Capital Markets Bureau

CORPORATE LEVERAGE TRENDS HIGHER

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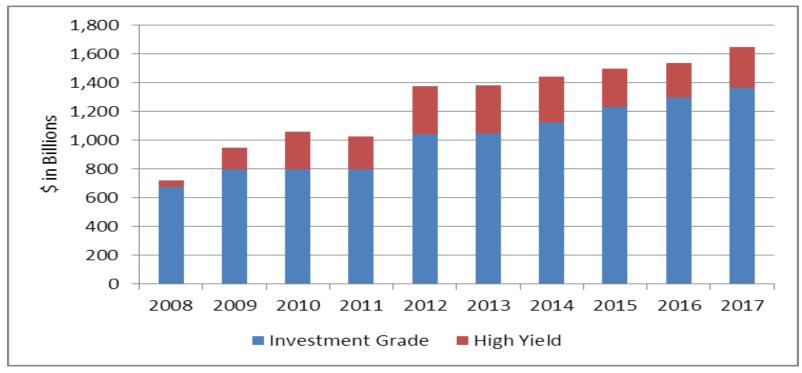
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Executive Summary

- Corporate debt outstanding has accumulated in recent years given record levels of issuance to take advantage of low interest rates.
- Proceeds have been primarily used for purposes that do not directly contribute to profitability (such as share repurchases and dividends), and as a result, debt to EBITDA¹ ratios have deteriorated.
- In a climate of rising rates, highly leveraged companies could potentially face challenges in meeting debt payments or refinancing maturing debt.
- EBITDA "addbacks" have become more common and can result in issuers appearing less leveraged and less risky than they actually are.

¹Earnings before Interest, Taxes, Depreciation and Amortization

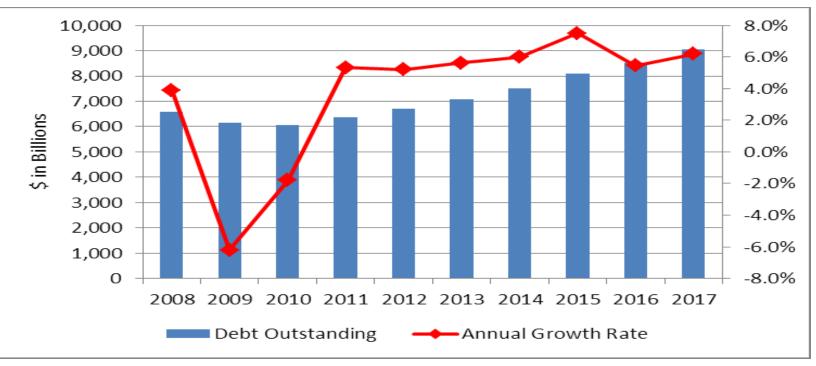
U.S. Corporate Bond Issuance



Source: SIFMA, Thomson Reuters

- Corporate bond issuance in the U.S. has increased almost every year since 2008.
- In the last ten years, U.S. corporate bond issuance has more than doubled increasing almost 120% – to reach \$1.65 trillion in 2017.
- High-yield bond issuance has been robust in recent years ranging from 15% to 25% of annual issuance for the 2009 2017 period.

Corporate Leverage Is Rising

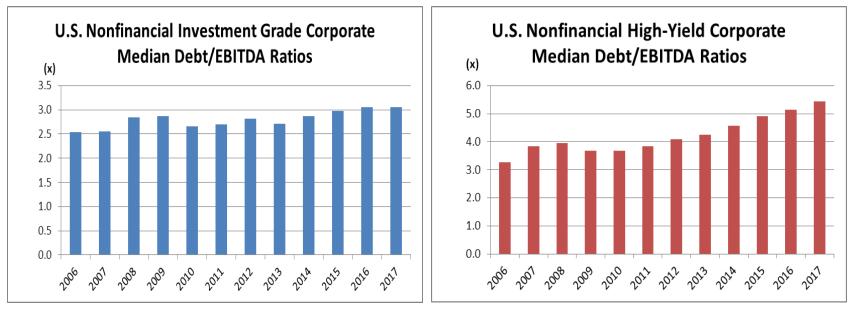


Source: Federal Reserve

- Based on Federal Reserve data¹, debt held by non-financial U.S. companies has been increasing steadily in recent years.
- Debt outstanding increased almost 50% from 2010 to 2017, to reach just over \$9 trillion at year-end 2017.

¹ Federal Reserve Statistical Release "Financial Accounts of the United States" Second Quarter 2018

High-Yield Companies Add Greater Share of Leverage



- Based on S&P Global Ratings data¹, the median debt to EBITDA ratio (a common measure of leverage) of their rated borrowers reached 4.4 times in 2017 from 2.9 times in 2006.
- High-yield companies in particular took on more debt, with their median debt to EBITDA ratio climbing to 5.4 times in 2017 from 3.3 times in 2006.
- The median debt to EBITDA ratio of investment grade companies increased modestly to 3.1 times in 2017 from 2.5 times in 2006.

¹S&P Global Market Intelligence report "When The Cycle Turns: Leverage Continues To Climb – Has It Finally Peaked?, October 9, 2018

Why Has Leverage Increased?

Ample Funding Availability

Investors have been more willing to take on risk due to the prolonged low interest rate environment. So borrowers, particularly lower-rated ones, have taken advantage of the ease of credit and have issued record levels of new debt.

Low Cost of Borrowing

Funds primarily used for...

- Mergers and Acquisitions
- Shareholder Friendly Actions
 - o Share Repurchases
 - o Dividends

What is the Impact of Rising Leverage?

Exposes Financial and Operational Vulnerabilities

То ...

- Turn in the Credit Cycle
- Rising Rates

Limits Financial Flexibility

- Can lead to ...
- Credit Rating Downgrades
- Defaults

What are EBITDA Addbacks?

Adjustments to EBITDA

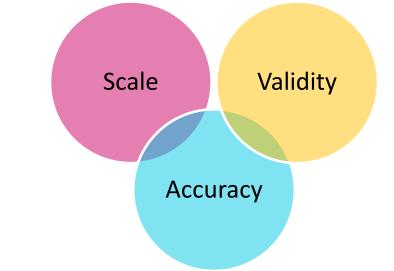
- Make EBITDA appear stronger thus reducing the measure of leverage: Debt/EBITDA
- Typically utilized when issuing new debt or entering a financial transaction
- Have become more common in recent years as companies, especially highly leveraged ones, issue record amounts of debt to take advantage of low interest rates

Examples of Addbacks

- Post-Acquisition, -Divestiture or -Merger Cost Savings/Synergies
- Restructuring Costs
- Non-Recurring Operating Costs
- Deferred Income Costs
- Inventory Adjustments
- Intangible Asset Impairments

Risks of EBITDA Addbacks

EBITDA addbacks should be verified for...



Aggressive or unrealistic addbacks can result in...



Questions to Understand Leverage Risk in Insurance Company Investment Portfolios

- What is the insurer's bond/loan exposure as a percent of total assets to companies considered high-yield? As a percent of capital?
- How does the insurer's high-yield exposure compare to the U.S. insurance industry average of 5.5% of total bonds¹?
- Is there a significant concentration in high-yield bonds/loans?

¹ As of year-end 2017