

Frontier regularly conducts international research trips to observe and understand more about international trends and to meet and evaluate, first hand, a range of fund managers and products.

In conjunction with insights we share with our Global Investment Research Alliance partners, these observations feed into our extensive international research library.

This report provides a high-level assessment on the key areas and observations unearthed during this recent Debt, Alternatives and Innovations trip. We would be pleased to meet with you in person to provide further detail on these observations.







Tom Frederick

Principal Consultant

Tom Frederick joined Frontier as an Associate in 2007 and was promoted to Principal Consultant in 2016. His responsibilities at Frontier include advising clients on investment policy, preparing investment research, and undertaking investment manager evaluation. Tom is a member of the Manager Ratings Committee and Investment Committee. Tom was previously employed by Beveridge Williams as an Environmental Geologist within its Environmental Division. His primary role was the project management of small and medium scale remediation programs and contamination assessments of commercial and industrial properties prior to redevelopment. Tom holds a Bachelor of Environmental Science (Geology) from Monash University, a Graduate Diploma of Applied Finance and Investment from Finsia and a Masters of Applied Finance from Macquarie University.

Andrew Kemp

Senior Consultant, Head of Fixed Income & Strategy

Andrew Kemp joined Frontier in June 2016 as a Senior Consultant and is a member of the Debt. Alternatives and Innovation team and leads Frontier's fixed income and currency research program. Andrew has around 20 years of experience in the asset management industry both domestically and globally, having worked in Australia, Singapore and the UK. Andrew was Head of Fixed Income at DBS Asset Management (Singapore) for three years and prior to that spent a decade as Fixed Income Portfolio Manager at Alliance Bernstein Australia. Andrew joins Frontier from Chimaera Capital, where he was the Director of Asset Management, most recently in Melbourne, but chiefly in the Capital Management division in Singapore. Andrew holds a Bachelor of Commerce (Finance) from Otago University (NZ) and a Graduate Diploma of Applied Finance and Investment from Finsia.

ALITHOR

Norman Zhang

Consultant

Norman Zhang is a Consultant who joined Frontier as an Associate in 2012. Norman provides consulting to a number of clients including superannuation funds and university endowments. He is currently a member of the Debt Alternatives & Innovation research team, but has also spent time in the Equities and Real Assets research teams at Frontier. Norman worked as a Management Consultant with the **Operational Transaction Services** (Merger Integration) team of Ernst & Young. He joined Ernst & Young as a graduate in the Business Modelling & Valuations team within its Corporate Finance division. Norman holds a Bachelor of Commerce majoring in Finance and Accounting from the University of Melbourne. He is a CFA Charterholder and a holds a **Graduate Diploma of Chartered** Accounting from the Institute of Chartered Accountants Australia (ICAA).



Calm or calamity?

Frontier met with a range of managers across the fixed interest and debt spectrum on our recent trip to the United States. These included managers involved in multisector credit, investment grade credit, leveraged loans, high yield bonds, private lending and also distressed/turnaround hedge funds.

Given the heightened focus on the length of the current credit cycle, one of the key themes we explored during this trip was if there were any signs of concerning behaviour by market participants that may be the catalyst for the next crisis. Related to this, we also explored emerging trends that could pose a significant risk to credit (and growth assets in general) over the medium-to long-term.





Why are we concerned?

We have been in a prolonged credit cycle since the end of the GFC, which is now one of the longest in history.

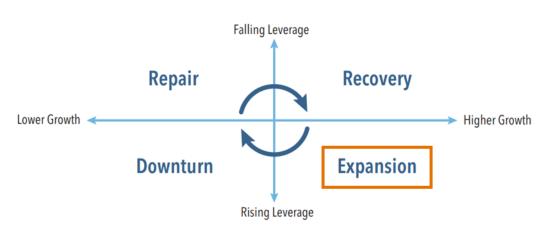


Figure 1:Four phases of credit cycle

The figure above illustrates the four stages of a credit cycle. As shown below, the third stage is the expansion phase, where lending increases and confidence improves. Leverage begins to rise as higher growth rates lead companies to increase borrowing. As confidence builds, speculative and merger and acquisition activity increases. Most believe that we are currently in the latter stages of the expansion phase.

Chart 1 shows the US Corporate Debt as a proportion of GDP and charts 2 and 3 provide an illustration of how leveraged loan and high yield bond spreads have moved over time.

All three charts support the notion that we are late in the cycle, with US corporate debt at pre-GFC levels and credit spreads below historical averages, particularly in the case of high yield bonds.

So what happens when the cycle turns to the fourth phase (The Downturn)? High leverage, combined with lower earnings due to slower growth, can lead to elevated credit default rates. In response, lenders typically reduce the supply of capital and also tighten credit standards. In this environment, the economy typically experiences a slowdown or a recession. Corporate credit will generally experience poor returns as spreads widen and prices fall.

In this environment, investors would prefer to be underallocated to credit, and other growth assets, and therefore it is extremely beneficial to be able to identify early any emerging signs of stress.



Chart 1: US corporate debt to GDP



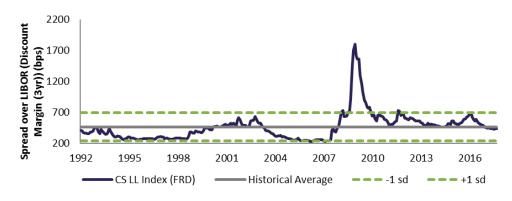
Source: Frontier

Chart 2: US high yield bond spreads



Source: BofA, Frontier

Chart 3: US leveraged loan spreads



Source: Credit Suisse, Frontier



What are the managers saying?

The managers on our trip were generally in agreeance that we are late in the credit cycle and we had observed meaningful de-risking across portfolios.

Managers in general have been transitioning to credits with stronger security (loans over bonds) and also moving up in the credit quality spectrum (i.e. moving up from B to BB rated securities).

That being said, there was no manager that was particularly concerned, noting strong economic fundamentals, high interest coverage ratios and the fact that while company leverage is increasing, participants still bear the scars of the GFC and therefore are unwilling to go above 7-8x leverage with deal structures. This view was reflected by distressed/turnaround debt managers which noted a lack of potential distressed opportunities in major credit markets.

The only segment of the market that was noted as potentially susceptible to elevated defaults is in US auto lending, which is predominantly subprime. Auto lending is correlated with labour markets in the US, and this has risen significantly due

to the strong US economy. To capture the demand, lenders are increasingly willing to reduce the minimum FICO (credit) scores in order to win business. In addition to lower lending standards, the used car market has tanked, meaning that borrowers are more likely to default when they compare the lower residual value of their vehicle versus the amounts outstanding on their loans. That being said, it was noted that this market is relatively small and is unlikely to cause a market-wide contagion.

Despite the "cautious but comfortable" mindset of most managers, there were some potentially concerning behaviours that should be monitored closely. These are discussed below.



Pushing the leverage levels

In 2013, the three U.S. federal banking regulatory agencies—the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System and the Federal Deposit Insurance Corporation - jointly issued "Interagency Guidance on Leveraged Lending" (the Guidance). The Guidance was issued in response to concerns that deteriorating underwriting practices in the loan market contributed to the GFC and could pose systematic risks to the financial system. The Guidance applies to financial institutions supervised by the applicable regulatory agencies, which generally includes all U.S. banks and the U.S. branches of foreign banks. A key point within the Guidance is:

"Generally, a leverage level after planned asset sales (that is, the amount of debt that must be serviced from operating cash flow) in excess of 6x Total Debt/EBITDA raises concerns for most industries."

In other words, leveraged loan deals above 6x leverage will be subject to close scrutiny by the regulator - if a regulated entity is involved. While the Guidance was structured as advice rather than a formal rule or regulation, the Managers noted that until recently, the banks had generally avoided breaching the 6x leverage guidance in fear of being targeted by the regulators. In the absence of the regulated banks, non-regulated financial institutions (Jefferies and Nomura were mentioned several times) have captured significant market share in the more highly-levered segment of the market.

During our trip, a manager noted that Goldman Sachs recently finalised an over 7x leveraged deal, which could prove to be the litmus test on how seriously the regulators will enforce the guidance. If the consequences are minor (and there is a school of thought that this may be the case under a Trump administration), then this could set a precedent for other banks to follow suit – potentially pumping more debt into the system.

We note that the increased pressure to push the 6x leverage guidance has led to more instances of creative accounting, which is discussed below.

Creative accounting

Company Earnings before Interest, Tax, Depreciation, Amortisation (EBITDA) is often regarded as a proxy for operating cashflows and the common convention to measure company leverage is the Total Debt/EBITDA ratio. So for instance, if total debt of a company is \$60 million, and EBITDA is \$10 million, then the leverage ratio is 6x.

Most leveraged debt deals are done to finance private equity backed transactions of companies. Post the GFC, private equity sponsors have generally taken a more conservative approach to calculating future (pro forma) EBITDA on their deals. However in recent times, the Managers have noted that private equity sponsors have been more "creative" when forecasting the EBITDA figure, by including elements such as future synergies. While some of these adjustments appear reasonable, such as reducing head office costs when two businesses merge, there are others that are "pushing the limits" such as including future revenue synergies (i.e. more future sales due to cross-marketing).

So why are the sponsors doing this? According to the Managers, by reducing costs and/or inflating revenues, sponsors can boost forecasted EBITDA and therefore reduce total leverage numbers. This could allow sponsors to pack more debt into the capital structure, or help them achieve lower financing costs. Some managers have noted that 6x leveraged deal on paper, may in reality be a 7x or 8x deal prior to these adjustments.

Is this concerning? Based on history, the increase in questionable accounting practices has foreshadowed some recent crises, and large corporate collapses such as Enron and Worldcom.



Covenants

It is not exactly breaking news that covenants are falling away in the leveraged loan space. The figures below show the extent of the disappearance of covenants over time.

Not only has the average number of covenants dropped off over the past several years, but we are now at levels meaningfully below pre-GFC.

Are the Managers worried? Most Managers view this dynamic as a symptom of an environment flush with central bank money, and are generally not overly concerned.

They argue that the key to credit investing is avoiding the companies that are least likely to default, rather than investing in those with better covenant packages. Covenants do not change the likelihood of a company coming under stress (and defaulting), but can improve the recovery rate when this does happen. An observation was generally the stronger companies would have less covenants, compared to weaker companies.

Figure 2: (LHS) average number of covenants

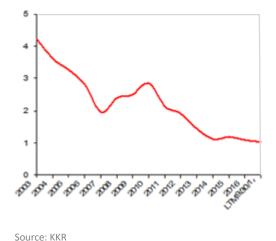
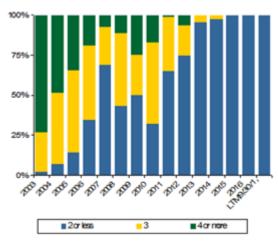


Figure 3: (LHS) Distribution by no. of covenants



Source: KKR

Source: Bloomberg, Frontier



Long-term themes could potentially be much more concerning

While recent themes may be on everyone's radar, there were a few longer term themes discussed that could be a greater risk to Australian Investors.

The Retail Sector

The crisis spreading across the US retail sector can only be described as "dire". The sector has been assaulted from all sides from Amazon, manufacturers going straight to the consumer, and the change in consumer preference from traditional "four season" apparel to fast fashion. As a result, the credits of many household-name retailers including J-Crew, JC Penny and Macy's are now trading at distressed levels, while others have filed for bankruptcy.

How bad is it? Unlike the energy sell-down in 2015, managers see this decline as structural, and is not expecting a rebound. The majority have positioned their portfolios to be significantly underweight or have zero exposure to retail. Most opportunistic/distressed managers also felt the same way, noting that it is unclear whether any of these companies can recover and it is generally not worth the risk to invest. The question they ask themselves is whether "anyone would care if some of these businesses disappear" and the answer is often "no". The impact of this has not only affected the retail sector, but also the thousands of retail property assets scattered across the US. Non-core property pricing has been significantly impacted and many owners are considering converting their assets to lifestyle destinations, but as several managers have pointed out "there are only so many of these that you can have."

The situation is not quite as dire in Australia, but trading conditions have become more challenging. If the old adage that Australia is 5-10 years behind the rest of the world rings true, then this scenario could very well play out closer to home, and could impact equity markets and Australian investors' allocations to retail property.

The rate of technological disruption

A major theme that the managers are concerned about was the rate of technological innovation and disruption of traditional industries. Prime examples of this from the past are the rise of eCommerce and how improvements in fracking technology changed the global energy market. Disruption is always a risk, but of particular significance is that Managers have noted the rate of disruption is increasing.

So what's the next big disruptor? Managers noted that investment and development of artificial intelligence is moving quicker than anyone had thought. Advances in this technology can accelerate the timeline for big disrupters such as driverless cars. One manager noted that potential disruption from driverless car technology is massive, and it believes this could come into play as soon as five years, rather than the 10-20 years many have predicted. In a driverless car environment, a key question is what happens to the workforce (drivers), the auto industry, logistics companies and transport infrastructure assets.

When considering the long term risks to a portfolio, investors should consider "how much exposure do I have to assets that could be disrupted versus companies that contribute to the disrupting?"

The final word...

The quantitative evidence available suggests that we are late in the credit cycle, and this is backed-up by concerning behaviours such has the increase in creative accounting and banks pushing the regulatory envelope. That said, we did not discover a catalyst to suggest an imminent turn in the cycle, but rather that this is an extended credit environment.

Perhaps a more concerning long-term theme to investors is the potential impact of technological disruption on assets. Are we positioned to be on the winning side of disruption?





About Frontier Advisors: Frontier Advisors is one of Australia's leading asset consultants. We offer a range of services and solutions to some of the nation's largest institutional investors including superannuation funds, charities, government / sovereign wealth funds and universities. Our services range from asset allocation and portfolio configuration advice, through to fund manager research and rating, investment auditing and assurance, quantitative modelling and analysis and general investment consulting advice. We have been providing investment advice to clients since 1994. Our advice is fully independent of product, manager, or broker conflicts which means our focus is firmly on tailoring optimal solutions and opportunities for our clients.

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