Introduction

2018 is rapidly drawing to a close. For Infradebt it has been a great year, successfully financing 8 loans supporting 15 projects. We'd like to thank our investors for their continued support. To all of our readership, we hope you have had a successful year, that next year brings further success, and that you enjoy the festive season.

But back to the news………what a change from the September quarter, this quarter volatility and uncertainty are prominent across a range of markets and we discuss this in more detail below.

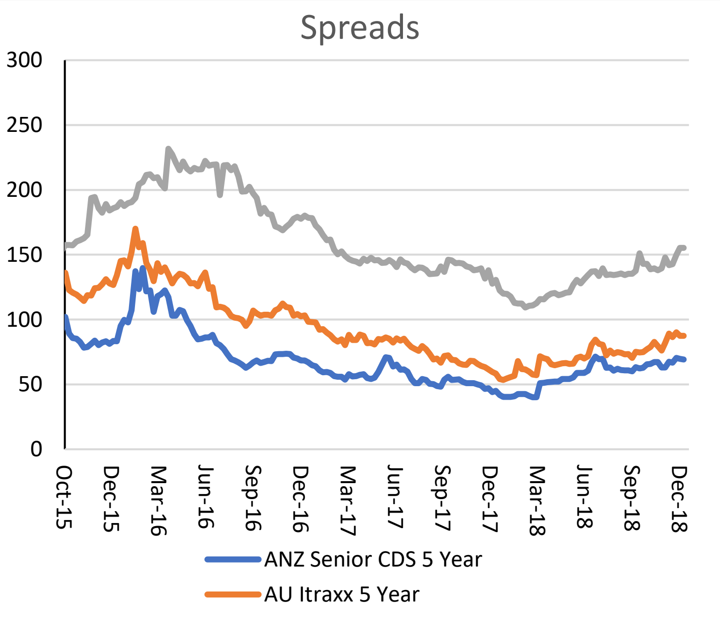
This quarter we have a range of articles. First, given it was released the day before we went to print, we give readers the 'cliff notes' version of the AER's rate of return decision. We look at the infrastructure asset class and the challenges relating to valuing assets in periods when the business cycle turns. We have a different take on the traditional 2019 'crystal ball' attempt, considering what 2019 might bring, and the three key things we'll be keeping an eye on. Finally, we take a light-hearted look at one borrower who's paying a genuine Christmas themed coupon.

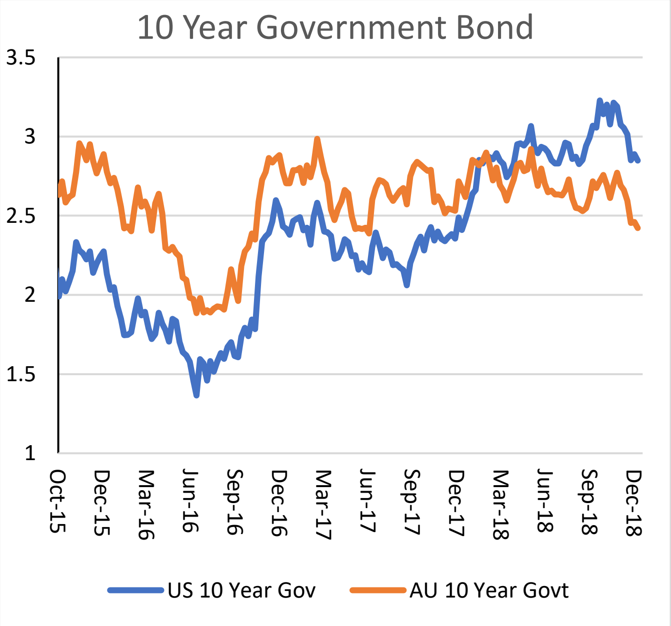
Markets update

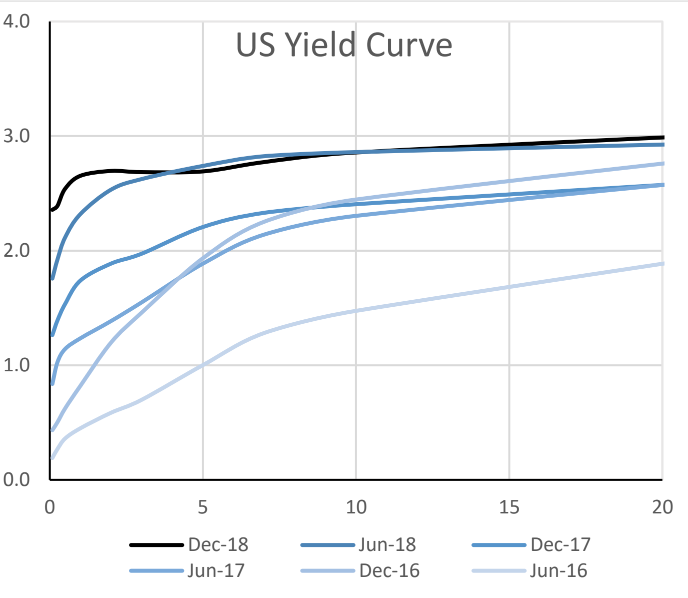
Sentiment, as we close out 2018, is broadly bearish. Whilst no one issue has caused a breakout or significant fall in markets, confidence in financial markets is slipping. Issues on investors' radars cover the globe with trade tensions between the US and China, European markets (Italy, Brexit, banking system), US growth showing early signs of slowing (autos and housing), and of course back home housing continues to slide. None of these issues appear close to resolution, so one would expect this to be a trend continuing in Q1 2019.

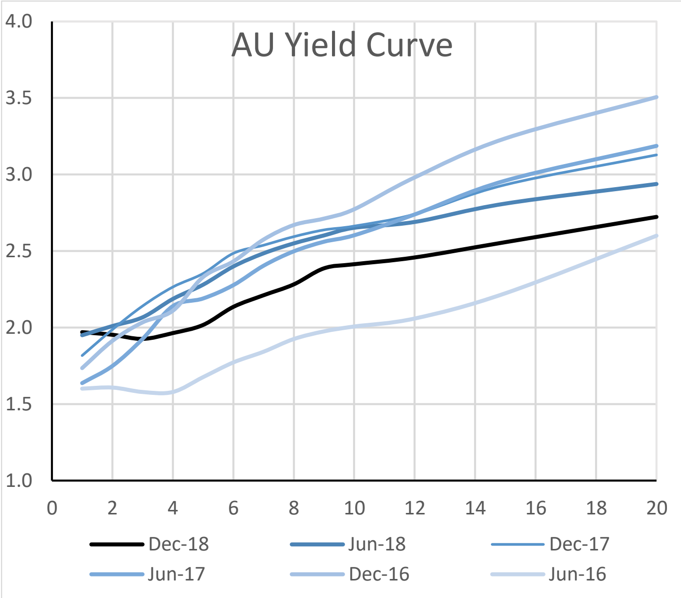
As fixed income investors we are closely watching a range of credit related markets. QE in Europe and the US is winding down and this continues to take liquidity out of the market. At the same time the US Fed is raising rates – with US treasuries between 2 and 5 years inverted as we go to print.

Credit spreads have moved out significantly this quarter. In the US there have been some notable weekly outflows out of high yield bonds and leveraged loans. Other issues include the record share of US Investment Grade debt that is rated BBB – the situation with GE is bringing the overall size of their issuance, and this lowest tier of the investment grade universe, into sharp focus. At home, we are seeing some margin widening at the shorter end, but the long end (e.g. 10 years) is remaining fairly constant (that said, there aren't a lot of data points) – the stand out deal this quarter being Adelaide Airport's USPP at 25 years with the loan denominated in AUD.









New issuance and refinancing

The table below provides a list of publicly available deals.

Date	Borrower	Instrument	Size (m)	Term (Yrs)	Curr.	Pricing/Notes
Oct 18	Ausgrid	Loan	2,269/1,763 /2,300/600	3/4/5/7	AUD	
Oct 18	Colgar Wind Farm	Loan	388	5	AUD	
Oct 18	AGL	USPP	AUD 50/ USD: 150/70/175	10/12/13/1 5	AUD	4.63%/3.76%/3.81%/ 3.91%
Oct 18	Epic Energy	Loan	300	5	AUD	
Oct 18	ETSA Utilities	Loan	350	5	AUD	
Oct 18	Aquasure	USPP	250	15	USD	US + 115
Oct 18	Hallett 4 Wind Farm	Loan	159/178	6/12	AUD	
Oct 18	Kwinana Waste to Energy	Loan	400	5	AUD	BBSY + 300
Oct 18	Southern Way	Loan	323/323	5/10	AUD	
Oct 18	Sunraysia Solar Farm	Loan	270	5	AUD	BBSY + 160
Oct 18	Westconnex		600/2,724 /1,276	2/3/5	AUD	

Date	Borrower	Instrument	Size (m)	Term (Yrs)	Curr.	Pricing/Notes
Nov 18	Dundonnell Wind Farm	Loan	100/300	2/5	AUD	BBSY + 140/170
Nov 18	Plenary	Loan	460	17	AUD	
Nov 18	Jemena	Loan	650	6	AUD	
Nov 18	Waterloo Wind Farm	Loan	145	12	AUD	
Nov 18	United Energy	USPP	283	10	USD	4.09% (fixed)
Nov 18	Adelaide Airport	USPP	USD 100 / AUD 140	15/25	USD/ AUD	4.39% / 5.04%
Dec 18	Westlink M7	USPP	345/195/75	12/15/20	AUD	4.46%/4.65%/4.80%
Dec 18	Origin	Loan	133/133/133	7/8	AUD	BBSY+ 155 / LIBOR +120 / BBSY + 162.5
Dec 18	Origin	USPP	250	10	USD	5.16%
Dec 18	Lincoln Gap Wind Farm Stage II	Loan	160	12	AUD	

Equity and other news

Whilst there's been a very large volume of loans this quarter, there's not a lot of other news to report.

- Graincorp received a $3.3 billion bid from Long Term Asset Partners (LTAP), a little known entity led by former Business Council of Australia president Tony Shepard. The unsolicited all cash offer is at $10.42 per share. LTAP claim to have an innovative financing package wrapped with weather insurance to de-risk the cashflows from seasonal harvest volatility. Graincorp has a large grain handling and storage infrastructure network. It is understood that grain revenue is insured to a discount to the long run average.
- Treasurer Josh Frydenberg has announced his "preliminary view" to block the $11 per share CKI acquisition of APA Group on the basis of "national interest" and "undue concentration of foreign ownership by a single company group in our most significant gas transmission business".

AER Final Rate of Return Decision – Modest Downward Adjustment

The AER released its final rate of return decision for regulated electricity and gas transmission and distribution businesses on Monday. At 420 pages – the decision is thorough – but to save you reading it over Christmas, here is the cliff notes version:

- Overall, the allowable rate of return is modestly reduced from 5.76% to 5.36%;
- Assumed gearing stays at 60%, with the cost of debt virtually unchanged at 4.70% vs 4.77%;
- The ten year averaging process remains in place. Utilities will continue to benefit from having regulated returns set on the assumption that they borrow using long-term debt (ten year assumed debt term), where most assets have a large portion of funding on much shorter three and five years terms (for example, see the maturity structure in the Ausgrid refinancing this quarter in the table above); and

- Most of the action is in the cost of equity, where the assumed equity risk premium, asset beta and allowance for imputation credits are all changed slightly. Assumed return on equity is 6.36% down from 7.25%.

Overall, we see this decision as a modest continuation of the general approach of the AER under Paula Conboy. While there is some huffing and puffing by networks in the papers over the past day or so – the market's judgement on this regulatory decision is pretty clear, with listed regulated utilities rallying on the news.

Late Cycle Effects for Infrastructure

It might just be the season (bah humbug), but it is starting to feel awfully late in this economic/market cycle. The current cycle has been unusually long – stretching from March 2009. However, over the past few months cracks have started to appear. These include:

- Equity market weakness (in particular, cycle high fliers – the FANGs – seem to have lost their lustre);
- Retracement of the US 10 year government bond back to below 3%,
- Higher volatility – the VIX has moved sharply higher; and
- Widening credit spreads – with both investment grade and below investment grade spreads widening by 10-20% over the past quarter or so.

While this may prove a false dawn (or perhaps the phrase should be false dusk) on a period of unusually strong asset price performance of the past 10 years (and I should declare that I have expected an end to the current cycle well before now), it is worth thinking ahead about what a turn in the cycle could mean for infrastructure assets.

In my view, there are two key points investors should keep in mind:

1. Unlisted asset valuations will lag – and probably by more than you expect; and
2. Exposure to leverage/credit spreads will probably be a more important driver of valuation changes than the level of risk free rates or economic growth or inflation.

Unlisted vs Listed Valuations

For many Australian investors, listed versus unlisted infrastructure are seen as significantly different asset classes. Listed infrastructure often forms part of the equities allocation – with no specific allocation. By contrast, unlisted infrastructure (usually equity) is seen as a distinct asset class bringing specific risk/return characteristics. This goes as far as many funds counting infrastructure equity allocations towards their "defensive assets" allocation (but this is a debate for another day).

Unlisted assets are difficult to value. Valuations are inherently subjective and are a significant resource/cost burden for superannuation funds and their infrastructure managers. My experience is that most funds update the valuation of their unlisted infrastructure assets annually (or have their underlying managers do so). In normal market conditions, this strikes a reasonable balance between member equity (are unit prices/crediting rates being calculated on up to date valuations?) and cost. However, an up shot of this is that valuations are, on average, circa six months old. Most of the time this doesn't matter, but at the turn of the cycle, it does.

While the actual valuation lag might be six months, the effective valuation lag is longer. When a valuer undertakes an assessment of the market value of an asset, one key part of the process is to compare the valuation of the asset against transactions for comparable assets (often using key metrics like EV/EBITDA or EV/RAB). For an asset that has many listed comparables (for example, a valuer of Melbourne Airport could look at the value of Sydney airport) this gives a real time assessment of value. However, for assets that mainly have unlisted comparables, e.g. an Australian port, then assessments of value might need to focus on unlisted transaction examples. That is, by looking at M&A transactions involving similar assets (often on a global basis) over the last two to three years.

Inherently, this involves a significantly longer lag. That is - six months for the valuation itself, and then perhaps another 18 months for the average age of the transaction evidence on which the valuation is based.

To be clear, I am not suggesting that funds deliberately prop up valuations – far from it – it is just a feature of the process that when there is a big shift in markets it can take a significant period for new unlisted transactions to occur post the shift and, in doing so, provide a firm basis on which valuations can be updated.

It is for this reason, during the GFC, that while equity markets were already falling substantially in 2007-08, the impact on unlisted infrastructure valuations only started to really come through in 2008-09 (and continued past the trough in listed markets).

A further complicating factor is the increased valuation disconnect between unlisted assets and their listed equivalents (for example, look at the EV/EBITDA or EV/RAB multiples of the last few years' large port and utility privatisations). These transactions have underpinned a view that unlisted infrastructure trades at a premium to its listed equivalent. I am not going to get into the philosophical debate of whether this is right or wrong. Rather my point is that, if this pricing dynamic were to change, it would take a significant period for sufficient transactions to accumulate to prove it one way or the other.

Valuation Factor Drivers – Risk Free Rates/Credit Spreads/Growth/Inflation

Abstracting from the specifics of particular infrastructure assets, you can simplify the factors that drive cash flows (and, hence, value) down to four factors:

1. Economic growth – which drives patronage or throughput. Some assets are quite sensitive to this (eg ports/airports), while other assets have effectively zero exposure (eg. PPPs);
2. Inflation – this drives the growth of cash flows for most infrastructure assets (but not always – for example some PPPs have nominal cash flows);
3. Credit spreads (and availability). That is, what is the cost and availability of the debt side of the capital structure. Higher credit spreads and reduced debt availability both reduce the cash flows available to equity and, hence, equity valuations; and
4. Risk free interest rates. Infrastructure assets generate long-term cash flows. The value of these cash flows is inherently linked to long-term interest rates. The higher rates are, the lower are equity valuations, both directly (through reduced NPV of future equity cash flows) and indirectly (a higher risk free rate increases the cost of debt and, hence, reduces the cash flow available to equity).

All of these factors will be impacted by a turn in the economic/market cycle. A downturn would be expected to:

- Reduce economic growth (although most infrastructure assets are actually relatively insensitive to growth – being monopolies/essential services);
- Reduce inflation – though it is worth noting that inflation is a lagging indicator;
- Reduce risk free interest rates; and
- Increase credit spreads as banks/lenders become more risk averse and default rise.

Mark Twain once said 'history doesn't repeat but it often rhymes', however, this time it may in fact be different.

In particular, during the previous crisis the blow of higher credit costs was softened by lower risk-free interest rates. The typical infrastructure equity investment has an interest rate duration of around 10 years. This means a 1% fall in discount rates – all else equal – would produce a 10% increase in value. This means that in the prior crisis – where bond rates have typically fallen by 1.5%-2% - there has been a 15%-20% discount rate effect that has mitigated the impact of weaker growth, lower inflation and higher credit spreads.

However, at today's official cash rate of 1.5% and 10 year bond rates of 2.5%, a fall of 1.5%-2%, would require a view that Australia could replicate Japan and have zero cash rates and a sub 1% 10 year bond rate. As a small country with a long history of dependency on capital from foreigners (the last current account surplus was before I was born!) I find this prospect difficult to envision.

By contrast, credit spreads are low, albeit not down to their 2007 all time lows. This leaves plenty of room for spreads to rise in an environment of increased volatility, falling asset values and increased defaults.

It is this dynamic – as well as the natural self absorption of a credit investor – that makes me think that it might be credit, rather than risk free rates, that is the more important dynamic at the next turn of the cycle (whenever that is).

If this proves correct, then an implication is that some of the lowest risk assets – that is those with the most predictable revenues – might actually be the most dangerous. Low risk assets – such as PPPs – tend to have the highest level of leverage (a PPP is often financed with over 85% debt). High leverage equals high exposure to rising credit spreads.

What I wish I already knew about 2019

While this is not strictly about infrastructure, it is the end of the year and that usually brings out a range of prediction pieces. This article takes a slightly different approach on this theme. Prediction is hard – and in the words of Yogi Berra (or according to some sources Neils Bohr) – especially when it's about the future. So rather than try and predict what will happen next year – I wanted to write about the 2019 events or factors that I wish I knew today. That is, what has the potential to be a pivotal driver of financial markets and, hence, investment returns in 2019?

To try keep it simple, I think there are three:

- China
- US wage growth
- Australian housing

China

China has been trying to manage a transition from a fixed asset investment/debt fuelled economic model to something more sustainable. This has necessitated a delicate balance between tightening credit growth while at the same time trying to maintain overall economic growth, as well as manage their fixed capital account/currency. This would be a difficult challenge for policy makers at the best to times (history suggests most credit booms end in big busts – rather than gentle slow downs), but the Trump inspired trade war with the US adds a significant additional challenge.

How this works out is very difficult to predict – but is hugely important for investors – particularly Australian investors. China has accounted for a disproportionate share of our economic growth over the last decade. Its seemly insatiable appetite for raw materials has underpinned Australia's exports. Its citizen's desire for offshore real estate has even probably had a meaningful impact on Australian house prices.

A downturn in China would have global implications and Australia is squarely in the line of fire. Against this, it is important to remember that Chinese policy makers will not sit idle in the face of a downturn. The GFC era stimulus package – and resulting construction boom – was a perverse saving grace for Australia through the GFC. That said, China's starting position, particularly in terms of leverage, is very different now and this may constrain (or change) the nature of the policy response.

All in all, I don't know what will happen, but I do know that it will be important. The accuracy of Chinese data adds a further challenge for investors – perhaps this means the exchange rate (and potentially Chinese stock prices) are more useful real-time indicators.

US Wage Growth

One of the mysteries of the last few years is that the seemly strong recovery in employment in the US hasn't translated to a meaningful pickup in wage growth. Perhaps this is an impact of globalisation. Perhaps it is the doubly lagging nature of wages. That is, employment growth lags GDP growth, and then wage growth lags that.

Either way, wage growth is very important. Strong wage growth would increase inflation expectations and put pressure on the Fed to keep marching up interest rates. Higher rates would put pressure on already stretched equity market valuations and are particularly important to infrastructure investors. Higher wages would also erode profit margins – which have been unusually high. A constrained Fed would have less flexibility to respond to weakness in financial markets with easing (that is, goodbye to the Greenspan/Bernanke/Yellen put). Higher US rates would be likely to be associated with a higher US dollar, and its associated funding pressures on emerging markets.

Higher US wages and the resulting pressure on interest rates could significantly change traditional equity/bond correlations. Investors' portfolios are designed on the assumption that falling bond yields (rising bond prices) would cushion the blow of equity market weakness, in an environment of accelerating inflation and constrained central banks, this fundamental portfolio construction assumption could break down.

Australian Housing

Now for something closer to home (no pun intended). Australian house prices are elevated on any measure, and affordability is a real problem. Modest falls and, in particular, wages growing materially faster than house prices is clearly a good thing.

However, housing is the largest single component of household wealth. Lending against housing represents $1.7 trillion of assets on bank balance sheets (circa two thirds of all lending or alternatively roughly five times the big four banks equity market captialisation). A transition from a modest slowdown to a serious housing slump (say the difference between a 5% national fall and a 10-20% fall) would have severe implications for economic growth (construction – all sectors – is ~8% of GDP), government finances and the health of Australia's banking system.

We have already had an approximately 5% fall over 2018 (and closer to 10% in Sydney and Melbourne) a key question for Australian investors is whether this moderates or accelerates in 2019?

Conclusion

2019 has all the hallmarks of being a pivotal year. Who knows what the new year will bring – but these are three things I will be watching closely as the year unfolds.

And now on a lighter note

The world of finance is full of interesting anecdotes – and in the spirit of the season – we wanted to share two debt stories out of China.

The first relates to Qianhai Air & Shipping Exchange which is a subsidiary of the HNA group – a large Chinese conglomerate and significant shareholder in Virgin Airlines. Facing significant problems in meeting debt payments, in November they announced an initiative to meet some debt payments with 5 year gift vouchers for travel on Hainan Airlines or Grand China Air. An offer directed at retail investors (and we're hoping not too many take it up ….. sounds like Dick Smith gift cards all over again).

Taking this one step further, Chuying Agro-Pastoral Group Co, a Chinese pork producer, has announced an intention to pay 271 million yuan (approx. A$50 million) in ham!

If the debt markets excess of the pre-GFC era was PIK bonds (Pay In Kind) this takes the concept to the next level …. PIG bonds here we come. But will it catch on? Or will investors be left with a sinking feeling their stomachs?

https://www.bloomberg.com/news/articles/2018-11-14/hna-offers-airline-vouchers-to-repay-investors-instead-of-cash

And on that note …. no more from us for 2018. All the best wishes for the season.

Contact Us

We're always happy to chat (and learn new things!) if you want to know more, contribute more on a particular topic, or wish to discuss any of the above topics in greater detail feel free to drop us a line. Also, please don't hesitate to send us ideas for future articles.

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