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THOUGHT LEADERSHIP: AMERICA'S CORPORATE DEBT TICKING TIME BOMB



INTRODUCTION

In the United States, since the global financial crisis (GFC) household debt as a proportion of GDP has decreased from approximately 99% to 76%. The crisis exposed the incredibly risky lending practices in the US mortgage market, including inappropriate lending to subprime borrowers and the pooling of these risky mortgages into securitised products such as collateralised debt obligations. In the wake of the GFC, households were forced to deleverage, as improved regulation was put in place and mortgage lending standards were improved.

However, US corporations did not partake in the same deleveraging journey following the GFC. While nonfinancial corporate debt decreased during the GFC and in its immediate aftermath, the ratio of nonfinancial corporate debt to GDP has now reached a new high of 74%, as shown in Chart 1 overleaf. A loosening of lending standards for corporates, paired with the Federal Reserve's monetary policy response since the crisis – a cash rate of 0% for nearly eight years and an exhaustive quantitative easing plan that kept government bond yields low – encouraged corporations to borrow at staggering rates. Demand for corporate debt from yield-hungry

investors has been strong in an otherwise low-yielding environment.

Debt can be used for productive purposes, such as making investments that sustain long-term growth. Has this been the case in this post-GFC corporate debt binge? Last month's feature article illustrated that a great deal of this debt has been used to fund share buybacks, which taking a negative view, can be thought of as company executives prioritising short-term benefits and overlooking longer-term prospects.

It is also important to point out that the fastest rate of increase in corporate debt has been among borrowers rated BBB, one notch above 'junk' status. These BBB bonds now make up about half of all investment-grade bonds on issue. Investors have become increasingly concerned about the ballooning of BBB-rated debt because any ratings downgrades, such as those that occur in the event of economic or financial market stress, would mean that there would be a large influx of corporate debt into the junk market. This would be problematic for many investors, many of whom have investment guidelines that would force them to sell off any junk debt.

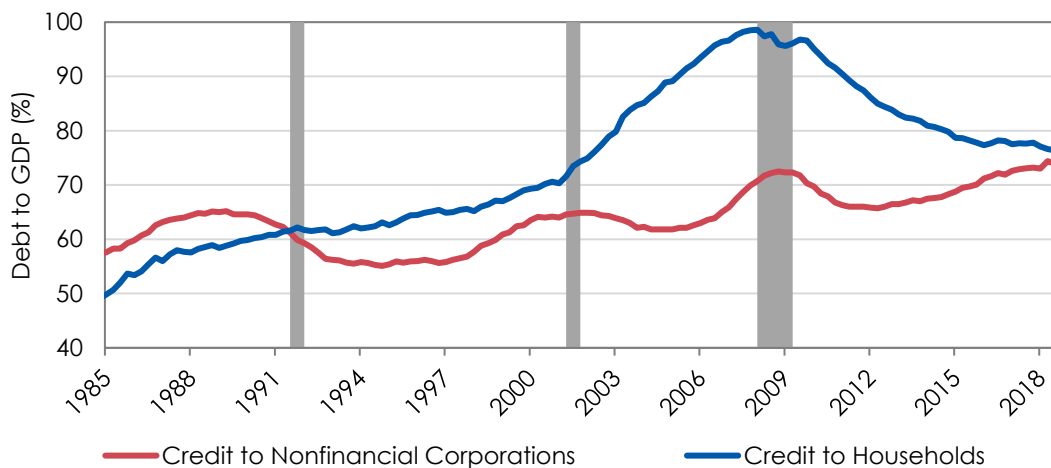


How likely is it that the corporate debt mountain will materialise into an issue that financial markets have to grapple with? High levels of leverage on corporate balance sheets usually signify that corporations are vulnerable to shocks – for example, a downside shock in economy activity, or an upside shock to debt costs. The longer the ongoing trade wars continue, the more serious the impact they will have on global economic activity. Furthermore, while central banks have turned more dovish in 2019, they may eventually

be motivated to normalise monetary policy after their unprecedented response to the GFC.

In this month's feature article, we discuss the extent of the US corporate debt binge and the composition of the outstanding debt. We explain the market conditions that enabled the credit boom, as well as the triggers for what could cause it to crash. Finally, we explore the investment implications of the next credit event when it arrives.

Chart 1: Corporate and Household Debt to GDP Ratios, 1985 - 2018



Source: St. Louis Federal Reserve, Whitehelm Advisers.



CORPORATE DEBT IN NUMBERS

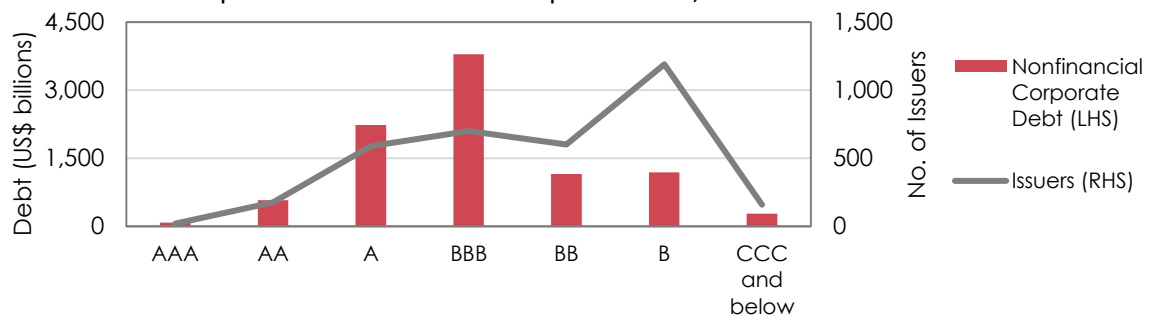
Before delving into the risks at play involving the level of corporate debt in the United States, first consider the following facts regarding the size and composition of the debt, per ratings agency S&P Global:

- US corporate debt instruments (bonds, loans and revolving credit facilities) grew to \$9.3¹ trillion as of 1 January 2019, which accounts for 48% of total global corporate debt;
- the majority of rated corporate debt in the US is investment grade (rated BBB and above), accounting for 72% of the total

debt pile, although investment grade companies account for just 43% of the total number of issuers (refer to Chart 2 below);

- nonfinancial corporate debt accounts for \$7.1 trillion, 66% of which is classified as investment grade, while the remainder is classified as speculative grade (junk); and
- \$3.5 trillion of the nonfinancial corporate debt is set to mature by the end of 2023, \$2.4 trillion of which is investment grade and \$1.3 speculative grade (as presented in Chart 3).

Chart 2: Composition & Issuers of US Corporate Debt, as of 31 December 2018



Source: S&P Global, Whitehelm Advisers.

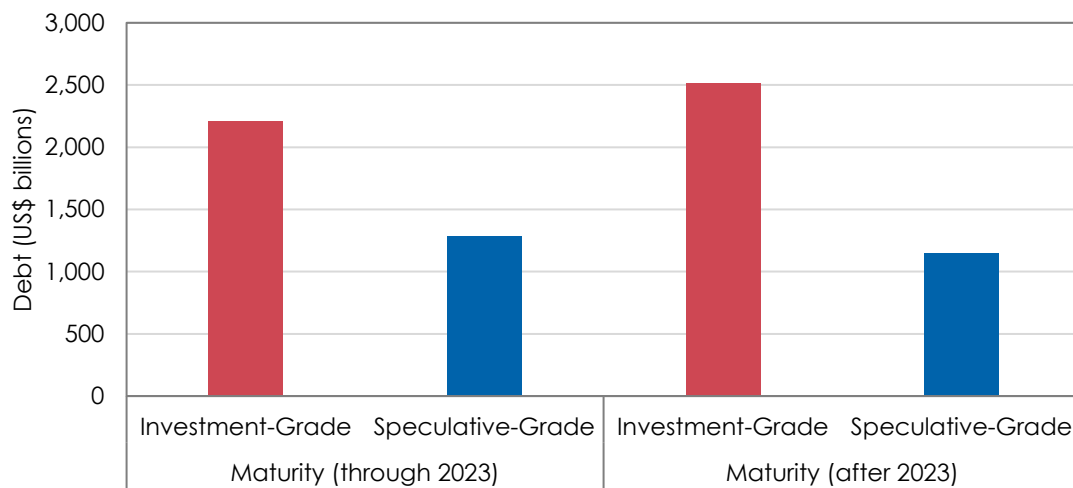
¹ All figures are in US dollars, unless otherwise denoted.



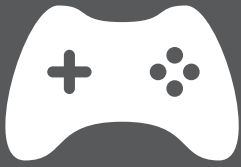
As per Chart 2 above, BBB-rated bonds represent the largest slice of outstanding corporate bonds in the US. It also represents the fastest-growing type of debt. This has become a key issue that investors have focused on because it is the lowest rating within the investment grade category, and any ratings downgrades could lead

to this debt being reclassified as speculative grade. While investment grade bonds account for a significantly higher proportion of US corporate debt than speculative-grade bonds (72% compared to 28%), the amount of BBB-rated debt is currently two and a half times the size of the speculative-grade bond market.

Chart 3: Maturity Profile of US Nonfinancial Corporate Debt, as of 31 December 2018



Source: S&P Global, Whitehelm Advisers.



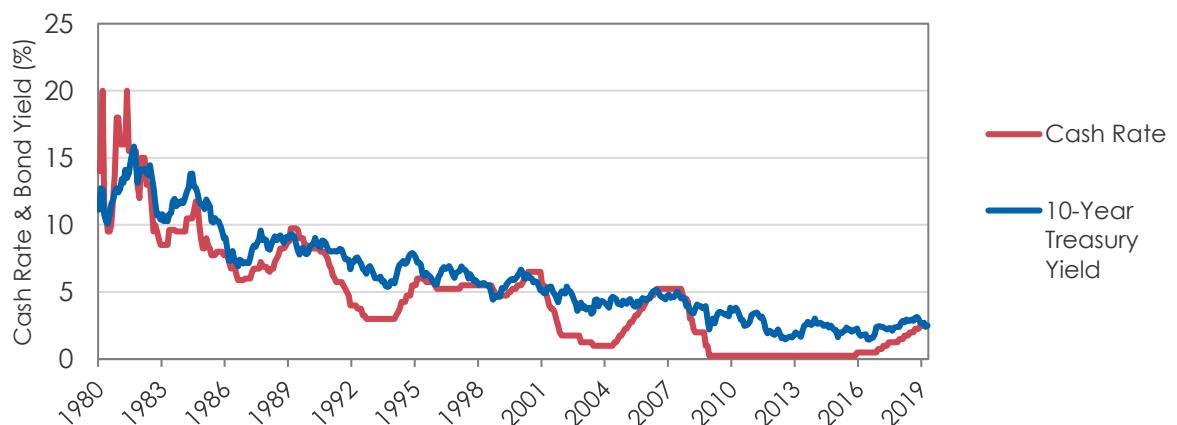
THE FACTORS AT PLAY

The rise in corporate debt since 2010 should not come as a surprise. The global economy was in a phase of recovery after the GFC, and some businesses were playing their part by aiming to expand operations through investment and growth while others have been buying back their own stock.

An undeniable root cause of the accumulation of US corporate debt has been the ultra-low interest rates and unconventional monetary policy that followed the GFC. While interest rates have been on a downward trajectory since the 1980s, the trend was blown out of the water

by the Federal Reserve's decision to hold its federal funds rate at 0% from 2008 to 2015, as shown in Chart 4 below. Furthermore, the Fed's quantitative easing (QE) programme, which saw the central bank's balance sheet balloon as a result of its asset purchase programme, caused yields on both Treasuries and corporate bonds to fall. The combination of the low cash rates and QE initiatives led to a liquidity boom and a hunt for yield by investors, which sent yields plummeting and bond prices soaring. Low interest rates have also provided strong support for share markets.

Chart 4: US Federal Funds Rate & 10-Year US Treasury Yield, 1980 - 2019



Source: Bloomberg, Whitehelm Advisers.



Corporations have capitalised on the relatively cheap credit on offer, but it has not been used as productively as central banks might have hoped. Many companies have chosen to prioritise short-term profit growth over long-term growth, most notably through debt-funded share buybacks.

Theoretically, one reason that a company is publicly listed on the stock market is to raise money to invest in its future growth. Many American companies have been doing the opposite by buying back shares instead of issuing new ones. In 2018 alone, the volume of buybacks by US companies totalled more than \$1 trillion, significantly greater than the amount of money entering the market through new investments in mutual funds and ETFs.

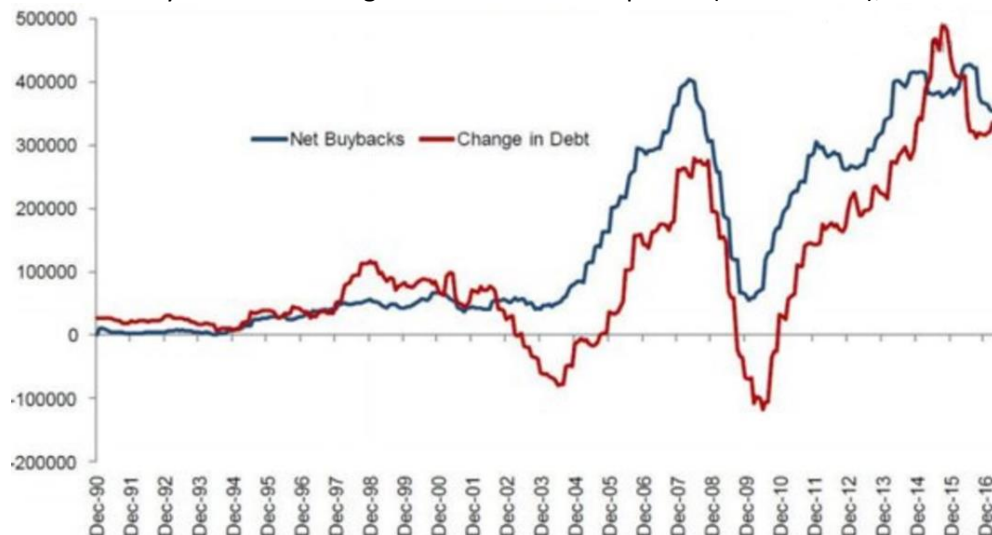
Cheap borrowing conditions have made it easy for all sorts of companies to boost their share price through buybacks, not just those that have

high profit margins and excess cash. Many companies without surplus cash are opting to use debt to finance leveraged buybacks. This is illustrated in

Chart 5 below. The increase in debt of US companies has coincided with the volume of buybacks historically, including since the GFC.

They provide both current and future earnings per share growth. In economies that seem to have more corporate capital than they know what to do with, they provide a way for companies to release that capital back – albeit indirectly – to shareholders. And so it is reasonable to ask whether, if there was not such a direct link between management compensation and stock buybacks, buybacks themselves would have been undertaken in such consistently large amounts, at least for US companies.

Chart 5: Net Buybacks and Change in Debt for US Companies (US\$ millions), 1990 - 2016



Source: Société Générale.



A CAUSE FOR WORRY?

Debt serves a very real and legitimate purpose for corporations. It allows them to bring forward spending, by investing capital today that they would not otherwise be able to spend without borrowing. Debt allows a corporation to diversify the way in which it sources capital, in that it can issue bonds or borrow money from a variety of different sources and not constantly rely on shareholders to stump up cash. These sources can be both domestic and foreign investors, of different types and sizes. Furthermore, issuing debt, particularly bonds and long-term notes, means that corporations do not need to consistently rely on bank loans from commercial banks and other short-term financing. Issuing bonds can be cheaper for corporations than the interest payments on bank loans, especially following the GFC as banks have faced higher capital and liquidity requirements, imposed by regulators to safeguard against another crisis.

But issuing debt can also come with a great deal of risk. One significant risk is that corporations issue more debt than they can ever afford to repay. Current market conditions have had the effect of masking this risk – low interest rates and a relatively healthy global economy have meant that corporations will have issued more debt

than they would if, say, interest rates were a few percentage points higher. It is not just corporations that pay the price when corporations overextend themselves – debt holders, as well as common and preferred shareholders are also negatively impacted.

Debt has been the culprit in plenty of financial crises before, so the rise in corporate debt over the past decade begs the question as to whether corporate debt levels in the US have reached a point of concern.

According to S&P Global, the cash-to-debt ratio for US corporations has materially worsened since the GFC. For speculative-grade borrowers, this ratio has fallen to a 10-year low of just 13%, compared to 15% in 2008 and 21% in 2010. In other words, for every dollar of cash, the average corporation has \$8 worth of debt. This statistic is unsurprisingly better for investment-grade companies, who, on average, have a cash-to-debt ratio of 21%, or \$5 of debt for every dollar of cash. On the whole, these figures do not pose a significant problem in a healthy global economic environment, but in the event of a recession, we should expect cash reserves to get eaten up by debt-servicing costs very quickly.



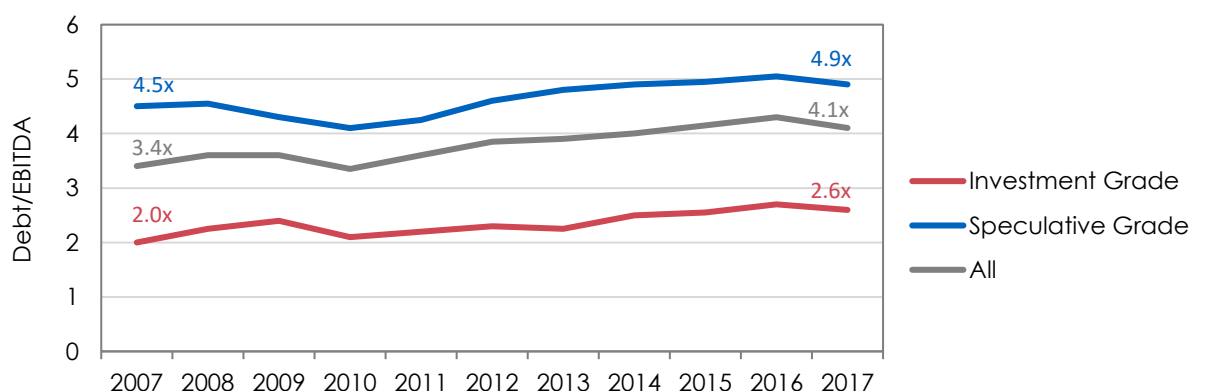
It is important to not get lost in averages, however. Not all leverage is alike. Of the nearly 2,000 nonfinancial corporate issuers that S&P Global rates (including both investment grade and speculative grade), 25 of them hold more than half of the total cash held by all US nonfinancial corporates. The top 1% have enough cash to repay their total debts outstanding, but the same cannot be said for the remaining 99%, which means that credit risk is more concentrated than the average would suggest.

According to Moody's the top five nonfinancial corporations with the most cash all belong to the technology sector: Apple, Microsoft, Alphabet (Google), Cisco and Oracle. Together, they held \$601 billion as at June 2018, which was equivalent to 33% of the total nonfinancial corporate cash balance at that date. Apple alone accounts for approximately 13.5% with approximately \$244 billion. Furthermore, Apple's cash balance is greater than the total cash balance of every other industry aside from technology. The contribution of the cash balance of the top companies exposes the disparity between companies across the credit spectrum.

Another metric that is commonly used to assess leverage is a company's net debt/EBITDA ratio. It is a ratio that quantifies a company's ability to pay off its incurred debt, as it measures the amount of income generated and available to pay down debt before covering interest, taxes, depreciation and amortisation expenses. A high debt/EBITDA ratio could indicate that a company has an unmanageable debt load. Despite the deleveraging that occurred for both individuals and corporations following the GFC, the average debt/EBITDA ratio for nonfinancial corporations has steadily increased from 3.4x leverage to 4.1x leverage, as shown in Chart 6 below. In other words, the average corporation is now approximately 20% more leveraged than it was just before the last financial crisis.

Finally, according to the Institute of International Finance, approximately 17% of American corporations were having difficulties meeting interest obligations at the end of 2018, compared to a figure of less than 10% in 2010.

Chart 6: Net Debt / EBITDA Ratios, 2007 - 2017



Source: S&P Global, Whitehelm Advisers.



Risks Aplenty in the Leveraged Loan Market

We consider the leveraged loan market to be a particularly risky segment of the US corporate debt landscape. This box is meant to provide some colour as to why.

Whether they are called bank loans, syndicated loans, or leveraged loans, they are loans made to corporate borrowers that are rated below investment grade. The names bank loans and syndicated loans are vestigial: in the distant past, these loans were syndicated among groups of banks, in later years sold in portions from banks to institutional investors, and in their present incarnation, sold directly to institutional investors and funds. Banks no longer figure, except as new investors in these instruments themselves. This is symptomatic of the high yield loan market itself, which has become such a significant component of debt capital markets that it is likely to be a cause, rather than an effect, of the next significant credit market event.

Investors historically derived greater comfort from high yield loans than from high yield bonds. The loans were generally secured by the company's assets, and usually had seniority over high-yield bond investors. Loans also generally had more creditor protections than bonds, such as borrower financial covenants and performance triggers. Thus, they not only tended to have higher recovery rates than bonds, but also lower default rates.

Table 1: Typical Characteristics of Alternative Credit

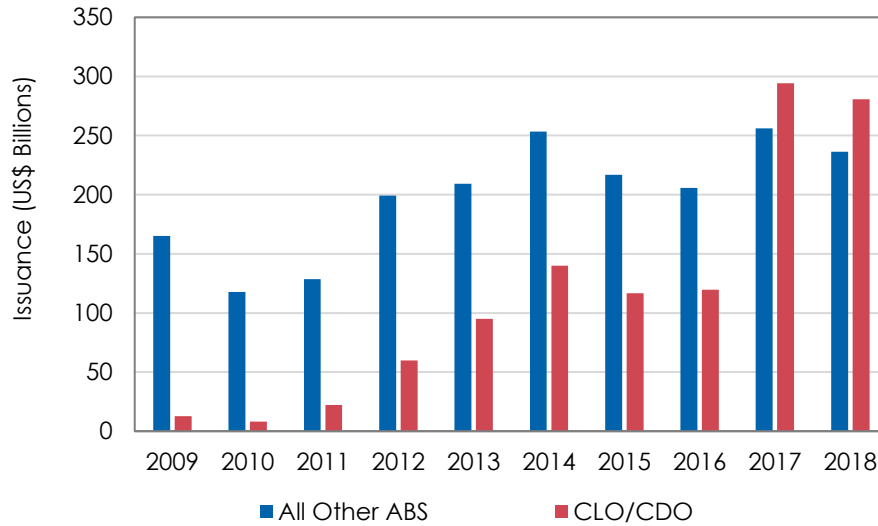
	High Yield Bonds	High Yield Loans	Asset Backed Securities	Commercial Property	Infrastructure
Interest Rate	Fixed	Floating (LIBOR)	Floating and Fixed	Fixed	Floating
Principal Repayment	Single Maturity	Amortising Payments	Generally Amortising	Single Maturity	Single and Amortising
Rating Range	BB-CC	BB-CCC	AAA-B	AAA-B	A-B
Security	Unsecured	Secured	Secured	Secured	Secured
Typical Geographies	US, Europe	US, Europe	US, Europe	Global	Global

Source: *Whitehelm Advisers*

Such comforts may not be available the next time around. The widespread erosion of financial covenants and performance triggers over the past five years, as well as a decrease in seniority among loan investors each vying for a company's assets, has meant that high yield loans may be more like high yield bonds than ever before. Part of the blame for this erosion in investor standards can be placed with retail funds, which absorb a significant amount of all loan issuance. A large part of it, however, is also due to the large volume of Collateralised Loan Obligation (CLO) investment by institutional investors, including banks themselves, many of whom receive more favourable capital treatment by buying externally rated securities, as per Chart 7 overleaf.



Chart 7: US CLO and other ABS Issuance Volume by Year



Source: SIFMA, Whitehelm Advisers

Besides non-mortgage ABS, CLOs were the one part of the structured credit market that did not suffer either widespread downgrades or investor losses in the GFC. Emboldened investors have helped CLO issuance volumes increase to more than double what they were in 2007. But while rating agency standards are tighter now, loan quality itself may not be what it was back then, when only a minority of loans were second-lien. Some CLO issuers and managers themselves seem to view a CLO as a way to use leverage to increase their assets under management, which has a distinct echo from the period before the last financial crisis. CLOs themselves may continue to give investors the return they anticipate at the senior level (AAA/AA), but it is less likely that the 15-20% IRR's that CLO equity investors have become used to receiving over time will be sustainable. And with lower investor protections, the next time around may be less kind to all CLO investors more generally.



TRIGGERS & IMPLICATIONS

While the American economy continues to experience healthy growth, the real problem is what will happen if there is an unforeseen event or a sudden downturn that causes these corporations to renege on their loan obligations? Furthermore, what are the likely triggers that will cause this credit cycle to come to an end?

Higher Interest Rates

Market movements in December and January illustrate that investors are well aware of the risks at play. In December, the Federal Reserve looked poised to continue on its rate hiking trajectory, with its forward guidance suggesting that two interest rate increases were likely for 2019. Investment grade and high yield spreads over US Treasuries increased in December, reflecting the concern that the higher rates could bring an abrupt end to the current credit cycle, and markets would finally have to deal with the implications of the decade-long corporate debt binge.

However, by early January, the Federal Reserve made a monetary policy U-turn by indicating that it anticipated that the next change in rates would

be a cut rather than a hike, and that its central case for 2019 was no change in rates at all. The shift in policy outlook caused spreads to fall and the issuance of corporate debt made up ground lost in December. For now, the lower for longer interest rate environment could work in the favour of heavily indebted US corporates. Interest payments remain exceptionally low in both nominal and real terms, so the debt service burden remains well within historical norms.

So an increase to interest rates is one trigger, but one that seems less likely at present. Refinancing the debt at higher interest rates means that a company's priority will have to shift away from investing in growth, and towards using the company's cash flow to service its debt. In the event that corporations cannot afford to service their debt because of higher interest rates, default rates would rise. Right now, however, the most relevant question is whether a practice that appears to have contributed to large growth in market capitalisation is a stable one at an aggregate level.



Falling Profit Growth

A second trigger is a slowdown or contraction of profit growth among US corporates, which can occur if either profit margins start to decline or revenue growth slows. Based on the first quarter reporting cycle in the US, it appears that the risk of an earnings recession is more likely than what seems to be priced in by a relatively optimistic market.

Nevertheless, corporate profits are coming under pressure as the outlook for global growth worsens. In April 2019, the International Monetary Fund cuts its growth forecasts for both 2019 and 2020 from its previous estimates. We see a variety of risks that could impact corporate profits, most notably the lingering trade tensions between the US and China.

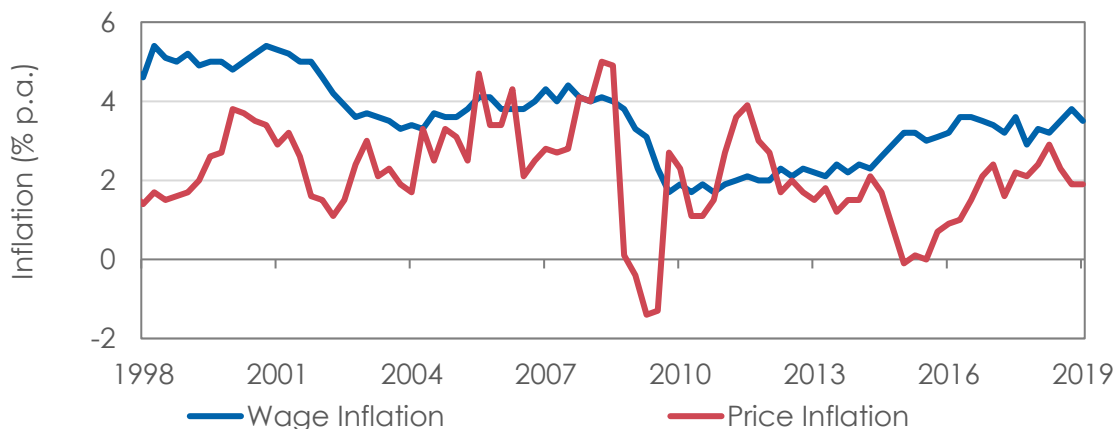
This is characteristic of a business cycle maturing. Growth moderates, credit conditions tighten and earnings face headwinds. While US economic data continues to be relatively resilient, it has certainly started to slow from the growth achieved in 2018. US labour market data continues to be strong, but growth is slowing. The Federal Reserve revised its growth

expectations lower, to 2.1% for 2019 and 1.9% for 2020.

Global profit margins peaked in the middle of 2018 and have been declining since then. While profit margins in the US are still close to all-time highs, the persistence of wage inflation outpacing price inflation has been putting more pressure on these margins. As per Chart 8 below, for the past several years, annual wage growth has been tracking higher than annual price growth. The tight labour market in the US, noted mostly by the historically low unemployment rate of 3.6%, has caused corporations to have to increase wages to both attract and retain new and existing employees. However, the Phillips Curve has undeniably flattened, which means that price inflation is not seeing the same kickback from the lower unemployment rate. Paying staff more but not seeing a rise in selling prices has therefore impacted profit margins.

This contraction in margins is likely to offset any rise in revenues, which means that profit growth will certainly moderate from the impressive levels of growth of around 10-20% per annum over the past several years.

Chart 8: Wage and Price Inflation, 1998 - 2019



Source: US Federal Reserve, US Bureau of Labor Statistics, Whitehelm Advisers



IMPLICATIONS

In the event a significant number of companies are not able to keep up with their debt obligations, pain is likely to spread through markets very quickly. Companies that are having trouble meeting their interest payments are likely to shrink. They can do this by laying off staff, cutting investment, reducing inventory or selling off assets. When several corporations are doing this at the same time, as would be the case in a credit crisis, growth can be very negatively impacted, which can either lead to a recession, or the worsening of an existing one.

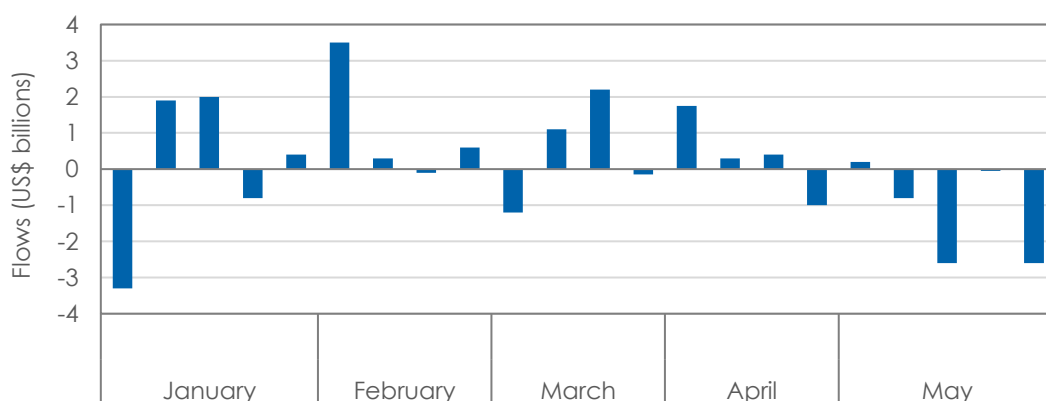
The ballooning debt pile rated BBB is expected to be of particular concern when this credit cycle eventually comes to an end. Debt has been so easily accessible to issuers at the lower end of the investment grade spectrum, however the investment grade rating for such borrowers is often contingent on the borrower's commitment to reducing its debt levels. An environment of higher interest rates or an economic downturn could create a major headache for such companies, given they will be unlikely to cut their borrowings or cut debt by selling surplus assets in

such an environment. This could result in even more widespread ratings downgrades.

The US corporate bond market could then struggle as it tries to accommodate the surge in so-called 'fallen angels' (bonds that were once investment grade but are now speculative grade). Many institutional investors, such as insurance companies and pension funds are prohibited from investing in junk bonds. As a result, they would be forced to sell these newly-minted junk bonds at any price they can get. Even investors who are not mandated to sell out of their junk bond holdings are more likely to try to rid themselves of the debt before credit spreads rise further. If this resulted in mass selling it would cause prices to fall even further.

We have already seen outflows out of speculative grade bond markets so far this year, as shown in Chart 9 below. The large outflow in the first month of January coincided with the end of 2018 market sell-off when it was looking likely that the Fed would be raising rates at least twice in 2019. In May, trade war fears were amplified with the implementation of higher tariffs by President Trump, which sparked fears about the impact the tariffs would have on global growth.

Chart 9: Weekly Speculative Grade Bond Fund Flows, 2019 Year-to-date



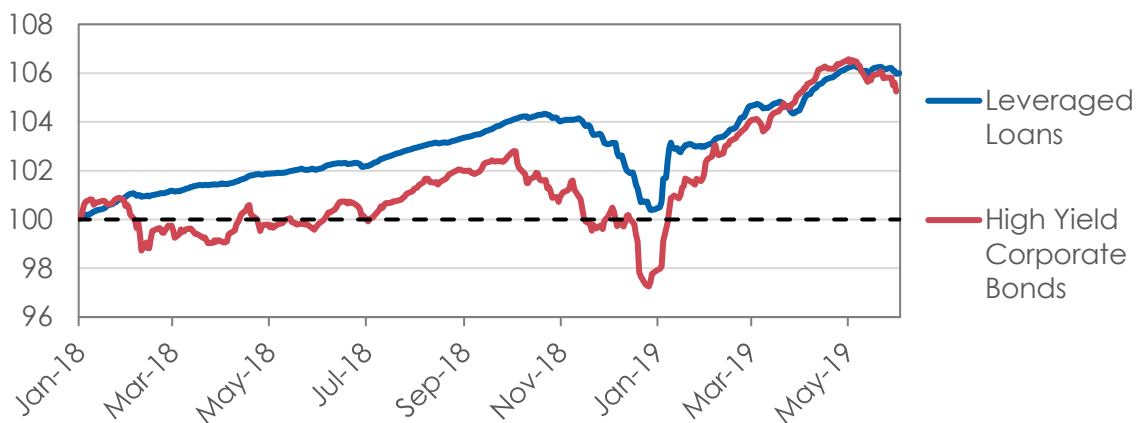
Source: Financial Times, Whitehelm Advisers



Chart 10 shows the impact that a mass exodus out of risky credit has on bond indices. As discussed, late 2018 was characterised by markets grappling with the Fed's then hawkish outlook, which drove high yield and leveraged

loan investors to redeem their investments, sending spreads up and bond prices down. The policy U-turn that the Fed made in early 2019 then caused these indices to make up lost ground.

Chart 10: High Yield Bond & Leveraged Loan Indices, 2018 - 2019



Source: Bloomberg, Whitehelm Advisers

Note: Indices have been normalised on 1 January 2018. The S&P/LSTA Leveraged Loan Index and the Bloomberg Barclays US Corporate High Yield Index are the two indices used.

As we discussed in last month's feature article, an increase in companies defaulting on their bond or loan payments would likely cause credit spreads to widen beyond equity yields. Companies would likely issue equity to pay down debt. Such an unwinding would be expected to be painful for shareholders and creditors alike, as was evidenced during and in the aftermath of the GFC.

If companies do default on their debt, it will be especially painful for investors in the leveraged loan market who have accepted increasingly 'covenant-lite' conditions on the debt held.

With forced selling of speculative grade bonds, who would be on the buy side? Due to regulations put in place following the GFC, banks are now taking less risks not more, so they are not able to provide the same liquidity to the market as they have in the past. Without the

Federal Reserve stepping in, the extent of any credit crisis has the potential to be dramatic.

However, we would expect the Federal Reserve to step in to provide support on two fronts: stimulating the economy through lower interest rates, and implementing another round of quantitative easing, which could involve purchasing corporate bonds. Other measures are also not out of the question, including longer-term asset purchases, negative nominal interest rates and interventions to directly target long-term yields. Given low interest rates, the Fed may have to embark on a more aggressive QE program. For example, by buying corporate bonds, the Federal Reserve could provide liquidity to the corporate bond market and lower credit spreads, leading to cheaper debt costs and more stable credit markets.



Equity Markets

An increase in credit spreads as a result of an increase in companies struggling to meet debt servicing obligations would not bode well for US equity markets. We do not expect equity markets to be insulated from problems in the US corporate bond market, in part because the corporate bond market has helped prop up the equity market so much in the past decade through buybacks. A slowdown, or a correction, in the corporate bond market is likely to expose how cheap debt has acted as an underlying prop for the US equity market over the past decade. Increasing credit spreads would discourage companies (or make it impossible) from undertaking debt-funded share buybacks.

In the extreme, if a company is unable to repay its debt holders, equity investors will be wiped out as equity investors stand at the back of the queue when it comes to a failing company repaying its creditors.

Unlike the bond market, the Federal Reserve is less likely to serve as a direct backstop for support. There is likely too much moral hazard for the Fed to prop up the equity market by

buying shares. However, such action from the Federal Reserve would not be unprecedented as the Bank of Japan (BoJ) has already gone down this path.

The BoJ has been buying stocks through ETFs for a decade and has not indicated that it has any intention to stop. Its goal is to keep the market stable and cause inflation to increase towards its 2% target. Its purchasing program has been extensive - it reportedly owns 80% of outstanding listed ETF equity assets and is a top 10 shareholder in 40% of listed companies in Japan. It also owns just shy of half of all outstanding Japanese government bonds.

The Federal Reserve will likely be reticent to embark on a similar journey because of its many problems. For one, a central bank buying shares erodes market discipline as listed companies are rewarded just for being listed, rather than for having innovative and sound business strategies. Furthermore, unlike bonds, ETFs do not mature, so the bank will have to sell them at some point if it wants to decrease its holdings. This will be challenging if it wants to avoid driving prices down.



CONCLUSION

It seemed that the extent and duration of the GFC taught American households a very important lesson about debt and leverage. In the years leading up to the GFC, households capitalised on lax lending conditions by borrowing excessively, amounts that they would never be able to afford if interest rates went up. But after laughing often comes crying. When interest rates did rise, property values plummeted and households were forced to deleverage. Household debt levels have continued to decrease in the US since.

Corporations probably should have taken note. Instead, many have largely prioritised short-term profit growth over long-term growth prospects, by borrowing more and more. As the Federal Reserve has embarked on a monetary policy normalisation process and credit conditions have tightened, some cracks have started to appear.

The high levels of debt, most notably the size of the pile of debt sitting on the lowest rung of

investment grade, should be a cause for concern. A change in economic fortunes might be all that is needed for the true scale of this corporate debt problem to be exposed. An increase in debt servicing costs, by way of higher interest rates, or a contraction in economic growth causing profit margins to fall, is likely to cause corporations to have great difficulty in meeting interest payments and refinancing their debts. Companies that are laden with debt that also have weak cash flows will see their credit rating downgraded. A surge in the size of the junk bond market thanks to an onslaught of fallen angels would likely cause a very sharp increase in yields.

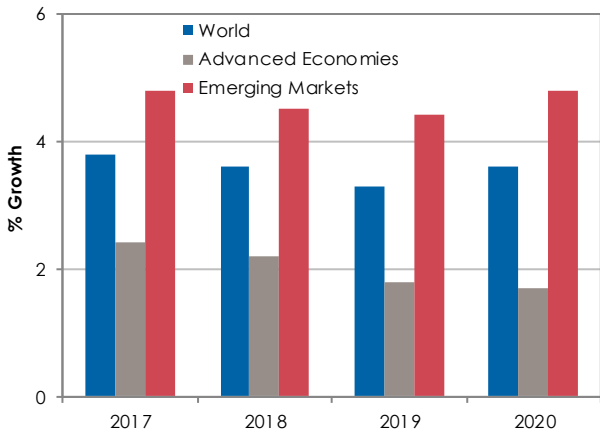
It is a crisis that seems unlikely to be averted. However, in the short term, low interest rates and reasonable growth will continue to mask the magnitude of the risks.

Economic and Financial Indicators

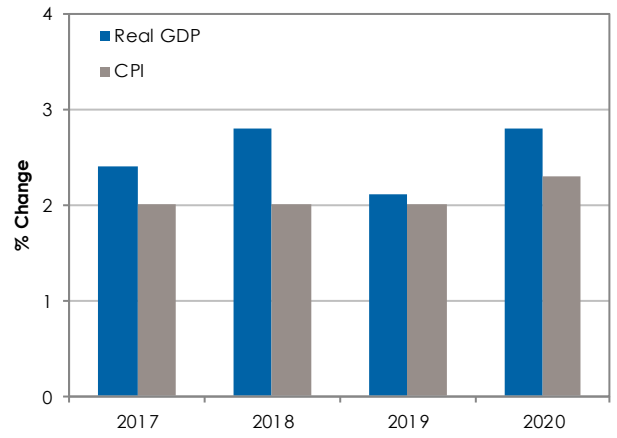


Economic and Financial Indicators

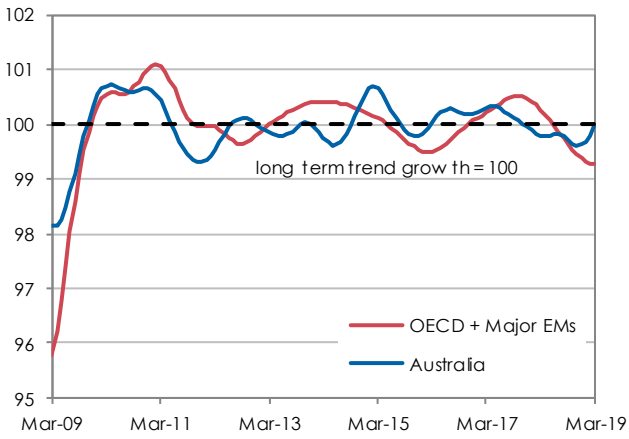
World GDP Growth (IMF)



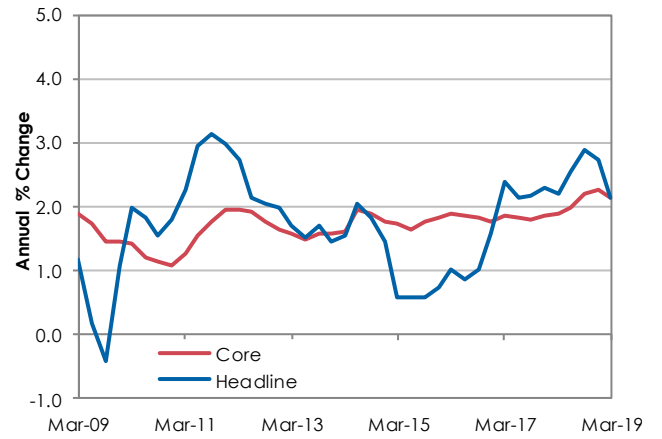
Australian GDP Growth and Inflation (IMF)



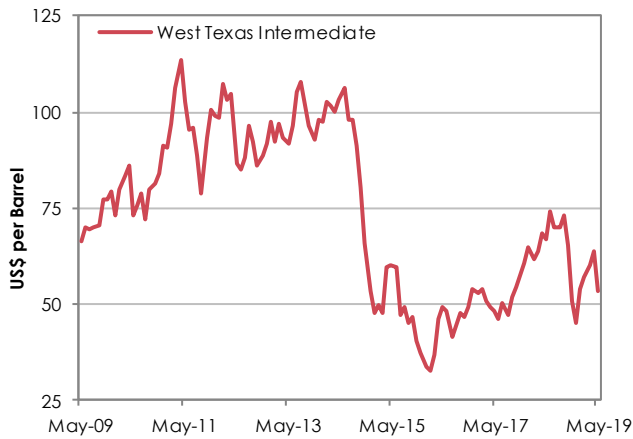
OECD Leading Indicators



OECD Inflation



Oil Price



Gold Price



Sources: IMF, OECD, Bloomberg, Whitehelm Advisers

Economic and Financial Indicators

Table 1.1. Overview of the World Economic Outlook Projections
(Percent change, unless noted otherwise)

	2018	Projections		Difference from January 2019 WEO Update ¹		Difference from October 2018 WEO ¹	
		2019	2020	2019	2020	2019	2020
World Output	3.6	3.3	3.6	-0.2	0.0	-0.4	-0.1
Advanced Economies	2.2	1.8	1.7	-0.2	0.0	-0.3	0.0
United States	2.9	2.3	1.9	-0.2	0.1	-0.2	0.1
Euro Area	1.8	1.3	1.5	-0.3	-0.2	-0.6	-0.2
Germany	1.5	0.8	1.4	-0.5	-0.2	-1.1	-0.2
France	1.5	1.3	1.4	-0.2	-0.2	-0.3	-0.2
Italy	0.9	0.1	0.9	-0.5	0.0	-0.9	0.0
Spain	2.5	2.1	1.9	-0.1	0.0	-0.1	0.0
Japan	0.8	1.0	0.5	-0.1	0.0	0.1	0.2
United Kingdom	1.4	1.2	1.4	-0.3	-0.2	-0.3	-0.1
Canada	1.8	1.5	1.9	-0.4	0.0	-0.5	0.1
Other Advanced Economies ²	2.6	2.2	2.5	-0.3	0.0	-0.3	0.0
Emerging Market and Developing Economies	4.5	4.4	4.8	-0.1	-0.1	-0.3	-0.1
Commonwealth of Independent States	2.8	2.2	2.3	0.0	0.0	-0.2	-0.1
Russia	2.3	1.6	1.7	0.0	0.0	-0.2	-0.1
Excluding Russia	3.9	3.5	3.7	-0.2	0.0	-0.1	0.0
Emerging and Developing Asia	6.4	6.3	6.3	0.0	-0.1	0.0	-0.1
China	6.6	6.3	6.1	0.1	-0.1	0.1	-0.1
India ³	7.1	7.3	7.5	-0.2	-0.2	-0.1	-0.2
ASEAN-5 ⁴	5.2	5.1	5.2	0.0	0.0	-0.1	0.0
Emerging and Developing Europe	3.6	0.8	2.8	0.1	0.4	-1.2	0.0
Latin America and the Caribbean	1.0	1.4	2.4	-0.6	-0.1	-0.8	-0.3
Brazil	1.1	2.1	2.5	-0.4	0.3	-0.3	0.2
Mexico	2.0	1.6	1.9	-0.5	-0.3	-0.9	-0.8
Middle East, North Africa, Afghanistan, and Pakistan	1.8	1.5	3.2	-0.9	0.2	-1.2	0.2
Saudi Arabia	2.2	1.8	2.1	0.0	0.0	-0.6	0.2
Sub-Saharan Africa	3.0	3.5	3.7	0.0	0.1	-0.3	-0.2
Nigeria	1.9	2.1	2.5	0.1	0.3	-0.2	0.0
South Africa	0.8	1.2	1.5	-0.2	-0.2	-0.2	-0.2
<i>Memorandum</i>							
European Union	2.1	1.6	1.7	-0.3	-0.1	-0.4	-0.1
Low-Income Developing Countries	4.6	5.0	5.1	-0.1	0.0	-0.2	-0.2
Middle East and North Africa	1.4	1.3	3.2	-0.9	0.3	-1.2	0.3
World Growth Based on Market Exchange Rates	3.1	2.7	2.9	-0.3	0.0	-0.4	0.0
World Trade Volume (goods and services)	3.8	3.4	3.9	-0.6	-0.1	-0.6	-0.2
Imports							
Advanced Economies	3.3	3.0	3.2	-1.1	-0.1	-1.0	-0.3
Emerging Market and Developing Economies	5.6	4.6	5.3	-0.5	-0.3	-0.2	-0.2
Exports							
Advanced Economies	3.1	2.7	3.1	-0.2	-0.3	-0.4	-0.3
Emerging Market and Developing Economies	4.3	4.0	4.8	-0.5	0.0	-0.8	0.0
Commodity Prices (US dollars)							
Oil ⁵	29.4	-13.4	-0.2	0.7	0.2	-12.5	4.2
Nonfuel (average based on world commodity export weights) ⁶	1.6	-0.2	1.1	2.5	-0.1	0.5	0.8
Consumer Prices							
Advanced Economies	2.0	1.6	2.1	-0.1	0.1	-0.3	0.1
Emerging Market and Developing Economies ⁷	4.8	4.9	4.7	-0.2	0.1	-0.3	0.1
London Interbank Offered Rate (percent)							
On US Dollar Deposits (six month)	2.5	3.2	3.8	0.0	0.0	-0.2	-0.1
On Euro Deposits (three month)	-0.3	-0.3	-0.2	0.0	-0.2	-0.1	-0.3
On Japanese Yen Deposits (six month)	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1

Note: Real effective exchange rates are assumed to remain constant at the levels prevailing during January 14–February 11, 2019. Economies are listed on the basis of economic size. The aggregated quarterly data are seasonally adjusted. WEO = *World Economic Outlook*.

¹Difference based on rounded figures for the current, January 2019 *World Economic Outlook Update*, and October 2018 *World Economic Outlook* forecasts. The differences are also adjusted to include Argentina's consumer prices since the July 2018 Update.

²Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.

³For India, data and forecasts are presented on a fiscal year basis and GDP from 2011 onward is based on GDP at market prices with fiscal year 2011/12 as a base year.

⁴Indonesia, Malaysia, Philippines, Thailand, Vietnam.

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