



Invesco Fixed Income

Global Fixed Income Strategy

April 27, 2016

April takeaways

- 1 Rethinking traditional monetary policy amid global pressures**
The US Federal Reserve's dovish stance may be surprising given firming US inflation, but global pressures may be creating a tolerance for some overshooting.
- 4 Interest rate outlook**
- 6 Currency outlook**
- 7 Global investment themes**
Key themes driving Invesco Fixed Income's global views and macro and credit research process.
- 9 Emerging markets' alpha-beta mix**
How much opportunity is there to generate alpha in emerging markets?
We break down the drivers of emerging markets returns into systematic and idiosyncratic factors.
- 12 Corporate hybrids offer potential opportunities in low interest rate environment**
Invesco Fixed Income believes the spread premium offered by corporate hybrids on top of senior debt makes carefully selected hybrids a potentially attractive investment.
- 14 The Bottom Line**
We speak with Ray Uy, Head of Fixed Income Macro Research, about how global investors can decide if currency hedging is right for them.

Global macro strategy

Rethinking traditional monetary policy amid global pressures

The dovish stance adopted by the US Federal Reserve (Fed) in recent months has surprised many market participants, including us. Recent US data have pointed to moderate growth, inflation has generally surprised to the upside and the US labor market continues to improve at a healthy pace. Investors might have expected this positive economic picture plus a recovery in global financial conditions (see the March issue, "Federal Reserve coasts as ECB and China accelerate") to result in a more hawkish policy tone. In fact, such a view was summed up in a recent speech by Fed Vice Chair Stanley Fischer, "...a persistent large overshoot of our employment mandate would risk an undesirable rise in inflation that might require a relatively abrupt policy tightening, which could inadvertently push the economy into recession."¹

According to traditional thinking, the so-called Phillips Curve relationship argues that increased levels of employment should translate into wage pressures and thus higher rates of inflation, as workers negotiate higher wages. This is a view common among Fed policy makers and was evident in the Fed's economic projections published at its December Federal Open Market Committee (FOMC) meeting. The Committee's projections for 2016 showed a modest increase in growth expectations from 2.1% to 2.4%, a 0.3% drop in the unemployment rate to 4.7% and a pick-up in core inflation to 1.6% from a previous forecast of 1.3%.² Against this backdrop, FOMC members had expected a 1% rise in the target federal funds (policy) interest rate in 2016. However, although core inflation now sits above the Fed's 1.6% projection (currently 1.68%) and growth is in line with the FOMC's upgraded projections, current Fed rhetoric does not suggest an urgency to pursue policy normalization.³ Given the positive economic backdrop, we would expect a more hawkish stance if the Fed believed the Phillips Curve relationship was still intact.

Instead, amid lingering concerns over China and commodity prices, for example, it appears the Fed has shifted its focus from the Phillips Curve to concerns around global financial conditions. Weighting tighter financial conditions more heavily than the rising strength in inflation implies that the Fed is taking a stance that is more in line with "optimal control" - the policy framework in which inflation may be allowed to run a little higher than warranted for a time, given the level of unemployment. In other words, rather than reacting pro-actively to rising inflation, optimal control supports overshooting inflation temporarily to reach a higher level of employment. In the current situation, the Fed appears to be applying this concept to financial conditions - in other words, allowing inflation to build while allowing global financial conditions to ease and uncertainty to recede.

We believe the Fed's dovish stance provides a window for risk asset outperformance. While we believe valuations are fair in selected asset classes, we still see compelling opportunities in high yield, emerging markets and investment grade. Demand remains robust across fixed income risk assets as capital flows return to the market. However, we are watching for several catalysts that could reverse this "risk-on" sentiment. First, a resumption of Chinese capital outflow pressures could result in tightening financial conditions, as we experienced earlier this year, weighing on risk assets. Second, market perceptions that the Fed is behind the curve driven by expectations of higher inflation and further interest rate hikes could result in a shock to rates and a subsequent risk-off scenario. Finally, a reversal in the Fed's rhetoric towards inflation concerns rather than financial conditions could negatively affect bond markets.

James Ong, Senior Macro Strategist, Noelle Corum, Analyst, Rob Waldner, Chief Strategist

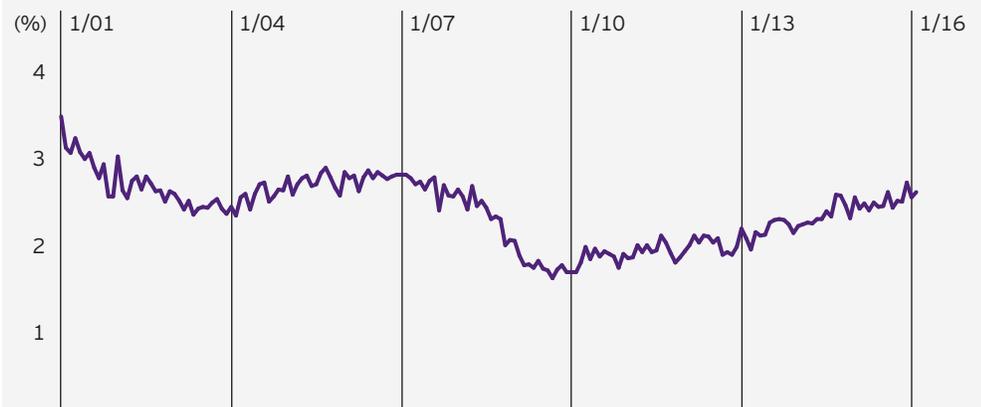
IFI view: US inflation could surprise to the upside

We have grown more bullish on US inflation going into the second half of 2016. Given our expectations for fewer policy hikes in 2016 than we previously expected, we believe a stable-to-weaker dollar will moderate the deflationary impulse coming from core goods tracked by the Consumer Price Index (CPI). We expect goods price inflation to end 2016 at 0% versus our forecast of -0.5% in December.

An important contributor to our forecast is the very tight domestic labor market. The quits rate for service industries (as shown in Figure 1) has returned to its pre-recession high. Since the employment cost index (a measure of employment compensation) tends to lag the quits rate by one quarter, we believe domestic wages are set to increase to cyclical highs in the near future. So while rising housing prices have been the main driver of inflation in the last several months, we expect service sector wage pressures to begin to feed through to other CPI components as well, for example, education and healthcare.

Taken together, we expect core CPI to end 2016 at 2.4%, with upside risk to around 2.5% due to a potential pick-up in domestic inflation. This translates into our base case expectation of 1.7% growth in the Personal Consumption Expenditure Index (gross domestic product (GDP) inflation measure watched closely by the Fed) with an upside risk to 1.8% due to healthcare and education costs. Relative to the FOMC projections released in March, this puts our base case within the Fed's 1.4 - 1.7% forecast range and slightly above the market consensus expectation of 1.6%.⁴

Figure 1: Service sector quit rate



Source: Bureau of Labor Statistics (BLS), data from Jan. 31, 2001 to Feb. 29, 2016. The BLS conducts a monthly survey of job openings and labor turnover (JOLT), which tracks the rate of voluntary quits in the labor force.

Jay Raol, Senior Macro Analyst

1 Source: federalreserve.gov, Feb. 1, 2016.

2 Source: federalreserve.gov, Dec. 16, 2015.

3 Source: federalreserve.gov, March 16, 2016.

4 Source: Bloomberg L.P., April 19, 2016.

Interest rate outlook

US: The FOMC has shown increasing concern about global developments and tightening financial conditions against a backdrop of modest US growth and firming inflation. This has been positive for US interest rates across the yield curve. We expect US growth to continue at a moderate pace and inflation to remain firm. If the US economic situation evolves as we expect, the US yield curve may steepen as inflation risk rises. We believe this inflation dynamic is likely to benefit US Treasury inflation-protected securities (TIPS) relative to nominal US Treasury securities. Investors currently receive very low compensation for holding US Treasuries. Given rising inflation risks and low compensation, we favor holding underweight positions in US interest rate risk.

Europe: After the European Central Bank's (ECB) big easing package surprised markets in March, the ECB has refrained from announcing new easing measures, instead focusing on communicating how the new measures are going to be implemented. We feel that, going forward, the markets will likely be focused on stabilizing inflation data and the already improved sentiment around China. We believe improved market sentiment will likely put upward pressure on core European government bond yields. However, we expect the sell-off in yields to be self-limiting, as higher yields tighten financial conditions, slowing economic momentum.

China: China's strong reflationary policies appear to be having an impact on the economy, as we anticipated. Producer price deflation has started to subside, easing from -4.9% in February to -4.3% in March.¹ Residential property sale prices and volumes continue to rise. The March manufacturing Purchasing Managers' Index (50.2) came out ahead of market consensus (49.4) and March industrial production year-over-year growth (6.8%) also beat market consensus (5.9%).² In response, the onshore Chinese government bond yield curve has risen moderately. Currently, two-year and 10-year onshore Chinese government bond yields are 2.46% and 2.93% respectively.² We see more value in offshore Chinese government bonds as they provide more yield for the same maturity - two-year and 10-year offshore Chinese government bond yields are currently yielding 3.53% and 3.68%, respectively.²

Japan: Inflation continues to come in below expectations in Japan, however the bigger concern is the decline in inflation expectations. The central bank's decision to take interest rates negative in January had the desired effect on bond yields, but its impact on the currency (strengthened) and inflation expectations (increased slightly) were less desirable and point to further easing ahead. Policy officials would probably prefer to wait until the July meeting to take additional action, as this meeting would take place after the election. A near-term weakening in the yen or increase in oil prices may provide breathing room. Either way, we expect a continued expansion of policy tools from the Bank of Japan going forward, with greater focus on the composition of asset purchases (increased focus on equities, REIT's, etc.) and further use of the negative interest rate policy (NIRP) tool.

UK: The EU referendum has come into sharper focus in recent weeks with polls suggesting a closer outcome than previously envisaged. As the two sides of the issue argue the impact of a "remain" or "leave" outcome on the longer-term prospects for UK growth, it is generally accepted, by all sides, that the uncertainty following a "leave" outcome would be detrimental over the shorter term. We believe the current positive growth trend would continue with a "remain" outcome, given the UK's environment of rising house prices, record low mortgage rates, real wage increases and supermarket price wars. But with the referendum outcome uncertain, it is difficult to have high confidence in such a view. We expect gilt yields to trade in a 1.4-1.7% range over the coming month.

Canada: Canadian growth has exceeded our expectations. However, several leading indicators of business confidence continue to remain depressed. Exports are expected to lead economic growth this year but currency appreciation and slowing of US auto demand are large headwinds to this view. Household leverage continues to expand, leading to a growing backdrop of vulnerability. Inflation should remain low. Our strategy remains overweight the long end of the yield curve. We expect 10-year Canadian government bond yields to trade in a range of 1-1.8% in 2016.

Australia: Investor sentiment toward risk assets appears to have improved dramatically and this has negatively impacted Australian interest rates, which are often used as a China hedge. Domestically, the Australian central bank (RBA) does not seem to mind seeing some currency strength as long as it does not interfere with the rebalancing of the economy towards services - which, according to the RBA, it so far has not. However, if risk-seeking behavior keeps propelling the Australian currency higher, the RBA will likely be forced to step in and increase its dovish rhetoric. This is because inflationary forces are negligible and the service industry in Australia depends on being competitive via a weak currency. Any new dovish rhetoric would likely be beneficial for Australian bonds.

Rob Waldner, Chief Strategist, James Ong, Senior Macro Strategist,
Sean Connery, Portfolio Manager, Avi Hooper, Senior Portfolio Manager,
Josef Portelli, Portfolio Manager, Ken Hu, CIO Asia Pacific, Alex Schwiensch, Portfolio Manager

1 Chinese National Bureau of Statistics, Feb. 29, 2016, March 31, 2016.
2 Bloomberg L.P., April 20, 2016.

Currency outlook

USD: Monetary policy divergence has paused, as the Fed relents on its tightening bias and global central banks target easing measures other than those aimed at currency weakness. Although we continue to expect the US to fundamentally diverge from the rest of the world, US dollar strength will likely continue to be challenged until strength in economic data forces the market to price in further interest rate hikes.

EUR: We remain on the sidelines regarding the euro as there remains a dearth of meaningful catalysts on the horizon, a less currency-focused ECB and an optimally controlled Fed (the policy framework in which inflation may be allowed to run a little higher than warranted for a time, given the level of unemployment- or in the current case, the state of financial conditions). We believe the macro risk environment remains challenging, as structural economic headwinds battle cyclical policy tailwinds.

JPY: Recent jawboning by Bank of Japan (BoJ) and Japanese government officials appears to have stemmed the appreciation in the Japanese yen for the time being. A stronger yen makes the BoJ's task of achieving its 2% inflation target even more difficult, although the recent appreciation in oil prices will likely lessen the need for the central bank to take corrective action sooner rather than later. That said, with unilateral currency intervention likely to prove unpopular with G20 counterparts, we do not favor aggressively overweighting the yen beyond 105 (to the US dollar) as we believe entry into that territory could trigger a policy response. The yen will likely otherwise continue to be a good hedge in a "risk-off" environment.

GBP: We continue to be overweight sterling based on the expectation that the UK will vote to stay in the EU in its June 23rd referendum and that interest rate hikes will likely be brought forward thereafter. Polls continue to suggest that the referendum race will be close. We would want to see a clear "remain" lead emerge over the coming weeks to maintain confidence in our trade. We expect volatility to remain elevated into the vote, but an improving global economic backdrop would likely be supportive of the currency, particularly in an environment where positioning appears to be very short. A downturn in sentiment would likely result in a greater focus on the UK's current account deficit.

CAD: A combination of rising oil prices and short-term interest rates in Canada has led to continued strong performance of the Canadian dollar. Interest rate cuts have now been fully discounted in Canada as the Bank of Canada is allowing fiscal stimulus measures to take hold. The appreciation of the Canadian dollar and a rise in funding rates is tightening financial conditions. Despite the improving terms of trade, the external account remains a source of vulnerability. We maintain a longer-term negative view on the Canadian dollar, but the current global liquidity environment remains supportive.

AUD: The Australian dollar has benefited from the improvement in risk sentiment and the improving outlook toward China. This more positive attitude towards risk assets has improved the sentiment around currencies such as the Australian dollar, which has been used as a China hedge. Domestically, the Australian central bank (RBA) does not seem to mind seeing some currency strength, as long as it does not interfere with the rebalancing of the economy towards services - which according to the RBA, it so far has not. However if risk-seeking behavior keeps propelling the currency higher, the RBA will likely be forced to step in and increase its dovish rhetoric. This is because inflationary forces are negligible and the competitiveness of Australia's service industry depends on a weak Australian dollar.

Ray Uy, Head of Macro Research and Global Multi-Sector Portfolio Management,
James Ong, Senior Macro Strategist, Avi Hooper, Senior Portfolio Manager,
Sean Connery, Portfolio Manager, Josef Portelli, Portfolio Manager

Go to The Bottom Line

We speak with Ray Uy,
Head of Macro Research
about currency
management.

Page 14

Global investment themes

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

Global macro themes

Global convergence: Market risks decreasing

Rationale

A dovish Fed, no more rate cuts from the ECB and China easing combined with capital controls should help support USD stability.

IFI strategy

We favor playing the current risk-on rally tactically as concerns remain over China and EM growth dynamics. We believe reducing credit risk into the rally is appropriate.

Asian deflation

Rationale

Asia is the epicenter of global deflation pressures regardless of developed market central bank actions. Asia still faces a significant growth and inflation deficit.

IFI strategy

Allocations to currency and interest rate risk remain at the low end of the range. Seek to add JPY exposure on weakness as a strategy hedge.

Global credit themes

Geographical themes

Investment grade (IG): Global cycle differences remain

Rationale: Preference for US and Europe over Asia. Supply risks moderating in US, valuations attractive. Europe at earlier stage of credit cycle. ECB provides tailwind, supporting valuations. Asia valuations full following risk rally. Fundamentals challenging with leverage at cycle highs, however corporate actions recently have been credit supportive, particularly in energy.

IFI strategy: Favor gaining exposure to select higher quality issuers in energy and metals sectors where shorter-term maturities are well covered by liquid assets. Favor industrials, consumer cyclicals while neutral financials.

Emerging markets (EM): Growth impulses following Fed stabilization

Rationale: Fundamentals have improved at margin with Fed on hold. Retreat of US dollar has profound implications for EM domestic financial conditions, should it be sustained. Renewed volatility in oil and industrial metals would give markets pause. Favor risk-on posture but aware of risk factors. Potential for rising global manufacturing, global trade to support EM growth.

IFI strategy: Prefer to add risk through high conviction views, not high beta exposure. Keeping China beta low. Prefer consumer and Latin America exposures as potential Brazil regime change creates opportunities with valuations at extreme levels.

US commercial mortgage backed securities (US CMBS): Macroeconomic volatility headwind

Rationale: Despite positive fundamentals, expect heightened near-term macroeconomic volatility to limit potential for credit spread tightening. Cautious on exposures in energy sensitive regions. Dwindling supply creating good technicals.

IFI strategy: Remain negative on recent vintage subordinate tranches. Prefer seasoned US CMBS as cycle progresses. Credit-differentiation is accelerating, placing a premium on selection.

US residential mortgage backed securities (US RMBS): Valuations mixed, liquidity inconsistent, favorable fundamentals

Rationale: Legacy non-agency US RMBS lagged market recently offering opportunity where fundamentals are favorable. Credit risk transfer (CRT) deals show solid fundamentals, however, valuations are stretched in the below-investment grade segment. Liquidity remains inconsistent. Market remains sensitive to supply.

IFI strategy: Prefer higher quality legacy prime, alt-A, seasoned CRT, 2014-early 2015 vintages. Favor avoiding sub-prime, option adjustable rate mortgages. Favor BBB-rated CRT over below-investment grade.

US asset backed securities (US ABS): Value in subordination

Rationale: US ABS has been less volatile versus US IG. Fundamentals are strong but modestly weaker as collateral performance has moved off of historical low delinquency and loss levels. Technicals supportive.

IFI strategy: Prefer adding exposure to subordinate tranches where collateral performance remains stable. Lower volatility AAA attractive, in our view. Believe senior auto ABS and esoteric issuers can provide opportunities. Favor avoiding deep subprime auto ABS.

Sector themes

Commodities: Global rebound in energy, metals, volatility remains

Rationale: Expect slightly better risk premiums in global IG credit in next quarter as market digests transition of energy and metals credits to high yield. Expect elevated issuance to pressure valuations while fundamental credit quality concerns remain due to modest economic growth. Volatility remains a concern with OPEC and Fed uncertainty.

IFI strategy: Favor gaining exposure to select higher quality issuers in energy and metals sectors where shorter-term maturities are well covered by liquid assets.

Consumer story more nuanced globally

Rationale: Solid US labor market and low gas prices are supportive, but consumers more value-conscious and international retail demand remains uneven, due partly to volatile capital markets.

IFI strategy: Favor select US consumer sectors including autos, restaurants, leisure and housing-related sectors. Negative on "big box" retailers that lack differentiated products. Favor EM consumer sectors on a selective basis.

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

Rationale: M&A activity at post-recession high, driven by large cash balances, low all-in financing cost, lack of organic growth, and need to reposition business portfolios.

IFI strategy: Preference to play post-transaction bond issuance, typically characterized by size, liquidity, concessions and plans to deleverage. Due to rise in M&A related issuance, believe more discriminating approach to this strategy now warranted.

Global technology - big data

Rationale: Global use of data expected to further expand and transition to cloud-based platforms.

IFI strategy: Prefer to gain exposure to software and services (SAAS), cell towers and select wireless issuers. Have avoided hardware original equipment manufacturer (OEM) issuers.

Yield curve themes

Credit curve positioning, expecting demand shift outward

Rationale: Zero interest rate policy globally has forced cash investors and sovereign wealth funds into 3-5 year part of the credit yield curve, creating steep 5-7 year part of the curve. Lately, sovereign wealth funds have targeted the 10-year part of the curve. Longer duration spreads remain wide and offer favorable carry, in our view. As Fed normalizes policy and money market rates become more attractive, expect some outflows from 1-3 year part of the curve into money market funds, but expect demand for 5-10 year paper to be resilient.

IFI strategy: Prefer 7-10 and select 30-year points on US IG credit yield curve. New issuance at longer maturities has tended to come at healthy concessions.

Rob Waldner, Chief Strategist, Ray Uy, Head of Macro Research and Global Multi-Sector Portfolio Management, Tony Wong, Head of Global Research, Joe Portera, Head of Global High Income, Michael Hyman, Head of Investment Grade

Emerging markets

Emerging markets' alpha-beta mix

How much opportunity is there to generate alpha in emerging markets (EM) fixed income? In other words, to what extent are returns among EM asset classes determined by idiosyncratic factors and how much are they driven by “systematic” or common factors? Below we attempt to break down the drivers of returns across different EM segments into systematic and idiosyncratic factors to determine what proportion of returns is “beta” driven (systematic factors) and what portion represents opportunity for “alpha” generation (idiosyncratic factors).

Systematic factors (beta) often prevail

We find that constituent returns across EM asset classes tend to be driven primarily by common – that is, systematic – as opposed to idiosyncratic factors, although this varies across time and asset classes. Contrary to what may be presumed, we find that EM corporate credit exhibits the highest level of systematic influence on returns over time, while EM equities some of the least. On average, we find that nearly 70% of the variation in EM corporate credit returns is driven by common – not idiosyncratic, name-specific factors.

We utilize two methods – principal component analysis (PCA) and regression analysis – to gauge the extent of ‘beta-ness’ of EM asset classes. The ‘beta-ness’ of a market is the extent to which common factors explain the variation in returns within an asset class. It is the systematic component of returns. The drawback of this approach is that the exact factors influencing returns are not known. That said, it does indicate to what extent returns are influenced by systematic – as opposed to idiosyncratic – factors. Using PCA, Figure 2 shows that the influence of common factors on returns across EM asset classes ranges from a high of 68% on EM corporate credit to a low of 51% on EM local duration (local government bonds) and EM equity.

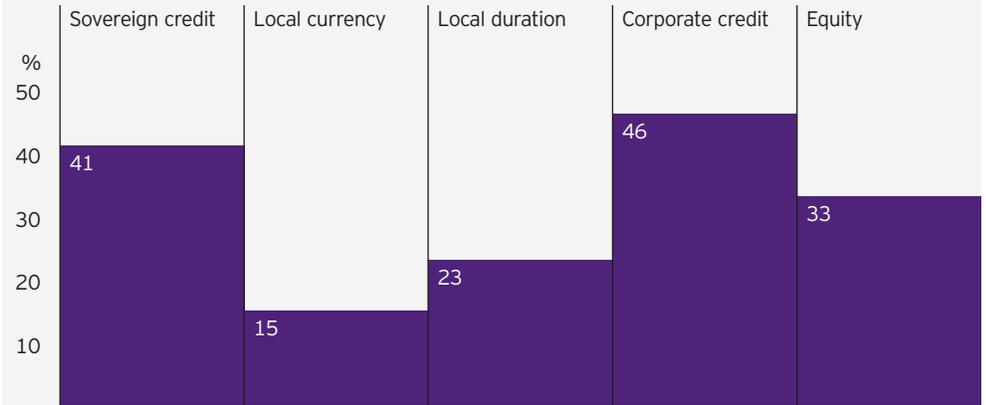
Figure 2: Principal components analysis: Systematic component of returns (period average, Q1 2004 - Q1 2016)



Source: Invesco, as of March 31, 2016. Sovereign credit is represented by the JPMorgan EMBI Global Diversified Index. Local currency is represented by the US Dollar (DXY) Index. Local duration is represented by the JPMorgan GBI-EM Broad USD Hedged Index. Corporate credit is represented by the JPMorgan CEMBI Broad Diversified Index. Equity is represented by the MSCI All World USD Hedged Index.

We compare the above PCA to a regression-based approach, which determines the extent of return variation explained by a set of market factors.¹ As seen in Figure 3, common factors explain less of the variation in returns than indicated by PCA. Notably, EM currency displays the least ‘beta-ness’ of all asset classes. The drawback of this approach is that all systematic components of returns may not be represented; it depends on which metrics are included. That is, this approach can potentially underestimate the influence of common factors.

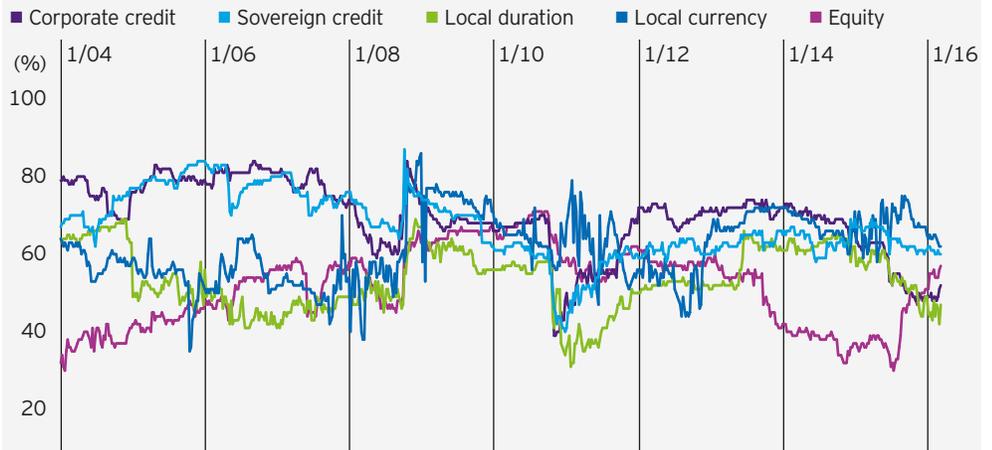
Figure 3: Regression analysis: Systematic component of returns (period average, Q1 2004 - Q1 2016)



Source: Invesco, as of March 31, 2016. Sovereign credit is represented by the JPMorgan EMBI Global Diversified Index. Local currency is represented by the US Dollar (DXY) Index. Local duration is represented by the JPMorgan GBI-EM Broad USD Hedged Index. Corporate credit is represented by the JPMorgan CEMBI Broad Diversified Index. Equity is represented by the MSCI All World USD Hedged Index.

An important outcome is that the influence of systematic factors, regardless of method, varies considerably over time. As Figure 4 demonstrates, in the case of EM equities, for example, using PCA, we can see that the influence of common factors has been as low as 30% and as high as 70% over the last decade. Therefore, idiosyncratic factors - though not on average - can have major influence, at times, on market outcomes.

Figure 4: Principal Components Analysis: Systematic Component of Return over Time



Source: Invesco, data from Jan. 9, 2004 to March 11, 2016. Sovereign credit is represented by the JPMorgan EMBI Global Diversified Index. Local currency is represented by the US Dollar (DXY) Index. Local duration is represented by the JPMorgan GBI-EM Broad USD Hedged Index. Corporate credit is represented by the JPMorgan CEMBI Broad Diversified Index. Equity is represented by the MSCI All World USD Hedged Index.

A question of global financial integration

So what explains the differences in systematic influence across EM asset classes? Broadly, across the two methods, we believe the results tell a similar story: the more globally integrated the EM asset class, the greater the role of beta; the less integrated, the greater the potential for alpha. The role of global macro factors is consistently the greatest in credit sectors, followed by currencies and the least in EM local government bonds and equities. This finding is consistent with the fact that EM credit, being a largely US dollar-based, homogeneous asset class, is not only highly integrated but also the most integrated of the EM asset classes. EM local bonds and equities are the least integrated, given their varied jurisdictions and heterogeneous means of investing in these markets. The financial and economic logic underlying this result strongly suggests to us that this phenomenon will continue.

Country-specific return drivers, of course, can represent both beta and alpha factors. A country that is more highly geared to global growth or inflation factors, or risk aversion/risk appetite drivers, will likely be driven by beta more than alpha relative to a more closed economy. For example, small or open EM economies whose business and financial cycles are commodity-dominated will tend to be much higher beta than more isolated EM economies.

Gauging macro (high-level) risk - how we integrate the approach

An appreciation of the extent of the influence of systematic risk, or beta, is critical, in our view, in aligning risk appropriately in portfolios. If the market is driven by common factors, then we believe assigning and assessing these macro (high-level) risks will be the key determinant of portfolio performance. As such, we routinely assess the extent to which common factors are driving asset returns. This allows us to calibrate the extent of 'beta-ness' we wish to represent in our portfolios. This, as we have seen, varies across strategies depending on whether it is credit or local currency, for example. Furthermore, we take active views on common factors that tend to influence market directionality. We believe this provides us with greater scope to appropriately gauge the extent of macro risk prevalent within our portfolios.

Arnab Das, Head of Emerging Markets Macro Research,
Rashique Rahman, Head of Emerging Markets, Jay Raol, Senior Macro Analyst

1 The factors used in the regression include the SP 500, US 10Yr yield, VIX Index, EURUSD, Bloomberg Commodity Index, Barclays HY Credit Spreads, Citi Developed Market Growth and Inflation Surprise.
2 IMF Global Financial Stability Report, Chapter 2, April 2014.

European investment grade

Corporate hybrids offer potential opportunities in low interest rate environment

Corporate hybrid securities have grown into an important asset class. The segment has expanded rapidly in recent years, due to its dual appeal to both investors and issuers. Because credit rating agencies regard corporate hybrids as part debt and part equity, they have been appealing to corporate issuers seeking support for their credit ratings. Investors have found hybrids attractive due to their relatively higher yields compared to senior debt - although higher yields come with a higher degree of risk. Invesco Fixed Income believes the spread premium offered by corporate hybrids on top of senior debt makes carefully selected hybrids a potentially attractive investment.

2015 was a milestone year for the corporate hybrid asset class. It marked the arrival of the first call date for a number of issuers. The possibility that bonds will not be called at the first call date is known as "extension risk" - investors typically prefer companies to honor first call dates to avoid extending the maturity of their bonds. Last year, almost all hybrid instruments with a first call date in 2015 ("2015 call hybrids") were called at the first opportunity.'

However, we believe extension risk has risen since last year. Spreads in the corporate hybrid market have widened since a year ago, increasing the likelihood that hybrid issuers will likely face potentially higher financing costs. With credit spreads wider than a year ago, we believe higher yields may create a disincentive for companies to call their hybrid securities since calling them would mean refinancing at a higher cost. The failure of issuers to call a hybrid on the first call date means investors would bear the impact of an extended term and potentially a lower yield than the prevailing market yield. Nevertheless, despite increased extension risk, we believe the corporate hybrid asset class offers attractive investment opportunities for us as careful investors, especially in the current low interest rate environment.

In particular, we believe several factors could help mitigate extension risk:

Reputational risk

If a company wishes to maintain open access to the hybrid market, it may be inclined to meet investor expectations by calling a hybrid, even if it is not able to refinance that hybrid at a lower rate than the reset coupon. Companies view hybrids as useful financing tools and often use them, for example, to support their credit metrics since the major rating agencies typically treat these instruments as 50% equity and 50% debt.

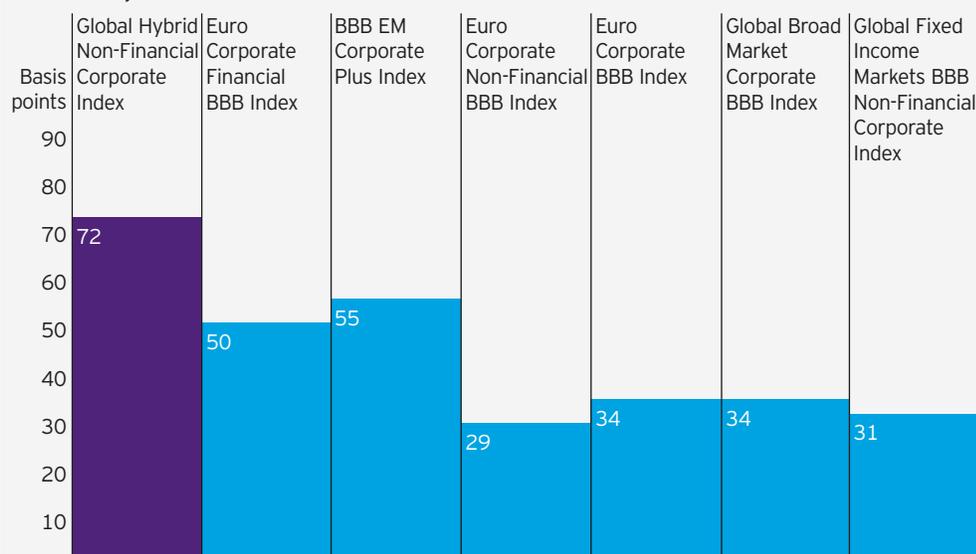
Rating agency treatment

For most outstanding hybrids, Standard & Poor's (S&P) decreases the equity portion from 50% to zero as of a hybrid's first call date (i.e. treats the instruments as 100% debt after the first call date). We believe this loss of equity benefit creates a strong incentive to call at the first call date and therefore helps reduce extension risk. We are vigilant of any deviation by S&P from this treatment going forward.

Relative value comparisons are attractive

On a duration-adjusted basis, corporate hybrids (Global Hybrid Non-Financial Corporate Index) offered a spread of 72 basis points (defined as spread per year of duration), which compared favorably to other asset classes in the peer group, as seen in Figure 5.

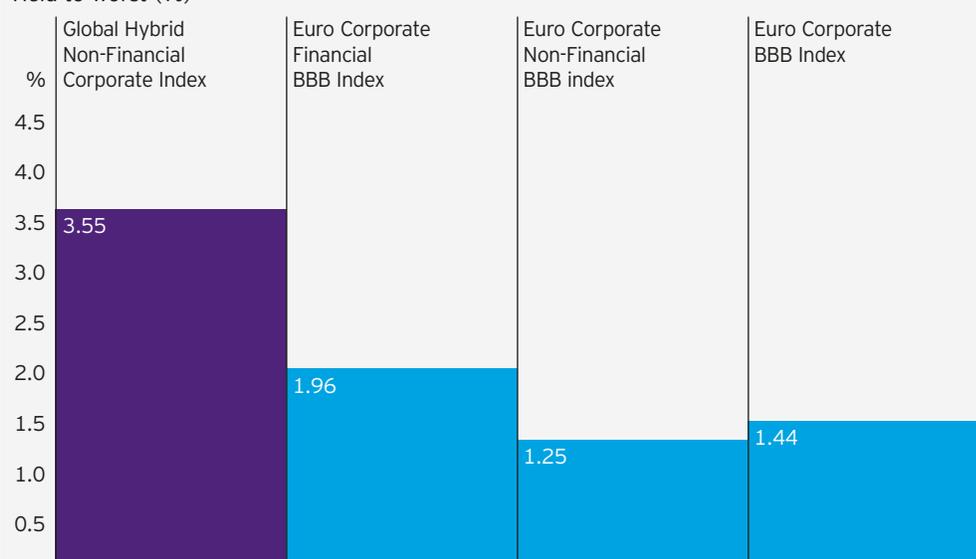
Figure 5: Corporate hybrid relative value comparison
Duration-adjusted OAS



Source: BofA Merrill Lynch Indices as of March 31, 2016.

On a yield basis, corporate hybrids (Global Hybrid Non-Financial Corporate Index) offered the highest yield (3.55%) when compared to euro-denominated indices such as the EUR Corporate Financial BBB Index (1.96%), as seen Figure 6 below. We have selected the euro-denominated indices for comparison since corporate hybrids are predominantly (80%) euro-denominated.²

Figure 6: Corporate hybrid relative value comparison
Yield to worst (%)



Source: BofA Merrill Lynch Indices, March 31, 2016.

We believe the additional spread that corporate hybrids offer over the yield offered by senior debt makes carefully selected hybrids an attractive investment. While extension risk has increased since last year due to credit spread widening, we believe there are mitigating factors to this risk. In our opinion, therefore, it is possible to find compelling investment opportunities by carefully analyzing credit fundamentals and the hybrid's structure and by performing a relative value assessment.

Samira Sattarzadeh, Senior Analyst

1 Source: BAML Global Hybrid Non-Financial Corporate Index and the BAML Global Hybrid Non-Financial High Yield Index, as of Dec. 31, 2015.

2 Source: BAML, as of March 31, 2016.



Ray Uy,
Head of Invesco Fixed Income
Macro Research

The Bottom Line

We speak with Ray Uy, Head of Invesco Fixed Income Macro Research about how global investors can decide if currency hedging is right for them.

Q: Global diversification has become standard practice among investors around the world. Does it make sense for investors to hedge foreign exchange risk or are there reasons not to?

Ray: Perhaps surprisingly, there is no universally correct answer to this question. When determining whether to hedge currency risk or not, investors should consider their own individual investment objectives and risk preferences. Risk factors differ depending on the underlying constituents of each portfolio and must be evaluated according to each investor's own risk appetite. In general, it is difficult to argue broadly for or against currency hedging.

Q: How important is currency risk in overall portfolio performance?

Ray: Currency fluctuations can have a significant impact on performance, and the impact can depend on the underlying asset class. Historically, currency volatility has had a greater impact on fixed income than equity performance. Over a long time horizon, for example, the difference between a hedged and unhedged global stock portfolio tends to be trendless.¹ However, for relatively lower yielding, historically less volatile asset classes, such as fixed income, total returns can be greatly affected by currency movements.² The current low interest rate environment exacerbates this situation.

Q: How can investors decide whether currency hedging makes sense for them?

Ray: Investors can start by asking, what is the underlying asset class at risk from currency movements? As mentioned above, historically, fixed income returns have been especially vulnerable to currency volatility, while many equity investors view unhedged portfolios as a way to preserve diversification. The predictability of a portfolio's cash flows is also relevant—the more predictable are the cash flows, the easier it is to hedge effectively.

Q: How much of a portfolio should be hedged?

Ray: An investor can decide to hedge none of his or her portfolio, 100% of the portfolio or some amount in between. This so-called "hedging ratio" depends on the investor's own level of risk aversion and how much he or she is willing to spend to attempt to reduce currency risk. The cost of hedging is largely determined by the interest rate differential between the home and foreign currencies. The higher the preference for certainty, the more likely an investor would be willing to pay a higher cost to reduce risk.

Q: What factors can influence changes in hedging strategy over time?

Ray: Several criteria may trigger changes to a hedging strategy. For instance, macro views of currencies or changing comfort levels with volatility could lead to changes in strategy. Interest rate differentials and, therefore, the cost of hedging may also drive hedging decisions over time.



Read more about
currency hedging in
Currency management:
A simple roadmap,
March 2016, by Ray Uy,
Head of Macro Research

Q: So what is the simple answer to whether or not currency hedging makes sense for a global investor?

Ray: Investors can ask themselves these four simple questions to help guide their decision:

1. What is the source and nature of currency risk to be managed?
2. What is the desired hedging ratio?
3. What factors are likely to cause changes to hedging strategy over time?
4. What is the operational set-up?

The last point relates to necessary capabilities such as foreign account settlement, credit lines and derivatives documentation, for example. By answering these four questions, investors can begin to determine the most appropriate currency management strategy for their portfolios.

1 Source: S&P 500 Index, Invesco, Jan. 4, 2000 to Nov. 19, 2015.

2 Source: Barclays Global Aggregate Bond Index, Invesco, Jan. 4, 2000 to March 31, 2016.

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Market monitors

Fixed income market monitor

	Coupon (%)	Yield to worst (%)	1 month change in YTW	Option-adjusted spread				Returns			
				1 month		10 year range		1 mth (%)	3 mth (%)	YTD (%)	12 mth (%)
				current	change in spread	min	max				
Global Aggregate (USD hedged)	2.90	1.39	-0.07	51	-7.0	23	156	0.82	3.28	3.28	2.44
U.S. Aggregate	3.16	2.16	-0.10	56	-8.0	32	258	0.92	3.03	3.03	1.96
U.S. Mortgage-backed	3.67	2.35	0.00	22	1.0	-16	181	0.30	1.98	1.98	2.43
Global Inv Grade Corporate (USD hedged)	3.87	2.67	-0.31	158	-30	55	515	2.33	3.37	3.37	1.03
U.S. Investment Grade Corporate	4.21	3.21	-0.34	163	-34	76	618	2.77	3.97	3.97	0.92
Emerging Market USD Sovereign	n/a	5.86	-0.41	409	-45	157	906	3.27	5.04	5.04	4.19
Emerging Market Corporate	n/a	5.60	-0.56	410	-57	120	1,032	3.20	3.89	3.89	2.81
Global High Yield Corporate (USD hedged)	6.40	7.49	-0.93	622	-80	231	1,845	4.33	3.19	3.19	-2.34
U.S. High Yield Corporate	6.61	8.18	-0.84	656	-71	233	1,971	4.44	3.35	3.35	-3.69
Bank Loans	4.80	5.22	-0.12	n/a	n/a	n/a	n/a	2.64	1.33	1.33	-1.11
Municipal Bond	4.79	1.93	0.03	n/a	n/a	n/a	n/a	0.32	1.67	1.67	3.98
High Yield Municipal Bond	5.40	6.58	-0.07	n/a	n/a	n/a	n/a	1.05	2.74	2.74	3.45

Treasury market monitor

	Coupon (%)	Yield to worst (%)	1 month change in YTW	Returns in local currency			
				1 month			
				1 mth (%)	3 mth (%)	YTD (%)	12 mth (%)
United States	2.07	1.31	-0.02	0.16	3.20	3.20	2.39
Canada	2.59	1.06	0.05	-0.20	1.12	1.12	1.33
United Kingdom	3.77	1.44	0.06	-0.15	5.22	5.22	3.31
Germany	2.29	-0.07	0.06	-0.28	3.80	3.80	0.47
Italy	3.83	0.84	-0.11	1.10	2.55	2.55	1.81
Japan	1.16	0.01	-0.02	0.95	4.23	4.23	5.96
China	3.66	2.72	-0.13	1.25	2.12	2.12	9.65
EM Local Currency Governments	n/a	n/a	n/a	2.30	4.39	4.39	6.13

FX market monitor¹

	10 year range			Returns			
	Current	min	max	1 mth (%)	3 mth (%)	YTD (%)	12 mth (%)
EURUSD	1.14	1.06	1.60	4.66%	4.77%	4.77%	6.05%
USDJPY	112.57	75.82	124.77	0.10%	6.82%	6.82%	6.72%
GBPUSD	1.44	1.38	2.11	3.18%	-2.55%	-2.55%	-3.09%
USDCNY	6.45	6.04	8.28	1.63%	0.69%	0.69%	-3.86%
USDCHF	0.96	0.75	1.39	3.81%	4.21%	4.21%	1.11%
AUDUSD	0.77	0.60	1.10	7.23%	5.09%	5.09%	0.66%
CADUSD	0.77	0.72	1.09	4.14%	6.41%	6.41%	-2.46%
EURJPY ²	128.11	94.31	169.49	-4.36%	1.97%	1.97%	0.62%
EURGBP ²	0.79	0.70	0.84	-1.42%	-7.01%	-7.01%	-8.61%

Sources: Barclays, J.P. Morgan, Bloomberg L.P., as of March 31, 2016. Credit Suisse Leveraged Loan data as of March 31, 2016. 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 J.P. Morgan 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 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 Barclays Global High Yield Corporate (US\$ hedged) Index; U.S. High yield Corporate is represented by Barclays U.S. Corporate 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 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's fixed income team contributors

Atlanta

Rob Waldner

Invesco Fixed Income Chief Strategist
+1 404 439 4844
robert.waldner@invesco.com

James Ong

Senior Macro Strategist
+1 404 439 4762
james.ong@invesco.com

Avi Hooper

Senior Portfolio Manager
+1 404 439 4877
avi.hooper@invesco.com

Joseph Portera

Head of Global High Income
+1 404 439 4814
joseph.portera@invesco.com

Rashique Rahman

Head of Emerging Markets
+1 404 439 4801
rashique.rahman@invesco.com

Carolyn Gibbs

Senior Strategist
+1 404 439 4848
carolyn.gibbs@invesco.com

Ray Uy

Head of Macro Research
+1 404 439 4822
raymund.uy@invesco.com

Jay Raol

Senior Macro Strategist
+1 404 439 4840
jay.raol@invesco.com

Tony Wong

Head of Global Research
+1 404 439 4825
Tony.Wong@invesco.com

Michael Hyman

Head of Investment Grade
+1 404 439 4827
michael.hyman@invesco.com

Ann Ginsburg

Senior Market Analyst
+1 404 439 4860
ann.ginsburg@invesco.com

London

Sean Connery

Portfolio Manager
+44 20 3219 2714
sean.connery@invesco.com

Samira Sattarzadeh

Senior Analyst
+44 20 3219 2732
samira.sattarzadeh@invesco.com

Josef Portelli

Portfolio Manager
+44 20 3219 2709
josef.portelli@invesco.com

Arnab Das

Head of EM Macro Research
+44 20 79591698
arnab_das@ldn.invesco.com

Hong Kong

Ken Hu

CIO Asia Pacific
+852 3128 6886
ken.hu@invesco.com

Toronto

Alexander Schwiersch

Portfolio Manager
+416 324 6187
alexander.schwiersch@invesco.com

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