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**Invesco Fixed Income**

# Global Fixed Income Strategy

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**Global macro strategy**

## US tax reform in focus: Implications for macro and asset class performance

Historic US tax reform signed into law in the final days of 2017 will likely have far reaching effects on the US economy and financial markets. In the Global Macro Strategy section, below, we highlight Invesco Fixed Income's (IFIs) views on the new law's macro implications. In the Global Credit Strategy section that follows, we provide an overview of its impact on three major fixed income asset classes: investment grade, high yield and municipal bonds.

**Major changes under US tax reform**

Details of the wide ranging tax changes are still emerging, but a few key provisions are likely to influence future macro and asset class performance:

- Decreases in personal income tax rates
- Decrease in the corporate tax rate to 21% from 35%
- Reduction in corporate interest deductibility from 100% to a limit of 30% of EBITDA (earnings before interest, taxes, depreciation and amortization) for the first four years and 30% of earnings before interest and taxes thereafter
- Reduction in the corporate repatriation tax from 35% to 15.5% on liquid assets and 8% on illiquid assets

### Implications for US macro

These tax changes will likely have important implications for the three macro factors that we believe drive asset prices: growth, inflation and financial conditions.

### Growth

We believe tax reform will boost US growth over the next two years. Invesco Fixed Income's estimates suggest that growth will increase by roughly 0.4% in both 2018 and 2019. This raises our overall 2018 US growth estimate to 2.75%, which we view as substantially above trend. Most of this growth should be driven by cuts in personal marginal tax rates, which should drive increased consumption. Decreases in corporate tax rates should also boost growth through increased investment, but may have a smaller impact than individual tax cuts. This is because companies may use their tax break to return capital to shareholders, or to cut prices in an attempt to gain market share, instead of investing. We expect the growth impact of the new tax law to moderate after 2019, as the base effect of the initial fiscal stimulus fades.

### Inflation

The impact of the tax bill on inflation is more difficult to assess. Companies may respond to the reduction in corporate taxes in different ways. Some companies may channel additional profits to shareholders through increased dividends (inflationary), although we believe this would have a limited impact on inflation. Other companies may cut prices to improve their competitive positions (deflationary) or increase worker wages (inflationary). The net result of these alternatives is, therefore, likely to be ambiguous.

However, because demand for labor is likely to rise, unemployment should continue to fall. In the short term, the inflationary impact should be negligible, but over the longer term, low levels of unemployment raise the risk of higher inflation. Unemployment is already at levels last seen in the economic boom of the late 1990's. That being said, inflation is currently running very low. Some upside price pressure may push inflation toward more historical levels but, in our view, inflation is not likely to rise sharply in the near-to-medium term.

### Financial conditions

Tax reform has been good for equity prices. Rising equity markets have contributed to easier financial conditions, all else equal. The new tax law should continue to be benign for financial conditions, as long as the US Federal Reserve (Fed) does not respond to stronger growth with an increased pace of interest rate hikes. Because we do not expect inflation to rise significantly, gradual monetary policy normalization should remain on track, including two Fed rate hikes this year. We are, nevertheless, watching for signs of sharply higher inflation, which could lead to more aggressive monetary policy and tighter financial conditions.

### Asset markets

In the near term, the combination of stronger US growth and moderate inflation is likely to be supportive of risky assets, such as high yield bonds. Historically, periods of moderate inflation and strong growth have also led to a weaker US dollar. As long as inflation stays subdued, increases in US Treasury bond yields should be contained. In the longer term, if adding fiscal stimulus to the economy, which is already near capacity, causes inflation to accelerate, this could lead the Fed to raise interest rates more quickly than currently anticipated. More aggressive monetary tightening could tighten financial conditions, potentially causing risky assets and government bonds to underperform.

*James Ong, Senior Macro Strategist, Rob Waldner, Chief Strategist*

# Interest rate outlook

**US:** We expect US interest rates to be range bound in the first half of 2018, with a risk of higher yields in the second half of the year. Our rates view is driven by our analysis of growth, inflation and monetary policy in the US and globally. Our models estimate that US growth approached a near cycle-high, at just above 3% in the fourth quarter of 2017. Growth should remain strongly above trend at 2.75% in 2018.

Inflation is likely to remain low for the first half of 2018. Headwinds facing the housing and auto markets will likely drag down inflation, causing it to remain lower than most expect in 2018, at around 1.8%. We expect the Fed to hike rates twice in 2018, representing a gradual rate of policy tightening that is unlikely to impact the economy.

Treasury supply will likely increase in 2018, driven by increased government spending and smaller Fed bond purchases as quantitative easing (QE) is tapered. This supply increase will likely present a headwind for yields later in the year as Fed bond purchases begin to decline significantly. If our view on persistent low inflation is correct, the yield on the 10-year US Treasury should remain capped at around 2.65% in the first half of 2018. We may, however, see curve steepening in the second half of the year due to a more dovish Fed and greater supply at the long end of the US Treasury yield curve.

**Europe:** The positive growth impulse continues in Europe, although euro-area inflation disappointed in December. Nevertheless, the European Central Bank (ECB) minutes presented an optimistic view on inflation and clear signs that forward guidance on tapering of QE is likely in the near future. Hawkish comments from policy makers have also dominated public debate recently, although some have raised concerns over the euro's strength. Bund yields have sold off slightly since the start of the year in a sign that the market is preparing for the end of QE. Some economists have also brought forward their estimates of when the ECB will set an end-date for its bond buying program. While no action is likely in January, we expect the ECB to announce an end-date by June.

**China:** China's onshore government bond yield curve bull steepened in January 2018, thanks to easier liquidity conditions and improved sentiment. The central bank (PBoC) has been somewhat more generous in terms of liquidity injection, but onshore investors remain cautious, reflected in the steeper 10-year part of the government yield curve. Financial regulatory tightening has pressured non-bank financial institutions, thus, we see limited room for the PBoC to tighten liquidity further from here. We continue to see attractive opportunities in onshore government bonds. If tax implications are considered, government bond yields are appealing compared to lending rates, in our view. With new asset management rules and liquidity management guidance in place, we expect demand for government bonds to pick up.

**Japan:** The Japanese economy continues to perform well. Exports have especially benefited from a pick-up in global demand. We expect this trend to continue for the foreseeable future. In the near-term, the market focus will likely be on spring wage negotiations. Prime Minister Abe is pushing companies to provide meaningful increases to create a virtuous circle of higher wages, higher demand and higher prices (i.e. the good type of inflation). However, there is a tendency for wage discussions to disappoint to the downside. We expect the BoJ to remain on hold, and expect 10-year Japanese government bond yields to remain range bound for now (0-0.1%). However, the market could react sharply if the BoJ shows an inclination toward removing stimulus.

**UK:** Brexit uncertainty continues to dampen business and consumer confidence, however, the economy is not collapsing, despite negative real wage growth and slowing house price gains. Trade talks with the European Union (EU) are yet to get underway, however, calls for a second referendum (on the final deal) are intensifying. With the clock ticking down on the March 2019 departure date, our base case is that there will be a "can kick," or delay in a final agreement. This could result in the UK's membership in the EU being temporarily extended. Signs that the status quo will remain for an additional two years or so would likely restore confidence and lead to implementation of delayed investment. Regarding monetary policy, we expect one rate hike in 2018 and one in 2019. With Brexit edging closer to a more amicable solution and the global economy picking up, there is a growing probability that market participants will price in more hikes in the coming months.

**Canada:** Employment growth has been strong enough that the Bank of Canada (BoC) hiked its overnight target rate to 1.25% in January. The BoC statement attempted to balance the view that growth was near capacity with concerns that raising rates too quickly could cause the economic expansion to stall. The 10-year yield has broken through its previous peak of 2.15% on the growth story and a modest pick-up in inflation.[1] We believe yields should continue to move higher from these levels.

**Australia:** The Reserve Bank of Australia (RBA) did not meet in January and thus issued no new statement. The strong December employment report marked two months of higher than expected job growth. The unemployment rate has ticked up, but due to an increase in the participation rate, which is approaching an all-time high. Despite the strong employment numbers, wage inflation remains low. We remain neutral on Australian rates but continued strong economic data could put the RBA in play sooner than the market currently expects.

**India:** Government bond yields have risen significantly since August, after several upside inflation surprises. Inflation has been driven by higher food prices and an uptick in core inflation, due to upward pressure on rents caused by increased public employee housing allowances. We believe that inflation will likely hover around 5% during the first half of 2018 before reverting to 4.5% in the second half. We expect the Reserve Bank of India (RBI) to maintain a hawkish stance, but stay on hold through the first half of 2018. We believe its next move will be a rate hike versus a cut. Given the lack of monetary support, we believe fiscal dynamics will likely be the key driver of interest rates going forward and we will be watching February's annual budget announcement closely. While we believe current rate levels are very attractive, we are waiting for more clarity on the fiscal outlook and indications from the RBI before going long Indian rates.

*Rob Waldner, Chief Strategist, James Ong, Senior Macro Strategist, Noelle Corum, Associate Portfolio Manager, Reine Bitar, Macro Analyst, Yi Hu, Senior Analyst, Sean Connery, Portfolio Manager, Brian Schneider, Head of North American Rates Portfolio Management, Alex Schwiersch, Portfolio Manager, Scott Case, Portfolio Manager, Amritpal Sidhu, Quantitative Analyst*

1 Bloomberg L.P., Sept. 27, 2017.

# Currency outlook

**USD:** We expect the US dollar to weaken throughout 2018. We base our view on positive global growth and expected changes in global monetary policy. While we expect US growth to maintain its strengthening trend, growth across the developed world, especially in Europe and Japan, is likely to be even stronger relative to trend. Global central banks, especially the ECB and BoJ, are likely to tighten policy in response to this growth impulse. We believe market expectations of policy tightening are much lower for the ECB and the BoJ compared to the Fed, which means there is more room for a market surprise. Surprises from these foreign central banks are likely to cause their currencies to rise with respect to the US dollar. In addition, strong global growth environments have historically led to a weaker US dollar, as US investors seek higher risk premia abroad and non-US investors stay home. We do not believe US corporate repatriation flows will be a large driver of US dollar price action. Foreign profits are already largely held in USD denominated assets and repatriation is likely to occur over many years.

**EUR:** We remain constructive on further euro appreciation. We anticipate global policy differentials to continue to converge towards normalization, which should support a weaker US dollar. We continue to view pullbacks in the euro as consolidation within a secular trend higher.

**RMB:** The USD/RMB exchange rate appreciated in January, on the back of a weaker US dollar and macro funds' trading activities. The move has been in line with other currencies against the US dollar. Although the USD50,000 foreign exchange conversion quota for individuals was renewed in January, the renminbi has remained strong, which suggests that corporates and households over-accumulated US dollars in the past two years. We continue to expect the RMB/USD exchange rate to trade on the stronger side of 6.50-6.70 in the weeks ahead. The "gradual pace" of renminbi internationalization and capital account opening emphasized by President Xi in the National Financial Work Conference indicates continued stability of the renminbi and the likelihood of capital controls for the foreseeable future.

**JPY:** The yen remains undervalued on a real effective exchange rate basis, but has had mixed fortunes (against the other major currencies) since the start of the year. There is increased market focus on BoJ policy at this time, as many market participants expect the central bank to follow the lead of other major central banks and tighten policy soon. While this is not our base case, any such move could result in meaningful appreciation of the yen, especially given short positioning in the market. We continue to be biased toward being long the yen.

**GBP:** Sterling has had a good start to the year, buoyed by more upbeat rhetoric surrounding Brexit and a weaker US dollar. Its trajectory going forward will likely be determined by progress on Brexit discussions. While negotiations will probably remain challenging, the chances of a hard Brexit have dissipated in recent months, in our view. Our base case remains that discussions will conclude with a soft- or no-Brexit outcome for the UK. If our forecast proves correct, we believe sterling will appreciate from current levels. Our bias is to remain neutral for now.

**CAD:** The Canadian dollar traded in a tight range for most of the fourth quarter of 2017, but finished the year strong on the back of US dollar weakness. North American Free Trade Agreement (NAFTA) negotiations are unlikely to be finalized soon and remain a headline risk. We are neutral on the Canadian dollar and believe there should be consolidation around current levels.

**AUD:** The RBA did not meet in January and thus did not issue a statement. The December employment numbers were better than expected for the second straight month.
The unemployment rate ticked up slightly but was due to a participation rate that is approaching an all-time high. Inflation remains low, especially in wages, which will likely keep the RBA on hold. We remain neutral on the currency amid positive global growth, but the country's narrowing current account deficit and strong commodity prices could put upward pressure on the Australian dollar in the future.

**INR:** We maintain our neutral stance on the Indian rupee. Going forward, we believe risk remains balanced, despite an uptick in inflation, higher oil prices and a somewhat worsening current account. We expect strong foreign direct investment inflows, sizable foreign exchange reserves and a hawkish RBI stance to continue to support rupee stability.

*Ray Uy, Head of Macro Research and Currency Portfolio Management, James Ong, Senior Macro Strategist, Yi Hu, Senior Analyst, Sean Connery, Portfolio Manager, Brian Schneider, Head of North American Rates Portfolio Management, Alex Schwiersch, Portfolio Manager, Scott Case, Portfolio Manager, Amritpal Sidhu, Quantitative Analyst*

1 Source: Bloomberg L.P., Dec. 14, 2016 to Dec. 14, 2017.
2 Source: Reserve Bank of Australia, Dec. 5, 2017.

This section highlights the key themes driving Invesco Fixed Income's global credit research process and views. Themes are updated based on evolving trends and expectations.

**Global investment themes**

# Global credit themes

## Geographical themes

### Investment grade (IG): Global central bank forces, global growth impulse, fiscal policy changes

**Rationale**

Despite the Fed's announcement that it will begin "Quantitative Tightening," the pace of tightening will likely be very slow and will be more than offset initially by continued easy monetary policy from the ECB and BOJ. As a result, IG credit should see global investor demand at least through the end of 2018 driven by continued strength in cross-border flows. Fundamentals are now broadly improving across most geographies and sectors, driven by a pickup in the global growth outlook. Leverage has come down from cycle highs in 2016, and with little pressure from shareholders to increase leverage, we expect balance sheet improvement to continue. Tax policy is likely to improve fundamentals through improved profitability and technicals through less issuance in the market. On the other hand, regulatory changes seem more likely and should improve cost structures (financials especially) and enable opportunities for revenue growth. European credit markets are generally earlier in the credit cycle and less levered, although Brexit and political uncertainties remain. Although credit spreads in many asset classes are at or near cycle tights, the fundamental and technical backdrop should remain supportive and there is historical precedent for returns to remain positive despite tight index spreads.

**IFI strategy**

We remain modestly overweight IG credit, favoring US and Europe over the UK and Asia. Key drivers to monitor include: 1) unexpected pace of change in monetary policy from the Fed, ECB, BoJ and BoE, viewed on an aggregate basis for their impact on global credit flows 2) development of fiscal and regulatory policy changes 3) "hard" economic data to confirm the increase in "soft," sentiment-based leading economic indicators.

### Emerging markets (EM): Reversal of reflation trade, favorable financial conditions, growth outlook supportive

**Rationale**

The positive view on global growth, aggregate global monetary policy and benign inflation pressures support our constructive view on EM credit, despite tight valuations. These forces have helped leverage come down from cycle highs, and we expect this trend to continue at a measured pace. Global inflation pressures remain conspicuously absent.

**IFI strategy**

We prefer high yield bonds due to our positive view on global growth, benign inflation outlook and continued easy financial conditions. We prefer to take credit over interest rate risk. We favor Latin America over Europe and Asia and are underweight Central and Eastern Europe. We are focused on sovereigns that have underperformed without a meaningful catalyst: Lebanon, Kazakhstan, Oman, quasi sovereigns. We actively use new issue market as a source of alpha and to build exposure in favored names and regions.

### US commercial mortgage backed securities (US CMBS): Notable decline in primary market issuance, watching retail industry fundamentals

**Rationale**

Negative retail news has dominated headlines. However, we are generally not advocates of selling stronger US CMBS credits since they are often hard to replace. Issuance is increasing after a slow 2017. US property price growth continues, but there are signs of tighter financial conditions from the Fed's senior loan officer survey. Fortunately, this survey has not always been a good predictor of commercial real estate loan losses and the non-bank sector has proven willing and able to provide credit while banks have taken a step back.

**IFI strategy**

Given the significant move in spread tightening we prefer seasoned US CMBS as cycle progresses. We think AAA-rated US CMBS look less attractive. Credit-differentiation is accelerating, placing a premium on selection, so we must navigate large regional mall concentrations. Rich valuations and poor hedge-adjusted carry weigh on shorter-term high quality paper.

**US residential mortgage backed securities (US RMBS): Favorable fundamentals, valuations fair, Credit Risk Transfer (CRT) securities market depth improving**

**Rationale**

Mortgage underwriting quality remains high, the home price outlook remains supported by limited housing supply, and long-term negative net issuance remains the dominant factor in US RMBS. Valuations appeared stretched relative to other asset classes following outperformance during 2017 in legacy US RMBS and below-IG CRT. The slight widening in spreads during 3Q 2017, driven by an active hurricane season, has reversed and brought valuations back to full valuations relative to other similarly rated credit asset classes.

**IFI strategy**

Favor higher quality legacy prime, alt-A, and seasoned BBB-rated CRT. Avoiding sub-prime, coastal concentrations, and option adjustable rate mortgages.

**US asset backed securities (US ABS): Value in floaters, fundamentals normalizing, favorable technical**

**Rationale**

Normalization of credit underwriting and forecast for a healthier economy should support consumer credit performance in 2018. As the overall market continues to weigh the longer-term impact of a Trump administration and additional rate hikes going forward, such uncertainty should be supportive of a more stable, shorter-duration US ABS market.

**IFI strategy**

Favor adding exposure to floaters where collateral performance remains stable. Believe senior prime auto US ABS and esoteric issuers can provide opportunities. Avoiding deep subprime auto US ABS.

## Sector themes

**Commodities: Global supply concerns creating energy volatility, prefer pipelines**

**Rationale**

Expect global IG credit risk premia to remain relatively more volatile as energy and metals credits reflect supply imbalances, offset by credit friendly financial engineering. Credit quality in focus due to economic growth and risk of volatility due to OPEC, US crude supply, fiscal policy implementation and Fed uncertainty.

**IFI strategy**

Favor gaining exposure to pipeline credits with favorable idiosyncratic credit catalysts that provide downside protection at attractive yields.

**Consumer story more nuanced globally, watching US fiscal policy influences**

**Rationale**

Solid US labor market and consumer confidence are supportive, but consumers more value and delivery conscious, while international retail demand remains uneven. Watching European consumer for post-Brexit behavior shift.

**IFI strategy**

Favor selected US consumer sectors including leisure and housing-related sectors. Negative on "big box" and mall-based retailers that lack differentiated products. Favor EM consumer sectors on a selective basis. Incrementally more cautious on automotive original equipment manufacturer (OEM) sector given excess inventory.

**Post-merger and acquisitions (M&A) deleveraging plays**

**Rationale**

M&A activity has moderated but remains a risk, driven by large overseas cash balances, repatriation desires post tax law changes, low all-in financing cost, still modest organic revenue growth, and need to reposition business portfolios.

**IFI strategy**

Preference to play post-transaction bond issuance typically characterized by size, liquidity, concessions and plans to deleverage. Believe a discriminating approach to this strategy is warranted due to lower, but still large, M&A-related pipeline.

**Global technology – big data**

**Rationale**

Expect global use of data to grow and transition to cloud-based platforms.

**IFI strategy**

Prefer to gain exposure to software and services, cell towers and select wireless issuers. Have avoided hardware original equipment manufacturers.

## Yield curve themes

**Credit curve positioning, long end valuations getting full**

**Rationale**

Global interest rate policy has forced cash investors and sovereign wealth funds into 3-5 year part of the credit yield curve, creating a steep 5-7 year part of the curve. Lately, sovereign wealth funds have targeted the 10-year part of the curve. We expect demand for 5-10 year paper to be resilient. Repatriation may result in underperformance of front end.

**IFI strategy**

Favor 7-10 and select 30-year points on US IG and EM credit yield curve. New issuance has remained strong year-to-date but is expected to decline as the pace of mergers returns to normal.

*Tony Wong, Head of Global Research, Joe Portera, CIO High Yield and Multi-Sector Credit, Michael Hyman, CIO Global Investment Grade and Emerging Markets, Mario Clemente, Head of Structured Investments*

This section highlights the views of Invesco Fixed Income's credit analysts across a broad range of fixed income assets managed by Invesco.

**Global credit strategy**

# US tax reform: Impact on investment grade

Invesco Fixed Income (IFI) believes tax reform is very positive for the US investment grade market. Below are four reasons why.

**1. Tax code changes are likely to result in additional corporate deleveraging (and improved fundamentals) over the next several years as companies issue less debt**
We believe two key tax changes will lead to reduced corporate debt issuance in the near-to-medium term. The first is the new repatriation tax. US corporations have trillions of dollars deposited overseas,[1] previously subject to a 35% tax if repatriated. The new legislation creates a repatriation tax of 15.5% on liquid assets and 8% on illiquid assets. With this tax liability dramatically reduced, we believe companies will increasingly tap their overseas cash (rather than raising funds through bond issuance) to fund dividends and stock buybacks. The net result would be a significant drop in the supply of bonds issued, by as much as USD100-150 billion per year, according to our estimates.

The second factor is the lower corporate tax rate. The cut in the tax rate to 21% from 35% has effectively raised the cost of debt. Companies can deduct interest expenses to lower their taxable income, so they are incentivized to carry some debt. However, a lower tax rate makes the deduction less valuable, and, we believe, over time, companies will respond with less leverage. This would be positive from a fundamental standpoint and from a technical standpoint, as bond supply shrinks. IFI expects supply to fall in 2018 for the first time since 2010, and, if we are correct, spreads should continue to grind tighter and challenge the very narrow levels that we saw in 2005.

**2. Limits on interest deductibility could make companies less inclined to take on debt**
The new tax law limits interest deductibility where it previously did not. This is another disincentive for adding balance sheet leverage. The law specifies that companies may only deduct interest up to 30% of EBITDA (earnings before interest, taxes, depreciation and amortization) for four years and 30% of earnings before interest and taxes thereafter. This change significantly lowers the risk of corporate takeovers via leveraged buyouts. Since private equity firms would not be able to fully deduct their interest expense, these deals have suddenly become much more expensive.

**3. Merger and acquisition (M&A) activity expected to increase, but transactions likely funded with more equity than debt**
We expect M&A activity to pick up, now that the specifics of the tax legislation are known. Indeed, some large acquisitions have just been announced. But we do not believe this activity will lead to a massive increase in debt issuance. Some of the recently announced deals will be 100% equity-funded or will have a significant equity component. We expect companies to use less debt in M&A financing because:

- A lower tax rate means a lower deduction, which raises the cost of debt.
- Equity markets are at all-time highs, so fewer shares are required to complete stock transactions.

Increased regulatory scrutiny may also keep a lid on issuance. A company prefunding a deal with debt runs the risk of paying months and months of extra interest while regulators debate its merits.

### 4. Central bank policy is expected to remain accommodative, supporting corporate bond performance

The Fed is focused on economic growth to guide the pace of its balance sheet reduction announced in September. IFI expects the US economy to grow by around 2.75% in 2018, which should facilitate gradual unwinding of the Fed balance sheet to around USD2.5-3 trillion (from around USD4.2 trillion today[2]). The Fed has said that interest rate hikes will be determined by the level of inflation, which remains low. Therefore, IFI expects only two rate hikes in 2018 (in March and June), followed by a pause for the remainder of the year. We expect a flat yield curve and continued lack of inflation to become a concern for the Fed as the year progresses.

### A happy new year for US investment grade bonds

In summary, IFI believes new US tax changes are likely to unleash a flood of repatriated funds from overseas while suppressing new bond issuance by raising the cost of debt financing. Given our accommodative Fed outlook, we expect another positive year for the US investment grade market.

*Matt Brill, Senior Portfolio Manager, Paul English, Head of US IG Research*

1 Source: CNBC.com, "Companies are holding a $2.6 trillion pile of cash overseas that's still growing," Nick Wells, April 28, 2017.

2 Source: Federal Reserve Bank of New York, System Open Market Account Holdings, data as of Jan. 3, 2018.

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**Global credit strategy**

# US tax reform: Impact on high yield

We expect high yield to benefit overall from tax reform due to lower tax liabilities and higher free cash flow. But individual company circumstances will matter, and some companies may end up paying higher taxes under the law. The law could also disproportionately affect certain high yield sub-sectors, which we discuss below.

Key tax provisions are likely to impact high yield:

**Lower corporate tax rate**

The decrease in the corporate tax rate is a net positive for the high yield market. Most companies currently do not pay the full 35% tax rate for a variety of reasons, including offshore tax sheltering, accelerated depreciation and industry-specific tax breaks, among others, so the net benefit from this change may not be as large as otherwise expected. However, double-B rated companies should benefit disproportionately over lower quality issuers since they tend to pay more in taxes and have less access to tax shields for interest expenses.

**Interest deductibility**

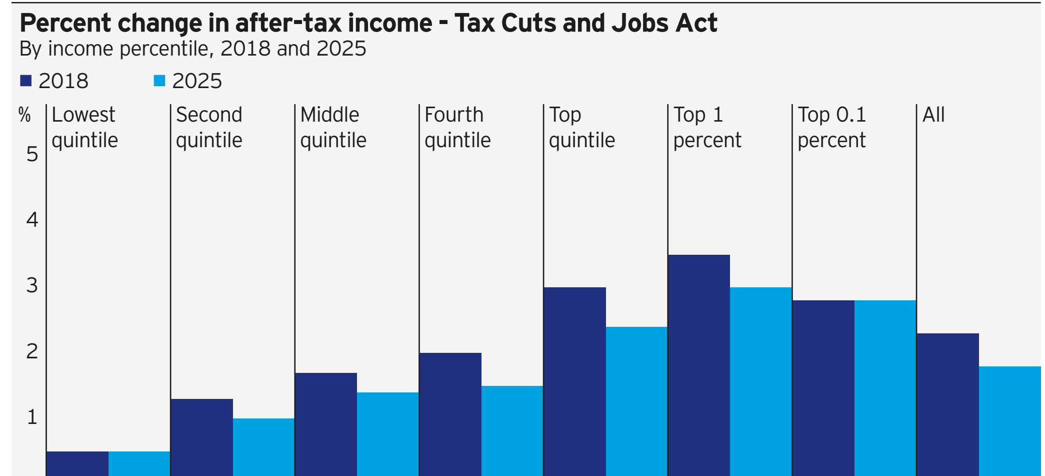
For most double-B issuers, new rules on interest deductibility will not have an impact since leverage levels will not trigger the limit on interest deductibility, in most cases. Lower quality issuers, especially triple-C's, will be impacted the most, since many of these companies employ high leverage that will likely trigger the limit on interest deductibility. The fallout may be greater in an economic downturn, when EBITDA is shrinking at the same time as the interest tax shield, a challenging combination for highly leveraged companies. The impact on single-B issuers will likely fall somewhere in between, but most will likely remain unaffected.

A potential concern of the new tax law is the resulting impact of rising interest rates. Rising interest rates would likely lead to higher coupons on high yield bonds, reducing the amount of leverage employed before triggering interest deductibility limits. Because rising interest rates could mean additional costs, they could constrain the use of leverage for some high yield issuers.

**Sector impact**

In general, high yield issuers likely to benefit from tax reform are those with domestically focused revenues, those with low levels of leverage and those that are more capital intensive (at least in the first four years). Some subsectors may be especially affected:

- **Healthcare is likely to be the most negatively affected high yield sector.** First, many healthcare companies are run with higher amounts of leverage due to the sector's historically stable revenue, meaning that companies in this sector will bump up against the interest deductibility limit. Second, an item in the tax bill unrelated to taxes, but used as an offset to help pay for tax cuts, was the repeal of the individual mandate specified in the Affordable Care Act (ACA). The ACA required everyone to buy health insurance or pay a penalty. Cutting this mandate could lower hospital admissions and increase bad debt expenses, both negative for many healthcare providers.
- **Capital intensive industries should benefit.** Industries such as energy, industrials, manufacturing and mining will likely enjoy higher thresholds of interest deductibility (in the first four years) since they are eligible for greater deductions for depreciation. These industries will also potentially benefit from the new rule that allows full deduction of capital spending in the year of the expense versus the prior law, which spread the deduction over multiple years. Many industrial companies also take advantage of net operating losses (NOLs) to shield taxable income. This continues under the new law but is now limited to 80% of taxable income, with the ability to carry unused NOLs forward into perpetuity.
- **Consumer discretionary sectors may benefit.** Most individual tax payers should see higher disposable income resulting from the tax changes (see figure below). This may lead to higher discretionary spending on categories like restaurants, leisure and entertainment.




Source: Urban -Brookings Tax Policy Center Microsimulation Model (version 0217-1), data as of Dec. 18, 2017.

- **The technology sector likely faces a modest negative impact.** Most high yield tech companies currently pay minimal amounts in federal taxes so will likely not benefit much from a lower corporate tax rate. And, because they tend to be highly leveraged, they will likely be subject to the interest rate deductibility limit. They are also heavy users of NOLs, which may be limited, and many will likely have deemed repatriation tax liabilities.

*Michael Kelley, Head of Global High Yield Research*

This section highlights the views of Invesco Fixed Income's credit analysts across a broad range of fixed income assets managed by Invesco.



# US tax reform: Impact on municipals

**Private activity bonds[1] — tax exemption preserved**

In the run-up to tax reform, the greatest perceived risk to the municipal market was the potential termination of private activity bonds (PAB). PABs are a conduit financing mechanism used by private companies, non-profits and public authorities to fund projects through the issuance of tax-exempt municipal bonds. PABs are used to finance a variety of projects like hospitals, universities, public works, housing and industrial development. This proposal did not make it into the final tax law.

Several other tax changes, however, may affect municipal credit quality and market "technicals," the supply and demand for municipal bonds:

**Repeal of advance refunding**

An important change was the elimination of tax-exempt advance refunding bonds. A refunding is a bond issuance for the purpose of redeeming outstanding bonds. It is considered an advance refunding if the refunding bond is issued more than 90 days before the call date of the bond it refunds. Advance refunding allows government issuers and non-profit organizations to restructure eligible tax-exempt debt by refinancing outstanding debt at a lower rate or spreading debt service payments over a longer period of time. This technique allows governmental and non-profit organizations to obtain the benefit of lower interest rates when the outstanding bonds are not currently callable. As a result, issuers could generate economic savings and use those savings for operating or capital investment purposes. The repeal of advance refunding eliminates this fiscal tool.

From a technical perspective, the impact on the overall municipal market should be net positive since advance refundings have been significant over the past 10 years and this supply would be eliminated. Over the last 10 years, tax-exempt advance refundings averaged 14% of annual, long-term municipal market new issuance.[2]

**Changes in individual and corporate income tax rates**

Under the law, individual tax rates were reduced across the board and the corporate tax rate was cut sharply from 35% to 21%. While lower individual income tax rates will expire at the end of 2025, the 21% corporate tax rate will be permanent.[3]

History suggests that lowering individual tax rates has had a minimal impact on individual demand for municipal bonds.[4] Reducing the corporate income tax rate from 35% to 21%, however, will likely have a negative impact on corporate demand for municipal bonds. Barclays compared US corporate yields to tax-adjusted municipal yields (10-year). They found that, under a 20% corporate tax rate, higher quality (Aaa to A1) US corporate bonds "out yielded" their tax-exempt counterparts.[5]

US insurance companies (property and casualty and life), banks and credit unions are an important corporate segment, since they currently hold around 28% of total outstanding municipal debt.[6] While a lower corporate tax rate could reduce their demand for tax exempt municipal bonds going forward, we would not anticipate mass selling by these institutions. This is partly due to high acquisition yields on the municipal bonds they already hold and their need for asset-liability matching.

### Impact of other changes

- **Alternative Minimum Tax (AMT):** The final law increases exemption levels, reducing the number of individuals subject to the AMT. The corporate AMT was repealed.[7] Because the new law lowers tax burdens, it will likely have a negative impact on the demand for municipal bonds.
- **State and local taxes (SALT):** Under the law, SALT deductions are capped at USD10,000.[7] We could see increased demand for tax-exempt bonds issued by states with high tax burdens, such as California, New York and New Jersey, as residents seek tax-exempt income to offset potentially higher tax burdens. However, capping the SALT deduction could be negative from a credit perspective, if states and local governments face political challenges to increasing state tax rates. Additionally, residents in higher-tax states could see their disposable incomes decline, dampening economic activity.
- **Mortgage interest deduction:** The new law limits mortgage interest deductions to interest on mortgages of up to USD750,000. This cap could temper housing sales and the expansion of the tax base, especially in areas with higher priced homes. It could also have a longer-term negative impact on state and local government credit quality.

*Steve Hong, Senior Analyst, Allen Davis, Analyst, Mark Gilley, Head of Municipal Credit Research, Stephanie, Larosiliere, Senior Client Portfolio Manager*

1 A bond is a private activity bond if more than 10% of the proceeds are used for private business and more than 10% of the proceeds are secured by or derived from a private business. A PAB is only tax-exempt if it would finance a project that falls into certain categories specified by the tax code.
2 JP Morgan 2018 Municipal Market Outlook, Nov. 22, 2017.
3 All data cited in paragraph: Wall Street Journal, https://www.wsj.com/articles/gop-tax-bill-would-set-up-years-of-challenges-1513557742, Dec. 17, 2017.
4 JP Morgan US Fixed Income Markets Weekly Oct. 28, 2016.
5 Barclays Municipal Strategy and Research, "2018 Municipal Outlook: Opportunity Knocks," Dec. 1, 2017. At the time of the analysis, both the Senate and the House had passed legislation in their respective chambers, including a 20% corporate tax rate.
6 Board of Governors of the Federal Reserve System, "Financial Accounts of the United States," 2Q 2017.
7 Washington Post, https://www.washingtonpost.com/news/wonk/wp/2017/12/15/the-final-gop-tax-bill-is-complete-heres-what-is-in-it/?utm_term=.41cc66d0f452, Dec. 15, 2017.

**The bottom line**

# MiFID II presents implementation challenges, but IFI is well positioned for smooth transition

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We speak with Nick Tolchard, Head of Invesco Fixed Income EMEA, Karim Awenat, Fixed Income Trading London, David Todd, Head of Global Investment Grade and Emerging Markets Research, and Glenn Taitz, Global Head of Fixed Income Trading, about MiFID II, new European regulations aimed at the investment industry. MiFID, which stands for Markets in Financial Instruments Directive, was first implemented in 2007. MiFID II is the second version and went into effect in January 2018. MiFID II aims to increase competition and consumer protection in investment services. Below we ask members of Invesco Fixed Income (IFI) how the new rules impact its investment process and business operations, including trading, research and overall compliance.

**Q: What do new regulations under MiFID II generally aim to do and what do they look like broadly?**
**Nick Tolchard:** MiFID II was passed into law in 2014 by the European Parliament and took effect on Jan. 3, 2018. It is the main legislation governing European securities on a worldwide basis. We believe it will fundamentally reshape European financial markets, the products and services that market participants provide and the relationship between market participants and their customers.

The legislation has several core objectives:

- Increased investor protection
- Alignment of regulation across the EU in certain areas
- Increased competition across financial markets
- Introduction of reinforced supervisory powers

The key underlying theme of MiFID II is increased transparency. The legislation seeks to increase the transparency of business practices and to bring more trading activities onto transparent, organized, reportable trading venues.

The new regulations are also designed to take into account financial market developments that have occurred since original MiFID legislation was implemented in 2007, and of technological developments, such as the rise of algorithmic and high-frequency trading, with rules designed to limit their effects on financial markets.

There is a focus on both delegation of duties and technical standards. The scope of this covers authorization and governance, organization and conduct of business, position limits, pre- and post- trading transaction reporting, conduct of cross-border business and product development, management and distribution.

**Q: What is the impact on trading?**
**Karim Awenat:** Trading has been affected in many ways. Changes can be categorized into three main areas:

**Best execution:**
Best execution requires taking sufficient steps to achieve the best possible result when executing orders, taking into account all execution factors. This was arguably the easiest challenge we faced in terms of adapting trading practices. Invesco's internal best execution policies had been designed and implemented prior to MiFID II in such a way that little more was needed than reclassifying certain trades in our system. We are confident that the way that IFI traders execute trades meets and exceeds the requirements laid out for best execution and that little of their day-to-day process has been affected.

**Market liquidity:**
The marketplace has been split over MiFID II's likely impact on market liquidity. Some argue that liquidity will be severely limited because many market participants will not be ready to trade. Others argue that increased reporting and transparency and consolidation of trading venues will make trading easier and the market much deeper.

So far, we have not seen a significant change in fixed income liquidity versus what we would have normally expected in early January, so a balance of both factors may be at work. However, new rules have only been in place for a few weeks and many market participants have yet to fully comply. Most participants, however, have worked very hard to meet requirements and, so far, trading has been orderly and bid/offers have been reasonable.

**Reporting:**
Meeting MiFID II's new reporting guidelines has been the biggest project we have faced on the trading side. We have depended on (and thank) our technology and operations teams who have made us compliant with trade, transaction and best execution reporting. We believe we are well positioned on this front.

**Q: What is the impact on research?**
**David Todd:** MiFID II brings substantial change to the regulation of research within Europe. New rules prohibit investment firms that provide investment advice and portfolio management from receiving non-monetary benefits (unless they are minor). This applies to investment research, which must now be paid for separately.

The impact of these new rules across the IFI platform has so far been relatively limited. Historically, broker research has been distributed in a relatively unstructured manner in the marketplace and new MiFID II regulation has prompted us to carefully evaluate our research sources. However, because IFI's investment philosophy is underpinned by our own, proprietary fundamental research from a top-down and bottom-up perspective, and because we have a large team of investors devoted to this cause, we believe we are advantaged over other market participants who rely more heavily on external research.

That being said, part of the process of reaching an investment recommendation is understanding other analysts' views and relevant market dynamics. As such, we have always been plugged into the views of other market participants and that will continue under the new rules. Invesco benefits from its scale and we have worked with our colleagues across the Invesco EMEA team to ensure that we are leveraging our existing relationships appropriately. Fortunately, the cost of meeting the new regulations has dropped significantly from initial proposals, making it easier to budget for published broker research.

It is worth noting that, over the last few years, many brokers have scaled back their own research departments – for several reasons, including regulation. Again, having our own in-house team conducting fundamental research has minimized the impact. We believe we are well-positioned to maintain our access to research under the MiFID II framework, to the benefit of our investment process, fund performance and our clients.

**Q: What do the new rules mean for Invesco's overall business and compliance?**
**Nick Tolchard:** MiFID II affects our business development in several ways beyond research and trading:

Clients will benefit from additional transparency related to costs and charges, with disclosure of both investment service and product costs. This must be provided pre-sale as well as annually. We must aggregate all costs and charges, including all costs associated with the manufacturing and managing of financial instruments. This applies to our UCITS and separate discretionary accounts.[1] We are responsible for providing this information to the distributors of our products and are working with several data providers to deliver this.

MiFID II rules are, in many areas, derived from UK Financial Conduct Authority regulations, which have been designed to protect retail investors against risky or complicated investment products. Consequently, a key area of focus has been the adoption of target markets for our products. We identify target markets using both quantitative and qualitative measures. For example, we assess the knowledge that target clients should have about a certain asset class or sector in which they are investing, their needs and objectives, the extent to which they can bear losses, their risk/reward attitude and ensure that we are addressing the appropriate distribution channel.

This means we must understand our target geographic markets, distribution channels and distribution clients in detail. This involves ensuring we have thorough data capture and client relationship management tools and trained "information-givers" to manage these data, all of which must be monitored by compliance.

Training Invesco's sales and client-facing colleagues is another major area of focus and we are adhering to new rules on minimum hours of accredited continuous professional development. Our investment teams are also working closely with distribution colleagues to deliver training on focus products. Additionally, a full audit of professional qualifications has taken place.

We have also put enhanced processes in place to regularly review products to demonstrate that they meet the needs of the identified target market. A notable point is that this requirement applies to all products, whether they are managed in Europe, the US or Asia.

Much of the asset management industry in Europe has been under stringent time constraints to be ready for the Jan. 3, 2018 implementation date and we have seen some competitors' products removed from intermediary platforms. Given IFI's global operating model and the strength of our existing policies, procedures, business plans and governance, we believe we are well-positioned to continue to grow our business in this new environment.

**Q: Is MiFID II likely to spill over to the US? What, if any, are the implications for the US market?**
**Glenn Taitz:** The US and European Union (EU) have some philosophical differences in their regulatory approaches, but in the end they are each trying to achieve greater transparency, liquidity and safety in financial markets. The European regulations could impact the US in the following areas:

**Trade reporting:**
The US was actually ahead of the EU in certain aspects of trade reporting in the fixed income markets. The Trade Reporting and Compliance Engine (TRACE) was developed in 2002 by the US National Association of Securities Dealers (NASD) to facilitate mandatory reporting of many over-the-counter (OTC) fixed income securities to provide greater price transparency to the bond markets. Trade reporting to Swap Data Repositories (SDR) for OTC derivatives has been required since the Dodd Frank regulations were signed into law in 2010. Under MiFID II, the requirement to report covers all transactions and I would expect the scope of reporting in the US to increase as well over time. Where reporting differences exist between TRACE/SDR and MiFiD II, I would expect the regulations in the two regions to evolve over time and the best practices of each to be adopted.

**Trading:**
In Europe, MiFID II requires certain securities to be traded on electronic venues (multilateral trading facilities). In the US, only certain OTC derivative products are required to trade on electronic venues (swap execution facilities). I imagine there will be a significant increase in electronic trading in the US as a result of MiFID II, but do not expect regulatory changes in the immediate future.

**Research:**
The greatest philosophical differences in regulatory approach are apparent in research. The US Securities and Exchange Commission (SEC) prohibits paying broker/dealers directly for research, whereas EU regulators view research as an inducement to trade and, as mentioned above, MiFID II now requires investment management firms required to pay directly for research. The SEC has accommodated European regulators by issuing a no-action letter, which will allow US firms to temporarily pay for research in the EU. Over time, I do expect some spillover effect from the EU into the US with regard to research.

**Best execution:**
Under MiFID II, steps leading to best execution must be documented. In the US, investment managers have a fiduciary responsibility to achieve best execution, but there is no regulatory requirement to document such steps. Over time, I would expect fiduciary regulations to be enhanced and most investment managers to adopt policies similar to the methodologies required by MiFID II to demonstrate adherence to the enhanced rules. IFI has historically documented the steps we take to achieve best execution, as it is the best-in-class trade execution process. We believe improvements in electronic trading will help facilitate this process over time.

**Please read the Investment risk section at the end of this publication.**

1 UCITS is the Undertakings for the Collective Investment of Transferable Securities Directive which creates a harmonized regime throughout Europe for the sale and management of mutual funds.

## Fixed income market monitor

| | Coupon (%) | Yield to worst (%) | 1 month change in YTW | Option-adjusted spread: Current | 1 month change in spread | 10 year range min | 10 year range max | Returns 1 mth (%) | 3 mth (%) | YTD (%) | 12 mth (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Global Aggregate (USD hedged) | 2.67 | 1.66 | 0.03 | 36 | 0 | 23 | 156 | 0.22 | 0.80 | 3.04 | 3.04 |
| U.S. Aggregate | 3.06 | 2.71 | 0.00 | 36 | -1 | 32 | 258 | 0.46 | 0.39 | 3.54 | 3.54 |
| U.S. Mortgage-backed | 3.53 | 2.91 | -0.03 | 25 | 1 | -16 | 181 | 0.33 | 0.15 | 2.47 | 2.47 |
| Global Inv Grade Corporate (USD hedged) | 3.50 | 2.55 | 0.00 | 94 | -3 | 55 | 515 | 0.62 | 1.19 | 5.70 | 5.70 |
| U.S. Investment Grade Corporate | 3.94 | 3.25 | -0.03 | 93 | -4 | 76 | 618 | 0.91 | 1.17 | 6.42 | 6.42 |
| Emerging Market USD Sovereign | n/a | 5.27 | -0.03 | 285 | -3 | 157 | 906 | 0.73 | 1.16 | 10.26 | 10.26 |
| Emerging Market Corporate | n/a | 4.53 | 0.01 | 223 | -2 | 120 | 1,032 | 0.32 | 0.68 | 7.96 | 7.96 |
| Global High Yield Corporate (USD hedged) | 6.04 | 5.11 | 0.06 | 333 | 0 | 231 | 1,845 | 0.29 | 0.71 | 7.97 | 7.97 |
| U.S. High Yield Corporate | 6.39 | 5.72 | 0.04 | 343 | -1 | 233 | 1,971 | 0.30 | 0.47 | 7.50 | 7.50 |
| Bank Loans | 5.03 | 5.15 | 0.06 | n/a | n/a | n/a | n/a | 0.39 | 1.17 | 4.25 | 4.25 |
| Municipal Bond | 4.72 | 2.36 | -0.11 | n/a | n/a | n/a | n/a | 1.05 | 0.75 | 5.45 | 5.45 |
| High Yield Municipal Bond | 5.13 | 5.14 | -0.26 | n/a | n/a | n/a | n/a | 1.30 | 1.83 | 9.69 | 9.69 |

## Treasury market monitor

| | Coupon (%) | Yield to worst (%) | 1 month change in YTW | Returns in local currency: 1 mth (%) | 3 mth (%) | YTD (%) | 12 mth (%) |
|---|---|---|---|---|---|---|---|
| United States | 2.13 | 2.19 | 0.04 | 0.31 | 0.05 | 2.31 | 2.31 |
| Canada | 2.21 | 1.89 | 0.19 | -0.64 | 0.99 | 0.11 | 0.11 |
| United Kingdom | 3.48 | 1.19 | -0.11 | 1.61 | 2.22 | 1.95 | 1.95 |
| Germany | 1.98 | 0.05 | 0.08 | -0.50 | 0.03 | -1.36 | -1.36 |
| Italy | 3.38 | 1.27 | 0.26 | -1.65 | 0.90 | 0.75 | 0.75 |
| Japan | 1.03 | 0.13 | 0.01 | 0.08 | 0.37 | 0.17 | 0.17 |
| China | 3.48 | 3.94 | 0.00 | 0.36 | -0.32 | -1.56 | -1.56 |
| EM Local Currency Governments | n/a | n/a | n/a | 1.13 | 0.82 | 8.91 | 8.91 |

## FX market monitor[1]

| | Current | 10 year range min | 10 year range max | Returns 1 mth (%) | 3 mth (%) | YTD (%) | 12 mth (%) |
|---|---|---|---|---|---|---|---|
| EURUSD | 1.20 | 1.05 | 1.60 | 0.98 | 2.38 | 14.89 | 14.89 |
| USDJPY | 112.63 | 75.82 | 124.77 | -0.40 | 0.09 | 4.35 | 4.35 |
| GBPUSD | 1.35 | 1.22 | 2.11 | 0.19 | 1.71 | 9.98 | 9.98 |
| USDCNY | 6.51 | 6.04 | 8.28 | 1.33 | 2.41 | 6.91 | 6.91 |
| USDCHF | 0.98 | 0.75 | 1.39 | 0.13 | -0.02 | 5.01 | 5.01 |
| AUDUSD | 0.78 | 0.60 | 1.10 | 2.52 | -0.28 | 8.64 | 8.64 |
| CADUSD | 0.80 | 0.72 | 1.09 | 1.10 | -0.30 | 7.14 | 7.14 |
| EURJPY[2] | 135.24 | 94.31 | 169.49 | -1.29 | -2.21 | -9.15 | -9.15 |
| EURGBP[2] | 0.89 | 0.70 | 0.89 | -0.77 | -0.66 | -4.29 | -4.29 |

Sources: Bloomberg Barclays, J.P. Morgan, as of Dec. 31, 2017. Credit Suisse Leveraged Loan data as of Dec. 31, 2017. Within the Treasury monitor, United States is represented by Bloomberg Barclays US Treasury Index; Canada is represented by Bloomberg Barclays Global Treasury Canada Index; United Kingdom is represented by Bloomberg Barclays Sterling Gilts Index; Germany is represented by Bloomberg Barclays Global Treasury Germany Index; Italy is represented by Bloomberg Barclays Global Treasury Italy Index; Japan is represented by Bloomberg Barclays Global Treasury Japan Index; China is represented by Bloomberg Barclays China Aggregate Treasuries Index; EM Local Currency Governments is represented by J.P. Morgan GBI_EM Broad Diversified Index. In the Fixed Income Monitor, Global Aggregate is represented by Bloomberg Barclays Global Aggregate (US$ Hedged) Index; US Aggregate is represented by Bloomberg Barclays US Aggregate Index; US Mortgage-backed is represented by Bloomberg Barclays US Mortgaged-backed Index; Global Investment Grade Corporate is represented by Bloomberg Barclays Global Aggregate Corporate (US$ hedged) Index; U.S. Investment Grade Corporate is represented by Bloomberg Barclays Aggregate Corporate Index; Emerging Market USD Sovereign is represented by the J.P. Morgan EMBI Global Diversified Index; Emerging Market Corporate is represented by J.P. Morgan CEMBI Broad Diversified Index; Global High Yield Corporate is represented by the Bloomberg Barclays Global High Yield Corporate (US$ hedged) Index; U.S. High yield Corporate is represented by Bloomberg Barclays U.S. Corporate High Yield Index; Bank Loans is represented by the Credit Suisse Leveraged Loan Index; Municipal Bond is represented by Bloomberg Barclays Municipal Bond Index; High Yield Municipal Bond is represented by Bloomberg Barclays Municipal Bond High Yield Index. Yield to Worst (YTW) is the lowest expected yield calculation given maturity and call features. Option Adjusted Spread (OAS) is the yield difference relative to similar maturity Treasuries that incorporates call, put, sinking fund or paydown features of a bond. Past performance cannot guarantee future results. An investment cannot be made directly in an index. Returns less than one year are cumulative.

1 Positive number represents the currency appreciated against USD, negative number represents currency depreciated against USD.
2 Positive number represents the currency appreciated against EUR, negative number represents currency depreciated against EUR.

**Invesco Fixed Income**

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**Recent IFI publications**

1. **Tobacco bonds: An unfiltered look at a unique municipal asset class,** January 2018, Steve Hong, Senior Analyst, Allen Davis, Analyst, Stephanie Larosiliere, Senior Client Portfolio Manager
2. **Securitized assets: What you didn't know you've been missing,** December 2017, Glenn Bowling, Head of Consumer Asset-Backed Securities Credit, Kevin Collins, Head of Commercial Mortgage Credit, David Lyle, Head of Residential Mortgage-Backed Credit, Anthony Semak, Senior Client Portfolio Manager
3. **Harvey, Irma and Maria's impact on the municipal bond market: Long-term outlook depends on initial conditions,** November 2017, Stephanie Larosiliere, Senior Client Portfolio Manager
4. **November 2017 Summit Outlook,** November 2017, Rob Waldner, Chief Strategist, Head of Multi Sector, Tony Wong, Global Head of Credit Research, Liquidity and Municipals
5. **Global Liquidity: A long-term approach to short-term investing,** October 2017, Invesco Global Liquidity
6. **Q&A: Strategies for investing in a low yield world,** October 2017, Rob Waldner, Chief Strategist, Head of Multi-Sector
7. **The US debt ceiling saga resumes,** August 2017, Justin Mandeville, Portfolio Manager

**Invesco Fixed Income**

# Global perspective and deep local market knowledge

## Global presence

- Regional hubs in Atlanta, London and Hong Kong
- IFI is in ten locations with additional Invesco colleagues in two
- USD 312.1 billion in assets under management

## Experienced team

- 170 investment professionals
- Averaging 18 years of industry experience
- Deep macro and credit research
- Focused and accountable portfolio management

## Global locations

Source: Invesco. For illustrative purposes only.

## Invesco Fixed Income teams

| | Team members | Average years with Invesco | Average years in industry |
|---|---|---|---|
| Portfolio management and trading | 75 | 12 | 21 |
| Global research | 95 | 9 | 17 |
| Total investment professionals | 170 | 10 | 19 |
| Business professionals | 54 | 12 | 19 |
| Total fixed income employees | 224 | 11 | 19 |

Source: Invesco.

As of Dec. 31, 2017. Subject to change without notice.
Investment specific experience for investment professionals.

## Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested. Past performance is not a guide to future returns.

Fixed-income investments are subject to credit risk of the issuer and the effects of changing interest rates. Interest rate risk refers to the risk that bond prices generally fall as interest rates rise and vice versa. An issuer may be unable to meet interest and/or principal payments, thereby causing its instruments to decrease in value and lowering the issuer's credit rating. The values of junk bonds fluctuate more than those of high quality bonds and can decline significantly over short time periods.

The risks of investing in securities of foreign issuers, including emerging market issuers, can include fluctuations in foreign currencies, political and economic instability, and foreign taxation issues.

The performance of an investment concentrated in issuers of a certain region or country is expected to be closely tied to conditions within that region and to be more volatile than more geographically diversified investments.

Mortgage- and asset-backed securities, which are subject to call (prepayment) risk, reinvestment risk and extension risk. These securities are also susceptible to an unexpectedly high rate of defaults on the mortgages held by a mortgage pool, which may adversely affect their value. The risk of such defaults depends on the quality of the mortgages underlying such security, the credit quality of its issuer or guarantor, and the nature and structure of its credit support.

Asset-backed securities are subject to prepayment or call risk, which is the risk that the borrower's payments may be received earlier or later than expected.

Commodities may subject an investor to greater volatility than traditional securities such as stocks and bonds and can fluctuate significantly based on weather, political, tax, and other regulatory and market developments.

## Important information

All information is sourced from Invesco, unless otherwise stated. All data as of Dec. 31, 2017 unless otherwise stated. All data is USD, unless otherwise stated.

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