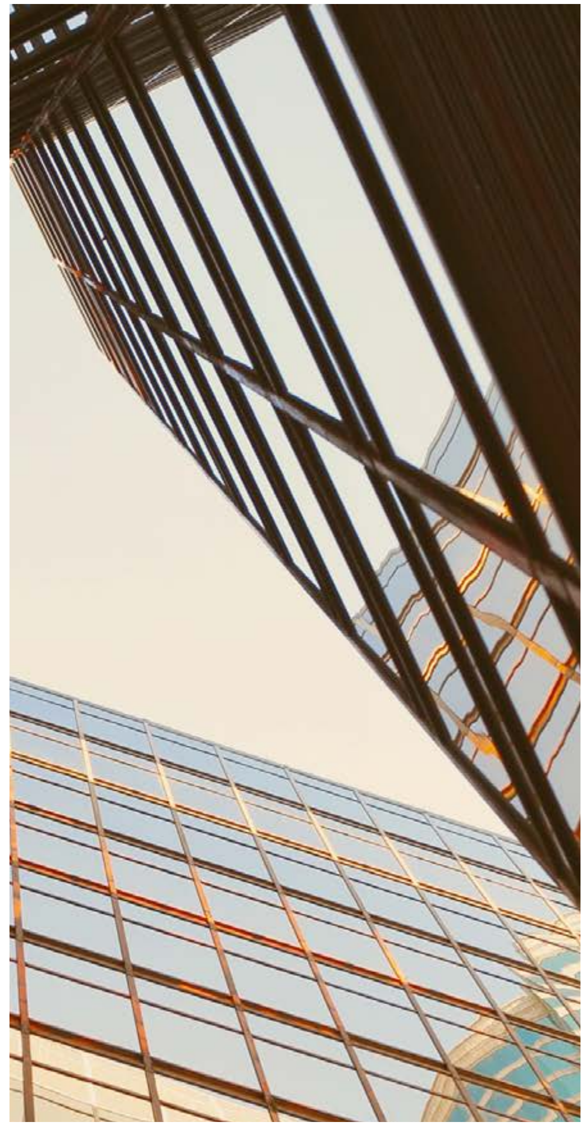
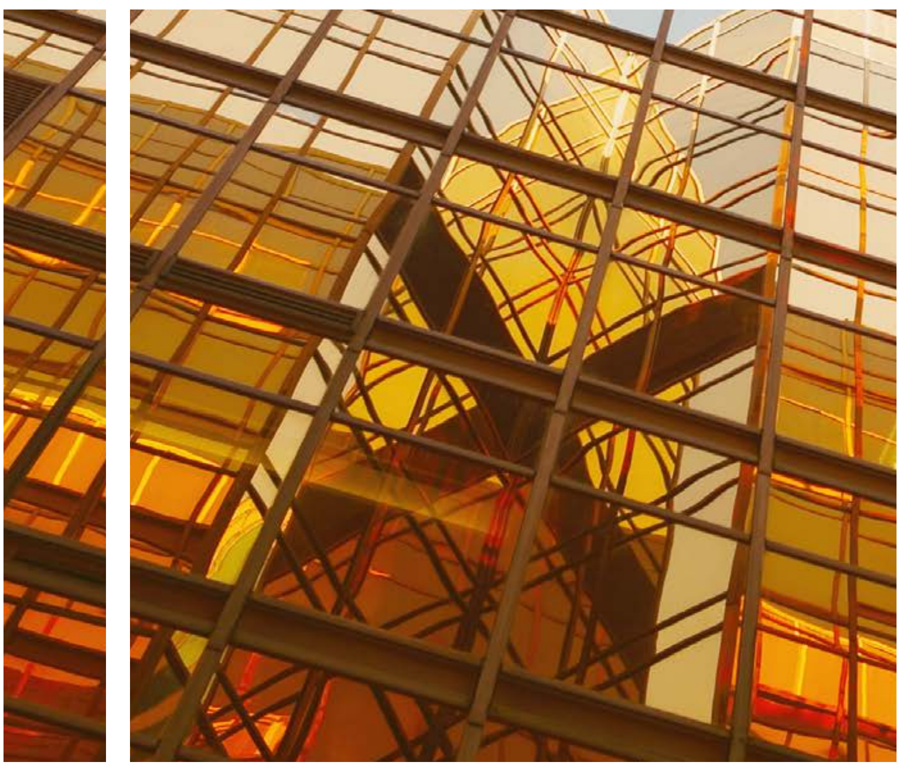
Lincoln's Valuations & Opinions Group is a leading independent valuation advisor to managers of illiquid assets and lenders to alternative assets funds. The group specializes in the valuation of illiquid debt, equity and derivative securities. Additionally, they provide independent fairness, solvency and other transaction opinions for a variety of corporate transactions for both public and private companies.

The firm's Valuations & Opinions Group is widely recognized for leveraging Lincoln's "real world" transaction experience from its mergers and acquisitions and debt advisory practices to assist its clients in the determination of fair value. Lincoln's highly skilled professionals have extensive experience in determining and supporting fair value measurements for traditional and complex securities.





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