The Way Forward

2018 Global Investment Outlook
Future results are impossible to predict. This document contains opinions, conclusions, estimates and other forward-looking statements which are, by their very nature, subject to various risks and uncertainties. Actual events or results may differ materially, positively or negatively, from those reflected or contemplated in such forward-looking statements. Past performance is not a reliable indicator of future performance. Investing involves risk including the possible loss of principal.

Past performance is not a reliable indicator of future performance.
Heading into a year of potential

As we head into 2018, nearly a decade since the global financial crisis, we invite you to explore themes and perspectives shaping the investment landscape.

The new year is full of investment potential. The past year saw the world adjusting to rising populism, at a time when global economic activity was improving. Still, the inflection points and new policies that might signal a more normalized investment landscape have not fully materialized. Monetary policies left from the financial crisis remain largely in place, creating unintended effects for asset prices, leaving investors facing related risks and challenges.

These complexities help inform the views and perspectives of Macquarie’s investment teams in The Way Forward, our 2018 Global Investment Outlook. These views reflect our teams’ deep knowledge and expertise in their specialist markets, and their solutions-driven approach in serving institutions, advisors, and individuals in public and private markets.

Whether you’re looking for insights on global growth and equity markets or bond markets and corporate credit, in energy, infrastructure, or real estate, you can find out what 2018 might hold and how it could affect your world and your portfolio.

In these pages, we invite you to explore the investment landscape through our investment teams’ unique perspectives, and we look forward to continuing your investment journey with Macquarie during 2018.

Shemara Wikramanayake
Head of Macquarie Asset Management

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Global Head of Macquarie Investment Management
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Perspectives

Investment leaders discuss critical issues for 2018, including macroeconomic trends and equity valuations.

“I’m not convinced all that much has changed. Yes, there’s been a degree of tightening, and the central banks have been running away from zero. But they haven’t gotten far.”

–Brett Lewthwaite
Chief investment officer roundtable

An investment climate both growing and trapped

Roger Early, Global Co-Head of Fixed Income / Philadelphia

John Leonard, Global Chair of Equities / Philadelphia

Brett Lewthwaite, Global Co-Head of Fixed Income / Sydney

Over the course of 2017, many asset prices — including equities, fixed income, and real estate — continued to move higher, extending a surge facilitated by loose monetary policies adopted by central banks since the global financial crisis. To some observers, this asset-price boom makes perfect sense in light of the decades-long, low interest rate environment. To others, it’s a cause of concern and raises a host of issues, especially as asset prices disconnect from economic growth fundamentals. Conditions have begun to change, and a number of central banks have started tightening postures. What does this mean for the investment climate in 2018? Three senior Macquarie investment leaders provide insight into how the year may unfold for investors.
As 2017 ends and 2018 dawns, how would you characterize the investment climate?

**Brett Lewthwaite:** In 2017, we summed up the investment environment in a single word, “containment.” I’m not convinced all that much has changed. Yes, there’s been a degree of tightening, and the central banks have been running away from zero. But they haven’t gotten far. The US Federal Reserve has raised rates a few times and signaled the start of unwinding its balance sheet. Yet, when I look around the world, I see that we are pretty much where we were a year ago. Further, I feel confident that if something flares up in 2018 or 2019 that might destabilize economies, central banks would step up to contain the event.

**Roger Early:** I agree that the investment landscape continues to be dominated by the central banks. With respect to the Fed, we are in a tightening cycle — yet the critical issue is pinpointing where we are in the tightening cycle. The yield curve is the best predictor of that and reveals that we likely are further along than most people might think. We might well be in the latter stages of tightening.

What has been the effect of monetary policies on economies around the world?

**Roger Early:** For the effect on economies, the answer is not much. The liquidity provided by the central banks has not raised gross domestic product (GDP) levels significantly. It has not raised economic conditions for the middle class. It has, however, had a marked impact on the people who own assets — the rich. And what it’s done for them is to raise their net worth considerably.

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**Sharon Hill,** Head of Equity Quantitative Research / Philadelphia

Since the end of the global financial crisis, there has been conspicuous underinvestment in equities, despite strong returns and solid fundamentals. Data on large US companies’ pension plan allocations, shown above, suggest that firms have been actively allocating away from equities rather strongly. All else being equal, not rebalancing would have resulted in an increased equity weight. Mutual fund flows (not shown here) suggest that retail investors and their advisors have exhibited similar behavior in their asset allocation activities.

The most commonly cited reason for reticence toward equities is valuation levels. The refrain is “equities are too expensive.” Valuations are above typical levels, but interest rates are way below typical levels, with no clear path to correcting in short order.

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**John Leonard:** The stock market is a prime example of how central banks can have a profound impact. After all, what else are investors going to do with their money? Because of all the loose monetary policies, cash rates remain close to zero. The yield on 10-year Treasurys is 2.2%. High yield spreads are minimal. Investors in some overseas markets continue to stare at negative rates. And all of this is after we began to tighten. In contrast, look at the US stock market. Investors get a 2% dividend yield. Add in 1% for stock buybacks and another percentage point for modest inflation and then another point or so for GDP growth, and you’re looking at a strong argument for base-rate returns on the S&P 500® Index that approach 7% to 7.5%. At this point in time, stocks may be the best house in the worst neighborhood.

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**Equity valuations**

**Are stocks too expensive?**

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As quantitative researchers, we believe almost religiously in the value premium, but this belief extends only to the security level, where over time, on average, stocks trading at a discount to their peers at the start of a period have tended to outperform over subsequent medium-term horizons. However, at the asset class level, valuation alone does not appear to be an effective medium-term signal.

To see this, consider the charts on the next page that display valuation and forward 1-year return. With an R-squared of 0.05, the relationship is essentially random, suggesting that current valuation is not a robust indicator of subsequent equity market return. Contrast this with the relationship between the starting-point yield and the subsequent 1-year forward Bloomberg...
Brett Lewthwaite: I will add that while asset prices have been the main beneficiary of global monetary policies, worldwide economic conditions have been much better than we all thought. People were very optimistic coming into 2017 because of the new US administration’s pro-business leanings, but that hasn’t come to fruition. Maybe infrastructure spending will materialize, but it’s an unknown. The good news has been that Europe rebounded better than most thought it would and China’s growth was quite strong. So 2017 was better — but not for the reasons most people imagined.

What about 2018? What’s the outlook for growth?

John Leonard: Domestically, in the United States, tax reform can be an important driver. If we get a decent tax program that makes sense and passes, we should be in an environment where we add a year or two to the current expansion. Every percentage point that you knock down from the US corporate tax rate adds roughly $1 to the earnings of the S&P 500. So, if corporate income tax is lowered by 10 points, that’s $10 a share for the index overall — and at a 15 multiple, I have a lot of headroom for growth opportunities.

Roger Early: The flip side is that if Congress cannot get tax reform done, then you might expect some change in the broader sentiment, and that might affect risk assets such as equities and corporate bonds and spreads.

Brett Lewthwaite: Let’s remember that across the world, we’re still mired in this staggering debt burden. We all know about the massive levels of quantitative easing that the central banks undertook — a total somewhere in the magnitude of $14 trillion. But if you add on top of that the deficits that governments have run up since the global financial crisis in 2008, we’re talking about a total of $34 trillion that’s been thrown at the global economy to keep it muddling along.

Roger Early: Another factor that cannot be overlooked is the headwinds created by changes in demographics. In the developed world, the population is aging rapidly and that challenges productivity. When we grew at 3% to 4% a year, we had better demographics.

Brett Lewthwaite: So we’re in debt, and demographics aren’t helping. Digitalization is replacing jobs. Further, there’s the potential for nationalism to replace the long trend of globalization, continues on next page

Barclays Global Aggregate Index return, shown below. This relationship, as any bond investor would tell you, is notably strong, and the R-squared value of 0.33 supports this. Yields do predict near-term future return, whereas valuations do not.

Investors have been fretting about equity valuations, and thus have been allocating to bonds, despite a fairly strong signal that bond returns are likely to be muted.

MSCI ACWI trailing P/E and subsequent forward 1-year return, 1999 – September 2017

Bloomberg Barclays Global Aggregate Index yield to worst and subsequent forward 1-year return, 1999 – September 2017

Yield to worst is the lowest of such yields as yield to maturity, yield to call, yield to put, and others. R-squared, or $R^2$, is a statistical measure of how close the data are to the fitted regression line. An R-squared of 1.00 indicates that the model explains all the variability of the response data around its mean.
Chief investment officer roundtable
continued from previous page

which in turn could ignite trade disputes and currency wars. That could add up to poor global GDP growth. That’s the negative scenario. I’m not saying it’s going to happen, but the risk of that has definitely increased.

Where does that lead? Are there concerns that asset prices will burst in 2018?

John Leonard: It doesn’t have to end badly. It could — that’s a possible scenario. Another scenario is that the market grinds sideways. I think that’s the more likely outcome. This time around it seems different than, say, the real estate bubble or the Internet bubble. It’s not as if investors are staring blindly into the punch bowl and saying, “Wow, this is the best party ever.” The markets seem more like a helicopter autorotating. When a helicopter loses power, a pilot can set it down semi-gently, in a controlled manner. That’s what I see the central banks doing. They know they have lost power, and they are coming in for a controlled landing. And that should help insulate the markets.

Roger Early: We don’t see a financial crisis, but we can predict that a relatively slow growth economy isn’t likely to accelerate without any Trump tax cuts. If reform doesn’t materialize at all, that could be the source of some kind of setback, but I wouldn’t necessarily say a crisis.

Brett Lewthwaite: Central banks cannot really afford a destabilizing event to take place. They are unconsciously pursuing a never-ending business cycle — because a recession would not help people and would exacerbate sentiments about income inequality. At the first sign of any challenge, I feel confident that they will step back in, though they do not seem to have the firepower they once had. Still, in my view, because of their likely intervention, I don’t see much of a risk of a bubble-bursting situation.

Could anything change and destabilize markets?

Roger Early: There’s always a risk of a geopolitical shock. And, as mentioned, the rhetoric about trade restrictions, nationalism, and populism don’t translate into positives for global GDP.

Brett Lewthwaite: Another area where the markets and central banks might be tested is inflation. I don’t think that inflation is likely to occur in 2018 — we just haven’t seen wages increase with low unemployment. Nonetheless, inflation, in a sense, is always lurking in the back of many investors’ minds and cannot be discounted as a concern that will have an impact on the market. Many portfolios are just not positioned for inflation. As a result, a scare — even a pulse of inflation — could be destabilizing. Just the possibility could shake the credit markets. Given the high debt levels and asset prices, we will be keeping a close eye on inflation in the year ahead.

Low growth, low rates, and central banks’ running out of steam: What does this mean for investors?

Brett Lewthwaite: On one hand, it means that the chase for yield will continue. There’s support for the corporate bond market — even the Treasury market — coming from around the world. A big issue remains with negative interest rates in major parts of the world. The policy is just silly. Those central banks don’t seem to appreciate the distortion that negative rates create for insurers and pension funds that have no choice but to go elsewhere to find yield to meet their obligations.

Roger Early: The support that Brett mentions is one of the factors that has helped put us at the overpriced end of the range. It’s both good news and bad news — the support helps maintain a floor for assets such as corporate bonds, but it also encourages bad behavior in people making poor allocation decisions. As a result, we are seeing investors chase yield and bid up all sorts of assets to where we’re at the overpriced end of the spectrum in terms of valuation. We only have to look at high yield fixed income. The spreads over Treasurys are approaching the low end of their historical range. It seems to be moving to parity or an equivalent state.

John Leonard: I wouldn’t say that’s the same case for stocks. I am not entirely comfortable with equity valuations, but I wouldn’t characterize all markets and all stocks as overvalued. Unless someone makes the case that the 10-year Treasury is poised to rise or that a recession is looming, I don’t see why investors wouldn’t be looking — selectively — for stocks.

Where is there opportunity for investors?

Brett Lewthwaite: It’s good to emphasize that word “selectivity.” We’re at the point in the cycle where just owning the benchmark or the market is, we believe, a poor decision. There’s too much variability. We have to recognize that we’re in a very moderate growth economy where it’s incumbent on investors to distinguish between companies that can deliver and generate cash in a flat revenue environment as opposed to other companies that have to generate substantive growth in order to meet their debt obligations. We have to differentiate.

Roger Early: On top of that, we are at the point in the cycle — or will be very soon — where investors might benefit from including in their portfolios some high-quality, long-duration assets. Duration is not the enemy. In fact, we don’t expect rates to rise materially. That may be the contrarian view and, to be sure, if you’re building a one-asset portfolio, I wouldn’t suggest that it consist totally of high-quality, long-duration bonds. But for a broad portfolio with a lot of risk assets? You would have a cushion with these types of bonds in the event of a setback in stocks. I think that could be critical for many portfolios.

John Leonard: I’m in the same camp in that I would consider now as not the time to be invested solely in an index. If you were to rank order by market capitalization and then by companies that are the best allocators of capital, you would have two very different lists. So the bigger companies aren’t necessarily the best capital allocators. Yet, if you buy a market cap-weighted index, you are inevitably giving it most of your money. Alternatively, you could search for what you believe to be the best stocks out there. I do not think that means picking a specific sector, because there will be winners and losers in every industry. Some companies will benefit from technological change and others will be disrupted by it. There are interesting things happening in finance, healthcare, and technology.
Global macro perspectives

Inflation benign – but for how long?

Stefan Löwenthal, Multi-Asset Solutions / Vienna

For a year that produced a lot of surprises, 2017 has still mostly delivered as expected. Heading into the year, our multi-asset strategies favored global equities over fixed income, largely because we expected that global reflation would keep a lid on bond prices. We also believed that modest economic growth would continue, led by the US and its new pro-business administration.

In reality, global growth came in better than forecast and the rebound was broad-based. For the first time in a decade, all 45 countries tracked by the Organization for Economic Cooperation and Development (OECD) grew at the same time, led by rebounding economies in China, Brazil, and Mexico, as well as across Europe. Surprisingly, the US economy lagged many of its overseas counterparts, as Washington, DC, failed to deliver on promised pro-growth policies, creating uncertainty that postponed private investment. We might have taken a different route than planned, but we still ended up close to our destination.

Spotlight: Factor investing

In factor investing, incorporating environmental, social, and governance (ESG) factors has drawn increased focus, particularly after research (such as that from Harvard Business School) has shown that ESG factors do not necessarily add risk to a portfolio and may potentially add value (source: CFA Institute, 2014). For example, in Australia, ESG factors are taking on new importance as millennials, now part of the superannuation community, demand greater disclosure and ethical investments from their superannuants.

In addition to an ESG-aware factor framework, the intersection of several themes and types of factors are likely to be topical in 2018. A look back at 2017 demonstrates the value of a balanced, diversified multifactor portfolio. Reliance on a single factor can have risks, as seen in the chart on the next page — momentum investing, for example, started calendar year 2016 on firm footing, but ended the year well in the red, with the inverse seen in the efficiency of the valuation factors. In 2017, we have seen the efficacy of the valuation factor begin to subside and, subsequently, momentum returned to positive territory.

Momentum stocks in 2016 largely comprised energy and quality/yield stocks, and as oil prices stabilized and the Federal Reserve hiked rates, the trend halted. The same period saw a major rotation into a cycle of value (when stocks might be selected for less than their intrinsic value), as a global synchronized upturn in economic activity boosted investor sentiment and propelled

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An encore in 2018?
The two big questions heading into 2018 are whether global economies can maintain this pace of growth and what it will mean for inflation. We believe current growth rates can continue, and that they should propel earnings forward. Globalization is alive and well. Despite the protectionist talk in recent months, few trade barriers have materialized. Once again, global trade is set to grow faster than global GDP. Accompanied by increasing capital expenditures, this could create a virtuous cycle for rebounding economies.

Our current outlook for inflation is generally cautionary and perhaps differs in some ways from consensus. Some believe the inverse relationship between unemployment and inflation — known as the Phillips curve — is dead or slipping. After all, wages haven’t picked up meaningfully in countries such as the US, where the labor market is near full employment.

Despite this consideration, our view is that wage growth has merely been delayed by massive dislocations caused by the global financial crisis and recession, as well as by more structural factors such as demographics, productivity, and technology. Thus, there is a risk that inflation will eventually accelerate, although perhaps less in countries where there is still significant slack in the labor market, which is true for much of Europe. Generally speaking, our view is that inflation is a real risk that certainly bears monitoring, but that it could take a long time to materialize.

The snapback in wages and other prices could push inflation meaningfully higher next year and prompt central banks to tighten more quickly, but we think a tame pickup in prices is more likely and will coincide with the modest growth we’re seeing in the US and other major economies. And, if that occurs, the Federal Reserve and other monetary policy makers won’t have to make any sudden moves that would spook the markets.

Asset class expectations
These two expectations — continued global growth and manageable inflation — have repercussions across the major asset classes we track.

Equities
We believe we are in for another year of strong performance for global equities relative to fixed income, even though valuations are not cheap. Stock gains are been boosted by a potent cocktail of expanding economies, better earnings, low inflation and interest rates, and cheap credit — all factors that we expect to carry over into 2018.

We started out the year with confidence in the US equities market, but as the year wore on, our confidence waned in favor of Europe and EM. Our expectations are high for growth in those regions, based on our view of current valuations and the more accommodative stance of central bank policies.

Factor investing
major indices to record highs. The value theme has since subsided as cross-sectional yields compressed. Factors based on secular trends such as monetary policy tightening appear to be fairly priced and more likely to deliver excess performance as automation, tax cuts, and the withdrawal from quantitative easing continue to shape the global economy.

Scot Thompson, Portfolio Manager / Sydney

Individual factor performance shows the importance of building a diversified portfolio that includes multiple factors. The information coefficient (IC) is a measure of the efficacy of statistical factors representing models of company factors such as valuation, quality, momentum, and earnings drivers. A positive IC indicates that the statistical model positively explains the return of the company.

Source: Macquarie, as of third quarter 2017.
Fixed income
We believe fixed income as an asset class in 2018 will have a more protective role. US Treasurys; UK gilts through their Brexit woes; and other sovereign debt, particularly in EM, seem to be hedging candidates given their low correlations to equities. Markets are uncertain regardless of whether or not we are at a point in the cycle where recession is more likely, given the length of the current global expansion, but we don’t think we are at that point yet.

Credit is another matter. If global growth plays out the way we expect, credit may not be affected significantly. But we remain cautious for the coming year on investment grade and high yield issues across the globe.

Commodities
While some base metals performed well in 2017, broad commodity benchmarks largely underperformed other assets as of this writing. We believe this is because inflation has yet to pick up meaningfully and global growth, while pointing in a favorable direction, has yet to affect commodity prices significantly. That could change in 2018. Continued growth has the potential to feed through economies in a way that creates higher prices for both agricultural goods and base metals in particular, which could be expected if there were an inflationary surprise across the board.

Two commodity classes we do not have confidence in are energy and gold. While oil demand is growing in key markets such as China, US production is still going gangbusters and keeping a low ceiling on crude prices absent a demand shock. Despite increased geopolitical tension in 2017, gold has been similarly lackluster, and we believe that could continue given compressed volatility across all asset classes. We believe that only an inflationary surprise or some actual geopolitical event would alter its direction.

Currencies
Central bank policies held sway over currency prices in 2017, and we expect this to continue in 2018. The Fed is the pace car in this race to higher rates, but it likely will provide limited support for the US dollar, outside of the chance of a potential boost to the US economy from tax cuts enacted by the US Congress. We believe the uncertainty surrounding the future policy paths of the European Central Bank, the Bank of Japan, and the Bank of England are likely to create volatility in futures markets. But we see a pretty firm link between growth and currencies in EM. For the first time since EM local currency markets became accessible, growth, inflation, and external trade balances seem supportive.

Managing a fluid situation
With the twin drivers of global growth and inflation making or breaking asset prices, the coming year will require active monitoring for changes in conditions. There are currently myriad risks for global investors, including central bank policy normalization, uncertainty surrounding Chinese growth, geopolitical tensions, and elevated asset class valuations, to name a few. We believe reading the global macro landscape and standing ready to adjust are paramount to being opportunistic and risk aware.
Global equities

With many of the world’s stock markets on multiyear bull runs, what areas might offer pockets of opportunity around the globe?

“I’m not entirely comfortable with valuations, but I wouldn’t characterize all markets and all stocks as overvalued. Unless someone makes the case that 10-year Treasurys are poised to rise, or that recession is looming, I don’t see why investors wouldn’t be looking — selectively — for stocks.”

—John Leonard
Equity perspectives

Around the globe, 
a certain optimism for stocks

Ned A. Gray, Global and International Value Equity / Boston
Sam Le Cornu, Asian Listed Equities / Hong Kong
Ty Nutt, Large-Cap Value Equity / Philadelphia
Scot Thompson, Australian and Global Equities / Sydney

Equity markets around the world continued to experience buoyancy in 2017. Risks exist for 2018, of course, but we believe there are reasons for a range of relatively optimistic outlooks from the US to Asian economies. Highlights include:

- Despite certain risks facing the US economy and markets, such as excessive debt and high valuations, we are cautiously optimistic about equity prospects, especially higher-quality companies, in the long term.
- For developed markets outside the US, however, valuations have generally retreated to a degree that we feel could support additional price gains. Overall, we see greater scope for improvement outside the US.
- Australian equities are facing some headwinds, from energy costs to threats of online retailing, but China’s influence remains positive.
- In the Asian equity markets, China’s evolving growth remains a key catalyst, especially as it focuses on areas such as its long-range innovation goal.
In US large-caps, a balanced view of fundamentals and valuations

As always, our outlook is focused on the longer term, looking out at least three to five years. Over this horizon, we are cautiously optimistic about the prospects for equities, especially those of higher-quality companies that are trading below their long-term average valuation multiples. The near-term picture looks more uncertain to us. While the US economy continues to grow at a modest pace, the expansion has entered its 100th month and is the third-longest on record. Extraordinary stock market gains have accompanied it. To put some numbers around the two, the economy expanded 34%, in nominal terms, between June 30, 2009, and June 30, 2017.

Meanwhile, the broad market S&P 500 Index posted a total return of 212% during the same period (sources: Bureau of Economic Analysis, FactSet Research Systems). Of course, economic growth could continue apace for a number of years and the stock market could continue “melting up” along with it.

Concerns on the macroeconomic front
We see a number of risks facing the economy and stock market that could dampen investors’ spirits. These include:
• excessive indebtedness in the government and corporate sectors
• subpar economic growth
• inflated expectations in the context of narrow stock market breadth
• political dysfunction
• unintended central bank effects
• rising geopolitical conflicts.

High valuations; potential below-average returns
As long-term investors, our biggest concern is the stock market’s valuation. The P/E ratio of the S&P 500 Index is now above 25 times based on 12-month reported earnings, versus its historical average of 15.7 times. The chart above shows the S&P 500’s valuation based on real 10-year average earnings, with the current multiple more than 30, compared to an historical average of 16.8 (source: Ned Davis Research).

From these levels, prospective returns will likely be below average, in our view, while potential risks seem higher than usual. Given the importance of starting valuation to long-term equity returns, we foresee annualized total returns in the mid-single-digit range. Our concerns about equity valuations and potential market risks mean that we remain defensively oriented with a focus on higher-quality businesses that offer attractive relative value.

—Ty Nutt

Global issues influencing Australian equities

Four key issues are emerging that we might expect to affect Australian equities in 2018:
• The return of capital expenditure. Since the global financial crisis, Australian companies have increasingly focused on efficiency, costs, and returning capital to shareholders. The equity market has rewarded this — companies have been able to grow earnings by cost reduction, and shareholders then receive their cash returns. However, the tide is changing. Listed companies are now realizing that with reductions in cost, revenue growth is necessary for earnings growth. We are seeing upgrades to companies’ capital expenditure plans to drive investments for revenue growth.
• Energy costs continue as corporate Australia’s single biggest issue. Rising gas and electricity costs are causing major headaches for Australian companies. Australia’s largest energy producers are coming under increased government scrutiny over power prices as political pressure mounts to find a solution. Many companies are deliberating the effect that energy prices will cause inflation through the supply chain.

Increased costs associated with keeping the lights on will likely be passed on to consumers.
• Australian companies need to protect their markets. Threats from global online retailing giants such as Amazon are increasing the need for many Australian companies to reinvest. New entrants are affecting many of Australia’s industries that have limited competition. This effect translates to lower earnings over the short term, in particular for Australian retailers and ecommerce companies.
• China’s influence on Australian companies remains positive. Supply-side reform across manufacturing sectors in China will continue to eliminate inefficient capacity. These government-led policies have in turn driven up profitability of global industries. China’s steel sector’s reform efforts to tackle pollution have had a significant positive effect on Australian steel companies. In commodities, the outlook for oil remains robust over the long term — driven by stable demand and a lower rate of growth in supply.

—Scot Thompson
Global equities: Focus on valuations and franchise quality

For most developed regions and economic sectors around the world, 2017 was a year of marked continuity with supportive economic data, modest inflation, benign interest rates, and accommodative credit conditions.

As we head into 2018, major stock indices continue to set records, which raises the question about the durability of the cycles underlying these gains. Strong equity performance in many countries and regions has been supported by a broadly improving economic backdrop, while corporate performance has generally been strong as well.

Outside the US, valuations have generally retreated

Looking across countries within MSCI’s developed market indices, we see that since the start of the year, P/E ratios have declined in countries as diverse as Australia, France, Germany, Japan, and the United Kingdom, as underlying earnings performance has exceeded gains in share prices (data: MSCI, via FactSet). Equity markets such as those in Japan and the euro zone are displaying valuations low enough to support additional price gains before reaching historic norms, combined with cyclical recovery potential that could facilitate market appreciation still further.

While aggregate valuation data provide poor timing tools by themselves, they do help define the bounds of probability for prospective performance. In this context, we find greater scope for improvement outside the US, where valuations are lower and the economic cycle is in a less advanced stage. What’s more, current indicators in debt markets help buttress a positive outlook for international equities, as sovereign yield spreads across Europe are generally subdued, and tight credit spreads more broadly indicate little cause for alarm.

Factoring in possible headwinds

As managers of concentrated, active portfolios, we are mindful of the potential for macro drivers to steer markets both up and down. We are continuing to monitor possible sources of cyclical slowdowns in various markets, such as the potential for the appreciating euro to dampen earnings for European exporters, or the effect of lower fiscal stimulus in Japan.

We remain focused on the success of strong management teams and durable franchises that can transcend cyclical noise. We believe the qualities that drive this success are recognizable and, when accompanied by attractive valuation, have the potential to provide strong and sustained performance.

—Ned A. Gray

In the Asian region, China’s evolving growth still a catalyst

Outside of uncertain geopolitical factors, we have confidence in the structural tailwinds for Asian economies and expect the group of Asian countries ex Japan to continue with strong growth in 2018. In 2017, GDP growth for the region was close to 6% in aggregate, led by China, India, and the Philippines, and market performance was buoyed by an uplift in earnings. Fundamentals broadly look strong for companies in this region, and we see reasons to expect this to continue into 2018.

China remains a key factor for the region. In China, we have observed top government support for key policy reforms such as deleveraging and supply side reform. An important and continuing signal from the government has been for the need for sustainable, efficient growth. We expect this will support reduction of unproductive debt as well as refocusing economic growth to services, one of Beijing’s stated goals.

Wage growth in China continues to show strength, and we expect the wealth effect arising from property prices will support the services economy in 2018. Chinese consumption growth is evident in sectors such as tourism, which has exploded over the past 10 years. However, one emerging consumer trend we expect to continue into 2018 is the shift to online consumption. In 2016, China’s ecommerce market rose to a level that was close to double the US.

Ecommerce in China is outstripping the US

Source: US Census Bureau, China’s National Bureau of Statistics. Data show online retail sales.

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Perspectives on innovation

China has set a long-range “innovation goal” by 2035, and it’s worth considering at the onset of 2018 — just how successful is China now as an innovator? The World Intellectual Property Organization’s rankings on the Global Innovation Index (GII) 2017 lists China as 22nd, the highest ranking among upper-middle class economies.

While China continues to have a manufacturing advantage due to relatively low wages, labor-intensive products such as shoes and clothing are now a lower proportion of China’s exports, falling from 36% in 1995 to 26% in 2015. China is already moving up the value chain through innovation and differentiation of its products. This is most notable in the increase of China’s global market share in machinery and transport equipment, rising from 4% to 17% over the last two decades (sources: UNComtrade, HSBC) and can be observed in the stronger growth rates in China’s newer industries versus traditional ones.

### Internet penetration: China has room to grow

Source: International Telecommunication Union, as of 2017.

By 2030, it is expected that half of China’s population will have either grown up with a smartphone or be tech savvy. For this reason, we expect the shift toward online consumption to continue, which will further support the profits, sustainability, and continued innovation of China’s fast growing online tech sector. We also believe it will further underpin the transition toward a consumer-based economy as technology increases the access to competitively priced products in lower-tier cities and rural areas (the rural Chinese ecommerce market is comparatively small, with Internet penetration of 32% compared to 67% in urban cities). (Source: China Internet Network Information Center, Morgan Stanley.)

Can China continue its current innovation momentum and achieve its 2035 innovation goal? We believe the current environment is supportive and expect that policy will ensure that innovation is encouraged and supported and that barriers are removed.

We observe the following factors as key to supporting this goal:

- **Scale:** Continued urbanization is providing China with scale benefits of central location and demand (China already has 87 cities with populations greater than 5 million).
- **Financing:** Venture capital has grown significantly in China, and private equity interest has a greater chance of withstanding any broader leverage crackdown (venture capital provided to start-ups was equal to 6% of total bank loans in 2016).
- **Manufacturing network:** More than 2.25 million Chinese manufacturing companies (seven times more than the US) provide a strong and competitive supply network.
- **Education:** Tertiary education enrollment rates are improving strongly (doubling between 2006 and 2015), and close to 50% of enrollments are in innovation fields such as science and engineering.
- **Rising R&D:** China’s patent submissions rose 44.7% year on year in 2016 and are evidence that research is flowing through to innovation.
- **Policy support:** With a central government target to become an innovation leader, surely red tape, financing, and incentives will support continued growth.


—Sam Le Cornu

### China: Industrial production for new and traditional industries

![Chart showing China's industrial production for new and traditional industries](chart)


We believe the online/software sector within information technology highlights China’s recent innovation efforts. China’s scale and opportunity in the online space is huge. It is the world’s most connected country with 721 million Internet users (followed by India and the US, respectively), and approximately 96% of Internet users are connected by mobile devices. The country is already the world’s largest retail ecommerce market, representing close to half of global sales. (Source: China Internet Network Information Center, internetlivestats.)

A recent survey found that 36% of the population purchased online at least once a week. China’s Internet penetration rate of 53% is still far behind countries such as the UK, Japan, Europe, and the US. (Source: China Internet Network Information Center.)

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**Asian equities continued from previous page**
As we look to 2018, there's reason to believe that small- and mid-cap equities could continue to benefit from much of the same support they found in 2017. In what was essentially a pro-business environment, shares of smaller companies moved higher, supported by a number of developments:

• The US economy continued to grow and create new jobs.
• The Federal Reserve was relatively cautious in raising interest rates and in beginning a controlled shrinking of its balance sheet.
• Global economic growth improved, albeit from low levels, and it was more synchronized than at any point since the global financial crisis.
• Despite some headline-grabbing policy failures, the Trump administration managed to produce the biggest pullback in federal regulatory actions since the Federal Register was introduced in 1936.

Looking ahead, the positive momentum appears poised to continue, based on a wide range of economic indicators including core measures such as consumer confidence, consumer credit, and unemployment claims.

Prospects for less regulation and tax relief

The positive conditions for small- and mid-cap equities in 2017 could be further buttressed in 2018 if Washington accomplishes business-friendly policies such as reducing the level of regulation across many industries. Tailwinds would likely be felt if Congress passes a new tax package, particularly because small- and mid-cap companies tend to benefit more from lower taxes than their larger-cap brethren do. On balance, smaller companies typically bear a higher relative tax burden than larger companies because they generate a higher percentage of their revenues domestically.

Data recently published by Thomson Reuters help illustrate this point: Companies in the Russell 2000® Index pay a median effective tax rate of 31.9%; for companies in the S&P 500 Index, the figure is 28%.

Of course, not all sectors would benefit to the same degree. Banks, consumer-goods companies, and makers of industrial or medical equipment could see the biggest upside because they tend to pay a relatively higher amount in taxes. But companies in industries that tend to focus more on revenues — such as biotechnology and software — may not see much of an impact.

Valuations: What is being priced in?

A central question regarding tax reform is: How much of this expected relief is already factored into current valuations? The run-up following the US presidential election in late 2016 pushed small-cap valuations above 18.97 times forward earnings as of Dec. 31, 2016. At the end of September 2017, small-caps were trading at 18.95 times; meanwhile, the long-term average is 15.7 times. So in absolute terms, prices aren’t exactly cheap, and any acceleration in earnings might simply justify multiples where they stand today; we would simply be “growing into the multiple.”

For certain companies, a reduction in taxes could have a sustained influence that goes beyond 2018. When the most recent comprehensive tax reform package was passed in 1986, corporate tax cuts led to dramatic improvements in cash flows, and share prices continued to benefit well beyond the end of the year. The same thing could possibly happen this time around.

On the other hand, if Congress fails to pass a tax bill, investors may think twice about current price levels, making tax policy the biggest wild card for 2018 for most small- to mid-cap sectors.

Source: Federal Reserve Bank of St. Louis. Shows University of Michigan Consumer Sentiment Index.
Amid varied macro conditions, opportunities for long-term appreciation

Our positive view on emerging markets (EM) remains intact. Despite ongoing political concerns in many parts of the world, we believe that consumption growth, coupled with ongoing government-led reform measures, will support emerging economies. We expect China to continue toward a soft landing, supported by structural growth in consumption and improvements in living standards. We also continue to monitor the Chinese government’s reform efforts, particularly in areas such as liberalization of the financial system, capacity rationalization in certain industrial sectors, and debt management.

Several other large economies are likely to continue on a stable or improving trend, providing further tailwinds in 2018:

• In Brazil, inflation has been reined in, which should be supportive for growth if sustained.
• Russia is in the early stages of a recovery, and inflation has moderated.
• In India, with demonetization and implementation of a goods-and-services tax bill in the rearview mirror, we expect the government’s priorities to refocus on growth, particularly leading up to the general elections in 2019.

Two sides of the digital divide
One notable trend we’ll be tracking in 2018 is how companies harness the power of technology. Battle lines are being drawn across many industries, pitting technology adopters against firms that are less inclined to lean on digital resources. This divide is

Potential at the company level
In 2018 we will continue following our long-held approach: remaining focused on identifying individual companies that possess sustainable franchises, favorable long-term growth prospects, and that trade at significant discounts to our estimates of their intrinsic values. We will seek to invest in companies that we expect to benefit from long-term changes in how people in EM live and work.

Liu-Er Chen, Emerging Markets / Boston
In a diverse opportunity set, an emphasis on stock selection

We believe that EM will continue to offer compelling investment opportunities in 2018. This optimism is supported by factors that include corporate earnings, tax reform in the US, continued global economic growth (which has become more synchronized than at any point since the global financial crisis), and developments in China, particularly as policy makers continue to unwind stimulus measures that have inflated asset bubbles and encouraged speculation.

At the same time, we are keeping possible headwinds in mind, including policy unwinding by central banks, the possibility that a US tax plan will fail to pass, and increasingly tense circumstances in North Korea.

A diverse opportunity set

As we look across the broad range of sectors and industries that make up the EM landscape, technology is among the areas in which we see the potential for notable positive change. In the automotive space, for instance, technological advances are making cars capable of processing ever-increasing amounts of information, and companies in EM are providing much of the research and basic science that makes these achievements possible.

In addition to technology, we are also confident about developments in fields as diverse as education, virtual reality, and health-and-wellness services. We think areas such as these will provide opportunities for company-level research to reveal organizations that are early to market and that are poised to deliver unique solutions. With the right people, processes, and entrepreneurial drive, we believe such companies will have the potential to earn their way toward growth and reward investors along the way.

Ultimately, we think there will be opportunities for builders that employ advanced technology in the design and manufacture of homes. Such firms are equipped to produce homes in a way that is less expensive and considerably faster than legacy builders can achieve, without sacrificing quality. What’s more, the production process involves home buyers in an interactive way, enabling them to customize their homes’ designs with the click of a mouse. These types of advances in the manufacturing processes are already enabling certain builders to produce up to 15,000 houses a year, and we believe they are at the leading edge of a trend that will be worth watching in 2018.

Stock selection will be key

When it comes to generating competitive performance in 2018, we believe stock selection will be among the dominant factors. This will be particularly important in countries and regions that aren’t completely out of the woods from a macro perspective. In South America, for example, we are finally seeing positive changes in the political landscape as well as an improvement in the outlook for growth, following several challenging years for both. So what appeared to be strong headwinds for corporates — high cost of capital and weak demand — now appear to be supportive for investment and consumption.

For some of these companies, the rise of Internet technology is paving their routes to success. Therefore, we believe we will continue to see strong competition in areas such as online marketplaces for goods and services. We are already following companies that we believe are performing strongly enough to essentially put a virtuous cycle in motion, enabling them to arrange attractive financing terms, fund new initiatives, and do so while keeping balance sheets in good order.

A company-level focus

We believe EM is poised for continued growth in 2018, supported by some of the circumstances mentioned above. Even in nations that are nursing their share of structural and political problems, we think it will be possible to find companies that are determined to compete and prepared to take part in some type of positive fundamental change.

Joseph Devine, Global Ex-US Equity / San Diego

obvious in areas such as retail, where ecommerce businesses are taking market share from brick-and-mortar retailers, and financial services, where millennials are forsaking traditional bank branches for mobile banking.

But the divide is also occurring in less obvious areas, such as home construction. Home sales slumped after the recession, which put homebuilders out of business, particularly those operating on a smaller scale (producing fewer than 10 to 20 houses a year). Tailwinds are appearing, however, as home buyers are slowly becoming less fear of debt, credit scores are at all-time highs, and banks seemingly want to lend again.
Forces from digitalization to demographics, to government debt, are shaping new mindsets. But how much has really changed for global fixed income investors?

A critical issue is pinpointing where we are in the US tightening cycle. The yield curve is the best predictor of that and reveals that we are likely further along than most people think.”

–Roger Early
Fixed income perspectives

Steady markets, but a shifting mindset

Paul Grillo, Head of Total Return Strategies / Philadelphia

David Hanna, Portfolio Manager / Sydney

David Hillmeyer, Portfolio Manager / Philadelphia

Graham McDevitt, Portfolio Manager / London

Matthew Mulcahy, Portfolio Manager / Sydney

In 2018, we anticipate steady fixed income markets on the back of global economic momentum, with structural forces continuing to exert a cap on inflation and interest rates. As such, we anticipate a muddle-along kind of year for bond prices, where recession risk is low but upside is contained.

Key expectations:

• While it’s reasonable to expect positive returns in 2018, we nonetheless see a year when bonds should move forward in muddling fashion.

• Although growth appears healthy, we forecast rates to remain rangebound, with the 10-year US Treasury rate likely to stay between 2.0% and 2.6%.

• Structural forces limiting inflation should continue to exert their current power.

• Policy makers have narrow options for next steps and their actions are likely to be predictable.
As the world puts more distance from the global financial crisis of 2008–2009, we see people coming to grips with the present and continuing to revise their expectations for the future — sometimes permanently. Investors, businesses, and policy makers often appear to be assimilating the post-crisis period of global liquidity as a distinct era and, having revised their longer-term expectations, also seem to have made near-permanent mental shifts. We would argue that these secular shifts in investor mentality can often serve only to reinforce downward pressure on an already low rate of inflation. In addition, note that although we anticipate a steady year, we urge caution against complacency, a state that can be dangerous for investors.

A case for steady bond markets

The foundation for our view of steady fixed income markets in 2018 is the strength of overall economic activity. Across much of the globe, growth has been moderate, but more importantly, firm — in the US, the euro zone, Japan, and Australia. Some signals from China have been mixed, but our key metrics, such as China’s total social financing (TSF) indicator (a liquidity measurement tool used as an economic barometer), have remained sturdy. A number of emerging market economies have regained momentum and are finally moving forward, after extended weakness.

Global manufacturing as measured by the Purchasing Managers’ Index® (PMI) continues to be robust, supporting commodity prices around the world. Trade volumes are up, despite protectionist rhetoric. Unemployment has ticked considerably lower across most developed nations. There are few signals for recession as we enter 2018. Amid these broad tiers of support, we expect bond prices to plod along through the year.

Regional outlook

<table>
<thead>
<tr>
<th>Region</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>US</td>
<td>Data are broadly following the same seasonal pattern of 2012-2016, implying a bias for stronger data in the second half of 2017.</td>
</tr>
<tr>
<td>EU</td>
<td>Data remain firm and broad based.</td>
</tr>
<tr>
<td>China</td>
<td>Data are holding firm, though survey data have been soft. We can note that total social financing has steadily rebounded from the low in March 2017.</td>
</tr>
<tr>
<td>Japan</td>
<td>Data have firmed.</td>
</tr>
<tr>
<td>Australia</td>
<td>Data are firm.</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Data have been notably soft.</td>
</tr>
</tbody>
</table>

Source: Bloomberg, as of September 2017.

Still, with our projected range for 10-year US Treasurys at 2.0%-2.6%, we allow for some gradual rise from year-end levels, but also for possible softening. This reflects a view that while most measures of the economy are hearty, there also isn’t a great deal of upside from our perspective. Growth is strong. Unemployment is low. Corporate profits are healthy. All of the key drivers that we monitor for economic improvement look solid, leading us to ask, “Where’s the upside?”

continues on next page
Mind shift I

Investors resigned to “lower for longer”

More investors are now on board with a “lower for longer” forecast for interest rates, a view that we’ve held for quite some time. The consensus has come around to our position. As our chief investment officers have recently repeated to clients and the media, we see a strong case that the lower-for-longer trend is not nearing an end, either, and that the world generally can’t handle significantly higher rates.

So, investors seem to have finally gotten it right. The length of the post-crisis period of high liquidity has allowed this mind shift to take hold and is tied to other major structural economic shifts.

Low inflation. There still isn’t much inflation — at least not what we would expect for this point in the economic cycle, based on history. That simple fact attests to the deep structural forces at work, which are keeping a lid on inflation.

Debt. Sovereigns around the world are more indebted than ever before on a debt/gross domestic product (GDP) basis, and most continue to run budget deficits.

Demographics. Without enough young people (or immigrants) to earn and spend their share, every economy faces a drop-off in its ability to balance aging generations. This dynamic creates an oversaving problem, evident in the example of Japan but looming over most developed nations as well.

Digitalization. The continued technology revolution is another force putting downward pressure on global prices, including wages. While the Amazon effect ripples through retail, most recently affecting grocers and other specialty retail industries, a shift toward low-skill, low-pay jobs also persists.

Mind shift II

Businesses bred on dependency

Are societies becoming “addicted” to low rates? As businesses are inured to bargain-level financing costs, they may limit efforts to pass higher pricing through to customers. Consumers, meanwhile, have become accustomed to low inflation in their costs of living. They, in turn, may not demand higher wages, even in a full-employment market.

Mind shift III

Policy makers jaded with models

The Phillips curve, which generally predicts that inflation will rise as unemployment declines, has fallen short in this cycle. The inflation-limiting structural forces have seemingly tweaked the dynamics — and efficacy — of rate changes, essentially generating a “flatter” Phillips curve.

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Key drivers for economic improvement look solid, leading us to ask, “Where’s the upside?”

Global GDP growth

Advanced economies

Emerging markets and developing economies

Fixed income perspectives
continued from previous page

There’s more to it. Policy makers are navigating their way through new territory, unwinding liquidity experiments while establishing an understanding of how coordinated their moves need to be with international peers to create the desired outcomes.

Is it time to throw out the old models? Probably not. But policy makers are clearly aware of the pitfalls of traditional econometrics.

**Central bank balance sheets**

Source: Bloomberg.

With this, we expect tightening and tapering in a limited band globally.

Policy makers in developed markets have been transparent about plans to tighten monetary policy slowly and incrementally (the Federal Reserve and the Bank of England), and to taper quantitative easing step by step (the European Central Bank and the Bank of Japan). But the reality is that they don’t have much choice in the matter. If they hope to have any arrows in their quivers by the time the next recession rolls around, they’ve got to remove the extraordinary support measures from the markets while they can. But they can’t do it too fast — as they discovered during poorly coordinated maneuvering in late 2015 to early 2016, which led to a screeching pullback in China, in commodity prices, and across the developed markets.

As such, we expect the tightening/tapering process to continue into 2018 along the same path as 2017, with policy makers carefully balancing market expectations before pulling any triggers and moving in small shifts. While the Fed, in particular, faces a number of open seats and unknown leadership changes, we believe its actual policy choices are limited.

**Key risk:**

Central bank missteps. Just as central bank moves in the US and Europe contributed to currency wars and the commodity price collapse in late 2015, the landscape remains fertile for policy missteps in the developed world.

**Beware of complacency and consensus**

The strong starting point of 2018 — good global growth, tight bond valuations, and rates still historically low — supports the idea that the year ahead is likely to be much like the one we just experienced. The credit cycle still has plenty of life left, and policy makers could move slowly enough that the markets absorb tightening steps. Bond valuations could even go a little tighter.

Still, we see more downside risk than upside risk to the year ahead. As such, we urge investors to beware of complacency. We also continue to watch with interest these two risk factors.

**Key risks:**

**China.** The major emerging economy could stumble in the coming year on a general economic slowdown, policy blunders, or a purposeful move away from credit-fueled growth.

**Unexpected inflation.** Our base-case expectation is that inflation will continue to be restrained in 2018 due to the heavy hand of structural forces. But wage inflation or other sources of pricing pressure could catch markets by surprise.

As in 2015, these factors could strike simultaneously, leading to a marked slowdown in economic activity and in rate expectations. The biggest risk of all is that valuations remain tight. Upside is very limited, but the risks could converge.

**The year ahead**

As we see it, 2018 is most likely to be a year of moderately positive bond returns. As in any year, we expect periodic volatility or sideways stretches. But the markers of economic activity are healthy and, more importantly, broad-based. The immediate risk of recession is low.

In this environment, perhaps the greatest risk is complacency. We caution investors not to overlook signals of what comes next — and to rely on fundamental research as the foundation for opportunities ahead.
Investment grade credit has enjoyed two particularly strong years, leading to rich valuations. We believe that current spreads, while warranting scrutiny of the risk-reward relationship, could continue through 2018. Fundamentals in most sectors are strong, while the technical demand for yield continues unabated from investors globally.

At such rich levels, however, there’s only limited upside and more downside. We are watching closely for signals of transition in either fundamentals or technical demand, since we believe that a weakening in either could disrupt today’s low volatility environment and pressure risk premiums. Astute fundamental research and in-depth understanding of shifting market technicals are keys to catching early signs of change, to limiting exposure to the issuers most likely to waver when pressures hit, and to being positioned for outperformance in this environment.

Fundamentals: Renewed growth and good behavior for now

US companies enjoyed strong fundamental performance in 2016 and 2017, even returning to positive earnings growth after more than a year of declines. As of October 2017, the forecasted revenue growth in 2017 for companies in the S&P 500 Index was just under 6%, while earnings were projected to rise 9.2% over 2016 levels (source: FactSet, Oct. 6, 2017). Projections for the quarters ahead are similarly sanguine.

Meanwhile, most issuers have been making prudent decisions about their balance sheets, paying down debt and curbing aggressive shareholder-friendly activity. For instance, refinancing activity was high over the course of 2017, resulting in longer-maturity and lower-interest debt for many entities. As similar activity has done in recent years, these changes actually extend the credit cycle out further in the future. Accordingly, leverage measures have ticked downward, while interest coverage ratios have generally improved over the past 12–18 months.

Despite the supportive fundamental environment, we are mindful of potential disruptive and idiosyncratic risks that could arise from activities such as:

- aggressive Federal Reserve tightening or other global central bank actions
- more aggressive corporate behavior that would put equity holders ahead of bond holders
- adverse decisions regarding domestic fiscal or tax policies
- geopolitical risks, such as those involving North Korea.

Index-weighted net leverage (debt-to-earnings)

Source: Bloomberg, April 2017. Shows the Bloomberg Barclays US Corporate Investment Grade Index. Data show net debt to earnings before interest, taxes, depreciation, and amortization (EBITDA).
During 2017, the agency mortgage-backed securities (MBS) sector witnessed significant swings in investor sentiment as the Federal Reserve began signaling its intentions to normalize its balance sheet. When the Fed announced details of a gradual and predictable tapering of reinvestment purchases in June 2017, that, coupled with tight spread valuations in credit markets, led to a renewed investor focus on agency MBS.

Fundamentally, as mortgage rates remained stable between 4.0% and 4.5%, borrowers' refinancing activity dwindled and prepayment risk remained benign, which helped support the yield of agency MBS investments.

Our 2018 outlook is shaped by both fundamental and technical considerations. From a standpoint of prepayment risk, a move by mortgage rates to below 3.5% from the current 4% range is anticipated to significantly increase refinancing activity. Absent a recession, our economic views do not support such a move lower in rates for a sustainable period of time. Should rates move higher, prepayment risk would decrease, but mortgage durations would initially extend. However, the extension potential from the current duration of 4.5 years is limited in the historical context of recent years.

Credit perspectives continued from previous page

Technical: Continued demand but watching closely

The search for yield continued unabated in 2017, as we expected. Our forecast is that the pattern will hold for the year ahead. Even in an environment where some central banks outside the US are finally ready to step back from ultralow or negative interest rates and from quantitative easing, the US still holds a relative yield advantage. With anticipated rate hikes from the Fed, that differential is likely to persist for the medium term. What’s more, the depth and variety of US bond markets offer diversification to global investors of a sort that is often not available in home markets.

Still, the relative attractiveness of US yields could retreat a bit — and the move may be more pronounced if growth, inflation, and rate expectations abroad race upward faster than anticipated. The key economic momentum at the start of the year lies beyond US borders, so this development is quite possible and could weaken technical support for US issues on the margin. However, bond maturities are expected to increase in 2018, which could help in providing some additional technical support for spreads.

Staking out yield while staying vigilant

In this environment, where the rising tide has already lifted all boats, research is key to catching the transition points. We remain committed to choosing credits where the underlying fundamentals are stable or improving, and we are watching carefully for signs of aggressive debt behavior from managements.

We are also positioning our portfolios with a defensive tilt. With valuations as expensive as they are, we believe that the most regulated sectors — utilities and financials — are actually the most attractive at present. There is not enough extra compensation today in higher-risk areas.

Mortgage markets

Tapering leads to a renewed focus on MBS

Iion Dan, Portfolio Manager / Philadelphia

Brian McDonnell, Portfolio Manager / Philadelphia

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Fundamental and technical aspects to 2018

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At that point, we would expect investors to step in if spreads widen. While the relative value consideration may imply multiple outlooks for money managers, the outlook for banks is likely to be shaped by lower excess reserves, capital and liquidity regulatory constraints, and net interest margins. As excess reserves continue to shrink, banks will need high-quality assets such as Treasurys and agency MBS to maintain liquidity coverage ratios. Higher agency MBS holdings relative to Treasurys also support net interest margins.

Over the medium to long term, we expect the balance sheet runoff to be marginally negative, but we are less focused on its impact relative to net issuance, as the Fed is not actively selling securities but gradually reinvesting less. We view the stock effect as more relevant, and expect the Fed’s balance sheet to include agency MBS. If the normalization process occurs in line with the current Fed guidance, we anticipate that the Fed’s agency MBS holdings would gradually shrink from the current 26% of the market to approximately 20% over the next five years, which should normalize spreads by 10–20 basis points.

We continue to prefer a barbell-like strategy in our portfolios, focused on low and high coupons, while avoiding intermediate coupons such as 30-year 3.5% and 4.0%, which are more exposed, in our view, to a sudden repricing in rates or a pickup in volatility.

Agency MBS spreads appear full, but they are supported by a backdrop of low volatility and benign prepayment risk. While the asset class has lagged in tightening that has occurred in credit sectors, it has offered spreads similar to investment grade corporates, but with additional liquidity.

Sources: Federal Reserve and J.P. Morgan

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**Supply and demand**

Supply and demand technicals are balanced in our view. Over the near term, housing purchase activity typically slows during the winter months, which should reduce issuance. Fed reinvestment purchases will shrink to $15 billion to $20 billion a month, which, coupled with residual bank and real estate investment trust (REIT) demand, should keep spreads stable. Assuming US residential lending standards remain conservative, 2018 issuance could look similar to the pace of the past two years.

Regarding the Fed’s balance sheet normalization, we expect the ebb and flow of reinvestment amounts of agency MBS and Treasurys to lead to relative performance differences. In the first half of 2018, when the Fed’s Treasury maturities increase sharply, Treasury reinvestments are expected to surpass agency MBS.
US municipal bonds

Awaiting thaw of a frozen US agenda

Joe Baxter, Head of Municipal Bonds / Philadelphia

The first three quarters of 2017 and the new Trump administration have probably been more notable for what did not occur than what did. Despite high expectations — and after a series of missteps by the administration and congressional leadership — healthcare insurance under the Affordable Care Act (ACA) was not repealed or replaced, tax reform is just starting to take shape, and no sort of definitive infrastructure program has been introduced. In fact, provisions in the proposed tax reform package as of November 2017 would likely serve to undermine parts of infrastructure financing. In the economy, things are at a similar standstill. With the exception of short Treasurys, yields have not risen. The economy has remained in a 2% growth pattern, and core inflation has failed to reach the Federal Reserve’s 2% target level.

Instead, any movement has primarily been on the monetary policy front, with the Fed raising the federal funds rate in 2017 and starting to taper balance sheet purchases of Treasurys and mortgages. Against this backdrop, the municipal market, as continues on next page

High yield debt

Optimism on guard

Adam Brown, Portfolio Manager / Philadelphia

John McCarthy, Portfolio Manager / Philadelphia

Some signals today point to another solid year for high yield and bank loan performance, given the continued improvement in corporate fundamentals and relatively attractive yields versus other asset classes. But even in this optimistic environment, there are trends to track closely: sector-specific secular changes, issuer-specific risks, and valuations across rating classifications. Although the overall dynamics could well continue through 2018, we favor higher quality on a valuation basis.

As always, significant sector and issuer developments

A complete reset in energy. Looming uncertainty for retailers. Pressure in the grocery and automotive sectors. A transition point for wireline. Even in a growing and stable economy such as we had in 2017, the non-investment-grade market witnessed plenty of changes, and we anticipate more for 2018.

It comes down to the specifics. For instance, while many companies within the energy sector spent 2017 addressing near-term maturity issues, they still contend with fundamentally lower oil prices compared to a few years back. We expect current oil prices to persist, positioning low-cost operators with attractive assets and strong balance sheets to outperform their lower-quality peers.

We expect the other unresolved issues of 2017 to continue in the year ahead, with some likely to find short-term resolution and others likely to evolve slowly. Retailers face the competitive pressures associated with the transition to ever-growing online demand, a trend that is years in the making but that accelerated during 2017. Grocers, which are already in a highly competitive sector, also face much longer-term issues of disrupted markets due to Amazon’s entry into the space through its acquisition of Whole Foods. Auto-related weakness could resurface as sales appear to have peaked, a more cyclical issue that could prove short lived. Wireline struggles will likely persist in the year ahead as the vast shift to wireless communications continues. These are just some of the industry-level matters at hand. Even in strong economies, company-specific risks are also present.

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measured by the Bloomberg Barclays Municipal Bond Index, produced mid-single-digit returns (5.26% year to date, as of Nov. 6, 2017). The market has also been supported by favorable technical conditions of reduced supply and moderate demand.

In 2018, the same big-ticket legislative items could reappear on the agenda, with a repeat of the same struggles. In the near term on healthcare, President Trump’s executive order in October ending ACA subsidies could potentially mean a hard hit for the hospital sector, which is an important part of the municipal market. (The action may leave health insurers with little choice but to raise premiums or exit the health exchanges, which in turn would lower both volumes and margins for hospitals.) Legislatively, however, repealing the ACA will most likely take a back seat in the near term to tax reform and an infrastructure package — with infrastructure depending in part on the success of tax reform. That puts the tax debate, with potential bearing on the municipal market, front and center.

**The corporate tax proposal and its effects**

On Nov. 2, 2017, the House Ways and Means Committee released a tax reform proposal, with a final bill still to be hammered out in Congress. Proposal highlights that would most affect the municipal bond market include:

- **Corporate tax rates.** The tax framework calls for reducing the corporate tax rate from 35% to 20%. Because corporations, primarily through banks and property and casualty insurance companies, are important municipal bond participants, a tax rate reduction of that magnitude would probably curtail new municipal demand to a certain extent, in turn affecting the intermediate-to-long, high-grade portion of the yield curve. Nonetheless, we believe the effect could be limited for a number of reasons, including that we do not believe that many of these companies are likely to sell existing bonds, likely owned at high book yields.

- **Individual tax rates.** The proposal would reduce individual tax brackets from seven to three (12%, 25%, and 35%), plus maintain the top tax rate of 39.6% for income above $1 million. The changes, in our view, will likely not alter the individual municipal demand component. Historically, the

**Spread differential favors quality**

As we look to 2018, we also note that high yield bond and bank loan spreads are generally tight by historical standards and particularly constrained between quality tiers. In our view, this dynamic makes lower-quality issuers less attractive, offering too little compensation for the added risk compared to higher-quality tiers of the market. In credit quality, we generally hold that B-rated bonds and loans can offer the best value. This approach can allow for a competitive yield while providing some protection against volatility created by economic and political surprises. While good fundamentals and relatively low expected default rates support an overweight to CCC-rated bonds, rich valuations, higher levels of volatility, and poor liquidity more than offset the higher yields from moving farther down the credit spectrum.
Will tailwinds moderate for EM bonds?

Mansur Rasul, Head of Emerging Markets Credit / Philadelphia

As the rally in emerging market (EM) debt approaches its second full year, we find ourselves at a useful vantage point from which to examine strong performance and assess drivers for the coming year. In 2017, macro variables, largely exogenous to emerging markets, seemingly outdid underlying emerging markets credit differentiation. We categorize these top-down factors under three broad themes:

- **Stable rates in developed markets.** Rate volatility in developed markets was kept somewhat subdued by factors that included persistently low inflation, central bank stimuli, lack of progress on Trump's fiscal agenda, and heightened geopolitical tensions.

- **Resilient growth in China.** China managed growth well above analyst expectations. Total social financing in China remained elevated in a year of important political transitions, underpinning growth.

- **A weak US dollar / rebounding commodities.** Macro and political conditions pushed an unwinding of strong US-dollar trades — a dominant market theme from 2014 through 2016 — joining the China story to boost commodities.

These factors combined to produce a so-called “Goldilocks economy” environment for EM bonds; funds tracked by Emerging Portfolio Fund Research (EPFR) reported inflows of more than $61 billion for 2017 through Oct. 18. Unbenchmarkd crossover investors, who aren’t captured in that data, also shifted tens of billions of dollars into the space.

For issuers, opportunities for better loan terms

We shouldn’t obscure the fact that EM issuers seized the opportunity created by largely external factors. Rather than resting on the laurels of improvements in stock and flow economic data, a broad collection of sovereigns, quasi-sovereigns, and corporates undertook aggressive liability management operations to extend maturities and lock in lower interest payments. Countries including Peru, Uruguay, and Hungary went a step further, rebalancing their funding mix toward their own currencies. At a broader level, countries that included India, Brazil, and Argentina continued to take baby steps toward structural reforms. Resiliency improved overall, but tougher reform discussions awaited.

Persistent political risk

Are fairer skies behind us? Perhaps. Macro tailwinds are likely to moderate in 2018. Inflationary pressures are still benign, but base effects will moderate future readings. The rise of nationalist politics across developed markets is shifting international

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relations from a language of multilateralism to one of unilateralism in trade and defense. With increasingly nonaligned actors, geopolitical risks are likely to remain elevated. It appears that EM sovereigns that are running trade surpluses will remain in the crosshairs of developed market populists, as is the case with Mexico and the North American Free Trade Agreement (NAFTA).

We remain vigilant in monitoring President Xi Jinping’s plans for China after the 19th National Party Congress of the Communist Party of China. An empowered Xi may finally refocus from fiscal pump priming to important structural reforms. Expect breathless reporting and hyperanalysis of Chinese total social financing, though any less accommodative strategy may ultimately serve to repress global rates.

Within emerging markets, we believe the election cycle is the biggest risk that could ruffle markets, particularly in Latin America. Presidential elections in bellwethers such as Mexico and Brazil are likely to reflect high levels of frustration with political incumbents. Unfortunately, it is difficult to win elections with fiscal austerity. While incumbents are largely market friendly, any change in approach to structural reforms could roil markets. Argentina stands as an outlier, with the nation affirming President Mauricio Macri’s market-oriented direction after years of mismanagement under Cristina Kirchner’s administrations. In 2018, it may also be the year we finally see change in Venezuela, as economic collapse and lawlessness may finally spell the end of political life for President Nicolas Maduro and a disavowal of the left-wing political ideology known as Chavismo.

Security selection, diversification

With a turbulent backdrop on the horizon, markets are likely to reorient from a “rising tides” market beta thesis to idiosyncratic credit picking. Importantly, we would argue that EM debt markets have matured in depth and breadth to accommodate the shift. Historically, municipal bonds have accounted for 75% of infrastructure spending (source: Congressional Budget Office, US Bureau of Economic Analysis). In fact, in 2016, municipal bond issues for new projects increased 12.3% over 2015, and through Sept. 30, 2017, new money issues were up an additional 2.7%. (Source: Bond Buyer.)

However, in a surprise move, the House tax bill proposed cutting three significant parts of the municipal market: advance refunding bonds, private activity bonds, and tax credit bonds. If the proposals stay intact, they could have an impact on credit metrics in the municipal market, affect the supply of municipal bonds, and, importantly, affect the ability of the municipal market to contribute to infrastructure financing, particularly through private activity bonds. Negotiation on tax reform is likely to occur as it makes its way through Congress, so the fate of these proposals and their potential effect on municipal bonds need to be watched carefully.

Infrastructure: Still a critical need

Despite lack of action, a critical need for an infrastructure program continues. An updated 2017 report from the American Society of Civil Engineers has set the price tag to update infrastructure in the US at $4.6 trillion. Available funding is estimated at $2.6 trillion, leaving a funding gap of $2 trillion.

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Alternatives and real assets

Infrastructure continues to be a topic of keen interest among investors into 2018. Our experts provide perspective on both listed and unlisted infrastructure, as well as other alternative asset types.

“

We believe investors will be eager to participate so long as a US infrastructure program is clear and specific about how projects will be funded and precisely how they will generate returns on invested capital.”

—Brad Frishberg
Global listed infrastructure

Growth drivers come in many shapes

Brad Frishberg, Macquarie Listed Infrastructure / New York

Several developments could leave their marks on the infrastructure landscape in 2018. In our view, the most compelling of these range from pragmatic legislative issues to advancements in the realm of technology. Taken together, the forces in play suggest to us that listed infrastructure assets should find steady support in 2018. The following sections describe several industry- and macro-level factors that could have a direct bearing on listed infrastructure markets.

Liquefied natural gas amid a production run-up

Driven in part by a secular shift toward cleaner energy, the supply of liquefied natural gas (LNG) is growing at a remarkable rate, and there is evidence that such growth should continue. Consider:

- Consumption in 2010 amounted to 224 million tons and is expected to reach approximately 450 million tons by 2030 (source: Jackson School of Geosciences, University of Texas).
- China is expected to account for approximately 40% of the incremental demand over this period (source: International Energy Agency).
- One-third of the total estimated LNG incremental supply is estimated to originate in the US (based on analysis of data maintained by the US Department of Energy).

This demand and production cycle for LNG is unfolding today, in real time. It is not something that is pending some type of trigger event. Indeed, we see the growing LNG market as providing compelling investment opportunities.

In the US, the next few years will be particularly important as new production facilities are built. Already, we are seeing an uptick in the number of applications for federal permits for new LNG facilities.

Demand for pipeline usage

We think the increased production of LNG as discussed above could translate into higher demand for pipeline services. As new production comes online, LNG will need to be transported throughout a distribution network, and pipeline providers will likely stand to benefit.

Other developments that could lead to increased pipeline demand include (1) the move away from coal generation into gas generation, and (2) the use of renewable energy sources. Reliance on renewable energy generally needs to be complemented with gas generation facilities, because such facilities can provide on-demand electricity in the case of a cloudy day or lack of wind.

We are active investors in pipelines, and along with the increased demand that could be on the horizon, we are keeping an eye on policy developments coming out of Washington, particularly because the White House has voiced support for pipeline projects as part of any potential infrastructure spending package.

For utilities, an eye on tax reform

Along with infrastructure spending, the Trump administration has vocally discussed tax reform. Should the US Congress succeed with its plans for tax reform, utilities could be among the infrastructure sectors feeling a pronounced effect. We think there is a notable probability that the new tax code, at least in its early conception, could be a net negative for utilities, particularly because under the current proposal, companies would be required to depreciate their assets on an accelerated basis.

In effect, this type of accounting would make it harder for a given utility company to grow its so-called rate base, which directly affects the rates it can charge consumers. It helps to remember that utility companies are entitled to earn a return that is based on their regulated asset bases, so any acceleration in the depreciation on those assets translates to lower absolute returns and earnings potential. Therefore, on balance, we believe the sector would see a negative effect on earnings if proposed tax changes are actually implemented.

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Most analysts agree that infrastructure spending is badly needed, and we believe capital is waiting on the sidelines, ready to be put to work.

Global listed infrastructure
continued from previous page

Personal data consumption: 
Growing, growing, growing

Investors may not see personal data consumption as an avenue to investing in listed infrastructure, but we believe companies that own and operate communications towers provide a compelling way to take part in the persistent demand for mobile bandwidth. These companies lease space to mobile carriers (referred to as “tenants”), who use the towers as bases for their communications equipment.

Growth trends within the wireless space are not limited to the US. Internationally, particularly in emerging markets, a younger population is expected to drive mobile traffic growth. Penetration rates in emerging markets are much lower than in developed markets, adding another layer of potential for carriers and tower operators alike.

Rising interest rates: 
Historically not a headwind

We believe real interest rates in the US could edge up in the coming year, but we think movements will be relatively mild. There is a strong chance that rates will be driven at least in part by expectations for higher inflation, a scenario that has historically been positive for listed infrastructure. In our view, if rates are rising for the right reasons (such as a return to healthy inflation levels and economic growth), they probably won’t generate headwinds for infrastructure assets, because such rate movements are typically based on improving economic conditions and expectations for stronger economic output. In this scenario, healthier economic activity would likely translate to higher demand for infrastructure assets.

Infrastructure spending in the US: 
A question of when

In 2016, the Trump campaign made infrastructure spending a prominent part of its platform. Most analysts agree that infrastructure spending is badly needed, and we believe capital is waiting on the sidelines, ready to be put to work. At this writing, however, Washington initiatives are moving slowly and timelines are uncertain.

Even though we don’t know precisely when a government program will materialize, we believe investors will be eager to participate so long as the program is clear and specific about how projects will be funded and precisely how they will generate returns on invested capital.

We believe that the need for infrastructure investment in the US — combined with the developments discussed above — highlights the potential for growth within our asset class during 2018 and beyond.

OECD mobile broadband penetration

Source: Macquarie, 2016.
Assets with the following traits generally are considered preferable at the current macroeconomic juncture:

- volume sensitivity to GDP
- inflation-linked pricing
- pricing power in a strong demand environment (due, for example, to limited supply or strong brand)
- low cost-base sensitivity to rising revenues
- long-term financing arrangements.

On the flip side, assets with the following traits tend to do less well:

- fixed or contracted revenue streams
- no inflation-linked pricing or absence of pricing power
- a cost base that is closely tied and/or highly sensitive to revenue dynamics
- short-term financing and/or high leverage.

Airports, ports, roads, and storage (oil and petrochemical, for example) tend to fall more into the former category, while utilities, renewables, and communication infrastructure fall into the latter.

There are certain risks involved in investing in infrastructure. The above conditions are not always the case and past trends cannot predict future trends. Every infrastructure asset has its own composition of the above traits, meaning each asset should be considered on its own merits.

Daniel McCormack, Macquarie Infrastructure and Real Assets / London

The developed world economy is now firmly in the mature stage of the economic cycle. For the US, UK, and euro area, the expansion is now eight years old, which is a long phase by post-World War II standards. Unemployment rates are low, wage growth and inflation are turning up (albeit gently), long-term bond yields are rising, and central banks are either tightening or at least talking more hawkishly. These are all the hallmarks of the mature stage of the cycle.

If history is a guide, the mature stage of the economic cycle is one in which unlisted infrastructure investments tend to perform well. More specifically, unlisted infrastructure has historically:

- Performed more strongly when gross domestic product (GDP) growth is above average rather than below average. This simply tells you that there is a cyclical component to these assets, a fact that is not hugely surprising given their fundamental nature.

- Performed more strongly when inflation was above average rather than below average, and outperformed both equities and bonds when inflation was elevated. Many infrastructure assets’ revenue streams have an explicit or implicit link to inflation. This doesn’t mean that asset prices necessarily perform well in a period of high inflation, but the evidence shows that they indeed do.

- Performed better when interest rates were rising, not falling. This is a result that surprises some investors. But what it tells you is that the earnings benefit the sector receives from healthy GDP growth and higher inflation, which tends to occur when interest rates are rising, is a greater positive for asset prices than when a higher discount rate is negative.

Importantly, different assets and different asset classes have varying revenue sensitivity to GDP and inflation, and different degrees of operating leverage. The rising discount rate, however, negatively affects all of them. At this point in the cycle, more earnings cyclical sensitivity is better than less, all else being equal. Earnings sensitivity will depend on a range of factors: namely, the volume growth sensitivity to GDP, the ability to increase prices and thereby expand margins when demand is strong, and cost line sensitivity to increases in revenue.

Direct infrastructure investing

Looking at healthy economic conditions ahead
The past year has created a significant dislocation in real estate values in certain areas of the world. For instance, negative headlines about retailers and the prospect of rising rates in the US have created a wide spread between private- and public-market valuations of US retail real estate investment trust (REIT) equities. As debt costs have remained low, this has left some of the most discounted valuations we have seen in quite some time.

Policy actions stimulate residential properties in some markets

Many international real estate markets rallied higher during the past year due to continued money printing by central banks, which finally led to better fundamentals on a global scale. Thus certain sectors and markets are screening expensive relative to history. We see some of these markets as inflated and thus are underweighting them. Other market segments, however, we see as burgeoning. Singapore housing is an interesting example, as nearly five years of strict housing policies are easing and the market has bottomed. We believe that relative to Hong Kong, China, or Australia, Singapore remains the one housing market that presents value. Notes on other housing markets:

- In Hong Kong, the world’s most expensive housing market, home prices hit new record highs in 2017 thanks to low interest rates and investment demand from Chinese mainlanders. To date, demand-side tightening measures and increased new supply have not helped stabilize the market, and more headwinds are accumulating as (1) China’s tightened capital controls discourage overseas investment in real estate, and (2) the Federal Reserve stays on track to raise interest rates.

- We believe European real estate is due to come under pressure. Stimulus from the European Central Bank (ECB) has pushed real yields across Europe well into negative territory, which has pushed real estate prices to very high levels. As the ECB begins to withdraw stimulus, we would expect the value of European real estate stocks to start to come under pressure. If there’s a bright spot in Europe, in our view, it’s Ireland office and industrial. The country continues to be one of the beneficiaries of Brexit negotiations, and the pace of office leasing has been brisk in late 2017.

- We believe that US senior housing presents a long-term opportunity that is currently experiencing a cyclical slowdown due to excessive supply. Given the current outlook, this supply glut should begin to correct and become more favorable toward the end of 2018. If that’s the case, when the market arrives at equilibrium it could present perhaps the best risk-return relationship in US real estate over the next five years, due mainly to long-term demographics: As baby boomers age, we believe senior housing facilities will stand to benefit beginning in 2019 and stretching beyond.

Central banking still at the fore

The biggest concern that keeps us up at night has to do with actions by central banks around the world. As the world has taken on increased debt levels and unprecedented stimulus to recover from the global financial crisis (and thwart deflationary pressures), we are concerned about what may happen as central banks start to reduce their stimulus programs.

In the US, the Federal Reserve has already begun the process of raising rates and plans on beginning to shrink its balance sheet. While the economy has held firm amid this slow policy shift, it clearly has not accelerated either. As such, we wonder about possible repercussions if a key central bank — not just the Fed — starts to reduce stimulus faster than originally intended. The biggest risk of this appears to be in Europe, where many countries have negative real rates. If negative real rates have played a role in pushing up asset prices to this point, what’s going to happen when stimulus is taken away?
China’s intervention

Other significant headwinds include increased intervention by the Chinese government.

Since President Xi Jinping pledged to curb speculation in the overheated property market by stating that “houses are built to be inhabited, not for speculation,” more and more cities have rolled out stricter restrictions on home purchases and resales. Meanwhile, China’s state-owned banks have tightened lending to developers and raised mortgage rates for home buyers. We expect the policy tightening cycle to continue until the market cools down.

Retail REIT picture: More than meets the eye

We are bullish on select US retail real estate, and we don’t think that all retail will be threatened extensively by online sales. In particular, we see great opportunity in listed equity REITs that focus on high-quality retail properties.

Over the past year, the retail real estate industry has been widely scrutinized by the media and heavily shorted by the hedge fund community. In the wake of Amazon’s purchase of Whole Foods, and with the general trend toward online retailing being so pervasive, we think perception and reality have greatly diverged. We find it ironic, for instance, that the online retail and same- or next-day delivery companies that are touted by the media as the great “disrupters” have rarely generated profits.

While we agree that online retail sales are growing and a great number of physical retail locations should and will close, the actual effects on properties owned by publicly traded REITs is vastly misunderstood. For example, given the necessity for online retailers to physically expose their brands through brick-and-mortar locations, we expect retail centers that are well located to continue to thrive. That said, we acknowledge that the online retail revolution is creating a shakeup of low-quality, unproductive, and/or obsolete real estate and retailers. These are properties and companies that have reached the conclusion of their life cycles; market forces have ultimately decided that they should not exist.

While we expect more retailer closures and bankruptcies in the future (which has always been the case), we believe continued fundamental performance by retail REITs — expressed in measures such as cash flow growth, high occupancy rates, and growing net asset values (NAVs) — will ultimately prevail. As the market settles down and uncertainty from potential changes in tax policy dissipates, we expect the value in some of these heavily discounted names to emerge.

Low debt costs have left some of the most discounted valuations in retail REITs in quite some time.
Powerful macro trends support the long run outlook for agricultural land values. Demand for protein is set to rise strongly over coming decades as income growth and urbanization in the emerging world change dietary habits in favor of a more protein-heavy consumption mix. At the same time, the supply of arable land is falling due to soil erosion, pollution, and the encroachment of urban areas. Periodic surges in commodity prices will boost productivity gains, which increase the fundamental value of land.

Cyclical or temporary factors can, however, affect this structural trend toward higher land prices over shorter time frames. Swings in demand, shifts in supply, and interest rate changes can all potentially lead to land values’ deviating from this steady, long-term uptrend.

**Australian farm outlook**

For Australian farmers, conditions have been improving in recent times, with cattle and sheep prices quite elevated by historical standards. Sheep prices reached $A6.13/kg in October 2017 (the latest data available), a price that is at a 47% premium to its post-2000 average of $A4.16/kg (see below). Cattle prices are also high. Although they have come down somewhat in late 2017, at $A5.43/kg they are trading at a 46% premium to their post-2000 average (see above, right).

At the same time, interest rates in Australia remain very low. As of October 2017, the policy rate was 1.5%, a record low, while the 10-year bond yield was 2.8%, a touch above its record low. Liquid markets such as equities and bonds tend to absorb the impact of changes in interest rates very quickly. For less liquid asset classes such as farmland, the effect takes longer to fully absorb. For this asset class, the relationship between interest rates and land values can be a bit like the relationship between the heat of a stove and water in a pot — it can take an extended period of strong heat before the effects are seen in boiling water.

Valuations for farmland are also much improved when considering the enterprise multiple — or the enterprise value (EV) divided by the earnings before interest, taxes, depreciation, and amortization (EBITDA) for Australian broad-acre farms. Based on the risk and return traits of Australian agriculture, farmland should, in our view, trade in the 15-20 times range. As of October 2017, it was trading at 15.0 times, right at the bottom end of that range.

Going into 2018, therefore, Australian farm values can expect several tailwinds. Commodity prices are high, interest rates are low, and valuations are, by our estimation, reasonable. Moreover, these positive fundamentals are starting to manifest themselves in higher land prices. After several years of flat prices, land values have risen solidly in the last two years, and this a trend that we think is likely to continue through 2018.
Energy businesses emerging from land acquisition era

Paul Beck, Executive Director, Macquarie Energy Partners / Houston

Upstream energy businesses in the US and Canada have emerged from what could be viewed as a “land grab” era in the past decade. Since the late 2000s, as energy commodity prices rose and new technologies unlocked the potential of previously inaccessible hydrocarbons in unconventional reservoir rock (shale), many exploration and production (E&P) companies have amassed acreage in high-value energy basins. A general expectation that commodity prices would remain elevated has led to this push for energy land sources.

The steep decline in oil and gas prices that occurred in 2014 has had implications for E&P companies around the globe, with consequences both lasting and severe. Overextended balance sheets and insufficient cash flows have left independent and major producers with quality assets but little internal capital for development. Fortunately, along with the drop in prices came significant capital cost deflation, which allowed some energy basins to remain economically viable.

In considering opportunities to deploy capital for development at attractive terms, we believe that a combination of factors currently allows for an optimistic view of the landscape. One is increased reliance on North American energy production to sustain global demand. This global trend is a defining factor. On a less macro level, steeper declines from unconventional wells, increased costs per well, and recent underinvestment from major and independent E&P companies also can be viewed in combination as creating a generally positive environment.

Technology advances remain key in North America

Still, success in exploration requires significant technical skills to ensure that drilling occurs in the most economic portions of these basins. Determination of high-value energy basins is an expensive endeavor. For example, unconventional well technology (horizontal well displacement in the reservoir, with multistage hydraulic fracturing) is typically in excess of five times more expensive than conventional vertical drilling. And while very few dry holes have been drilled in recent years (that is, no hydrocarbons found), developing economic amounts of oil and gas has not always been significantly obvious and many companies have operated well outside of cash flow, incurring significant debt to finance their drilling.

Fortunately, unconventional development continues to evolve and improve. From longer lateral sections to higher proppant loading in the hydraulic fractures, wells continue to improve and have increased production capabilities in North America. This has turned the US, in particular, into a major contributor to global supply.

### Projected oil and gas demand

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<th></th>
<th>2016 Millions of barrels / day</th>
<th>2040 Millions of barrels / day</th>
<th>Trillions of cubic feet / year</th>
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<tr>
<td>Petroleum and liquids demand</td>
<td>94.8</td>
<td>120.9</td>
<td>126.7</td>
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<tr>
<td>Natural gas demand</td>
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### Share of total global energy demand

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<tr>
<th>Year</th>
<th>Oil and gas</th>
<th>Coal</th>
<th>Nuclear</th>
<th>Hydro</th>
<th>Bioenergy</th>
<th>Other renewable</th>
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<td>2040</td>
<td>51%</td>
<td>23%</td>
<td>10%</td>
<td>6%</td>
<td>3%</td>
<td>7%</td>
<td>100%</td>
</tr>
</tbody>
</table>


However, production from unconventional wells declines at three to five times the rate of conventional wells, requiring E&P companies to drill more wells to maintain production levels in order to then meet an increasing global demand. With this higher cost, we see a treadmill effect, whereby more wells need to be drilled to maintain faster depleting reserves. While we are encouraged by technological advancements, the expense and large-scale economics of E&P businesses bear constant watching for shifts in the investment landscape.
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Wayne A. Anglace serves as a senior portfolio manager for the firm’s corporate and convertible bond strategies. He joined the firm as a research analyst for the firm’s high grade, high yield, and convertible bond portfolios and has 17 years of industry experience.

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Adrian David is a senior credit analyst within Macquarie’s Global Fixed Income team in Sydney. He undertakes fundamental credit analysis on domestic and international companies operating across a range of financial and corporate sectors. Adrian holds a Bachelor of Business in economics and finance from RMIT University.

Craig C. Dembek, CFA
Head of Credit Research — Americas
Craig C. Dembek is head of credit research and a senior research analyst on the firm’s taxable fixed income team. Earlier in his career, he worked for two years as a lead bank analyst at the Federal Reserve Bank of Boston. Dembek earned a bachelor’s degree in finance from Michigan State University and an MBA with a concentration in finance from the University of Vermont.
Joseph Devine
Chief Investment Officer — Global Ex-US Equity
Joseph Devine is the lead portfolio manager for the firm’s Emerging Markets Opportunities and Emerging Markets Small Cap strategies. He earned a bachelor’s degree at the University of Southern California and an MBA at the Marshall School of Business at the University of Southern California.

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Executive Director, Global Co-Head of Fixed Income
Roger A. Early earned his bachelor’s degree in economics from The Wharton School of the University of Pennsylvania and an MBA with concentrations in finance and accounting from the University of Pittsburgh.

Alex Ely
Chief Investment Officer — Small/Mid-Cap Growth Equity
Alex Ely joined the firm as part of the firm’s acquisition of Bennett Lawrence Management, LLC, a New York-based U.S. growth equity manager. Ely earned a bachelor’s degree in economics from the University of New Hampshire.

Brad Frishberg, CFA
Chief Investment Officer of Infrastructure Securities — Macquarie Listed Infrastructure
Brad Frishberg oversees the firm’s infrastructure securities investment activities, serves as chief investment officer of infrastructure securities, and is a co-portfolio manager for certain infrastructure portfolios within North America. He earned his bachelor’s degree in business economics from Brown University and his master’s degree in economics from Trinity College.

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Chief Investment Officer — Global and International Value Equity
Ned Gray manages the Global and International Value Equity strategies and has worked with the investment team for more than 25 years. Gray received his bachelor’s degree in history from Reed College and a master of arts in law and diplomacy, in international economics, business, and law from Tufts University’s Fletcher School of Law and Diplomacy.

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Chief Investment Officer of Total Return Strategies
Paul Grillo serves as lead portfolio manager for the firm’s Diversified Income products and has been influential in the growth and distribution of the firm’s multisector strategies. Grillo holds a bachelor’s degree in business management from North Carolina State University and an MBA with a concentration in finance from Pace University.

David Hanna
Portfolio Manager — Global Fixed Income
David Hanna is a senior credit portfolio manager based in Sydney, with Macquarie’s Global Fixed Income team. David is active in all aspects of portfolio management including investment strategy, sector/sub-sector rotation, security selection and long/short trading.

Sharon Hill, Ph.D.
Head of Equity Quantitative Research and Analytics
Dr. Sharon Hill heads the firm’s equity quantitative research team and is a member of the firm’s asset allocation committee. Dr. Hill holds a bachelor’s degree, with honors, in mathematics from the City University of New York at Brooklyn College, as well as a master’s degree and Ph.D. in mathematics from the University of Connecticut.

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Sam Le Cornu
Head of Investments, Co-Head — Asian Listed Equities Team, Macquarie Funds Management Hong Kong Limited
Sam Le Cornu is co-head, executive director, and head of investments of the Asian Listed Equities team and is the co-founder of the Asian Listed Equities business with more than 15 years of industry experience. He holds a Bachelor of International Business Degree, a Bachelor of Commerce Degree, and a Graduate Diploma in Applied Finance and Investments.

Brett Lewthwaite
Executive Director, Global Co-Head of Fixed Income, Global Chief Investment Officer of Fixed Income
In his current role, Brett Lewthwaite is responsible for the firm’s cash, credit, fixed interest, and currency portfolios. He has a Bachelor of Agricultural Economics from the University of Sydney and a Graduate Diploma in Applied Finance and Investment from the Securities Institute of Australia.

Stefan Löwenthal
Chief Investment Officer — Macquarie Investment Management Austria
Stefan Löwenthal heads the portfolio management team, which is responsible for all asset allocation and stock picking decisions, the management of mutual funds as well as the development of new investment strategies.

John P. McCarthy, CFA
Senior Portfolio Manager, Co-Head of High Yield
John P. McCarthy is a senior portfolio manager and co-head for the firm’s high yield strategies. From 2012 to 2016, he was also co-head of credit research on the firm’s taxable fixed income team. McCarthy earned a bachelor’s degree in business administration from Babson College.

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Daniel McCormack is an economist and market strategist with Macquarie Infrastructure and Real Assets, based in London. Daniel partners with several real asset investment teams at Macquarie, conducting analysis that helps managers and their clients plan for the use of alternative-asset investments.

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Executive Director, Global Chair of Equities
John Leonard joined Macquarie Investment Management in March 2017 as global chair of equities, providing strategic oversight of the firm’s equity investment teams. Prior to joining the firm, he worked at UBS Global Asset Management for more than 25 years in a variety of roles, most recently as global head of equities. Leonard earned his bachelor’s degree in government from Dartmouth College and an MBA with a concentration in finance from the University of Chicago Booth School of Business.

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The US Dollar Index measures the weighted mean value of the US dollar relative to a basket of six foreign currencies: the euro, Japanese yen, British pound sterling, Canadian dollar, Swedish krona, and Swiss franc. The index goes up when the US dollar gains strength, or value, compared to other currencies.

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