

Global credit strategy

A look at corporate leverage

Chief Investment Office Americas, Wealth Management I 05 November 2018 8:10 pm GMT Leslie Falconio, Sr. Fixed Income Strategist Americas, leslie.falconio@ubs.com; Barry McAlinden, CFA, Sr. Credit Strategist Americas, barry.mcalinden@ubs.com

- Since the financial crisis, companies have enjoyed unusually benign funding conditions as interest rates hit record lows.
 Unsurprisingly, the amount of corporate debt has soared in recent years, raising questions about its sustainability and the risks it poses to financial markets.
- In this report, we look into the details of US corporate leverage from different angles. While we are not concerned about the aggregate leverage situation in either region and do not see the credit cycle ending in the next 12 months, we do find increased risks in certain credit market segments.
- Specifically, the USD senior loan market is showing signs of late-cycle behavior. There has also been a trend toward weaker credit ratings within investment grade corporate bonds, which could ultimately result in higher downgrade risk once the business cycle ends. We are currently less concerned about the latter as we expect rating trends to remain supportive of BBB rated bonds.

Since the depths of the financial crisis, corporate debt has increased substantially. The amount of outstanding (index-eligible) corporate bonds and loans in USD has more than doubled over the past 10 years. Understandably, this is raising questions about the sustainability of this debt and other, related risks to financial markets.

In this report, we look closer at corporate sectors in the US. While company debt has risen markedly, its negative effects on balance sheets have been mitigated by vibrant earnings growth and low interest rates. Nevertheless, credit risks have intensified in parts of the market, and releveraging is generally more advanced in the US than in Europe.

A high degree of indebtedness in itself does not reveal much about the timing of the next downturn or recession. But it can help us identify risky areas once the cycle ends. We find developments in the USD senior loan market and the greater proportion of BBB rated corporate bonds worth highlighting.

For investors who added credit risk to their portfolio in recent years, it is a good time to revisit their allocation, potentially take some profits, and realign with their risk profile. Instead of taking excessive credit risk, we recommend investing into a diversified portfolio as well as adding 10-year Treasuries at this stage of the cycle.

This report was originally published outside the US on 1 November 2018 and has been modified for US distribution.

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1. Corporate leverage in perspective

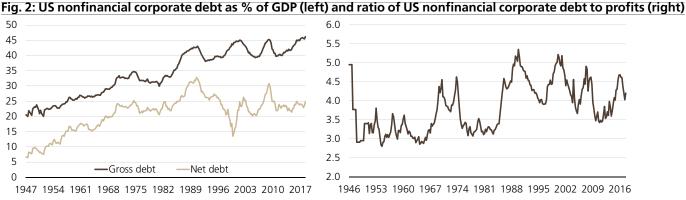
Corporate debt has been on the rise since the financial crisis. It has surged to new heights as companies took advantage of the low-interest-rate environment to fund their operations. According to US Federal Reserve data, US nonfinancial companies currently have USD 9.4 trillion of debt on their balance sheets. To put this figure in perspective, we find it useful to look at the history of corporate debt and place it in relation to other key metrics. The US is our focus in this section since a wealth of historical data is available and the leverage cycle is most advanced there.

Fig. 1: US nonfinancial corporate debt adjusted for inflation (index, left) and annual real growth rate of debt (right) 90 20% 80 15% 70 60 10% 50 5% 40 30 0% 20 -5% 10

Sources: Macrobond, US Federal Reserve, UBS, as of 2Q18

1947 1954 1961 1968 1975 1982 1989 1996 2003 2010 2017

Fig. 1 (left) shows US nonfinancial corporate debt in real terms, i.e., adjusted for inflation. Following a very brief phase of declining debt after the financial crisis, corporate debt quickly returned to its previous upward trend. Relative to the postwar annual growth rate of real debt (see Fig. 1, right), this recent phase is not extraordinary in either length or size. Debt growth has been the norm in times of economic expansion, and has regularly occurred at a 5–10% rate. The average real debt growth of roughly 4% since 2011 is in line with the long-term average and has not been exceptional in and of itself. But it has occurred in a period of below-average economic growth, as becomes obvious when it is graphed relative to GDP.



Sources: Macrobond, US Federal Reserve, UBS, as of 2Q18

As can be seen in Fig. 2, gross US nonfinancial debt is equivalent to 46% of annual US output. That figure is slightly above previous cycle peaks and a sizable increase over the rates of recent years, which underscores the corporate sector's reliance on debt funding. On a net basis, i.e., after subtracting liquid assets, debt amounts to just 25% of GDP. At the same time, an increasing share of GDP has been going to companies in the form of profits since the financial crisis. The current ratio of corporate debt to profits, 4.2x, exceeds the long-term average of 3.8x, but is well below previous peaks thanks to the impressive profit growth of recent quarters. That said, should profit growth slow, the picture can change quickly, as was the case from 2014 to 2016.

1948 1955 1962 1969 1976 1983 1990 1997 2004 2011 2018

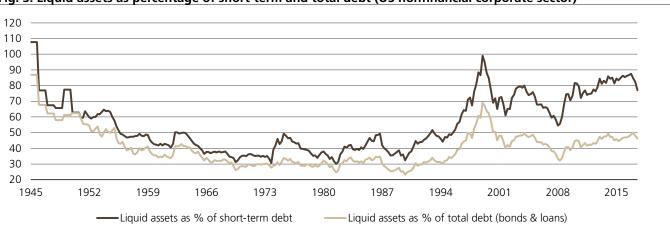


Fig. 3: Liquid assets as percentage of short-term and total debt (US nonfinancial corporate sector)

Sources: Macrobond, US Federal Reserve, UBS, as of 2Q18

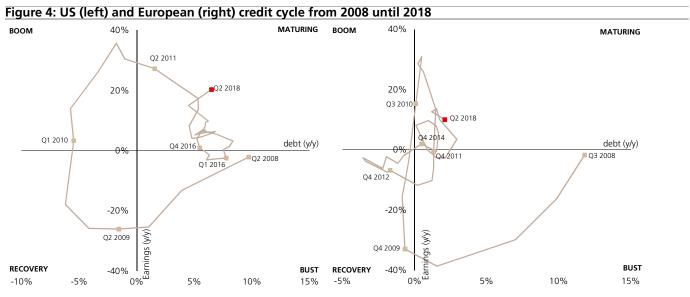
Finally, a look into corporate balance sheets reveals an interesting longer-term trend. US companies have reduced their reliance on short-term funding (i.e., debt with a maturity of less than one year) and focused on liquidity management. The current 77% of outstanding short-term debt covered by liquid assets reduces the immediate risk of shortfalls, although funding pressure can obviously still arise. In recent quarters, US companies started to reduce their cash holdings, driven mainly by a change in taxation rules of cash held overseas. This trend is likely to continue, bringing down liquidity on companies' balance sheets.

In sum, the aggregate state of US corporate leverage does not look extreme to us despite the releveraging of recent years, which brought it to new peaks. Debt growth has not been excessive from a historical perspective and is balanced by growth in the economy, corporate profits, and financial assets. Nonetheless, it still may pose certain risks. Specifically:

- 1. Corporate earnings and debt evolve in cycles. Once this cycle turns, companies will face funding challenges and defaults. Rating downgrades will rise. We will focus on our view of the credit cycle in the next section.
- 2. The aggregate and US-focused view above might hide risks or excesses in certain market segments.

2. Corporate leverage in the cycle

The credit cycle reflects the change in credit conditions in an economy, or the change in demand and ease of access to credit by borrowers. A typical credit cycle consists of four distinct phases: recovery, boom, maturing, and bust.



Sources: Bloomberg, Thomson Reuters, UBS, as of 2Q18

The first phase of the cycle starts after a recession. During this "recovery," corporate earnings growth is weak but begins to revive, and credit conditions remain tight but slowly become less so. Given the earnings contraction during the recession, companies are still deleveraging or reducing their debt burden as their capacity to service their debt load has diminished.

This process continues until the economy gathers steam in the "boom" phase, when earnings growth rapidly accelerates. Lending conditions ease and companies, more optimistic about the economic outlook, tentatively start to borrow again. The default rate falls and tends to be at its lowest in this stage.

Earnings growth remains vibrant in the "maturing" phase, though the pace of growth has likely peaked. Company management tends to take advantage of easy credit conditions by borrowing to fund shareholder-friendly activities, including share buybacks, dividends, and mergers and acquisitions (M&A). At some point, debt growth may outpace earnings growth and leverage rises. Lending conditions become less easy as credit risk increases, and toward the end of this phase they start to tighten. Defaults remain low but start to inch up.

The cycle ends when earnings begin to contract as the economy slows and slips into a recession. Enter the "bust" phase. Defaults soar as cash flows dwindle, the availability of financing falls, the cost of debt rises, and companies cannot repay their debt. The cycle then repeats itself.

Knowing where you are in the credit cycle is important: It greatly influences the kind of returns you can expect from various asset classes and helps you determine how to position your portfolio accordingly.

Returns for equities and high yield credit alike tend to be greatest in the recovery phase. The preceding downturn has made valuations much cheaper, and markets start anticipating the economic upsurge and the effect it will have on earnings and credit risk. Returns in the boom phase stay high, though are lower than during the recovery as valuations have already climbed off their lows.

In the maturing phase, returns fall meaningfully, particularly in high yield. Company managers start to engage in late-cycle behavior, taking action that tends to reward shareholders to the detriment of bondholders (e.g., engaging in M&A and buying back shares financed by debt issuance), as outlined above. It boosts returns to shareholders but comes at the expense of credit quality. Credit spreads tend to widen toward the latter part of this phase as investors price in the greater credit risk associated with higher leverage, which becomes problematic when earnings weaken.

Finally, as earnings contract and the economy slips into recession in the bust phase, equity and high yield credit returns can turn negative. As equities represent a residual claim on a company's assets after the repayment of all its debt, they are riskier than credit and so unsurprisingly their value drops further during this stage relative to credit.

12% 50% 40% 10% 30% 8% 20% 6% 10% 4% 0% 2% -10% 0% -20% Recovery Boom Maturing Bust Maturing Bust Recovery Boom ■ Avg HY default rate next 12M ■ Equities avg ann. excess return ■ HY avg ann. excess return

Fig. 5: Average US HY default rate (left) and average annual excess returns over US Treasuries (right) per cycle phase

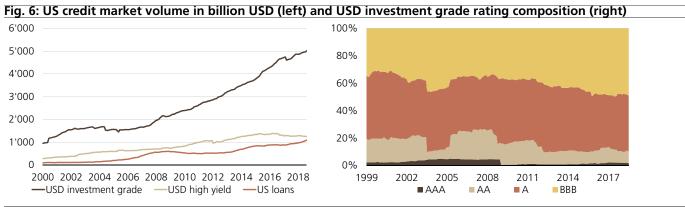
Sources: Bloomberg, Thomson Reuters, UBS, as of 2Q18

As the cycle charts (see Fig. 4) illustrate, we are currently in the maturing phase of the cycle the US, as has largely been the case since 2011. The US temporarily dipped into the bust phase in 2016 due to an earnings recession in the energy and materials sectors. Earnings growth has since reaccelerated, boosted recently by the US tax reform, while annual debt growth remained at 5–7%.

3. Corporate leverage in the US

The USD corporate credit market increased significantly in size since the global financial crisis, with the investment grade (IG) and leveraged loan markets standing out. The USD IG market now totals USD 5 trillion (according to Bloomberg Barclays index data) and has more than doubled since mid-2009. The US senior loan market surpassed the USD 1 trillion mark earlier this year, almost doubling in size since 2009. Meanwhile, the USD HY market has trailed in its growth, which has totaled 60% during this period.

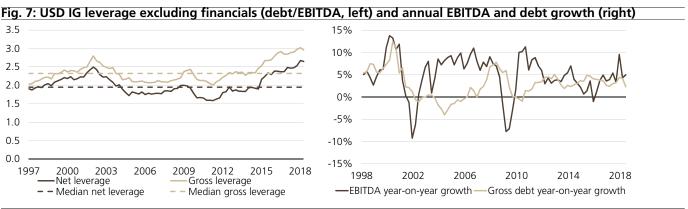
The BBB segment has fueled the IG expansion. It now represents 49% of the market compared to 37% in mid-2009. AA and A rated segments have shrunk by 13% combined, while the AAA segment has been roughly stable. As a result, the average credit quality of the IG universe has decreased, which has raised concerns about the potential for a large number of BBB rated firms being downgraded to high yield during the next downturn.



Sources: Barclays, ICE, S&P LCD, UBS, as of 30 October 2018

Currently, USD 2.5 trillion worth of bonds in the index are rated BBB, of which USD 800bn are BBB-, i.e., just one notch above non-IG territory. That's an almost 25% increase in the past three years in the BBB- space. But nowhere near all of these issuers are at risk of an immediate rating downgrade, and some will rise into higher IG territory as well. In fact, over the past months, rating upgrades have outnumbered downgrades within the BBB space. Also, methodology changes by rating agencies in recent years have led to lower average ratings without an actual change in issuers' financials. And finally, a number of large M&A cases have suffered rating downgrades recently, but are unlikely to fall into the HY segment as their deleveraging efforts are credible.

Still, an unexpected economic slump poses a risk to this part of the market. A normalization of rating trends to the long-term average would imply that 15% of the BBB universe would be downgraded to high yield per year, while conversely 21% would make it from HY into IG. By current numbers, that would result in an additional USD 200bn of HY debt or 16% of today's market size.



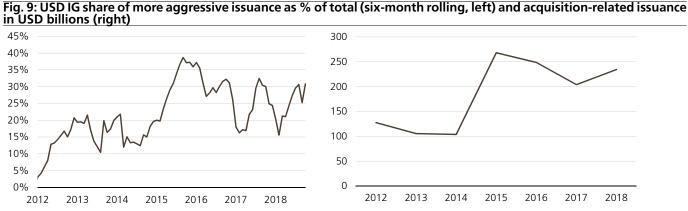
Sources: BAML, UBS, as of 2Q18

As the market has expanded, so has net leverage, which now surpasses the prior 2002 peak. It particularly accelerated in 2015, as M&A-related issuance increased while earnings were lackluster. The uptick in company earnings in recent quarters has stabilized leverage recently.

Fig. 8: USD IG net leverage (net debt/EBITDA) by rating excluding energy, financials, materials, and utilities 3.0 2.5 2.0 1.0 0.5 0.0 2000 2003 2006 2012 2018 2009 2015 1997 -BBB

Sources: BAML, UBS, as of 2Q18

Net leverage for BBB and single-A rated issuers (excluding energy, financials, materials, and utilities) has climbed, although more so for BBB issuers. BBB net leverage is hovering at levels last seen in 2003, whereas that of single-A's is close to 2009 levels.



Sources: S&P LCD, UBS, as of October 2018

In general, the share of more "aggressive" issuance, such as that backing M&A, share buybacks, and dividends, has been on an uptrend in the last five years. M&A issuance in particular has skyrocketed again, with issuance of around USD 250bn this year, up 31% from last year. M&A-related issuance tends to add substantial leverage to corporate balance sheets, at least temporarily, often based on the outlook for synergies. While they might well materialize, company credit profiles often become more vulnerable during this transition phase.

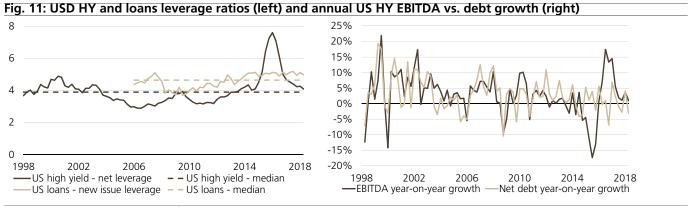
18 12 16 10 14 12 10 8 6 4 2 2 0 0 1976 1986 1991 1996 2001 1997 2003 2000 2006 2009 2012 2015 2018 -Average USD IG coupon (with projection) Interest coverage ratio Median -US 5-year Treasury yield

Fig. 10: USD IG interest coverage ratio (EBITDA/interest expenses, left) and USD IG average coupon vs. Treasury rate (in %, right)

Sources: BAML, Bloomberg, Barclays, UBS, as of 30 October 2018

Though more aggressive issuance has led to higher leverage, the extent to which companies will be affected by the move up in rates is limited. The interest coverage ratio, measuring how many times EBITDA covers interest expenses, has declined from its high in 2013 but still hovers around its long-term median despite lower credit quality in the index on average.

Rising interest rates will increase average funding costs only gradually as most of the debt is fixed-rate with longer maturities. The average USD IG coupon rate bottomed at 4% in 4Q17 and has climbed to 4.1% since. By the end of next year, another 9% of the index will mature. Refinancing these redemptions at a higher marginal funding cost (for simplicity's sake we assume a 0.25-percentage-point rise per guarter) will bring the average coupon in the index to 4.2% by the end of next year. That is still 2 percentage points less than it was before the global financial crisis.



Sources: BAML, S&P LCD, UBS, as of 2Q18

Turning to the sub-IG segments, we see mounting risks primarily in the senior loan market rather than the HY bond market. After US HY net leverage crept past 7x in 2016 (due largely to the earnings plunge in the energy sector), it has since fallen and stands slightly above its long-term median of 3.9x, as debt growth has remained contained while earnings growth has surged. Meanwhile, US loan new-issue leverage at 5x stands above its long-term median of 4.6x. New-issue leverage includes so-called EBITDA add-backs, or assumptions of M&A deal synergies that may not bear fruit which may understate the true pick-up in leverage. Including such assumptions, the pro-forma leverage ratio of M&A-related loans has reached 5.5x, surpassing the 2007 peak. Excluding them, the leverage ratio climbs to 5.8x (see Fig. 13, left).

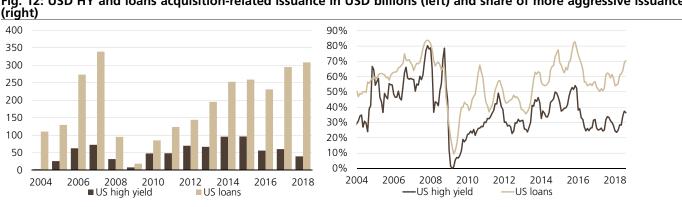
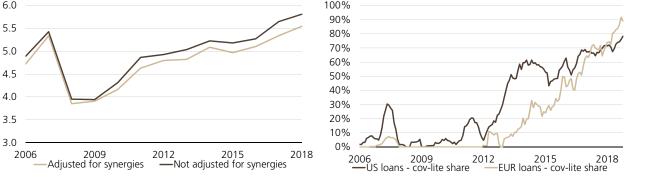


Fig. 12: USD HY and loans acquisition-related issuance in USD billions (left) and share of more aggressive issuance

Sources: S&P LCD, UBS, as of September 2018

Acquisition-related debt issuance has climbed in the below-IG segments, due entirely to the loan market. It has actually declined in the US HY market since 2015 while rebounding in the loan market, where issuers usually find more efficient and flexible terms for M&A funding. In terms of total issuance, the share of aggressive issuance (that related to M&A and leveraged buyouts, recapitalization) has increased since the financial crisis. It remains well below the 2008 peak for HY bond issuers but is higher for loan issuers.

Fig. 13: Pro-forma debt-to-EBITDA of M&A-related loans (left) and US vs. European covenant-lite issuance as % of total issuance (right) 6.0 100%



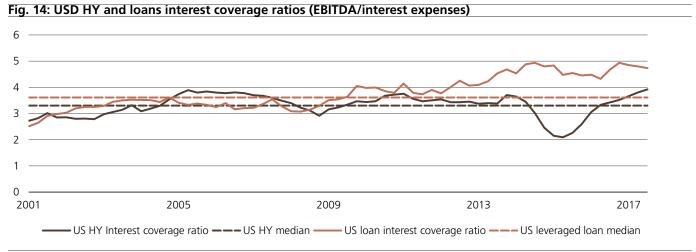
Sources: S&P LCD, UBS, as of October 2018

Covenants are meant to protect a lender from certain actions by the borrower that would disfavor him (e.g., increasing leverage or dividends), but they have become guite rare. Covenant-lite loans are loans with less restrictive covenants. They typically include "incurrence" covenants, meaning that issuers must comply with certain financial metrics only if they wish to undertake certain activities (e.g., acquisitions). This differs from traditional "maintenance" covenants that stipulate the issuer must comply with certain financial metrics on an ongoing basis.

Covenant-lite loans have become a loan market staple. Their share of issuance has soared from close to zero in 2012 to 80% of all issuance in the US and 90% in Europe. This has raised concerns that recovery values could be lower in the future. We think this issuance trend is more a structural change in the senior loan market than a near-term cyclical concern. Covenant-lite and non-covenant-lite loans alike exhibit seniority in the capital structure and are backed by assets. It is not clear that the former should lead to lower recovery rates than the latter.

In a review of ultimate recovery rates for 410 leveraged loans that defaulted between 1998 and 2015, S&P found that covenant-lite loans actually had higher recovery rates than loans with maintenance tests (92.5% vs 81%). This was attributed to the fact that only the strongest issuers could access covenant-lite loans. The situation is different today, since virtually all loans issued are covenant-lite.

Investors should assess credit risk on an individual loan and issuer basis and consider factors well beyond whether a loan is covenant-lite or not. In that regard, Moody's has noted that covenant quality has deteriorated in recent years. A second trend has been the growth of loan-only issuers, which do not have any more "junior" debt (e.g., in the form of bonds) that would absorb the initial loss in the event of default. According to S&P LCD data, the share of loan-only capital structures has risen from 56% in 2011 to 70% of the total loan market today.



Sources: BAML, S&P LCD, UBS, as of 2Q18

An important mitigating factor is the coverage ratio. It still exceeds the long-term median for US HY and leveraged loans alike despite the roughly 200bps rise in US three-month LIBOR since the end of 2015 and provides some resilience. But the continuous gradual rise in USD short-term rates we expect will likely affect floating-rate loan issuers most. Coupled with an expected slowdown in US earnings growth next year, it can be expected to weigh on interest coverage for the loan market.

Key conclusions

- The rise in corporate debt in recent years, particularly in the US, is in line with a mature stage of the business cycle. While it has weighed on credit quality, aggregate leverage does not look excessive, and certain mitigating factors indicate to us that the leverage cycle has not peaked yet.
- Vibrant economic and earnings growth and easy financing conditions do not currently point to an end of the credit cycle. So our default rate forecasts for the next 12 months remain below long-term averages at 2–2.5% for USD high yield and senior loan markets.
- Credit risks are currently most pronounced within the USD senior loan segment, in our view. Market growth fueled by M&A-related issuance, high leverage on newly issued loans, and a greater share of "loan-only" borrowers is weighing on credit quality. While we don't see a catalyst that could turn the credit cycle, we advise investors to revisit their exposure to US loans in light of their tolerance for credit and liquidity risk.
- The increase in BBB rated USD bonds, which if downgraded in large numbers during an economic slump could overwhelm the HY market at the end of this cycle, is often cited as another source of concern. We see no catalyst for such a downgrade cycle at this point. In fact, our outlook is for rating trends to remain supportive of the BBB segment.
- For investors who added credit risk to their portfolio in recent years, it is a good time to revisit their allocation, potentially take some profit, and realign with their risk profile. Instead of taking excessive credit risk, we recommend investing into a diversified portfolio as well as adding 10-year Treasuries at this stage of the cycle.

Appendix

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