Invesco Fixed Income

Global Fixed Income Strategy

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Five risks we are monitoring

Fundamentals look strong, but investors should expect greater volatility

We are positive on fundamentals for the rest of this year. Global growth is solid and inflation is tame. While no longer as synchronized as in 2017, the world's major economic regions are still growing above potential. Inflation is low, especially in Europe and Japan where it remains below official targets. As central banks have pivoted away from stimulus, tighter financial conditions have hurt risky assets. But major central bank policies are still generally easy. We expect the US Federal Reserve (Fed) to tighten gradually and the runway for other central banks to normalize policy is still long. Nevertheless, political uncertainty, trade tensions and a sell-off in emerging markets have challenged investors in recent months. We expect these factors to generate further volatility and believe caution is warranted. However, we believe greater volatility will generate new opportunities for investors, given the backdrop of solid macro and credit fundamentals. Below are five risks we are watching and our potential response across portfolios.

Financial conditions tightening
We believe financial conditions tightening should remain moderate this year. So far, global financial conditions have tightened modestly due to the tapering of quantitative easing in the US, increasing interest rates globally and a retreat from the extreme level of correlated growth we experienced in 2017. Because inflation remains low, we expect global central banks to tighten policy at a restrained pace. This gradual pace of tightening should contribute to a stabilization of financial conditions as the year progresses. Moderation in the tightening of financial conditions should be supportive of risky assets and is likely to cause weakening of the US dollar versus other currencies. All else equal, a more moderate tightening of financial conditions is likely to keep the trend in global yields sideways. Caution is warranted, however, because, if inflation accelerates, monetary policy could become more aggressive resulting in a sharp tightening of financial conditions which could disrupt markets. Increased trade tensions may also generate an unanticipated tightening of financial conditions.

Trade friction
Trade rhetoric and actions have been contentious between the US and its major trading partners, but there may ultimately be a political compromise. A broad and drawn out "trade war" is, nevertheless, a tail risk and the events of recent weeks have increased the likelihood that we see further escalation.

There are overarching risks associated with protectionism, such as reduced global trade, which could negatively impact global growth and inflation. In the US, aggressive tariff hikes would likely result in higher inflation. However, this inflation would likely be temporary, more akin to a tax increase, than the demand driven type of inflation that monetary policy makers are seeking. In the near term, most of the effect on growth from an increase in tariffs is likely to depend on the extent to which market conditions deteriorate. A trade shock combined with a sharp market sell-off is much more likely to generate a poor growth outcome than a trade shock alone, in our view.

In US investment grade, an intensification of trade concerns and resulting potential declines in growth may cause us to adjust overall portfolio risk downward. In high yield, on the heels of the March announcement of US tariffs on steel and aluminum, we increased our exposure to certain metals names that were beneficiaries of favorable regional pricing dynamics. Regarding future policy changes, we are following the situation closely but are not making changes to portfolios directly related to potential protectionist policies. While the day-to-day situation is fluid, our current expectation is that changes in policy will be incremental in nature and will not have a major impact on aggregate economic activity.

In Europe, if we see sectors such as car imports being targeted, we believe the potential downside risks to the eurozone economy are more significant. We are taking advantage of hedges, including short positions in the Canadian dollar, being highly selective when taking emerging market exposure, and avoiding credits that are trading at tight valuations in sectors that we view at risk, for example, some auto manufacturers.

In China, we believe negotiation rather than retaliation is preferred by the Chinese government. As China further opens its domestic market, lowers trade tariffs and improves intellectual property rights protection, we see room for more dialogue between the US and China. However, we remain mindful that there could be ongoing uncertainty regarding US trade policy. We have seen surprise actions on the part of the Trump administration in recent weeks related to new tariffs and we may see more as we approach this year's US mid-term elections. In addition, China is determined to pursue its "Made in China 2025" strategy to advance its global competitiveness in technology and manufacturing. The Trump administration has reportedly demanded that China stop subsidizing high-technology industries under this initiative. It may be very difficult to close the gap between the two countries on this issue.

In the event of rising tariffs and investment restrictions, China is likely to further increase cooperation with non-US trading partners in Europe, Asia, South America and Africa. China's "Belt and Road initiative" is intended to push re-globalization forward and improve connectivity and cooperation among countries. In addition to increased investment, the Belt and Road initiative may lead to increased Chinese imports from non-US trading partners or even trade concessions.

Trade headlines may eventually bring about a political solution. We remain cautious but tactical - the world is growing above potential and therefore we believe noise around trade may provide opportunities.

European politics

Over the last few months, politics has been a major driver of sentiment within European markets. In the eurozone, headlines have been focused on two key countries: Italy, where a new populist coalition government has been formed, and Germany, where the ruling coalition parties are battling internal disagreements. Apart from these headlines, politics has been eventful across the continent - strikes in France in response to President Macron's reform agenda, a new government in Spain, and of course Brexit in the UK.

The big questions are: Will political uncertainty lead to a meaningful loss of confidence among businesses and consumers? Will domestic political agendas prevent further strengthening of eurozone institutions? And will financial markets require more risk premium if uncertainty is higher, and risk derailing the strong recovery we have been experiencing?

While our central view is that the difficult issues will ultimately be resolved in a positive manner - the Italian coalition delivers on objectives in a way that is in the spirit of the eurozone budgetary framework, a compromise solution is found to immigration challenges to calm disagreements in Germany and beyond, and a Brexit agreement is ultimately reached - it is clear the risks have gone up.

The recent flare up in Italian spreads highlights how vulnerable financial markets can be to a change in politics. With central banks reaching the end of their stimulus, and valuations elevated, it is likely that volatility is going to remain elevated compared with the smooth conditions we experienced in 2017.

The fact that the central banks are unable to provide a backstop when things go wrong has caused market nervousness. We think this presents opportunities for active managers. We believe markets may overreact as they struggle to discount low probability but high impact events - which may present buying opportunities.

China economics and policy

China faces several challenges with implications for global markets. We are monitoring: signs of moderating economic growth, tightened financial regulation, accommodative monetary policy measures, capital flows and exchange rate movements.

A major challenge is China's goal to reorient its economy away from export-led growth toward more domestically oriented drivers. The process of transition from a largely command-driven economy to a more market-oriented one could lead to policy missteps and market disruption.[1] While the government has successfully stabilized past periods of heavy capital outflows and renminbi volatility through a variety of monetary and regulatory measures, the possibility of a surge in outflows and currency pressure remains a concern. Such moves could be destabilizing to the economy and domestic and global financial markets. Most recently, the government has focused on lowering financial risk, seeking to reduce leverage across many sectors of the economy. Tighter regulation of financial companies, especially the "shadow" banking sector, has restricted lending and "shadow" lending practices, leading to a slowdown in credit creation. While this has resulted in a moderate overall growth slowdown, the government has stated its preference for "quality" over "quantity" of growth going forward.

We are watching for signs of more than a moderate economic slowdown as the government balances tighter financial regulation with offsetting injections of liquidity into the system. A resumption of pressure on capital flows or the currency would also likely be negative for markets. But our central case is for general stability in growth and financial indicators in the near term.

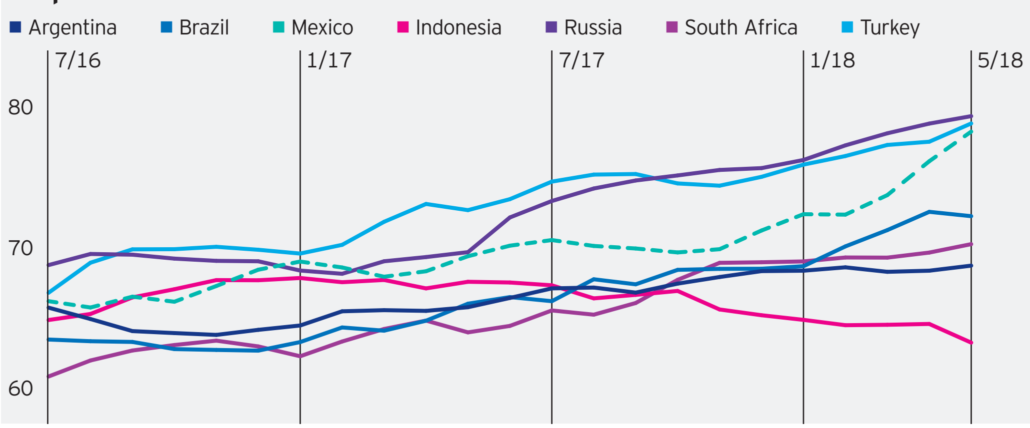
Emerging market politics and policy

The risks to emerging markets (EM) are largely related to political uncertainties and to a lesser extent sensitivity to rising US interest rates and dollar. The conventional wisdom suggests that EM is highly vulnerable during periods when the US dollar and US rates rise. Indeed, EM countries are reliant on external funding – primarily in US dollars. However, EM as an asset class has not always struggled during periods of rising US rates and a rising dollar; during such a period in 2004-2006, EM assets performed well even as they suffered during the initial rise in US rates in early 2004. Furthermore, most countries have more than sufficient liquid external dollar assets to fund external liabilities coming due over the next year. Two exceptions are Argentina and Turkey, whose fixed income markets and currencies have exhibited considerable market volatility in recent weeks. Argentina has since agreed to a stand-by arrangement (SBA) with the IMF which, if it conforms to program requirements, should provide sufficient external funding for the country through 2019. Turkey has thus far resorted to raising policy rates in an attempt to stabilize the currency.

Turkey – as well as Brazil and Mexico – are also in the midst of elections. The uncertainty surrounding the results of these elections – and the resultant orientation in economic policies - will be a focus for markets over the rest of the year. The concern is that, in each case, policy will be oriented in a less market-friendly, more interventionist direction. As a result, this could lead to more volatility in asset prices.

There are two broad implications. First, we believe the market has considerably overpriced the risks to EM emanating from rising US rates and the US dollar. On this basis, assuming no hard landing in China, we expect EM assets to recover in the second half of this year. Second, there are more idiosyncratic risks at play in EM, in large part due to uncertainties surrounding prospective shifts in policy orientation in several key countries. In fact, measures of political risk in EM are generally on the rise. In consideration of both these aspects, we are taking a much more selective approach to portfolio positioning. We are taking a wait-and-see approach to countries with upcoming elections which may usher in less market-friendly policies and favor markets of countries where we see favorable fundamentals, lack of domestic political uncertainties and compelling valuations.

EM political risk scores have risen



Source: GeoQuant, data from July 31, 2016 to April 30, 2018. GeoQuant fuses political science with computer science to generate systematic and objective indicators of political risk. The political risk scores draw on hundreds of structural measures of country risk, as well as higher frequency, larger-scale data derived from reputable formal and social media. The measures consist of more than 250 high-quality country risk databases produced by multilateral institutions, non-government organizations, think tanks, government agencies, polling firms/organizations, and the social science literature. A higher score indicates greater political risk.

James Ong, Senior Macro Strategist, Thomas Sartain, Senior Portfolio Manager, Yi Hu, Senior Analyst, Rashique Rahman, Head of Emerging Markets, Rob Waldner, Chief Strategist.

1 Source: China's economy and financial markets: Reforms and risks, Brookings, Eswar Prasad, April 27, 2016.

Interest rate outlook

US: Neutral. US growth remains strong with an acceleration in the second quarter versus the first quarter's lackluster 2.2% performance.[1] We expect 2018 growth of around 2.8%, with strong contributions from capital expenditure and consumption. Core inflation continues to be benign, and we expect it to peak in the next two months at around 2.2%. After that, softer rental and service costs should drive it back below 2%. We expect the Fed to hike one more time this year before pausing in response to declining inflation. Strong growth and lower than-expected inflation point to a 10-year Treasury yield of around 3%. However, supply dynamics will likely begin to shift in the third quarter as the Treasury begins to issue more long-term debt. This may pressure the Treasury yield curve steeper.

Europe: Underweight. The European Central Bank (ECB) delivered another dovish taper announcement in June. The long-awaited end to quantitative easing was announced for December 2018, to follow a 3-month period of reduced bond purchases totalling 15 billion euros per month. But ECB President Draghi surprised the market with firmer forward guidance on interest rates, suggesting no rate hikes through the summer of 2019. Its downgrade of its 2018 growth projection to 2.1% (from 2.4%) was coupled with dovish messaging acknowledging that the recent growth soft patch may last longer than expected.[2] This has weighed on German bund yields, steepened the long end of the German yield curve and weakened the euro. However, we think the downside risk to yields is limited and we remain underweight duration.

China: Overweight. We continue to see attractive opportunities in onshore government bonds in the medium term, although range-bound trading is expected in the near term. With new asset management rules in place, we expect demand for Chinese government bonds and policy bank bonds to increase, and we have already seen an increase in foreign investment in China's onshore bond market ahead of its planned inclusion in the Bloomberg Barclays Global Aggregate Bond Index. Regulatory tightening has pressured non-bank financial institutions to reduce lending, and we see limited room for the central bank (PBoC) to tighten liquidity further from here. In addition, lowering financing costs in the real economy remains a major objective of top policy makers, suggesting less upward pressure on yields in the near term.

Japan: Neutral. The Bank of Japan (BoJ) kept policy unchanged at its June meeting, however, it downgraded its inflation assessment. With a consumption tax hike planned for 2019, which could have a negative impact on the economy, and consumers remaining hesitant to spend despite increased wages, it is difficult to see the bank tightening policy in 2018. Therefore, the 10-year Japanese government bond yield is likely to remain anchored in the 0.0%-0.1% range.

UK: Neutral. Uncertainty surrounding Brexit appears to be negatively impacting the UK economy. The picture is unlikely to become clearer until late 2018 or early 2019, which could dampen consumer and business confidence in the meantime. The UK government is struggling to agree on a negotiating stance and political infighting could result in a vote of no confidence in the Prime Minister, if not the government itself. The Bank of England (BoE) pulled back from hiking rates in May and may be reluctant to hike in August, given the ongoing political uncertainty, weak economy and progress toward its inflation target.

Canada: Neutral. Trade headlines continue to dominate the news. So far, nothing has come of the North American Free Trade Agreement (NAFTA) negotiations, but that could change abruptly. First quarter GDP disappointed compared to expectations, but components of second quarter GDP showed signs of a rebound. Wages have shown signs of strength, partly due to recent increases in the minimum wage. Despite some headwinds, the Bank of Canada (BoC) looks likely to hike the overnight rate again in July. Our outlook for interest rates is positive, as the 10-year Canadian government bond yield should remain below its recent high of 2.52%.[3]

Australia: Neutral. The Reserve Bank of Australia (RBA) continued to hold rates steady at its June meeting. The post-meeting statement was very similar to previous statements. However, it did note that housing credit growth has slowed over the past year and there may be some further tightening of lending standards. This could put downward pressure on house prices. First quarter growth was higher than expected as the Australian economy continues to be quite strong. However, while the unemployment rate fell in June, so did the labor participation rate, and wage growth remains stubbornly low. With the RBA continuing to expect a very gradual improvement in employment and progress toward its inflation target, we believe it is likely to remain on hold for some time.

India: Neutral. We expect yields to stay range-bound, with value buyers stepping in if 10-year government bond yields reach 8%. Although attractive valuations are likely to contain any significant sell-off, we believe macroeconomic risks are tilted toward higher yields. Higher crude oil prices, an increase in core inflation over the past few months and uncertainty around minimum support prices for crops have increased fears of further upside surprises in headline inflation. Core consumer price inflation increased to 6.2% in May.[4] We think the risk of another rate hike at the Reserve Bank of India's (RBI) August meeting has increased significantly on the back of rising core inflation.

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, Scott Case, Portfolio Manager, Amritpal Sidhu, Quantitative Analyst

1 Source: Bureau of Economic Analysis, May 30, 2018.
2 Source: European Central Bank, June 14, 2018.
3 Source: Bloomberg L.P., May 17, 2018.
4 Source: Bloomberg L.P., June 12, 2018.

Currency outlook

USD: Underweight. We expect the strong global growth environment to drive the US dollar weaker over the long term. Monetary policy should converge as the Fed nears the end of its tightening cycle and other major central banks begin to normalize policy. As global central banks begin tightening policy, volatility in the US dollar is a concern as the Fed is likely to remain consistent in its tightening path while other central banks navigate the early stages of removing monetary stimulus.

EUR: Overweight. We continue to expect further euro appreciation due to a broader weakening trend in the US dollar. We believe the recent consolidation in the euro is complete. We anticipate policy convergence between the ECB and the Fed in the coming year as the ECB adopts a gradual tightening stance.

RMB: Neutral. The US dollar renminbi exchange rate jumped to 6.6 in late June. We believe its performance has been driven by the movement of the US dollar, corporate capital flows, and deteriorating sentiment, partly led by trade war threats.[1] The belief that China may independently pursue monetary policy easing during the Fed rate hiking cycles intensified the downward pressure on the renminbi's performance. In the near term, we expect the US dollar renminbi exchange rate to trade in the range of 6.5-6.7.

JPY: Overweight. The trajectory of the yen is likely to be influenced by geopolitical developments in the near term, with the yen likely to be supported if there is an escalation in trade war rhetoric. In the long term, the yen is likely to appreciate along with other currencies compared to the US dollar. A change in Japanese monetary policy, such as an adjustment to the BoJ's policy of yield curve control, is likely to accelerate the yen's appreciation.

GBP: Neutral. Sterling is likely to be driven by developments in Brexit discussions and expectations for rate hikes. It is difficult to see a major breakthrough on Brexit, however, at the June EU summit. The BoE may, therefore, be reluctant to hike rates in August, given the uncertain backdrop and the fact that the UK economy is not showing signs of overheating. We are seeking an opportunity to move overweight sterling, given our longer-term expectations of a soft Brexit at worst.

CAD: Neutral. The Canadian dollar has been weakening since late April. Difficulties resolving ongoing NAFTA negotiations and weak first quarter growth have weighed on the currency. While oil remains well above where it began the year and growth has shown signs of rebounding, neither have helped the Canadian dollar recently. With wage growth firm, the BoC appears likely to hike the overnight rate at its meeting in July. The Canadian dollar should start to see some support from current interest rate levels.

AUD: Neutral. The RBA held rates steady once again at its June meeting. Its statement was very similar to previous months. The bank continues to expect gradual improvement in employment and wages, and inflation to move towards its target. First quarter growth was higher than expected as the Australian economy continues to be relatively strong. However, despite a drop in the unemployment rate, wage growth remains stubbornly low. The RBA acknowledged that housing credit growth has slowed and that some further tightening in lending standards is expected. This should put downward pressure on housing prices. Based on the RBA's insistence on patience and stubbornly low wage growth and inflation, it is likely to keep rates steady for some time.

INR: Overweight. The rupee has experienced a significant sell-off in recent weeks, largely driven by an increase in crude oil prices, foreign portfolio outflows and investor fears of a higher current account deficit. Looking ahead, we believe risks to the rupee are tilted to the upside, however, as we expect the RBI to turn more hawkish with the possibility of another rate hike in August. We see rising oil prices as the main downside risk to this view.

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, Scott Case, Portfolio Manager, Amritpal Sidhu, Quantitative Analyst

1 Source: Bloomberg L.P., June 27, 2018.

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 credit themes

Geographical themes

Investment grade (IG): Fundamental outlook remains strong, but "Goldilocks" market technicals turning lukewarm

Rationale

Corporate credit fundamentals continue to improve across most geographies and sectors, with impressive earnings and revenue growth reported during the 1st quarter 2018. Leverage has come down slightly from cycle highs in 2016, and we are now seeing more pressure from shareholders to decrease leverage in response to rising funding costs and tax reform that penalizes excessive interest expense. As a result, we expect balance sheet improvement to continue. Regulatory changes should reduce cost structures (financials specifically) and enable opportunities for revenue growth. Despite the constructive fundamental backdrop, we have seen weakening demand from foreign investors as tightening monetary policy drives currency hedging costs higher. Another key factor pressuring demand for shorter-term bonds include the repatriation of overseas cash by US corporations, much of which is invested in short maturity IG corporates. We also expect the uptick in US Treasury issuance to shift from T-Bills to longer maturities, posing another drag on technicals as the Fed scales back its bond reinvestment program. Fortunately, institutional demand for long-end corporate bonds remains robust, and domestic flows into mutual funds and ETF's remains positive, albeit much slower compared to last year. European credit markets are generally earlier in the credit cycle and less levered, although Brexit and political uncertainties in Italy and other countries remain. With credit spreads in many asset classes now wider from cycle tights and a fundamental outlook that remains supportive, IG credit market returns should stabilize.

IFI strategy

We have recently moved to neutral from overweight IG credit, favoring Europe over the US, UK and Asia. Key drivers to monitor include 1) future changes 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): Still-favorable macroeconomic fundamentals challenged by political uncertainty

Rationale

Risks to Emerging Markets (EM) are largely related to political uncertainty and less to rising US rates and the dollar. EM is presumed highly vulnerable during periods when the US dollar and US rates rise - EM countries are indeed reliant on external funding, primarily in US dollars. However, most EM countries have more than sufficient liquid external dollar assets to fund external liabilities coming due over the next year. A more prominent risk is uncertainty surrounding upcoming elections in several countries. The orientation in economic policies following these elections – including in Brazil, Mexico and Turkey – will be a focus for markets for the rest of the year.

IFI strategy

We believe the market has considerably overpriced risks to EM emanating from rising US rates and the dollar. Assuming no hard landing in China (our base-case) we expect EM assets to recover in the second half of this year. We are taking a selective approach to portfolio positioning including a wait-and-see approach to countries with upcoming elections which may usher in less market-friendly policies. We favor markets of countries where we see favorable fundamentals, lack of domestic political uncertainties and compelling valuations.

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

Rationale

Negative retail news continues to dominant headlines. However, we are generally not advocates of selling stronger US CMBS credits since they are often hard to replace. While we still expect slightly positive net issuance, given the move higher in rates and decline in transaction volume, we now expect lower issuance than our original $80 billion non-agency CMBS projection. US property price growth continues; however the pace is slowing, most notably in the office and retail sectors. In contrast, demand for multi-family and industrial properties remains robust.

IFI strategy

Given the significant move in spread tightening we prefer seasoned US CMBS as the cycle progresses. We think AAA-rated US CMBS look most attractive. Credit-differentiation is accelerating, placing a premium on selection, so we must navigate large regional mall concentrations. Single property borrowers can be an effective tool to manage desired exposures.

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, while the home price outlook is expected to normalize as affordability declines after strong price gains. Limited housing supply and long-term negative net issuance remain dominant factors in US RMBS. Valuations appeared stretched relative to other asset classes following outperformance during 2017 in legacy US RMBS and below-IG CRT.

IFI strategy

We favor higher quality legacy prime, alt-A, and seasoned BBB-rated CRT. We are 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 our forecast for a healthier economy should support consumer credit performance in 2018. As the overall market continues to weigh the longer-term impact of Trump administration policies and additional rate hikes from the Fed going forward, uncertainty should be supportive of a more stable, shorter-duration US ABS market.

IFI strategy

We favor adding exposure to floaters where collateral performance remains stable. We believe senior prime auto US ABS and esoteric issuers can provide opportunities. We are avoiding deep subprime auto US ABS.

Sector themes

Commodities: Global supply concerns creating energy volatility, prefer pipelines

Rationale

We 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 is in focus due to economic growth and risk of volatility due to OPEC, US crude supply, fiscal policy implementation and Fed uncertainty.

IFI strategy

We 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 are more value and delivery conscious, while international retail demand remains uneven. We are watching the European consumer for any post-Brexit behavior shifts.

IFI strategy

We favor selected US consumer sectors including leisure and housing-related sectors. We are negative on "big box" and mall-based retailers that lack differentiated products. We favor EM consumer sectors on a selective basis. We are more cautious on the 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, potential post-tax law changes, moderate financing costs, still modest organic revenue growth, and the need to reposition business portfolios.

IFI strategy

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

Global technology – big data

Rationale

We expect global use of data to grow and a transition to cloud-based platforms.

IFI strategy

We prefer to gain exposure to software and services, cell towers and select wireless issuers. We have avoided hardware original equipment manufacturers.

Yield curve themes

Credit curve positioning, long end valuations getting full

Rationale

Rising currency hedging costs and repatriation of overseas corporate cash resulted in underperformance of the front end earlier in the year, but this space has stabilized. This has caused credit curves to flatten from previously steep levels, particularly 3-5's and 5-7's spread curves. Lately, sovereign wealth funds have targeted the 10-year part of the curve. We expect demand for 7-10 year paper to be resilient, while the flatter curve has taken the value out of the long end.

IFI strategy

We favor the 7-10 point on the US IG and EM credit yield curve.

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

Full ESG integration may improve long-term risk-adjusted returns

Asset owners are increasingly interested in modifying their investment policies to better align with their views on environmental, social and governance (ESG) issues. Beyond basic ESG screening techniques, we believe asset owners will demand evidence that their investments are making a positive impact on our collective futures. At Invesco Fixed Income (IFI), we believe that ESG-oriented investments can lead to better long-term risk-adjusted returns. We fully integrate ESG risk factors into our fundamental credit research process, guiding investment decisions and issuer engagement practices. Over time, companies with good financial and ESG policies are likely to be rewarded in the marketplace with lower funding costs, leading to capital appreciation and better risk-adjusted returns.

Data underpin effective analysis and investment decisions

The key elements of our ESG integration framework are data collection, analysis, resources and engagement. Data are the lifeblood of analysis and proper decision-making capacity, so we make ESG data accessible to IFI research analysts, portfolio managers and senior investment professionals via our company-wide research platform. Robust historical data also provide the capacity to analyze multiple ESG risk factors against market pricing and credit ratings. IFI has built a strong data collection process which provides visibility into issuer level historical trends. Corporate Sustainability Reports (CSR) are also valuable tools in gathering data and evaluating management awareness and actions surrounding ESG risk factors.

Internal and external resources are critical

Internal and external resources are critical to executing a strategy of integrating ESG into any investment process. Invesco benefits from a leading Global Responsible Investment Office, which supports investment teams with tools, research, education, and client support. Externally, MSCI and Sustainalytics are key research providers. Issuer reports and business involvement screenings can be good starting points in understanding current issues and portfolio eligibility. Boutique research providers can also play an important role, for example, in climate impact reporting.

ESG and fundamental analyses are interwoven

ESG integration continues to influence IFI's fundamental credit research and opinions. After years of integrating ESG into our fundamental credit research process, we have recently established a proprietary ESG rating process. Quantitative ESG factor risk reviews are supported by detailed "ESG monitors," which calculate peer percentile rankings, contributing to the internal rating process. The process scores E,S and G factors independently, which leads to overall ESG ratings and trends.

The output of our ESG risk factor analysis is summarized on "issuer scorecards." Scorecards consolidate our fundamental credit rating, which is a combination of the qualitative and quantitative risk factors of our internal credit assessments and ESG scores.

The addition of an ESG risk lens to our fundamental credit process often results in differentiated company views even within the same sector. For example, we credited a US-based exploration and production company with providing quarterly disclosures to investors on positive safety and environmental performance, which may lead to better operating performance with fewer risks. On the other hand, we penalized a US-based pipeline company due to its lack of basic safety monitoring metrics and poor peer rankings according to our ESG Monitor. This highlights how issuer level ESG risk factors and fundamental credit views are often interwoven.

Growing acceptance of issuer engagement

Issuer engagement in the fixed income asset class is thought to be more challenging relative to equities. While this is largely due to the inability to vote proxies, we have found that most management teams welcome engagement on ESG, recognizing that investors ultimately decide their cost of funding. To make the most of limited time with management teams, IFI utilizes peer analysis and key issue relevance to prioritize engagement opportunities.

Our engagement strategy depends on the relevance and level of ESG risk factors. Lower-risk items can be handled via written communication with investor relations. Higher risk factors provide opportunities for more direct contact with senior management. IFI uses its technology to record issuer level ESG commentary and engagement history, as client interest in engagement reporting is increasing. We recognize that industry engagement practices are in the early stages and we are committed to finding practical ways to promote ESG awareness with management teams.

Working toward a more sustainable future

The concept of full ESG integration is evolving as companies expand reporting of ESG factors, data providers develop new products and end-investors demand more ESG options. Asset owners are increasingly committed to alignment with the United Nations Climate Change Conference which advocates limiting the increase in global temperatures to two degrees Celsius. Clients are also increasingly aware of methods to align investment policies with the United Nations Sustainable Development Goals, which span several societal priorities including eliminating poverty, reducing inequality and climate action. IFI continues to promote the integration of ESG capabilities across multiple asset classes with the aim to deliver on two goals – maximizing returns and contributing to a more sustainable future.

Paul English, Head of US Investment Grade Research

The bottom line

Why should investors consider credit factors in fixed income?

Jay Raol
Director
Quantitative Research

Shawn Pope
Quantitative and Factor Analyst

Factors play an important role in Invesco Fixed Income's (IFI) investment process. At its core, factor investing is an investment strategy in which securities are chosen based on specific characteristics and attributes. We believe factors can help investors understand market dynamics and help achieve better risk-return outcomes. In addition to the three key macro factors we have identified - growth, inflation, and financial conditions - we believe credit factors can play an important role in portfolios. We speak with Jay Raol, Director of Quantitative Research, and Shawn Pope, Quantitative and Factor Analyst, about IFI's approach to factor-based investing and how credit factors can help fixed income investors achieve their goals.

Q: What are credit factors?
Corporate bonds are traditionally classified by their maturity, rating, and industry. Our credit factor framework centers on a four-factor model that characterizes bonds in terms of liquidity, quality, value and momentum. Basically, our credit factor definitions are consistent with traditional equity factors, applied to corporate bonds.

- The **liquidity** factor explains the behavior of holding illiquid bonds. Unlike most other factors, liquidity is unique to the fixed income space. Because illiquid bonds are often not priced or "marked to market" accurately, they have the potential to generate higher yields than comparable liquid bonds.
- The **quality** factor is typically implemented by holding low-volatility bonds. These are typically shorter-maturity bonds with relatively low default risk, as measured by their credit ratings.
- The **value** factor is derived from holding bonds priced at a discount to similar securities. Since a bond's price is a function of its default risk, it makes sense to look for bonds that are priced at a discount relative to their implied default rates.
- The **momentum** factor is associated with emphasizing past winners versus past losers. Together with other factors, momentum may offer potential diversification benefits, which can potentially lead to improved risk-adjusted returns in multi-factor portfolios.

Q: What is the rationale behind credit factors?
We believe factors offer a fresh approach to fixed income investing. Instead of focusing on a bond's outward characteristics like maturity, rating and industry, the idea behind fixed income factors is that they can be used to target specific investment outcomes in different market conditions.

In our view, there are three reasons that credit factors can lead to potential excess returns. First, factors may generate excess returns as compensation for the assumption of more risk. Second, factors seek to address investor emotions and behavioral biases that can lead to sub-optimal decision-making, potentially creating long-term drags on performance. Finally, excess returns can result from the inefficient use of capital. For example, many institutional investors are prohibited from owning so-called "fallen angels" — bonds that have fallen out of favor or that have seen their credit ratings cut. Excess selling around the time of a bond's downgrade can lower valuations which can create excess return potential. Often, a single factor's return pattern encompasses all three explanations.

Q: What are the differences between equity and credit factor portfolios?
In our view, fixed income factor strategies should be constructed differently than their equity counterparts because fixed income investing is largely viewed as a means to potentially conserve capital. Fixed income securities are difficult to sell short, meaning long-only portfolios are the principal way to gain fixed income factor exposure. Fixed income securities also have higher transaction costs and less liquidity than equities. Because only around half of the fixed income securities desirable for factor inclusion are available for trading, investors need to have confidence that there is enough bond liquidity to construct factor portfolios.

Q: Why do you believe credit offers the best place to start in fixed income factor investing?
While we strongly believe that factors can be found in all asset classes, corporate bonds offer several advantages that make them a good place to start for fixed income factor investing. First, corporate bonds offer more options (more issuers, different levels of risk, etc.) than government bonds or currencies. This enables us to build larger, more diversified portfolios that maintain mostly factor exposures in their construction, as opposed to the traditional reliance on duration, ratings, etc. Second, given the long-only constraint, we would expect credit beta exposure to be a large driver of returns.

Q: How can investors implement factors in their portfolios and what are the potential benefits?
The goal of fixed income investing typically falls into either capital preservation, income generation, or capital appreciation. We believe single or multi-factor approaches can efficiently help achieve one or all of these goals. For example, the value factor offers investors income and capital appreciation potential, while the quality factor is appropriate for potential capital preservation. Combined, these factors may help provide a combination of all three objectives. And because many factors have unrelated return patterns or correlations, a multi-factor approach can offer the benefits of diversification, which can help mitigate risk and potentially provide higher risk-adjusted returns over time. Of course, diversification cannot ensure a profit or protect against loss.

Q: What is IFI's approach to credit factors?
Invesco Fixed Income takes a unique approach to fixed income factor investing. We believe that fixed income factors must have a strong rationale deeply rooted in economic theory. While back-testing may produce compelling results over certain time periods, it isn't enough to justify a factor-based strategy, in our view. Factors must also be robust across multiple market regimes. In our view, the most consistent, enduring factors are those that offer excess returns in exchange for risk.

Q: Looking ahead, how do you expect factor investing to evolve?
We expect fixed income factor investing to take on increased importance in the coming years. But factor strategies are dynamic and require continuous research. We believe factor definitions, especially those based on behavioral or market structure rationales, must be continuously updated to ensure their appropriate use in portfolios. As market environments change and investors' needs evolve, so too must factor strategies. By adapting to structural market changes and increasingly sophisticated expectations of investors, we believe fixed income factors will serve as a critical component of outcome-oriented investment strategies.

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

Fixed income market monitor

	Coupon (%)	Yield to worst (%)	1 month change in YTW	Option-adjusted spread: Current	Option-adjusted spread: 1 month change in spread	Option-adjusted spread: 10 year range min	Option-adjusted spread: 10 year range max	Returns: 1 mth (%)	Returns: 3 mth (%)	Returns: YTD (%)	Returns: 12 mth (%)
Global Aggregate (USD hedged)	2.66	1.96	0.02	47	10	23	156	0.37	0.83	-0.12	1.18
U.S. Aggregate	3.10	3.22	-0.07	42	2	32	258	0.71	0.61	-1.50	-0.37
U.S. Mortgage-backed	3.54	3.37	-0.07	28	0	-16	181	0.70	0.83	-1.00	-0.30
Global Inv Grade Corporate (USD hedged)	3.48	3.05	0.02	118	13	55	515	0.34	0.07	-1.57	0.89
U.S. Investment Grade Corporate	3.95	3.88	-0.03	115	7	76	618	0.54	-0.14	-2.70	0.06
Emerging Market USD Sovereign	n/a	6.26	0.21	344	32	157	906	-0.94	-2.10	-4.08	-0.56
Emerging Market Corporate	n/a	5.58	0.28	284	39	120	1,032	-0.70	-1.54	-2.46	0.48
Global High Yield Corporate (USD hedged)	5.94	5.95	0.33	378	41	231	1,845	-0.37	-0.34	-0.52	2.46
U.S. High Yield Corporate	6.34	6.42	0.15	362	25	233	1,971	-0.03	0.01	-0.24	2.35
Bank Loans	5.75	5.85	0.19	n/a	n/a	n/a	n/a	0.19	1.00	2.27	4.50
Municipal Bond	4.69	2.66	-0.16	n/a	n/a	n/a	n/a	1.15	1.16	-0.33	1.11
High Yield Municipal Bond	5.11	4.85	-0.19	n/a	n/a	n/a	n/a	2.09	4.05	3.15	6.38

Treasury market monitor

	Coupon (%)	Yield to worst (%)	1 month change in YTW	Returns in local currency: 1 mth (%)	Returns in local currency: 3 mth (%)	Returns in local currency: YTD (%)	Returns in local currency: 12 mth (%)
United States	2.22	2.65	-0.10	0.90	1.02	-1.10	-0.83
Canada	2.26	2.06	-0.02	0.69	0.73	0.23	-2.10
United Kingdom	3.37	1.24	-0.16	1.83	2.85	0.84	0.50
Germany	1.89	-0.04	-0.20	1.68	2.34	1.44	0.79
Italy	3.26	2.30	1.23	-6.58	-4.82	-4.16	-2.39
Japan	1.01	0.10	-0.02	0.24	0.34	0.57	0.82
China	3.51	3.52	0.03	0.17	2.60	3.88	4.40
EM Local Currency Governments	n/a	n/a	n/a	-1.40	-0.56	0.78	4.55

FX market monitor[1]

	Current	10 year range: min	10 year range: max	Returns: 1 mth (%)	Returns: 3 mth (%)	Returns: YTD (%)	Returns: 12 mth (%)
EURUSD	1.20	1.05	1.60	-2.51	-4.13	-0.16	10.04
USDJPY	109.86	75.82	124.77	-3.61	-0.42	2.55	1.80
GBPUSD	1.36	1.22	2.11	-3.06	-4.56	0.82	5.65
USDCNY	6.33	6.04	8.28	-0.90	-0.47	2.74	8.91
USDCHF	1.00	0.75	1.39	-4.15	-7.04	-2.17	-0.03
AUDUSD	0.75	0.60	1.10	-2.26	-6.83	-4.04	-0.48
CADUSD	0.78	0.72	1.09	0.49	-4.54	-2.36	6.47
EURJPY[2]	131.79	94.31	169.49	-1.15	3.83	2.66	-7.48
EURGBP[2]	0.88	0.70	0.89	-0.57	-0.46	1.00	-3.98

Sources: Barclays, JP Morgan, Bloomberg L.P., as of May 31, 2018. Credit Suisse Leveraged Loan data as of May 31, 2018. Within the Treasury monitor, United States is represented by Barclays US Treasury Index; Canada is represented by Barclays Global Treasury Canada Index; United Kingdom is represented by Barclays Sterling Gilts Index; Germany is represented by Barclays Global Treasury Germany Index; Italy is represented by Barclays Global Treasury Italy Index; Japan is represented by Barclays Global Treasury Japan Index; China is represented by Barclays China Aggregate Treasuries Index; EM Local Currency Governments is represented by JPMorgan GBI_EM Broad DIversified Index. In the FIxed Income Monitor, Global Aggregate is represented by Barclays Global Aggregate (US$ Hedged) Index; US Aggregate is represented by Barclays US Aggregate Index; US Mortgage-backed is represented by Barclays US Mortgaged-backed Index; Global Investment Grade Corporate is represented by Barclays Global Aggregate Corporate (US$ hedged) Index; U.S. Investment Grade Corporate is represented by Barclays Aggregate Corporate Index; Emerging Market USD Sovereign is represented by the JPMorgan EMBI Global DIversified Index; Emerging Market Corporate is represented by JPMorgan CEMBI Broad Diversified Index; Global High Yield Corporate is represented by the Barclays Global High Yield Corporate (US$ hedged) Index; U.S. High yield Corporate is represented by Barclays U.S. Coporate High Yield Index; Bank Loans is represented by the Credit Suisse Leveraged Loan Index; Municipal Bond is represented by Barclays Municipal Bond Index; High Yield Municipal Bond is represented by 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 canot 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.

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3. **Why should investors consider credit factors in fixed income,** April 2018, Jay Raol, Ph.D., Director of Invesco Fixed Income Quantitative Research and Shawn Pope, Macro Quantitative Analyst, Invesco Fixed Income
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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.

The use of environmental and social factors to exclude certain investments for non-financial reasons may limit market opportunities available to funds not using these criteria. Further, information used to evaluate environmental and social factors may not be readily available, complete or accurate, which could negatively impact the ability to apply environmental and social standards.

Factor investing is an investment strategy in which securities are chosen based on certain characteristics and attributes.

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