Invesco Fixed Income

Global Fixed Income Strategy

May 31, 2019

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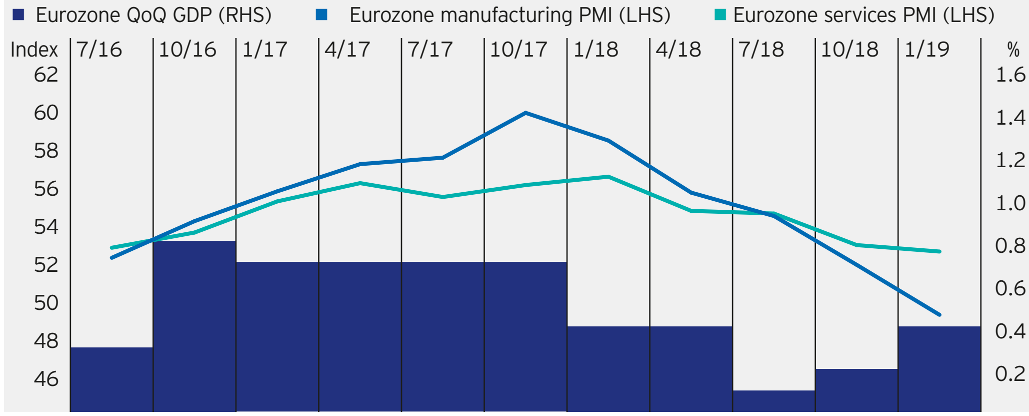
Global macro strategy

Cloudy outlook for eurozone growth

The eurozone economy has experienced a sharp slowdown since the second half of 2018, coming down from the mini-boom enjoyed in 2017. This downturn has been most pronounced in the manufacturing sector, and in Germany, due to its heavy exposure to weakening foreign demand and temporary setbacks that stalled its auto sector.

While uncertainty relating to global trade tensions, Brexit and other European political headwinds will likely continue to take their toll in the near term, we believe the eurozone economy will recover, growing toward trend level in the second half of this year. Although we do not predict an imminent surge in global demand, a gradual recovery in foreign trade on the back of accommodative policies and loose financial conditions abroad should eventually benefit European industry. Adding to that, resilient private consumption, easy monetary policy in Europe, and the resolution of Germany's temporary production bottlenecks are likely to support the eurozone economy through the rest of the year.

Figure 1: Eurozone real GDP growth and PMI surveys



Source: Eurostat, Markit, data from May 20, 2019.

Domestic demand continues to be supportive

Economic data continue to show a stark contrast between a strong services sector and struggling industry. We expect employment and wage growth to support private consumption in the near term as labor scarcity seems to be translating into moderately higher wages. With continued low inflation, these developments should improve disposable incomes and support consumption growth.

Chinese green shoots not yet showing in European manufacturing data

With China's improved growth momentum in the first quarter of this year, the question now is when will China's greater growth impulse feed into eurozone manufacturing performance? Eurozone growth was higher than expected in the first quarter of 2019 (0.4% quarter-on-quarter, up from 0.2% at the end of 2018).[1] However, continued weakness in second quarter European survey data has diminished hopes of a major turnaround in the European economy. Recent Chinese stimulus has been smaller relative to previous rounds and has focused more on infrastructure than credit policy and this could be leading to smaller and slower spillover to other economies. Nevertheless, we expect Chinese stimulus to provide some boost to the eurozone economy with a lag of three-to-six months.

News of escalating trade tensions between the US and China could also weigh on European manufacturers' production decisions, and the risk of increased US tariffs on European cars and parts (a decision on which has been delayed to November 2019) could further dampen sentiment. On the other hand, the weaker trade-weighted euro and overall stronger global growth data are bright spots for Europe's manufacturing outlook and we believe a modest recovery still seems possible over the course of this year.

Temporary drags to 'bellwether' European industrials will likely dissipate, but trade and Brexit concerns remain

Based on management commentaries, it appears that issues with the European Union's (EU) new testing standard for vehicle emissions, the Worldwide Harmonised Light Vehicle Test Procedure, (WLTP) created a notable drag on sales and production in the first quarter of 2019. Most of these issues have now been resolved and the next step of the WLTP process (due to go live in September 2019) should have far less impact on the Original Equipment Manufacturers (OEMs). A potential second half recovery among the German OEMs is also supported by company-specific product cycles, including new product launches expected among major auto producers.

A re-escalation of trade concerns and turbulence surrounding Brexit are clear risks going forward in our view. Companies most likely expected clarity on these issues in the first half of 2019 and a resulting boost to demand in the second half. But these issues remain unresolved, as reflected in recent data - April Chinese auto sales fell 17% year-over-year, despite a significant value-added tax (VAT) cut. We may continue to see soft demand as industrial sentiment remains muted.[2]

Eurozone has limited room for policy response
The European Central Bank (ECB) acknowledged weaker eurozone growth momentum at its March meeting. It significantly downgraded its 2019 projections for growth and inflation and extended forward guidance on interest rates, suggesting key rates would remain unchanged through at least the end of 2019, and announced a new series of targeted longer-term refinancing operations (TLTROs) starting in September 2019.

Compared to the US and China, the euro area has limited room to further loosen monetary policy in the face of a pronounced economic slowdown. So far, Germany does not view the manufacturing downturn as deep enough to warrant a significant fiscal stimulus and remains seemingly dedicated to "black zero" (the requirement to maintain a balanced budget). Therefore, with Europe divided between countries that would like to implement more accommodative fiscal policy but have limited ability to do so, and those who are able to but less willing, the ECB may have to support a revival of the European economy on its own for now.

Outlook: Trade war, Italy and Brexit pose mounting risk to a eurozone recovery
Stronger eurozone growth in the first quarter of 2019 may suggest that concerns around the state of the economy were overdone and reinforces our forecast for some stabilization of growth later in the year. But numerous headwinds pose mounting risks in the months ahead.

The escalation of the US-China trade conflict in May could cause ripple effects in the eurozone. While the timing and extent of additional US tariffs on EU goods remains uncertain, they could materially dent the macro outlook if they materialize. Continued uncertainty could also damage business confidence and capital expenditure growth, leading to weaker consumer confidence and private spending down the road.

In Italy, risks of a fresh clash with Brussels over Rome's spending commitments have recently increased. The European Commission has warned that Italy's policies could push its budget deficit to 3.5% of GDP in 2020, above the 3% ceiling imposed by EU rules, without the planned VAT hikes.[3] However, Italy's government seems confident that the upcoming European Parliament elections will shift the political landscape, giving it some breathing room. According to polls, Italy's League and Five Star Movement parties are on track to win more than 55% of the votes in the European election at the end of May.[4]

Brexit uncertainty has already weighed on eurozone growth and taken a toll on exports to the UK, with Germany again bearing most of the brunt. An extended period of uncertainty could continue to damage European industry sentiment and business investment, and the lingering risk of a disruptive "no-deal" scenario threatens to weaken Europe's economic prospects.

Reine Bitar, Portfolio Manager

1 Source: Eurostat, May 15, 2019.
2 Source: China Automotive Information Net, May 15, 2019.
3 Source: European Commission, Spring Forecast, May 7, 2019.
4 Source: Ipsos, May 10, 2019.

Interest rate outlook

US: Neutral. Risks to global growth have increased as tensions around US-China trade negotiations escalated. While US and China growth has been solid, tariffs and tightening financial conditions will likely weigh on growth if tensions persist. Despite this backdrop and although US Treasuries have found support recently in the face of increased volatility, we remain neutral as US Federal Reserve (Fed) rate cuts are currently priced into markets.

Europe: Underweight. Better than expected Q1 eurozone growth and green shoots in Chinese and US data have not yet translated into better German manufacturing survey data, which calls into question the sustainability of Europe's strong Q1 report. Meanwhile, the ECB has maintained its dovish stance as uncertainty over near-term growth and inflation remains high. We continue to believe that economic growth will pick up toward trend in the second half of 2019 and remain tactically short European duration. At current rich valuations and with markets pricing a first ECB rate hike well into 2020, the bar for more dovish repricing seems high.

China: Neutral. We are neutral on Chinese onshore rates. Increased volatility is likely down the road, but we see limited room for a further sharp rally of onshore rates from the current level. This is due to our expectations of potential fiscal stimulus, credit easing measures and investors' relatively long position in rates. We see room for long-term rates to outperform versus short-term rates. Further escalation of US-China trade tensions could present upside risk to our forecast for onshore bonds.

UK: Neutral. We believe the outlook for UK gilts is mixed. Typically, the stronger growth and tightening labor market we have seen in recent quarters would lead the Bank of England (BoE) to raise interest rates. However, persistent Brexit uncertainty is increasing downside risks to the UK economy. Therefore, we expect the BoE to remain on hold for the rest of 2019 and likely into early 2020. In addition, the failure of cross-party talks and likelihood of getting a "Brexiteer" successor to Prime Minister May, raises the risk of a general election which could result in greater risk premia in the gilts market. The combination of an unchanged BoE and greater fiscal risk premium could lead to a steeper UK yield curve.

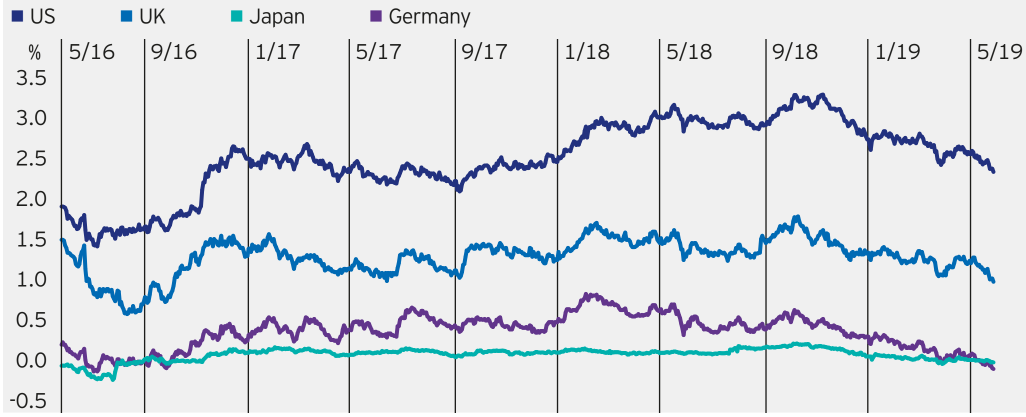
Japan: Neutral: Japanese government bond (JGB) yields have been generally unchanged over the last month despite the substantial rally in global developed bond markets. The lack of volatility reflects the extended holiday to celebrate the accession of the new Emperor and the limited scope for Bank of Japan (BoJ) easing. In light of recent underperformance it appears unlikely that JGB yields will rise substantially, especially if the yen continues to appreciate.

Canada: Neutral. We expect the Bank of Canada (BoC) to remain on hold for much of this year. However recent US moves to eliminate tariffs on Canadian steel and aluminum exports is broadly positive and increases the likelihood that the US-Mexico-Canada trade agreement will be ratified which could put rate hikes back on the table before year-end. Ten-year Canadian sovereign bond yields are near 1.65% [1], but the index extension at the beginning of June (the increase in the duration of indexes as a result of new issues) is extremely large and should help keep a bid for duration through early June as investors adjust their portfolios to match. That could pressure rates to move above the recent 1.80% range top.[2]

Australia: Neutral. Low inflation, weak growth and increasing downside risks due to global trade tensions continue to point toward a Reserve Bank of Australia (RBA) easing. However, the market currently reflects this risk with 32 basis points of easing priced by the end of August and 50 basis points by year-end.[3] The surprise victory of the Liberal-National coalition in May's general election has also removed the downside risk posed by the anti-business policies proposed by the opposition Labor party.

India: Overweight. Recent consumer price index and purchasing managers' index (PMI) releases indicate softer inflation and growth. This means the Reserve Bank of India (RBI) is likely to cut its policy rate as soon as June, and possibly again later this year. It is also likely to implement liquidity easing measures to add liquidity to the banking system. We still find Indian rates valuations attractive, despite a strong rally since September 2018. Given the macro backdrop and expected RBI policy action, we expect further declines in long-term interest rates in the near term.

Figure 1: Global 10-year yields



Source: Bloomberg L.P., May 28, 2016 to May 28, 2019. Past performance is not a guarantee of future results.

Rob Waldner, Chief Strategist and Global Head of Multi-Sector Portfolio Management, James Ong, Director-Derivative Portfolio Management, Noelle Corum, Associate Portfolio Manager, Reine Bitar, Macro Analyst, Yi Hu, Senior Analyst, Michael Siviter, Senior Fixed Income Portfolio Manager, Brian Schneider, Head of North American Rates Portfolio Management, Scott Case, Portfolio Manager, Amritpal Sidhu, Quantitative Analyst

1 Source: Bloomberg L.P., May 23, 2019.
2 Source: Bloomberg L.P., April 17, 2019.
3 Source: Bloomberg L.P., May 20, 2019.

Currency outlook

USD: Overweight. Rising trade tensions pose downside risks to global growth, in the US and elsewhere, and we expect risks to persist until tensions wane. As a safehaven currency, the US dollar will likely find support in this environment. Further, we believe US dollar valuations are more compelling than other safehaven assets, such as US Treasuries.

EUR: Neutral. We expect European growth to stabilize this year as the external sector recovers amid an improved global growth backdrop, especially in China. Signs of life in the eurozone's domestic economy gives us confidence in this view over the long term and should support the euro. However, we plan to remain on the sidelines until we see further validation in the hard data.

RMB: Neutral. The renminbi/US dollar exchange rate broke above 6.90 in May, and has also traded higher in the offshore market, reflecting more bearish sentiment there. Markets are watching headlines related to US-China trade, although the People's Bank of China (PBoC) reaffirmed the its commitment to maintaining relative renminbi stability and we think policy makers will act to smooth large currency moves. Investors who have been preparing to increase allocations to Chinese assets may also view any notable deprecation of the renminbi as a buying opportunity. Although we see room for the renminbi to trade up to mid-6.90 versus the US dollar, we continue to view 6.60-6.80 as our base case for the exchange rate in the medium term.

GBP: Neutral. Developments over the last month have increased the downside risks for sterling, in our view. Cross-party talks between the Conservative government and the Labour Party have collapsed and Prime Minister May has been forced to resign and abandon her last ditch attempt to pass her Brexit deal. The conservative party is now in the middle of a leadership contest with the risk a "Brexiteer", sympathetic to a "no-deal" outcome, will succeed May. Significantly, a Brexiteer Prime Minister will likely find it no easier to renegotiate with the EU or pass a harder form of Brexit through Parliament. The impasse could therefore continue right up to the October 31 Article 50 deadline, raising the risks of a "no-deal" Brexit by default.

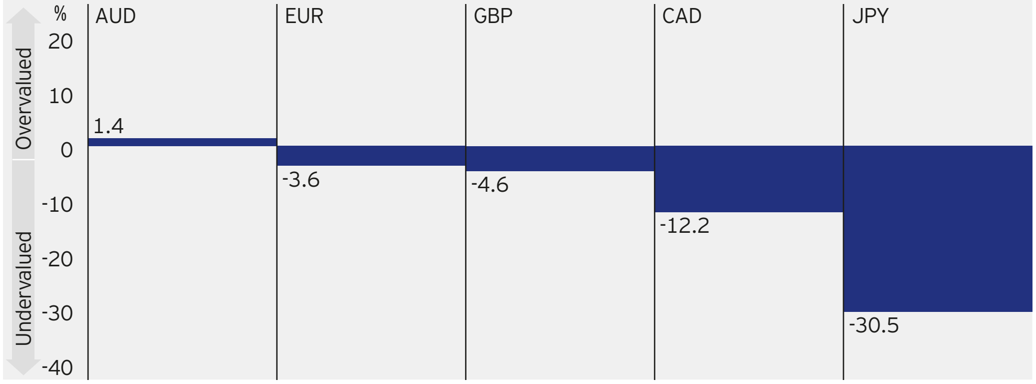
JPY: Overweight. Given the increase in market uncertainty, we expect the yen to appreciate as investors look for safe havens. Although Japanese investors still appear keen on investing outside of Japan, weaker global risk sentiment will likely cap these flows and their associated selling pressure on the currency.

CAD: Neutral. The Canadian dollar has shown surprisingly lackluster performance recently, possibly due to the stalled US-Mexico-Canada trade agreement. The currency has lacked a correlation with oil prices and earlier dovish BoC rhetoric. A positive outcome on the stalled trade agreement would likely be positive for the Canadian dollar.

AUD: Neutral. Weaker domestic economic data, softening expectations around a positive impact from Chinese stimulus and negative news about US-China trade talks have all weighed on the Australian dollar, with the trade-weighted index down 3% since mid-April.[1] The Australian dollar will likely continue to be vulnerable to weak global risk and growth sentiment but current valuations are relatively cheap, in our view, given the continued resilience of Australia's terms of trade, which, we believe is the most reliable driver of Australian dollar valuations over the long term.

INR: Neutral. The rupee has experienced a moderate selloff recently amid rising oil prices and a deteriorating trade deficit. However, we believe valuations are still rich and the RBI is likely to intervene if the currency appreciates. Given these factors and despite the recent favorable election outcome and expected pro-growth central bank measures, we believe upside potential from this level is limited, causing us to remain neutral on the rupee.

Figure 1: Valuations of major currencies compared to purchasing power parity (PPP)



Source: Bloomberg L.P., May 28, 2018.

Ray Uy, Head of Macro Research and Currency Portfolio Management, James Ong, Director-Derivative Portfolio Management, Noelle Corum, Associate Portfolio Manager, Yi Hu, Senior Analyst, Michael Siviter, Senior Fixed Income Portfolio Manager, Brian Schneider, Head of North American Rates Portfolio Management, Scott Case, Portfolio Manager, Amritpal Sidhu, Quantitative Analyst

1 Source: Australian Dollar Trade-weighted Index, data from April 19, 2019 to May 22, 2019.

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

Asset class themes

Investment grade (IG): Fundamentals better than expected, trade risks escalating, technicals plateauing

Rationale

We continue to believe broad US corporate credit fundamentals will improve across most sectors heading into the second half of 2019. First-half operating results in the US have been dragged down by the government shutdown, trade policy uncertainty and a stronger US dollar, but earnings growth is still positive, and we expect companies to increasingly focus on deleveraging. Despite a potential delay to our thesis due to earnings pressure in the first half of 2019, we believe factors that encouraged corporations to increase their debt burdens (low interest rates, tight credit spreads, low organic growth and tax policy that restricted the use of overseas retained earnings) will reverse, resulting in a declining use of debt as organic growth rates, interest rates and spreads normalize, and companies repatriate overseas cash. We are also seeing pressure from shareholders to decrease leverage in response to rising funding costs and tax reform, so shareholder and creditor interests are aligned. Additionally, the Fed's increased flexibility is a favorable development for market stability in the first half of the year.

A return of hawkish rhetoric from both sides of the US-China trade negotiations injected volatility into credit markets in May, following one of the best starts to a calendar year through the end of April. Most investors still expect a deal to be reached, although the timeline has now been pushed out. If a deal is not reached, we expect policymakers in both countries to implement easing measures to support their economies and financial markets in short order.

Positive technicals that helped propel US dollar credit markets have plateaued but remain supportive. A flurry of large bond issues to fund mergers and acquisitions (M&A) deals in April and May increased the pace of supply, but the deals exhibited a more prudent balance of debt and equity funding. The pipeline of future deals is now much smaller, so supply pressures should abate. Foreign investor demand for US IG has slowed recently as currency hedged yields have become less compelling, but inflows into the market remain robust. Repatriation of overseas cash by US corporations, much of which has been invested in short-term IG corporates, is putting downward pressure on demand for shorter-term corporate bonds and is also reducing the supply of new debt.

European credit markets are generally earlier in the credit cycle compared to the US and are less levered, though risks from Brexit and political uncertainties in Italy and other countries remain elevated. European growth concerns and trade policy issues continue to present headwinds for large multinational issuers.

IFI strategy

We have reduced credit market exposure on the heels of strong year-to-date performance and more balanced supply/demand conditions but still maintain a positive view on credit assets. We favor the US, Europe and Asia over the UK. Key market drivers we are monitoring include 1) the pace at which the ECB, BoJ, BoE and PBoC respond to slower global growth and the impact on the US dollar and global credit flows 2) potential US fiscal and regulatory policy changes and 3) the impact of still-uncertain trade policy with China and Europe on costs, margins, demand and investment and the potential for a more destabilizing global trade war.

High yield (HY): Fundamentals remain supportive while valuations have improved; continue to watch for slowing earnings growth and geopolitical concerns

Rationale

Our outlook for high yield remains constructive as fundamentals continue to be resilient and valuations have improved. Technicals have waned more recently as the asset class has experienced a recent bout of outflows. Year-to-date flows, however, remain decidedly positive. The new issue calendar has also picked up, which tends to weigh on the market, but overall new issuance levels remain roughly in line with 2018, on a year-to-date basis. High yield has posted solid year-to-date returns and offers attractive coupon carry, in our view, over the medium term. Despite these positive trends, we continue to watch for signs of slowing earnings growth and uncertainty due to geopolitical concerns such as US-China trade policy and Brexit

IFI strategy

We believe the generally positive macro backdrop, solid fundamentals and improved valuations are supportive for the high yield asset class. This positive backdrop could be offset to some degree if we see increased volatility associated with potential geopolitical concerns or slowed earnings growth. With that said, we believe the high yield market will continue to offer some price appreciation potential and attractive coupon carry over the medium term.

Emerging markets (EM): Global growth stabilization will likely benefit EM assets; waiting for clarity on trade

Rationale

We see opportunities for EM spreads to recover from recent spread widening caused by trade and growth concerns, which pushed valuations out to the wide end of recent ranges. Fundamentals in the first quarter disappointed as growth and activity were adversely impacted by several negative developments in China. However, the postponement of US tariffs on European autos has provided some comfort.

This negative trade developments have increased risks around the much anticipated improvement in global growth that would likely benefit risky assets. Inflation expectations, meanwhile, continue to moderate, providing central banks with policy space. In some cases, however, fiscal policy will be needed. Technicals have recently become less supportive due to passive fund redemptions. We expect to see clearer signs of a global growth pickup into the second half of the year, which should be supportive for EM assets and sustain the positive inflows seen this year.

IFI strategy

While we await further clarity on trade, we continue to favor adding risk selectively, focusing on countries that are less externally vulnerable or that have solid policy anchors. Select EM high yield credits offer more compelling value than investment grade, in our view.

US commercial mortgage backed securities (US CMBS): Positioning is key as the commercial real estate cycle progresses

Rationale

We expect commercial real estate rent growth and property price appreciation to continue. However, we believe the pace of appreciation will slow as new supply dampens space absorption. Further, we expect growth in e-commerce to remain a headwind for the retail property sector. On a positive note, lending conditions remain accommodative across property markets despite moderately tighter credit standards. The recent decline in interest rates should also benefit borrowers. Regarding supply and demand dynamics, we expect modest new issuance volumes to be absorbed by investors.

IFI strategy

We believe senior non-agency US CMBS offers attractive carry and, in the near-term, potential for incremental spread tightening. In subordinate CMBS, we believe security selection will become increasingly important as the real-estate cycle continues to extend. We currently prefer seasoned subordinate credits that benefit from embedded property price appreciation and declining spread duration.

US residential mortgage backed securities (US RMBS): Credit profiles remain solid; better value in senior classes

Rationale

A strong labor market, positive demographic trends and lower mortgage rates have supported housing demand, while conservative capital structures have generated strong credit profiles in the sector. We expect investor appetite to persist as both traditional and crossover buyers remain active in the space, though the crossover bid may weaken following recent widening of corporate credit spreads. We believe valuations are modestly attractive based on cross-sector and historical spread levels.

IFI strategy

Value in AAA rated prime jumbo securities has deteriorated as the yield premium over agency mortgage-backed securities (MBS) declined from recent highs but remains elevated from a historical perspective. We believe senior classes collateralized by non-qualified and reperforming loans offer substantial carry, potential for moderate spread tightening and limited exposure to further market volatility due to low spread duration. In Government Sponsored Enterprise Credit Risk Transfer securities, we see better value in investment grade classes based on spreads versus corporates and the continued flattening of the credit curve.

US asset backed securities (US ABS): Favorable fundamental and technical trends; esoteric ABS less attractive

Rationale

Credit quality and other pool characteristics in most ABS remain stable and favorable to normalizing collateral performance trends continue to be supportive. Current low unemployment, rising consumer incomes, still low interest rates and generally manageable consumer debt levels should also support near-term performance. Investor sentiment remains positive as seen in the continued strong demand for ABS across all asset types, ratings and maturities. Given the shape of the yield curve, short-duration benchmark ABS will likely remain in high demand.

IFI strategy

Relative to corporates, esoteric ABS is less attractive, in our view, given the recent rally in swaps and widening in corporate spreads. Still, we believe certain lower-rated esoteric and subordinate class ABS offer good coupon income and the potential to outperform over the near-term. Given limited tiering in these risk assets, our focus remains on larger, seasoned sponsors with extensive management experience, especially at this late stage of the economic cycle. We also see value at the top of the capital structure in liquid, amortizing benchmark and certain non-benchmark sectors, which continue to benefit from the slightly inverted short end of the yield curve and attractive all-in yields.

Sector themes

Commodities: Supply backdrop may drive near-term pricing; monitoring trade, global growth, tensions with Iran and Chinese manufacturing for potential risks

Rationale

Commodities have generally benefited from broad global growth, which has increased global commodity demand. However, tariff-related uncertainties pose near-term risks to the commodity space, coupled with broader concerns about slowing global growth. With that said, financial conditions have loosened, and global policy rhetoric has softened over the past several months, helping to stabilize and strengthen commodity prices. Chinese policies may improve demand in the second half of 2019, despite the potential for near-term weakness as their impact remains unclear. We expect corporate and credit fundamentals to remain supportive, given anticipated organic deleveraging, although managements' policies continue to become increasingly shareholder friendly. While we are actively monitoring commodity demand risks, we believe shifts in the commodity supply backdrop will continue to be the key near-term price driver.

IFI strategy

We favor copper producers, which tend to benefit from better supply/demand dynamics and have more attractive bond valuations. We like selective exploration and production oil companies located in Latin America as well as certain Russian oil and gas producers. We also remain constructive on select US midstream companies that are focused on cost of capital optimization and active deleveraging to stabilize or maintain investment grade ratings.

Consumer story more nuanced globally, watching US fiscal policy influences

Rationale

The solid US labor market and consumer confidence are supportive of the consumer sector, but US consumers are more value and delivery conscious, while international retail demand remains uneven. We are watching the European consumer for post-Brexit behavior shifts.

IFI strategy

We favor internet resistant and value-based US consumer sectors, such as dollar stores and aftermarket auto part retailers, but remain cautious on department stores and mall-based retailers that lack differentiated products. In EM, we favor consumer sectors on a selective basis. We expect US automotive original equipment manufacturers (OEM) sector fundamentals to weaken, given an adverse trade environment. Longer-term, however, we favor the sector on the margin, given our confidence that OEMs will be able to maintain an IG profile. European auto demand is proving resilient, which creates some potential in the European crossover segment (the border between investment grade and high yield). We are cautious on large European consumer goods companies, based on tight valuations and financial policies that favor equity.

Technology, media and telecommunications (TMT): Monitoring regulatory developments

Rationale

Upcoming regulatory decisions will likely significantly impact the TMT sector and the future of 5G. These include the US Department of Justice and Federal Communication Commission (FCC) decisions on a major telecommunication merger and the FCC's decision on how to free up more so-called C-band spectrum for 5G wireless. We continue to monitor headlines from Washington and expect to see progress on both issues in the second quarter of 2019. In our view, the Trump administration will favor outcomes that enable swifter rollout of 5G wireless technology.

IFI strategy

We prefer exposure to spectrum owners, equipment manufacturers, and tower owners, which, we believe, remain in a good position to benefit from the rollout of 5G.

Yield curve themes

Credit yield curve has steepened; six to seven-year maturities now more attractive

Rationale

The front end of the US credit curve remains well supported. Foreign demand coupled with strong US front-end retail flows have resulted in extraordinary demand for front-end investment grade credit this year. Additionally, large companies have been tendering for portions of their front-end debt, and front-end supply (zero to 5.5-year maturities) is down 21% year-to-date.[1] Stronger front-end demand paired with weaker supply has led to the steepening of the 10-year versus 2-year portion of the credit curve. Longer duration corporates often have more of a negative correlation with rates, and the large rally in rates over the past month has resulted in some recent underperformance in 10 to 30-year spreads.

IFI strategy

We have been overweight the 2 to 4-year part of the curve and have benefited from the steepening. At this point, front-end valuations look less compelling. We now find the 6 to 7-year part of the curve the most attractive. We are neutral on 10 and 30-year maturities. While we still see decent demand for long-end credit, the drastic move lower in yields across the curve could result in reduced pension and insurance demand. This could reduce demand for 30-year credit causing this part of the curve to steepen in the near term.

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

1 Source: Bloomberg L.P., data from May 21, 2019.

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

Asian US dollar bond market: A new asset class

The Asian US dollar bond market has grown rapidly in recent years. At USD1.1 trillion in outstanding bonds, it now ranks alongside the US bank loan and high yield bond markets, each totaling around USD1 trillion.[1] Because Asian banks are increasingly constrained by tighter regulatory capital requirements, they alone cannot meet the financing needs of Asian companies. This has led many Asian companies to increase their reliance on bond markets, including those denominated in US dollars.

China has dominated the Asian US dollar bond market

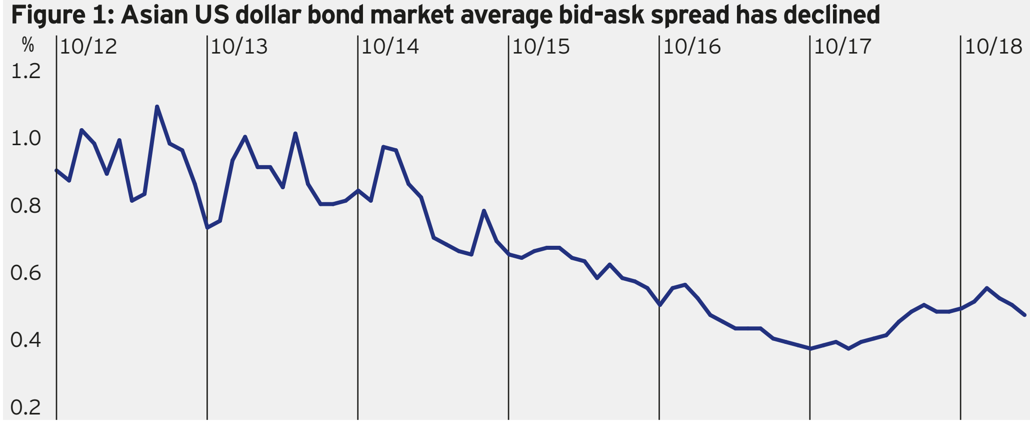
China's share of the Asian US dollar bond market has grown rapidly since 2010. Including Hong Kong, Greater China now accounts for 63% of outstanding bonds in the Asian US dollar bond space.[2] Given China's dominance in the market, both the valuation and technical factors of the Asian US dollar bond market are increasingly affected by Chinese policies, the supply and demand dynamics of Chinese US dollar bonds, and to a certain extent, the yield differentials between China's US dollar bond market and its onshore renminbi bond market on a currency swap basis. The relative attractiveness of Chinese US dollar high yield bonds may also drive the performance of high yield bonds of other Asian countries. In-depth macroeconomic research on China, systematic investment processes with respect to the onshore renminbi bond market and an understanding of local Chinese investor behavior have become important elements of Asian US dollar bond investing.

Attractive risk-reward profiles amid high domestic savings

In addition to high Chinese supply and demand, high rates of domestic savings across most Asian countries have led to strong demand for Asian US dollar bonds among Asian investors generally, the so-called "Asian bid" (Asian investors have purchased over 70% of Asian US dollar bond new issues since 2016).[3] The so-called Asian bid is diverse, representing Asian insurance companies, banks, private bank investors and retail investors, but their shared demand appears to be based on their familiarity with Asian bond issuers and a "home bias." We believe this source of demand has contributed to a lower volatility of the Asian US dollar bond market compared to other major bond markets.

As the size of the Asian US dollar bond market has grown, we have seen increased participation of market makers and capital commitments by trading desks. Market liquidity has consequently improved significantly, as reflected in the decline in the market's average indicative bid-ask spread, as shown in Figure 1.

Figure 1: Asian US dollar bond market average bid-ask spread has declined

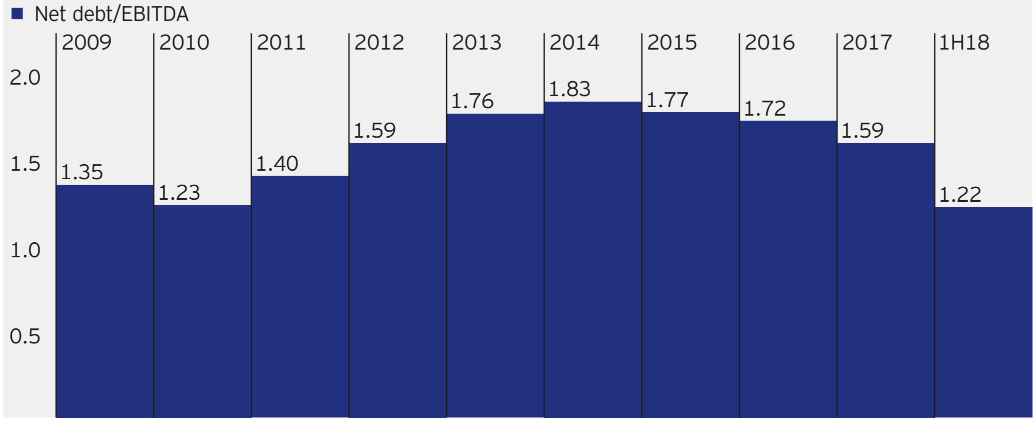


Source: J.P. Morgan, Invesco, data from Oct. 31, 2012 to March 31, 2019. The average market bid-ask spread is based on the J.P. Morgan Asia Credit Index bid-ask spread and Invesco estimates.

Improved Asian corporate credit outlook

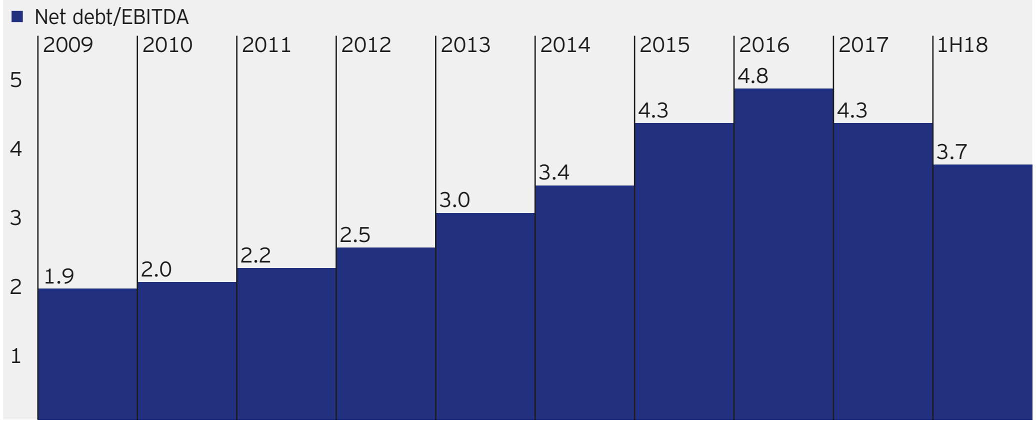
Thanks to corporate de-leveraging efforts in China, Indonesia, Malaysia, Thailand and Korea, the credit metrics of Asia's investment grade and high yield corporate issuers have generally improved, including positive debt trends among Asian investment grade and high yield issuers, as shown in Figures 2 and 3.

Figure 2: Asian investment grade EBITDA/interest expense has trended down



Source: Bloomberg L.P., J.P. Morgan, data from Dec. 31, 2009 to June 30, 2018. Most recent data available.

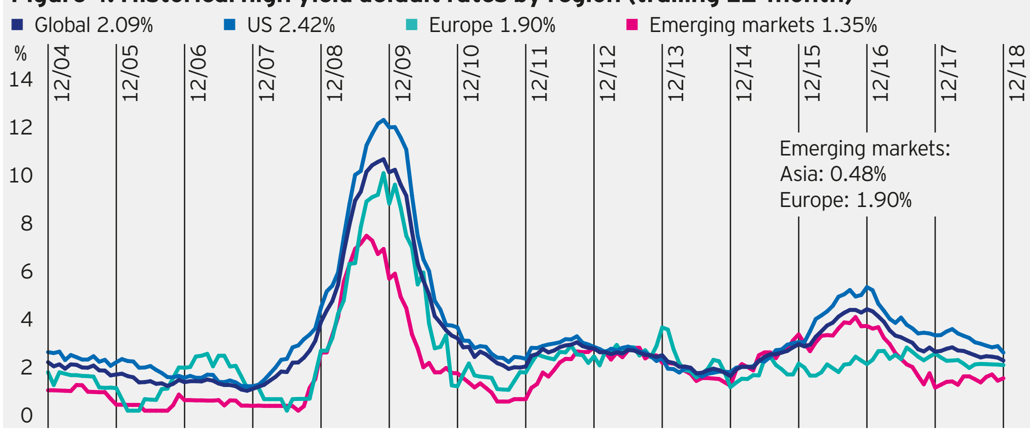
Figure 3: Asian high yield net debt/EBITDA has trended down



Source: Bloomberg L.P., J.P. Morgan, data from Dec. 31, 2009 to June 30, 2018. Most recent data available.

Asian high yield US dollar bonds have also demonstrated lower default rates than those of other regions, as shown in Figure 4.

Figure 4: Historical high yield default rates by region (trailing 12-month)

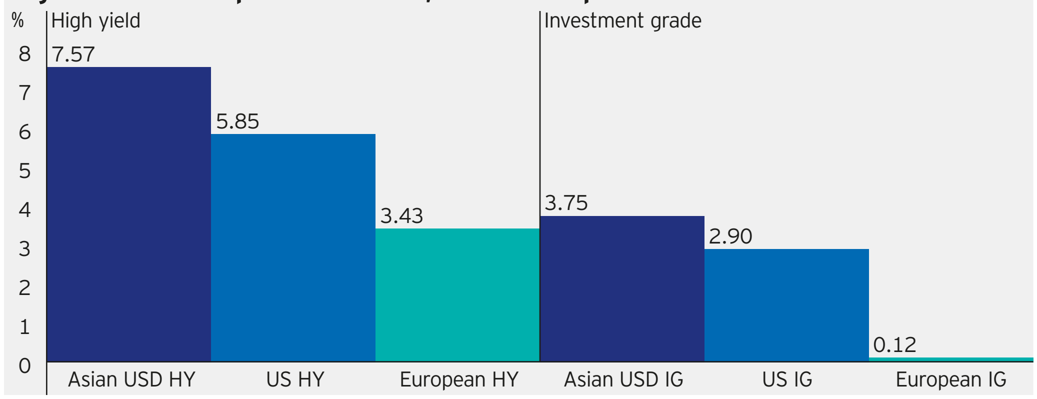


Source: Standard and Poor's, Invesco, data from Dec. 31, 2004 to Dec. 31, 2018.

Yield advantages of Asian US dollar bonds

Asian US dollar bonds provided higher yields, overall (data as of March 31, 2019) compared to US and European corporate bonds, as shown in Figure 5.

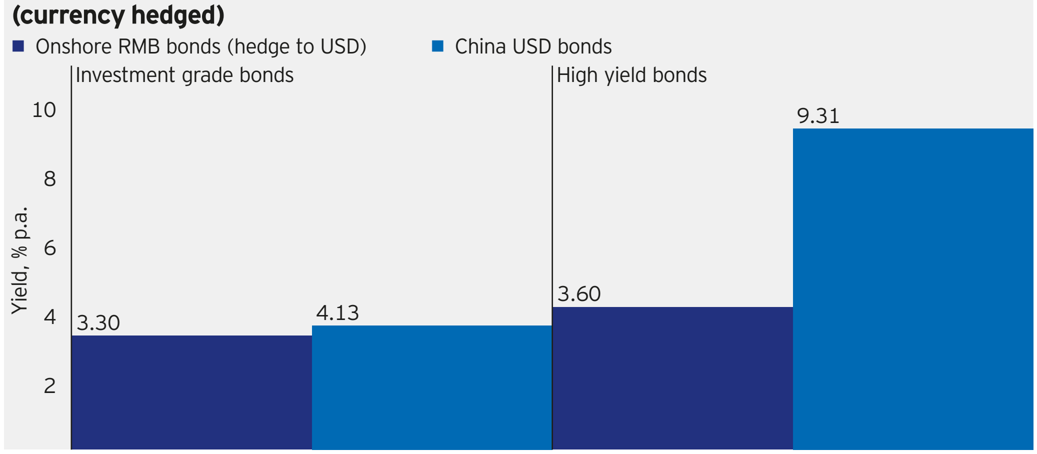
Figure 5: Yield comparison of Asian, US and European bonds



Source: Bloomberg L.P., Invesco; data as of March 31, 2019. Asian US dollar high yield is represented by Bank of America Merrill Lynch Asian Dollar High Yield Corporate Index, US high yield by Bank of America Merrill Lynch 0-3 Year Duration-to-Worst US High Yield Constrained Index, European high yield by Merrill Lynch 2-4 Year Euro High Yield Index, Asian US dollar investment grade by Bank of America Merrill Lynch Asian Dollar Investment Grade Corporate Index, US investment grade by Bank of America Merrill Lynch 1-3 Year US Corporate Index and European investment grade by Bank of America Merrill Lynch 1-3 Year Euro Corporate Senior Index. Past performance is not a guarantee of future results.

Chinese US dollar high yield bonds are particularly attractive, in our view, when compared to onshore Chinese corporate bonds on a currency hedged basis, as shown in Figure 6.

Figure 6: Chinese US dollar high yield bonds valuation versus Chinese onshore bonds (currency hedged)



Source: Bloomberg L.P., Invesco, data as of March 31, 2019. RMB is renminbi.
The onshore renminbi investment grade corporate bond yield is represented by the 3-year MTN AAA (locally rated) bond yield deducting 10% withholding t ax. The 12-month CNH forward hedging cost was 0.32% on March 31, 2019.
The US dollar investment grade corporate bond yield is represented by the BofA Merrill Lynch Asian Dollar Investment Grade Corporate China Issuers Index with duration of 4.46 as of March 31, 2019.
The onshore renminbi high yield corporate bond yield is represented by the 2-year MTN AA (locally rated) bond yield deducting 10% withholding t ax. The 1-month CNH forward hedging cost was 0.32% on Mar ch 31, 2019.
US dollar high yield corporate bond yield is represented by the BofA Merrill Lynch Asian Dollar High Yield Corporate China Issuers Index with duration of 2.27 as of March 31, 2019. Past performance is not a guarantee of future results.

Conclusion

Rising new issue volumes and the Asian US dollar bond market's expanding size have resulted in ample liquidity from a structural standpoint. Cyclically, positive trends in credit metrics and default statistics of Asian US dollar corporate issuers point to improved credit risk. In terms of valuation, we believe yields and credit spreads of Asian US dollar bonds are attractive compared to other major credit markets. While Chinese monetary and fiscal policies remain accommodative, we believe the large positive yield differential between China's US dollar bond market and the onshore renminbi bond market will likely also support the Chinese and broader Asian US dollar bond markets in the near term.

Invesco ranked #2 foreign asset manager in China by Z-Ben Advisors[4]

The ranking takes into consideration how adeptly global managers have approached the opportunities and risks associated with their China-specific business, especially given the challenges and uncertainties of the past year. Invesco's top position among asset management leaders reflects our robust strategy and adaptive moves taken ahead of China's rapidly changing fund management market.

Ken Hu, CIO Asia Pacific, Yifei Ding, Portfolio Manager, Haidan Zhong, Client Portfolio Manager

1 Source: US bank loan data is from S&P/LSTA Leveraged Loan Index, as of April 30, 2018. The high yield bond market data is from Fitch High Yield Default Index, as of Dec. 31, 2017.
2 Source: HSBC, Bloomberg L.P., Invesco, data from Dec. 31, 2010 to March 31, 2019.
3 Source: HSBC, Bloomberg L.P., data from Dec. 31, 2011 to March 31, 2019.
4 Source: Z-Ben Advisors 2019 China Rankings, Invesco, April 2019.

The bottom line

Progress report on SOFR

Laurie Brignac
CIO & Head of Global Liquidity

Justin Mandeville
Portfolio Manager

LIBOR: A short-term interest rate indicating average rates at which banks can obtain wholesale, unsecured funding for certain periods.

SOFR: A rate based on three types of overnight repurchase (repo) transactions. SOFR is considered one of the most robust indices available since it is based on a high volume of daily overnight transactions.

For more information, see our Investment Insights paper, **Progress report on SOFR.**

For decades the London Interbank Offered Rate (LIBOR) has been woven into the fabric of the financial industry – underlying a myriad of loans and securities from auto, commercial and residential mortgage loans, to interest rate derivatives. But events since the global financial crisis have led financial regulators and market participants to reevaluate LIBOR as a transparent and representative market rate, and it is set to be discontinued at the end of 2021. One year ago, the Federal Reserve Bank of New York launched its replacement in the US: the Secured Overnight Financing Rate (SOFR).

Below we speak with IFI's Global Liquidity team to learn about the progress made in the transition from LIBOR to SOFR and discuss the hurdles still faced by financial markets in the adoption of SOFR.

Q: How has SOFR been received?
Laurie: The integration of SOFR into broader markets has been slow – the adoption of SOFR in terms of transaction volumes remains in its infancy. Although the issuance of SOFR-linked floating rate notes continues to grow, it remains relatively limited, and issuance by corporate and municipal entities has been especially light.

Q: What are some of the reasons behind the delay in adoption?
Justin: Issuers appear inclined to see the SOFR-linked market develop further, allowing them to gain greater understanding of the pricing of SOFR-linked products. They are also likely awaiting several other developments, for instance, the creation of an "indicative term structure," important in the development and issuance of SOFR-based securities, further development of SOFR-linked derivative products and greater operational readiness among investors to transact in SOFR.

Additionally, many contracts for instruments referencing LIBOR extend beyond 2021 but do not adequately account for the possibility that LIBOR may no longer be meaningful after that date. Before markets adopt SOFR wholesale, they are probably waiting for clear "fallback language" that identifies the benchmark interest rates that would replace LIBOR in the event of its discontinuation.

Laurie: Some investors have also challenged the notion that SOFR - a nearly risk-free, secured rate - can successfully replace LIBOR - an unsecured rate with a credit component. A significant design drawback of SOFR versus LIBOR is that it fails to capture the disparity in counterparty risk reflected in funding costs associated with different issuers, which has been an important measure for investors.

Q: What are some of the challenges faced in resolving these issues?
Justin: The development of term SOFR rates, for instance, is dependent on the generation of a market for SOFR-based derivatives. Meanwhile the derivatives market, which is often used to hedge certain money market assets and liabilities, is in turn "waiting" for the development of SOFR-based money market instruments for use in the creation of hedges.

The interdependency of the money and derivatives markets presents us with a sort of "chicken and egg" dilemma: Which SOFR-based market will develop first to enable the calculation of term SOFR rates? Until the volume of SOFR-denominated assets and liabilities increases, demand for SOFR-based derivative products will likely also remain low. Ultimately, we believe these markets will need to grow and evolve simultaneously for the SOFR index to succeed. Regulatory action, in our view, will be necessary to promote the transition of LIBOR-based derivative instruments to SOFR.

Q: How might the issue of pricing be resolved?
Justin: The market is also working through the "spread adjustment" necessary for the conversion from LIBOR to SOFR, in other words the differential spread required to equate the interest rates on LIBOR and SOFR-based instruments. Research by the International Swaps and Derivatives Association (ISDA) on converting benchmark risk-free rates to their Interbank Offered Rate (IBOR) equivalents gives us a framework for calculating the spread adjustment and focuses on utilizing the historical average spread between the term risk-free rate and IBOR to account for the differences in credit quality and liquidity between the two rates. ISDA has proposed three spread adjustment methodologies.

Of these, we believe the historical mean/median approach to the spread adjustment is the most suitable method. This would base the spread adjustment on the mean or median spot spread between the relevant IBOR and risk-free rate calculated over a significant, historical period (e.g. 5 or 10 years). This method is thought to be robust and simple, reducing the potential for manipulation. The final decision on the preferred LIBOR-SOFR conversion methodology, however, is still a work in progress.

Q: What are the recent developments in SOFR adoption?
Laurie: The adoption to SOFR is slowly taking place in various markets. Since July 2018, floating rate notes benchmarked to SOFR have grown significantly. And there appears to be robust demand for these securities, demonstrated recently by the oversubscription of new issue offerings of SOFR-based US agency floating rate notes.

The US Treasury is also considering the issuance of a Treasury security indexed to SOFR. This would likely provide a significant boost to the market's transition, though we believe we are more than a year away from the Treasury's adoption of the SOFR benchmark, as it studies the pricing of such a security.

Justin: The Financial Accounting Standards Board (FASB) has also adopted SOFR as an eligible benchmark for bank hedge accounting as part of a broader effort on the part of regulators to encourage the transition from LIBOR to SOFR.

Finally, activity in SOFR-based swaps and derivatives has picked up, helped by improvements in price discovery, especially in longer tenors. We believe increased volumes in these markets will help advance the use of SOFR in financial institutions' hedging activity and aid overall development of the SOFR term market.

Q: Do you think SOFR will ultimately gain widespread adoption?
Laurie: We believe a few factors will likely lead to increased activity in SOFR-based instruments and improve liquidity in the new benchmark.

The impending risk of LIBOR's cessation should incentivize banks and other financial institutions to mitigate risks by transferring liability hedges currently pegged to LIBOR to SOFR. And the risk of increased volatility in LIBOR as the phase-out date approaches, will likely increased demand for SOFR.

The migration of new and existing deals to SOFR should increase overall SOFR exposure on the asset side of dealer balance sheets. And volatility in repo rates, and SOFR by extension, will likely be dampened by impending changes in European banks' month-end practice of window dressing, helping to boost comfort levels with SOFR.

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

Market monitors

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)	2.69	1.81	0.04	45	-2	23	156	0.06	1.97	3.05	5.39
U.S. Aggregate	3.23	2.97	0.03	44	-1	32	258	0.03	1.89	2.97	5.29
U.S. Mortgage-backed	3.63	3.19	0.10	41	6	-16	181	-0.06	1.30	2.11	4.89
Global Inv Grade Corporate (USD hedged)	3.50	2.80	-0.05	114	-11	55	515	0.62	3.27	5.29	6.26
U.S. Investment Grade Corporate	4.04	3.60	-0.03	111	-9	76	618	0.54	3.28	5.71	6.50
Emerging Market USD Sovereign	n/a	6.01	0.02	344	-7	157	906	0.24	2.68	7.21	6.01
Emerging Market Corporate	n/a	5.29	-0.06	286	-12	120	1,032	0.78	3.17	5.97	6.11
Global High Yield Corporate (USD hedged)	5.98	5.69	-0.30	374	-30	231	1,845	1.39	4.17	8.34	6.46
U.S. High Yield Corporate	6.38	6.12	-0.31	358	-33	233	1,971	1.42	4.08	8.78	6.74
Bank Loans	6.14	6.32	-0.11	n/a	n/a	n/a	n/a	1.59	3.05	5.42	4.46
Municipal Bond	4.66	2.30	-0.02	n/a	n/a	n/a	n/a	0.38	2.51	3.28	6.16
High Yield Municipal Bond	4.98	4.66	-0.01	n/a	n/a	n/a	n/a	0.56	3.72	4.41	8.26

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	2.42	2.41	0.04	-0.28	1.35	1.83	4.77
Canada	2.32	1.69	0.05	-0.38	1.56	2.16	5.21
United Kingdom	3.25	1.27	0.14	-1.64	0.73	1.80	3.31
Germany	1.76	-0.18	0.06	-0.57	0.75	1.53	4.18
Italy	3.19	1.82	-0.04	0.49	0.94	2.09	-1.79
Japan	0.96	0.03	0.04	-0.39	0.61	1.08	1.72
China	3.52	3.30	0.25	-1.42	-0.87	0.10	4.86
EM Local Currency Governments	n/a	n/a	n/a	0.04	0.92	2.69	3.67

FX market monitor[1]

	Current	10 year range: min	10 year range: max	Returns: 1 mth (%)	3 mth (%)	YTD (%)	12 mth (%)
EURUSD	1.12	1.04	1.51	-1.37	-2.20	-2.20	-7.15
USDJPY	111.42	75.82	125.63	-0.04	-1.63	-1.63	-1.88
GBPUSD	1.30	1.20	1.85	-1.74	2.18	2.18	-5.31
USDCNY	6.73	6.04	6.96	-0.61	2.13	2.13	-5.95
USDCHF	1.02	0.72	1.23	-2.09	-3.69	-3.69	-2.80
AUDUSD	0.70	0.60	1.10	-0.65	-0.01	-0.01	-6.40
CADUSD	0.75	0.69	1.06	-1.59	1.85	1.85	-4.08
EURJPY[2]	125.02	94.31	157.95	1.31	0.61	0.61	5.63
EURGBP[2]	0.86	0.69	0.98	-0.36	4.49	4.49	1.97

Sources: Bloomberg Barclays, J.P. Morgan, as of April 30, 2019. Credit Suisse Leveraged Loan data as of April 30, 2019. 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. **China embarks on Digital Silk Road,** May 2019, Adrian Garcia, Senior Credit Analyst
2. **Progress report on SOFR,** May 2019, Justin Mandeville, Portfolio Manager
3. **Emerging markets debt outlook,** Q2 2019, Rashique Rahman, Head of Emerging Markets Debt
4. **China's Belt and Road Initiative – from increased commodity demand to shifting supply routes,** February 2019, Fabrice Pellous, Senior Credit Analyst
5. **Emerging markets debt outlook,** Q1 2019, Rashique Rahman, Head of Emerging Markets Debt

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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.
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