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Rethinking fixed income investing when the easy money is coming to an end

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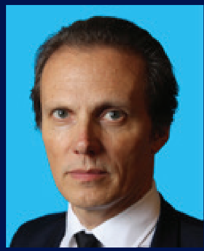

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Key Insights in 10 Tweets

1. In recent years, markets have benefited from a very favourable environment, but this is set to change as Central Banks are now reversing their policies (Fig.1)
2. Multiple scenarios may emerge: gradual normalization, boom-bust and extension of the US business cycle. How they unfold will influence fixed income dynamics
3. The end of easy money could prove challenging for a traditional static core bond allocation, while it could provide opportunities for active flexible and diversified strategies (Fig.3)
4. Building a resilient portfolio will be about dealing with rising interest rates, getting the most from credit, managing liquidity risk and enhancing diversification
5. The ability to tactically manage the duration exposure will be crucial to target capital preservation and total return in bond markets (Fig.5)
6. Liquidity risk management, through multiple strategies, should be at the forefront of investor priorities in the new investment landscape (Fig. 8)
7. Introducing currency management as well as widening the spectrum of opportunities in credit market will be key to seek additional sources of diversification
8. A global fixed income approach can benefit from a larger opportunity set to generate alpha, including DM and EM bonds, credit and currencies (Fig 12)
9. Investors should rethink core fixed income allocations to include investment solutions designed around the investor goals (Fig 15)
10. A way to target investor specific goals could be by combining a well-diversified and flexible core bond allocation with specific building blocks designed to target a specific goal (Fig 16)

Vincent MORTIER
Deputy Chief Investment Officer

"The end of easy money could prove challenging for a traditional static core bond allocation while it could provide opportunities for active flexible and diversified strategies".

"It is time for investors to rethink core fixed income allocations to include investment solutions designed around the investor goals".

Core fixed income allocation, usually comprising high-quality government and corporate bonds, has played a relevant role in diversified portfolios over the last few decades. In a 30-year bull market for bonds, this allocation has been a stable source of performance; it has, for a long time, provided interesting income and helped to limit the overall portfolio drawdowns. Investors now stand at a crossroads: changes in central banks' monetary stances are resulting in the end of the easy money era driven by excess market liquidity. This change will provide, in our view, a fertile ground for active bond investors able to dynamically exploit opportunities in multiple fixed income sectors while it could challenge more traditional and static fixed income allocation approaches.

The end of easy money could trigger opportunities for "alpha"[1] strategies; for example, tactical duration management and relative value strategies, within and across yield curves, will be more relevant as interest rate risk rises and market duration stands at historical highs. Searching for income across multiple sectors, including emerging markets, with a dynamic approach, will also be key to exploiting yield opportunities in a rising rate environment. Corporate bond selection will make a difference, as conditions in credit markets are becoming more mature, with spreads already quite tight across the board. Currency dynamics will also be relevant as an additional source of returns, showing low correlation with traditional asset classes, and as a variable to consider when investing in global markets.

Liquidity risk management should be at the forefront of investor priorities in the new investment landscape. In fact, this risk could re-emerge with worsening liquidity conditions in the market amidst CB balance sheet reduction. Being able to play opportunities across the liquidity continuum, maintaining sufficient liquidity buffers, tactically allocate to government bonds for liquidity purposes or further enhance diversification with liquid strategies, such as currency alpha strategies that carry no credit and liquidity risks, will be a major competitive advantage in our view.

As we enter this new market environment, it is critically important for investors to reassess the role of their core fixed income allocation and the key objectives that this allocation should accomplish. In a world in which a one-size-fits-all approach is no longer suitable, investors should build a core bond allocation based on their specific needs. Some investors, for example, have a strong focus on income generation, but also want to ensure that this allocation provides diversification benefits vs the equity component of their overall portfolio. Other investors are currently more concerned about the capital preservation feature of their bond allocation and the total return potential that it can offer. Consequently, we believe that investors should rethink their core fixed income holdings to embrace a more flexible approach that could combine different active investment solutions with the aim of targeting specific investor objectives. This "new" enhanced core allocation should rely on a well-diversified core allocation while also considering some allocation to dedicated "goal-based core building blocks" (ie, income or diversification).

This approach would not only would allow for the better building of a strategic risk/return/diversification profile regarding core fixed income allocation, but it would also provide flexibility. In fact, it would allow to dynamically change the core allocation over time in accordance with investor objectives and market conditions (eg, tilt more to diversification if the environment were to become more risky or to income if an investor's income needs were to increase).

[1]Alpha: The additional return above the expected return of the beta adjusted return of the market; a positive alpha suggests risk-adjusted value added by the money manager vs the index. Beta: Beta measures an investment's sensitivity (volatility) to market movements in relation to an index. A beta of 1 indicates that the security's price has moved with the market. A beta of less than 1 means that the security has been less volatile than the market. A beta of greater than 1 indicates that the security's price has been more volatile than the market.

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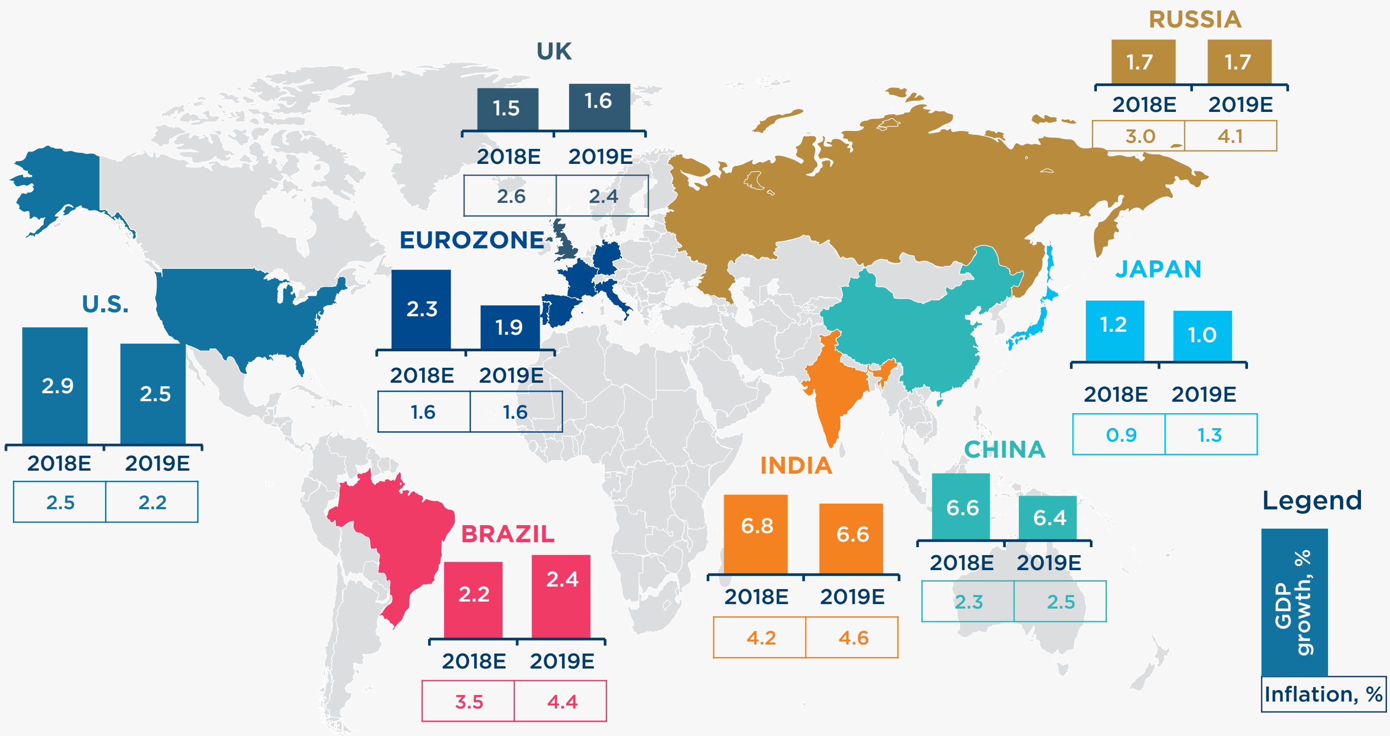
RETHINKING FIXED INCOME INVESTING

The era of easy money is coming to an end

MAY 2018

Synchronised global growth is leading to a gradual removal of monetary policy accommodation.



The peak of liquidity looks to be behind us, as Central Banks are reversing accommodative policies and this may point to different scenarios.

BASE SCENARIO
Back to a more "normal" market

- Gradual rise in interest rates
- Low default rates
- Little room for further spread tightening

ALTERNATIVE 1
Boom-bust

- Overheating risk
- Aggressive Fed tightening
- Risk-off market sentiment

ALTERNATIVE 2
Extension of the US business cycle

- Fed not in a rush to tighten monetary policy
- Yields moving higher

Source: Amundi Research. Data as of 31 March 2018.
Date of First Use: 15 April 2018. Devised by: Claudia Bertino and Laura Fiorot, Amundi Investment Insights Unit.

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RETHINKING FIXED INCOME INVESTING

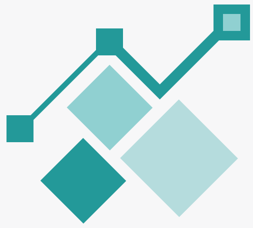
Time to talk diversification

MAY 2018

Fixed income allocation remains key to diversifying overall risk exposure of a balanced portfolio especially at a time of rising market volatility

INCOME & TOTAL RETURN

CAPITAL PRESERVATION & VOLATILITY MANAGEMENT



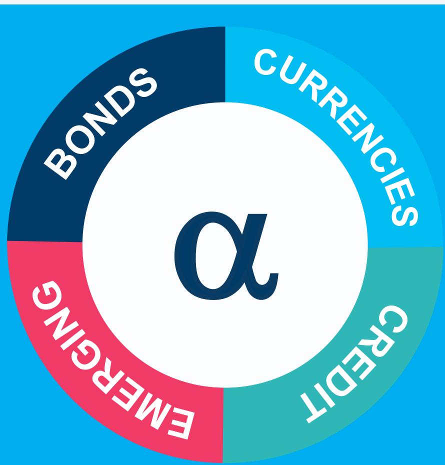
DIVERSIFICATION vs RISK ASSETS

5 themes will provide, in our view, a fertile ground for active bond investors able to dynamically exploit opportunities in multiple sectors

FIXED INCOME THEMES

1	2	3	4	5
THE END OF EASY MONEY	DEALING WITH RISING INTEREST RATES	MAKE THE MOST OF A MATURE CREDIT MARKET	FOCUS ON MANAGING LIQUIDITY RISK	ENHANCE DIVERSIFICATION AMIDST MARKET UNCERTAINTY
With different scenarios ahead it is time to be flexible	With rising rates duration management will be key	With tight credit spreads selection may help create opportunities	With changing financial conditions liquidity should be carefully assessed	With changing bond/equity dynamics the opportunity set should be expanded

> *"It is time for investors to expand their opportunity set in search for alpha"*



Alpha: The additional return above the expected return of the beta adjusted return of the market; a positive alpha suggests risk-adjusted value added by the money manager vs the index.
Duration: A measure of the sensitivity of the price (the value of principal) of a fixed income investment to a change in interest rates, expressed as a number of years.
Diversification does not guarantee a profit or protect against a loss.
Source: Amundi. Data as of 31 March 2018.
Date of First Use: 15 April 2018. Devised by: Claudia Bertino and Laura Fiorot, Amundi Investment Insights Unit.

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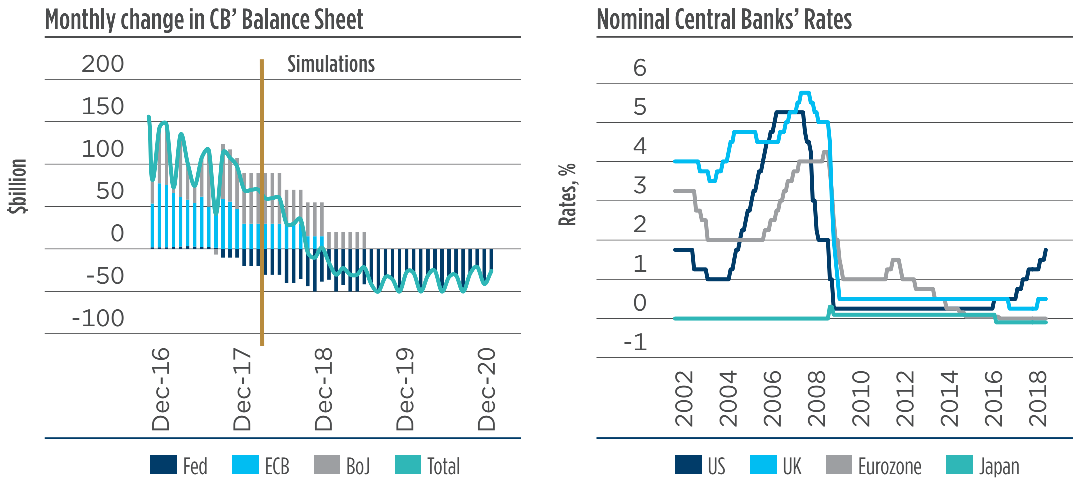
The end of easy money may point to different investment scenarios

"In recent years, the bond market has benefited from a very favourable environment, but this looks set to change as CB reversing accommodative monetary policies".

In recent years, the bond market has benefited from very favourable low-growth environments, with low inflation and featuring very accommodative monetary policy. In 2017, the global economy experienced its strongest upturn for more than five years, with all advanced economies performing better than expected, but with the economies in different stages of the cycle. The US economy is more advanced in the cycle than the Eurozone economy, which implies different issues for investors.

Because of the improving growth environment, many Central Banks (CB) are reversing accommodative monetary policies. In the United States, the Fed has begun to reduce gradually the size of its balance sheet by not reinvesting some of the securities that are maturing in addition to starting to raise interest rates. In the Eurozone, we expect the ECB to end its QE by the end of 2018. Hence, the peak in liquidity now looks to be behind us. The size of Fed, ECB and BOJ balance sheets will increase by US$220bn in 2018 vs US$1.1tn recorded in 2017, US$1.5tn in 2016, and US$1.2tn in 2015. At a global level, net volumes of government bond issuance will no longer be absorbed by CB purchases, as was the case over the last three years.

Figure 1: The peak of liquidity looks to be behind us: CB different policies



Source: Amundi Research analysis on Bloomberg data. Data as of 30 March 2018.

Base scenario: Back to a more "normal" market

"In our base scenario, we expect a gradual rise in interest rates, low default rates and little room for further spreads tightening in credit".

As a base scenario, we expect a gradual rise in interest rates, which is healthy at this stage, as it reflects a stronger growth environment. However, in order not to generate disruptive effects to financial conditions and investor risk sentiment, it will be important that this shift higher takes place smoothly, which is what we expect. Going forward, we think the main markets' focus will be inflation, and whether a further reduction in US output gap may trigger a strong upside surprise on prices. Our US macro scenario suggests that US CPI will be on average above 2% over the next two years, peaking at 2.5% in 2018 and receding to 2.2% in 2019.

Against this backdrop, we expect about three Fed rate hikes and yields to rise gently. In addition, we believe that the balance of risk is skewed towards a sharper rise in yields than the one priced by markets. For example, markets' concerns about an increase in the US fiscal deficit could trigger temporary episodes of steepening in the US curve (when the differential in yields between long and short maturities widen). However, such shifts should fade in the medium to long term, as the Fed continues to tighten monetary policy, as a mature phase of the economic cycle would suggest.

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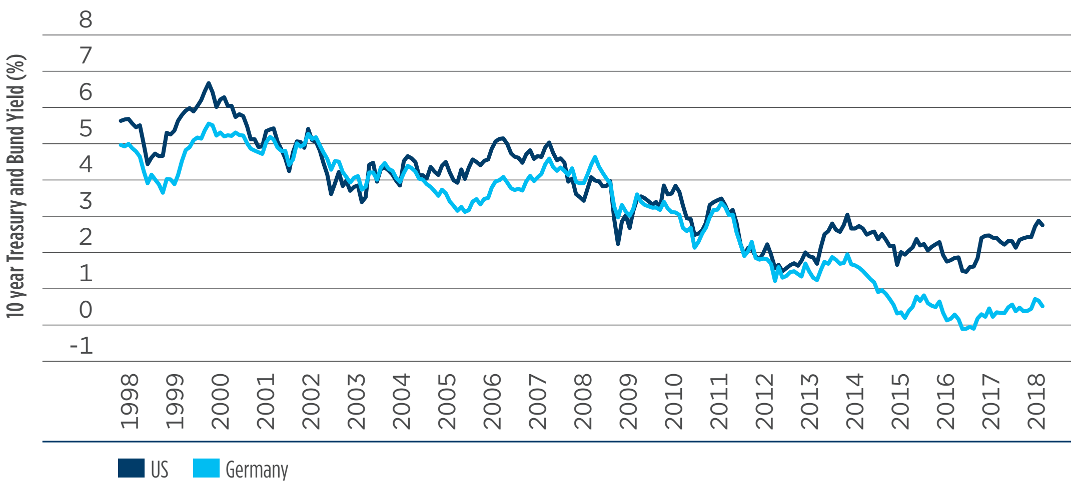
"In the Eurozone, we believe that the ECB will continue supporting the current easy monetary conditions and potentially wind down the Public Sector Purchase Programme (PSPP) in 4Q18, instead of opting for a sudden stop after September".

In the Eurozone, the economy is still catching up with the US, lagging mostly on the inflation front. We believe that the ECB will continue to support the current easy monetary conditions and potentially wind down its PSPP in 4Q18, instead of opting for a sudden stop after September. This would allow the CB to firmly anchor market expectations prior to making the first deposit rate hike well into 2019. The ECB is clearly committed to continuing to reinvest maturing assets - preventing the balance sheet from shrinking after the end of the PSPP. Therefore, we do not expect the Eurozone government bonds market to be subject to an abrupt selloff when net purchases move to zero, but to track macro fundamentals more closely, therefore likely resulting in higher nominal yields reflecting higher inflation expectations.

Figure 2: The end of easy money will have different implications across markets



Source: Amundi Research analysis on Bloomberg data. Data as of 30 March 2018.

On credit, fundamentals appear to be improving or stabilising, thanks to the global economic upswing. This backdrop could support credit markets (where, however, there is little rooms for further spread tightening) and lead default rates lower, but with differences across markets. In the US, the medium-term picture appears more challenging, as companies will see rising refinancing needs at a time when demand from yield hunters could move towards Treasuries as yields rise. The relatively tight credit spreads suggest that sector selection will be more important for driving returns than market beta.

Alternative scenario 1: Boom-bust

"An alternative boom-bust scenario could prove more challenging for fixed income investors, as it could lead to aggressive Fed tightening and potentially trigger risk-off sentiment".

On inflation, the risk is skewed to the upside, as the global output gap should close this year. This risk is more pronounced in the US. In fact, US fiscal stimulus and higher federal spending are highly unusual at this stage of the cycle. This pro-cyclical stimulus could lead to risks of overheating (with increases in wages in a labour market close to full employment) without boosting growth materially, and to an increase in the budget deficit. This could result in tightening financial conditions that could affect the US cycle. Inflation well above the Fed target means that the CB needs to increase interest rates more quickly and to a higher level than previously expected. Such a dynamic could lead to a potential flattening in the US curve with upward pressure especially on the front end, while 10Y yields could remain in demand due to their safe-haven status, as an aggressive stance from the Fed could lead to a risk-off environment. The moves on the German curve could be different, as this will more closely follow the actions of the ECB. On credit, rapidly tightening financial conditions would lead to an increase in default rates. In this case, issuers that would be most affected likely will be the lowest rated and most highly leveraged names.

"An alternative scenario characterised by an extension of the US business cycle could emerge. In this scenario, the Fed likely would not have to rush its tightening of monetary policy. This could drive yields higher, with further increases in the long part of the curve, as investors will price in additional growth premia on top of inflation".

Alternative scenario 2: Extension of the US business cycle

With a longer-term perspective, fiscal expansion could change the picture for fixed income investors, as it could increase the sustainability of US growth over the long term. The rebalancing of profits and wages is not necessarily bad news for the US economy. The growth in profits seen during this cycle has been driven more by margin growth than growth in sales. Rising wages could – all other things being equal – increase revenue momentum. Increasing demand is essential to sustain the recovery of investment (capex) that could give the economy more room to accelerate (through productivity growth) without inflation. But, this is a long-term trend that needs to be carefully monitored over the next few months. Should this scenario start to materialise, the Fed would not find itself in a situation of rushing into tightening monetary policy. This could drive yields higher, with more increases at the long part of the curve, as investors could price in an additional growth premium on top of inflation, resulting in higher real rates and a steeper US nominal curve. Credit markets will benefit from stronger growth, but could see increasing competition from government bonds in a rising yield environment.

The risk of a trade war: implications for investors

The risk of a trade war could further lead to risk-off sentiment in the markets and have similar implications in fixed income markets as the boom-bust scenario. Consequences of protectionist threats could be far-reaching, if the disputes spread further, and could end up threatening the benign growth scenario in a kind of stagflationary environment. This could further add to CBs' conundrum, wait longer before removing monetary stimulus (especially the ECB and the BoJ) or react more aggressively (the Fed) to supply side inflationary pressures, exacerbated by the tight labour market conditions. This could be the worst scenario for investors, leading to rising yields across all maturities, with the credit sector suffering as well, mainly over-indebted companies and those affected by trade measures.

Time to talk diversification in fixed income

As we move towards a more uncertain scenario, in which CBs take different normalisation paths and markets more carefully assess inflation and growth dynamics in the search for a confirmation of their base market scenario, we believe that investors should rethink fixed income investment approaches.

A first step would be to gain an understanding of the challenges and opportunities ahead considering that (as we focus on in the next chapter) bond markets have experienced a profound transformation. This will allow investors to uncover approaches that would best address the new investment landscape in line with their objectives.

Overall, as we continue to see multiple alternative possible scenarios, we think that a strong focus on diversification in fixed income investing will be key to riding out bumpier periods that will occur with the end of easy money.

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Challenges for some can be opportunities for others

"While the maths of bonds implies that these assets will suffer in a rising rates environment, the impact could vary widely across sectors and markets, providing opportunities for active bond investors".

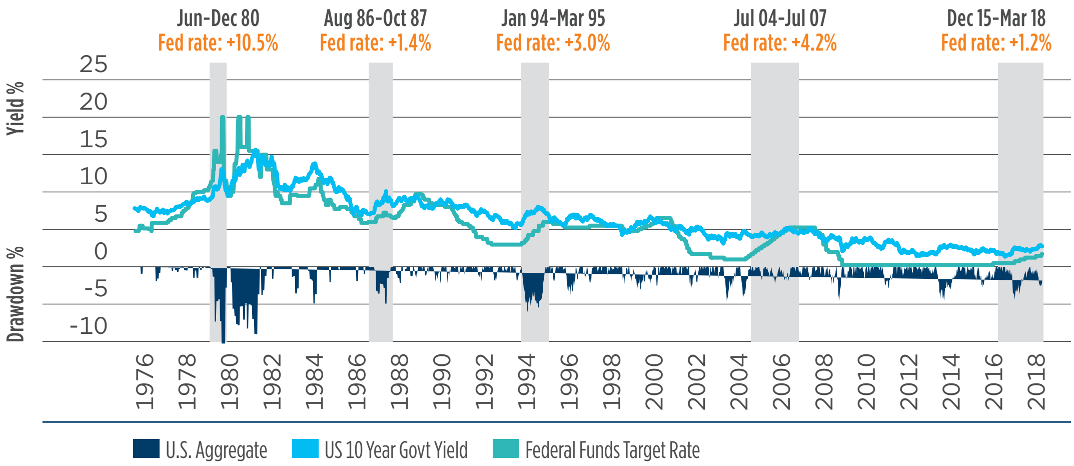
With the end of easy money, we believe that more traditional static allocation approaches which have benefitted from a long period of decline in bond yields will be called into question. While the maths of bonds implies that these assets will suffer in a rising rate and rising yield environment, the impacts could vary widely across sectors and markets and very much depend on the pace of the hiking cycle. We believe that building a resilient core bond allocation to navigate the possible scenarios ahead will be about turning challenges into opportunities in four key areas:

1. deal with rising interest rates
2. get the most from mature credit markets
3. focus on managing liquidity risk
4. Seek additional sources of diversification

1. Dealing with rising interest rates with an active approach

Looking at the past, drawdowns in the US Aggregate index occurred ahead of or during Fed hiking cycles, with differences due to several factors, such as yield levels at the beginning of the cycle, the pace and extent of rate hikes, or the overall market duration.

Figure 3: US Aggregate drawdowns during Fed hiking cycles



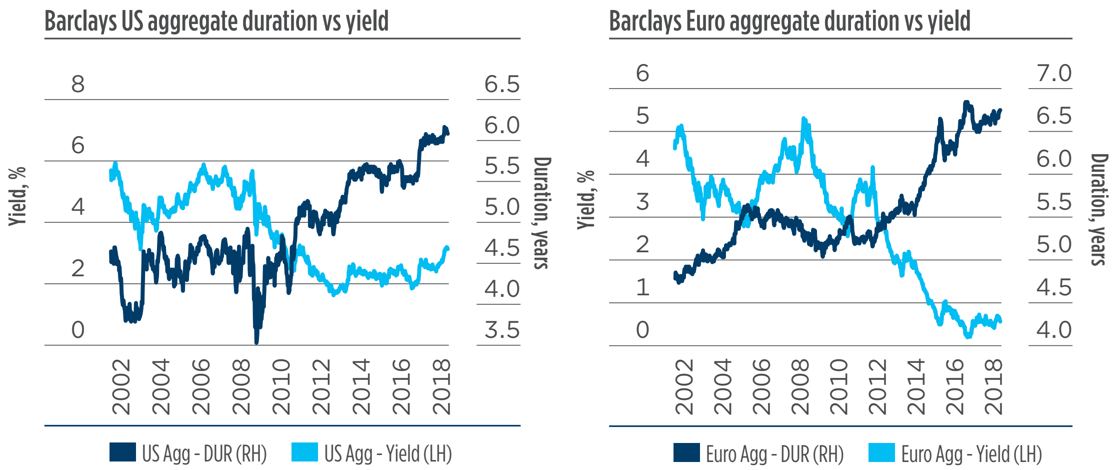
Source: Amundi analysis on Bloomberg data. As of 30 March 2018. Us Aggregate = Bloomberg Barclays US Aggregate Index, Fed funds target rate upper bound.

"Despite the challenge of rising rates, core fixed income allocation remains key to diversifying overall risk exposure of a balanced portfolio in a market environment still exposed to possible risks and higher volatility ahead".

Looking at the current cycle, we notice that accommodative monetary policy has led to increased issuance with extended maturities. This dynamic is among the causes of the increase in duration that now stands at all-time highs both in the US and Europe, and we note that in Europe, interest rate risk is even higher, given the near-zero yield levels (see Figure 4).

While low yields and high duration expose bond investors to higher risks compared to the past, a core fixed income allocation remains key to diversifying the overall risk exposure of a balanced portfolio across different market cycles. This is highly relevant in the current transition to a more mature market phase in which volatility should be higher and still relevant possible downside risks remain on the radar (eg, geopolitical tensions, possible CB policy mistakes, China and EM transformation of the economic model, among others).

Figure 4: Yields and duration in the Barclays US and Euro Aggregate index



Source: Amundi analysis on Bloomberg data. Data Refers to Bloomberg Barclays Euro and US Aggregate Bond Index, as of 30 March 2018. Duration: A measure of the sensitivity of the price (the value of principal) of a fixed income investment to a change in interest rates, expressed as a number of years.

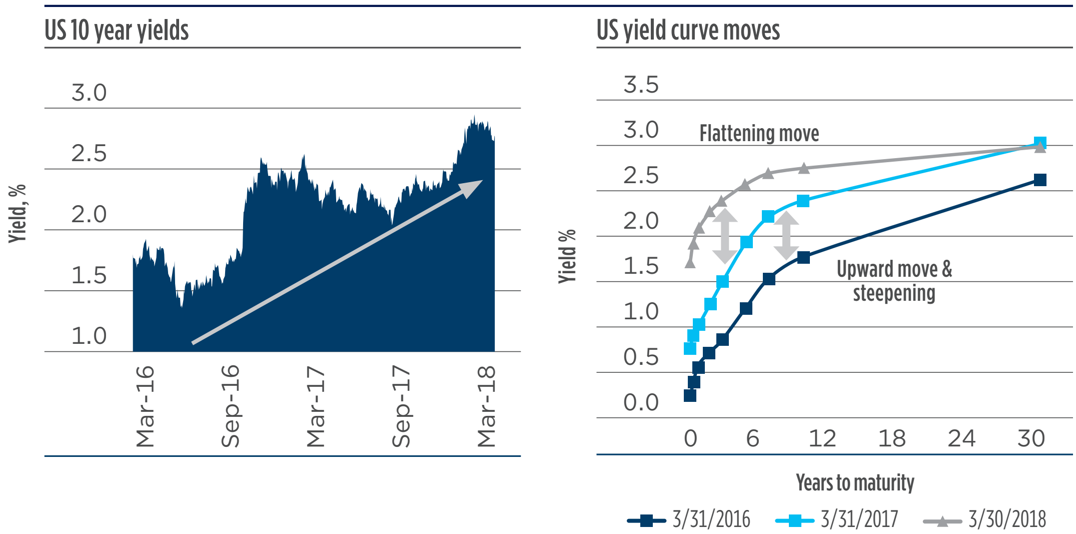
"In our view, the current environment requires that investors rethink their core fixed income allocations embracing a more selective, diversified and flexible approach".

In our view, the implication for investors is the need to rethink their core fixed income allocations embracing a more selective, diversified and opportunistic approach. In fact, while the current hiking cycle could be challenging for a static allocation approach more exposed to duration risk, it could offer opportunities for management styles that exploit relative value opportunities or tactically play different segments in the market. For instance, global investors could benefit from the different yield changes between the US and Europe over the last two years, when yields on the 10Y Treasury rose over 140 bps from July 2016 to February 2018 while yields in the 10Y German government bond only posted a 78 bps rise. Active allocation across different markets and segments is also key in this market environment. For example, floating rate notes or inflation protected securities could benefit in a rising rate environment and higher yielding bonds could also be less sensitive to changes in rates compared to Treasuries.

"The ability to tactically manage the duration exposure will be key to targeting capital preservation and total return in bond markets".

When yields rise, relative movements in the different segments of the curve create opportunities that active investors could exploit through a tactical management of duration exposure, allocating to the maturity segments with more attractive risk-adjusted return profiles. Going forward, we think that being able to exploit these different dynamics will be key to addressing the goals of preserving capital and delivering total return, and will be an additional source of diversification in an overall balanced portfolio.

Figure 5: Tactical duration management and curve positioning is key



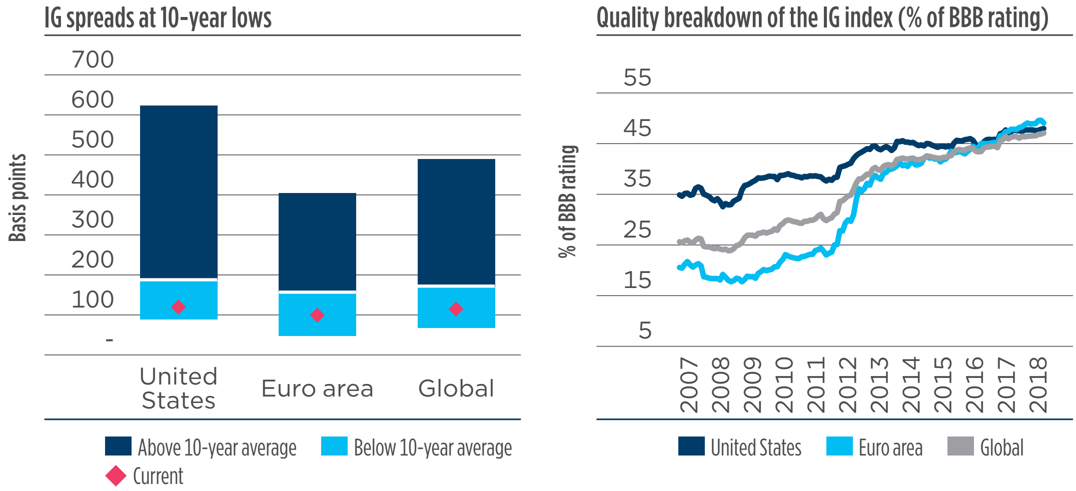
Source: Amundi analysis on Bloomberg. Data as of 30 March 2018. Duration: A measure of the sensitivity of the price (the value of principal) of a fixed income investment to a change in interest rates, expressed as a number of years.

"With tight spreads and increased leverage in some areas of the market, selection will be key to sourcing the most appealing opportunities on a risk-adjusted basis".

2. Get the most from a mature credit market

A prolonged period of historically low government bond yields has set investors on a continued hunt for yield in credit markets. Hence, spreads tightened dramatically in 2016 and 2017 across the board. Now, in the investment grade (IG) space, they still stand around the lowest level over the last 10 years, despite the recent upward move. The spread compression occurred at a time when the market experienced a significant increase in size, mainly in the lower-quality segments.

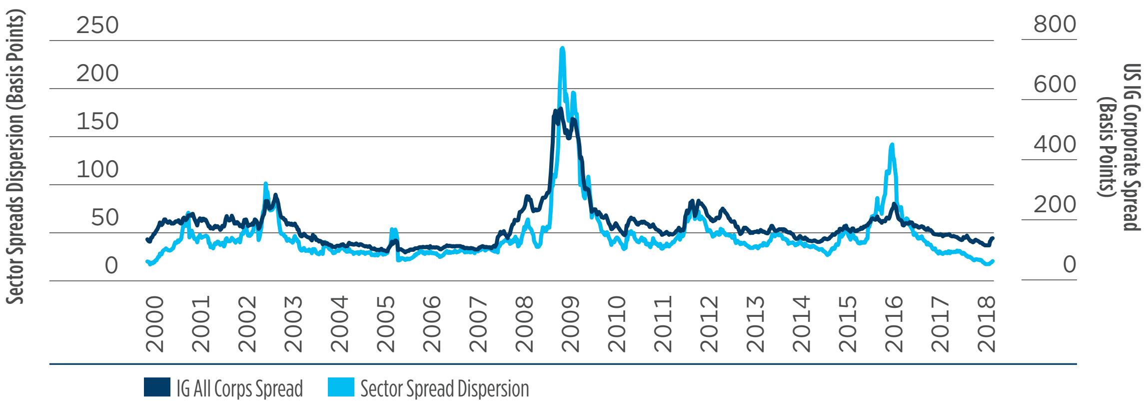
Figure 6: IG credit - tight spreads, especially if adjusted for quality evolution



Source: Amundi analysis on Bloomberg, IMF Financial stability report October 2017.Data refers to: US = ICE BofAML US Corporate Index, Euro Area = ICE BofAML Euro Corp. Index, Global = ICE BofAML Global Large Cap Corp. Index. Data as of 31 March 2018.

Cheap funding supported by CB QE[2] has pushed companies into the capital markets, resulting in rising bond issuance. In the US, issuance of IG bonds surged by over 52% after the crisis (average annual issuance of US$1,046bn in 2009-2017) compared to the pre-crisis level (average annual issuance of US$686bn in 2009-2017)[3]. The rise in HY issuance has been even more remarkable, with a 185% rise over the same period. A similar trend occurred in Europe, where 2017 marked a record year for European HY corporate bond issuance. In some cases, the increase in issuance was accompanied by a rise in leverage: for example, in the US IG sector, where over 60% of firms reported an increase in net debt/EBITDA ratios over the last three years. Hence, we think that some segments of the market will be more vulnerable to rising rates while other sectors could instead benefit from tax reform to reduce leverage levels.

Figure 7: With the end of easy money dispersion in credit markets could rise



Source: Amundi analysis on Bloomberg data, JPMorgan Global Aggregate US IG Bond Index Data as of 30 March 2018. Sector spreads dispersion is calculated as the standard deviation of the 11 sub sector indexes spread levels at any data point. Sectors = 1. Consumer, 2. Diversified, 3. Financial, 4. Industrial, 5. Metal & Mining, 6. Oil & Gas, 7. Pulp &T Paper, 8. Real Estate, 9. Telecom, 10. Transport, 11. Utilities.

[2]Quantitative easing (QE) is a type of monetary policy used by central banks to stimulate the economy by buying financial assets from commercial banks and other financial institutions.
[3]Source: Securities Industry and Financial Markets Association (SIFMA), data as at 1 March 2018.

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For the future, we expect selection to be more relevant, as the general spread compression dynamic seen over the last few years could leave room to a more volatile and disperse environment, where spread dispersion among sectors (but also within them) could record a resurgence from the current historical lows driven by excess market complacency.

"Multiple trends at work could potentially revamp liquidity risk in the future, but current easy conditions have masked these potential threats".

3. Focus on managing liquidity risk amidst changes in market structure

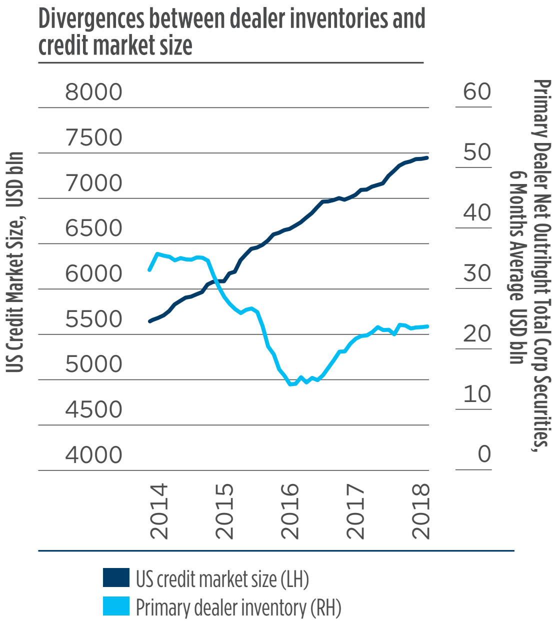
Liquidity risk has become increasingly relevant for investors in the aftermath of the Great Financial Crisis, as this crisis was characterised by a severe liquidity crunch. Going forward, we believe that liquidity risk management will be even more relevant approaching the end of easy money policies. In fact, multiple trends at work could potentially inflate liquidity risk in the future, but current easy conditions have masked these potential threats.

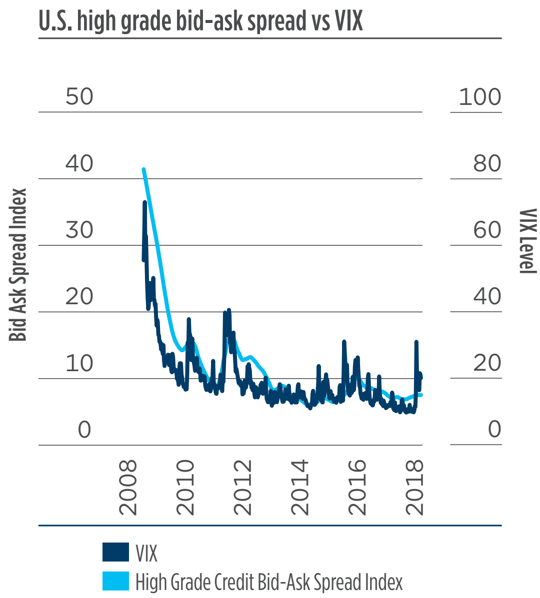
First of all, changes in regulations (ie, the Dodd-Frank Act) have resulted in a reduction in broker-dealers' inventories, marking a strong divergence compared to the rise in the size of the credit market. This could reduce the ability to absorb liquidity demand in periods of sell-off. An additional trend to consider is the proliferation of strategies that by targeting specific volatility or VAR levels could force the sale of risk assets when volatility rises further, magnifying the downward movement. While previously broker-dealers could help to set a floor on this move, in the future, fewer actors could remain with the ability to buy during stress market phases -- namely, more tactical hedge funds -- further worsening the imbalance between liquidity demand and supply. Finally, the number of crowded trades in the market is also an additional element of risk to monitor along with the overall leverage in the system, as this could be an area which could potentially trigger a liquidity event.

"Actively managing liquidity buffers, enhancing diversification with liquid strategies, and tactically moving across the liquidity spectrum will be key to being able to exploit opportunities within a strong risk management framework".

Understanding what could happen to liquidity in periods of crisis is not easy, as the overall point regarding liquidity is that risk can materialise suddenly when liquidity demand surges while it is not an issue for prolonged periods of time in normal market conditions. While liquidity remains relatively strong across the markets, liquidity risk should be considered in any core fixed income strategy. In our view, constant monitoring of liquidity conditions is key, as well as putting in place strategies to mitigate possible liquidity risk and enabling investors to tactically take advantage of opportunities that may arise in the market. This means being able to play opportunities across the liquidity continuum, maintaining sufficient liquidity buffers, making tactical allocations to government bonds for liquidity purposes or further enhancing diversification via liquid strategies, such as currency alpha strategies that carry no credit and liquidity risk.

Figure 8: Changes in market structure and liquidity





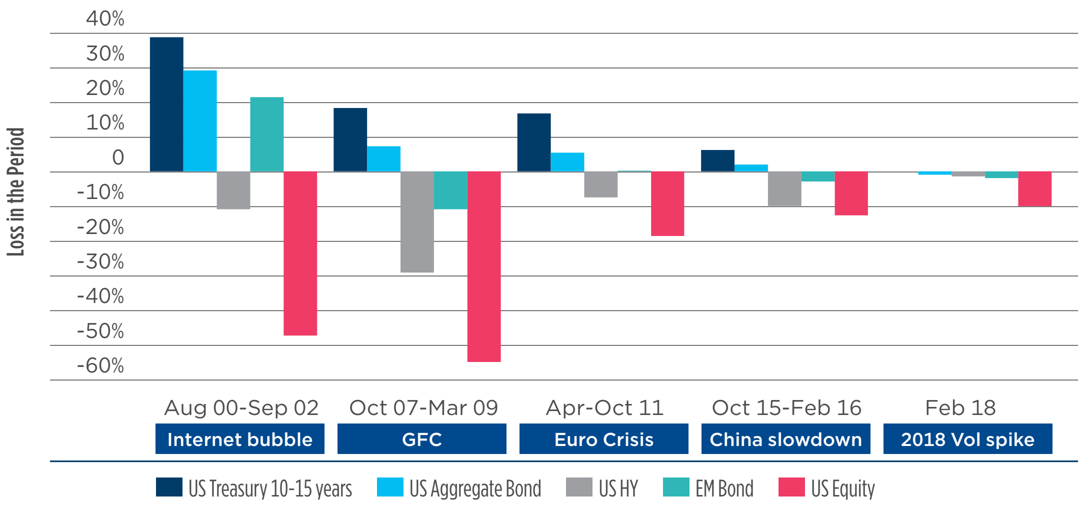
Source: Amundi analysis on Bloomberg, Federal Reserve Bank of New York, BofA Merrill Lynch, Marketaxess data (http://www.marketaxess.com/research/basi/index.php). Data as of 4 April 2018. The US market size is the sum of the $ IG (C0A0) and HY (H0A0) cash indices face value.

"Historically, Treasuries and high-quality bonds (at the centre of the core bond holdings) have contributed to mitigating the downside during equity bear markets".

4. Seek additional sources of diversification

Among the top goals that investors seek with their core fixed income allocation is the ability to diversify the overall portfolio risk, mitigating volatility and losses during periods of equity market corrections. Historically, we see that bonds - in particular, Treasuries and high-quality bonds - actually acted as stabilisers of the overall portfolio performance during equity bear markets when, instead, riskier parts of the credit markets were also under pressure.

Figure 9: Asset classes - losses during major drawdowns for the S&P 500 Index

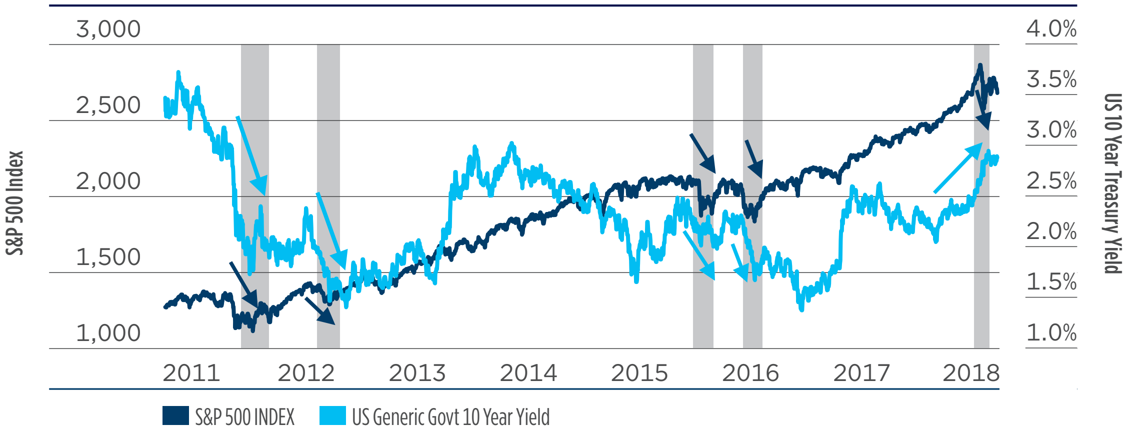


Source: Bloomberg. Data as of 30 March 2018. US Treasury 10-15 years, US HY = ICE BofAML US High Yield, EM Bond = JPMorgan EMBI Global Diversified Composite, US Aggregate = Bloomberg Barclays US Aggregate Bond Index, US Equity = S&P500 Index. All indices are total return in LC. Note that these are examples only and there can be no assurance of future events. Drawdown: the peak-to-trough decline during a specific record period of an investment, fund or commodity, usually quoted as the percentage between the peak and the trough.

"While bonds remain a key source of diversification in a multi-asset portfolio, investors should be aware that correlations are not stable and further diversification may be required in this period of transition".

While this confirms the importance of core high-quality and liquid bond allocation, we should also point out that correlation dynamics are not stable over time and we may now be entering a period of higher volatility and possible short-term changes in correlation dynamics. The February 2018 market correction was an example of simultaneous losses in stocks and bonds, a double bear move that investors are not used to seeing, as it has occurred very infrequently over the last 20 years and particularly after the crisis. It was somewhat more common in the 1970s and 1980s, when inflation was a relevant topic in the market. Should inflation fears further materialise, we could see additional episodes in which stocks and bonds are simultaneously under pressure. This does not arm the power of diversification that bonds may provide over a medium-long term horizon, but this suggests that reducing concentration risk, by introducing new market segments, is a sensible approach. In this respect, introducing currency management is clearly very attractive as well as widening the spectrum of opportunities (including for example the growing private debt market in Europe).

Figure 10: Rising yields with down movements in stocks during Feb 2018 selloff



Source: Bloomberg. Data as of 21 March 2018.

Exploring the law of active management with a global high-quality "alpha" approach

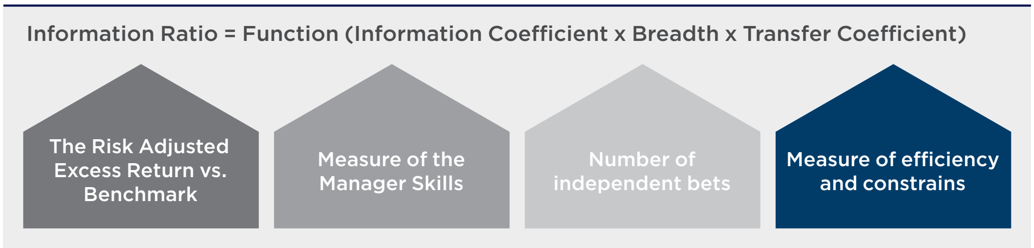
"Generating alpha is about exploiting market opportunities with the aim of delivering excess returns by taking well remunerated risks".

We believe that an active management approach could help to enhance diversification and target total return in bond investing. This approach provides exposure to the market ("beta exposure") while at the same time seeks to outperform the benchmark, thus generating positive "alpha" (the risk-adjusted difference between the portfolio manager's and the benchmark's performance) while maintaining strong risk management discipline.

According to the "Law of Active Management"[4], the potential to generate alpha, as measured by the Information Ratio, is a function of three elements:

1. Information Coefficient - the level of skill of the portfolio manager
2. Breadth -the breadth of opportunities
3. Transfer Coefficient - the limitations (costs, liquidity, ability to take long or short positions, etc.) that the manager may face in implementing his/her views.

Figure 11: The law of active management

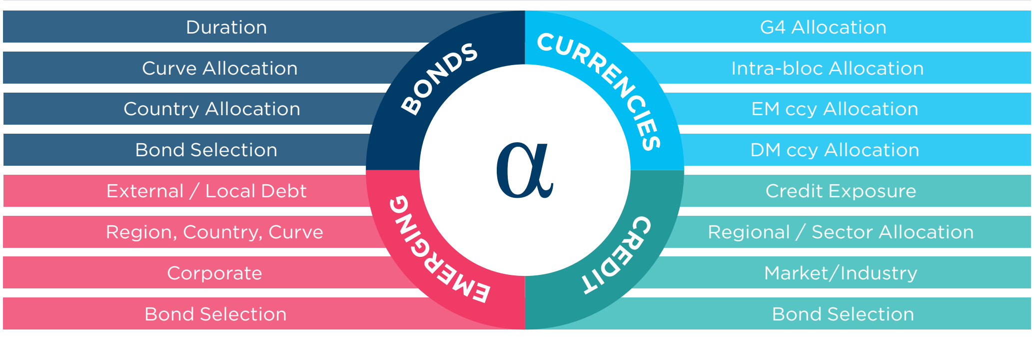


Source: The Law of Active Management. Grinold and Kahn 1999, and Clarke, de Silva and Thorely 2002.

"A global fixed income approach can benefit from a larger opportunity set".

In our view, a global fixed income approach can benefit from a larger opportunity set which can enhance the "breadth" component and also from the flexibility that global fixed income and currency markets offer to implement investment views (the transfer coefficient). Bond markets, in particular, can still offer potential areas of market inefficiency based on constraints that different players may have. Some investors, for example, for regulatory reason, can hold only investment-grade bonds while other are obliged to target specific maturities to match their liabilities. These behaviours may open up opportunities for active investors that can exploit various ways to generate excess returns (alpha sources).

Figure 12: A global approach can benefit from a full range of "alpha" sources



Source: Amundi. For illustrative purposes.

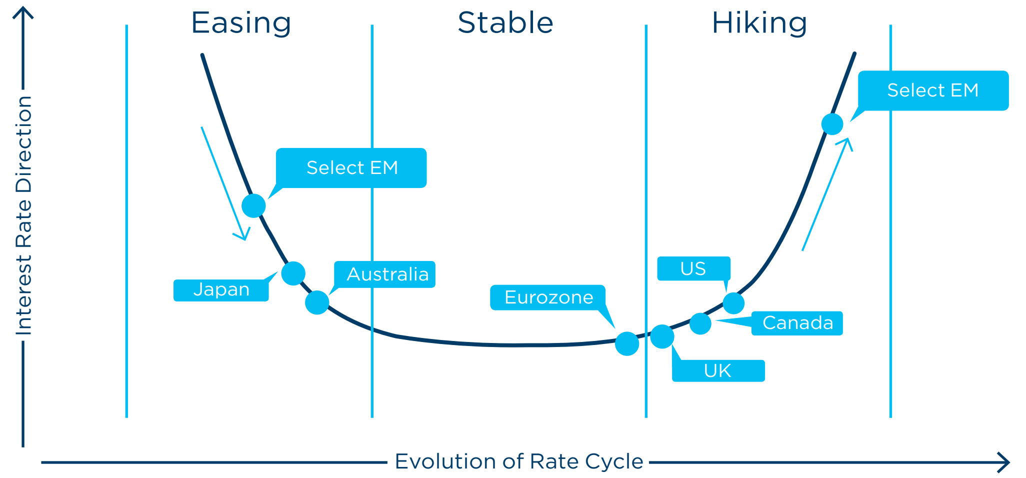
[4] Grinold and Kahn 1999, and Clarke, de Silva and Thorely 2002.

"With multiple countries and curves to assess, a strong understanding of the macroeconomic and monetary policy outlooks of each area is key to identifying cross country relative value allocations and curve positioning".

The opportunity set of a global fixed income approach is quite considerable, as illustrated in the examples below:

- **Interest rates, duration and yield curve:** in a rising interest rate environment, active managers can tactically adapt duration positioning. While usually the rise in rates calls for short duration positioning, there could be phases during the hiking cycle where a more neutral stance could be beneficial when the markets have, for instance, already priced in most of the hiking.
  On top of the duration positioning, yield curve movements also provide good opportunities to play relative value positioning in the curve in anticipation of a possible move of the curve that could be driven by not only CB actions but also by growth and inflation expectations.
  With multiple countries and curves to assess, a strong understanding of individual macroeconomic and monetary policy outlooks for each area is key to identifying cross country relative value allocations and curve positioning.

Figure 13: Global rates and policy rate divergence



Source: Amundi. For Illustrative purposes only as at March 2018.

"Currency strategies rely on a portfolio manager's ability to exploit differences in the relative values of the world's major currencies and as such can be a source of performance that has low correlation with traditional asset classes".

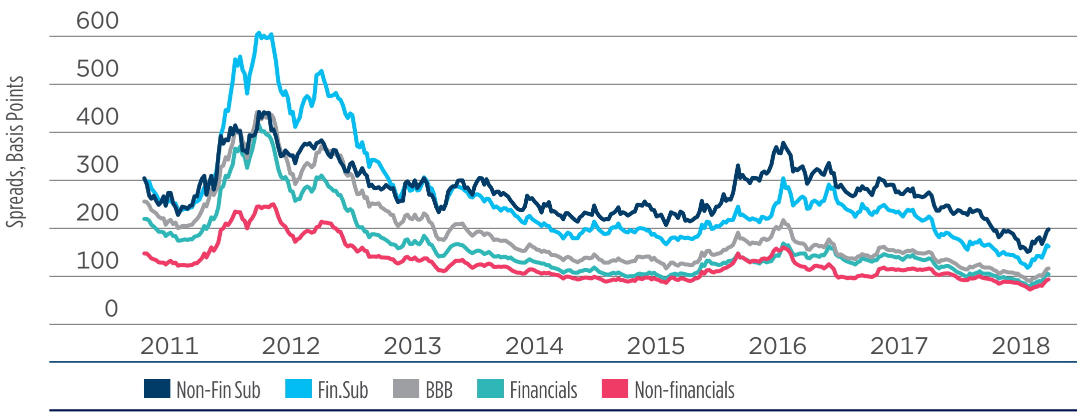
- **Currencies:** within a global approach, currencies can play an important role. These strategies rely on a portfolio manager's ability to exploit differences in the relative values of the world's major currencies. To do this, specialists combine fundamental analysis and quantitative models to identify the currencies which seem over or under valued. Forecasting currency movements is highly dependent on understanding the major drivers of the FX markets such as macroeconomic indicators, technicals and investment flows. Going forward, we believe that the major influencing factor will be the normalization adjustments in Central Bank monetary policies. In general, we think that the USD will weaken further in the medium term due to redirected capital flows, but we could also see some higher volatility in the short term.
  The benefit to the portfolio, in our view, is more than just another source of investment return. From time to time, individual currency pairs may be correlated with certain asset classes, for example the Japanese Yen often rallies when risk assets under-perform. A portfolio of active currency positions offers a "pure" relative value strategy with no overall correlation to interest rate or credit markets. This is because investors express relative value views when buying one currency against another.
  In today's market, an investment strategy with no overall correlation to the bond and stock market is invaluable. QE has helped to reduce interest rate and credit risk premia, and the danger is that the on-going normalisation of CB monetary policy will see these risk premia rising together. Currency strategies, with zero correlation to these risks, could help portfolio diversification, which in turn helps lift anticipated risk adjusted returns. Currency strategies are also beneficial because they are highly liquid. The FX market is the most liquid financial market in the world and contrasts to the deteriorating liquidity witnessed in the corporate bond market on the back of heightened regulation. By identifying safe haven currencies, or currencies correlated

with commodity prices or strong global growth, the portfolio manager can use specific currency pairs to tactically hedge holdings in less liquid asset classes. This may offer the additional benefit of a low transaction costs as these costs for currency trades are a fraction of the bid-offer spread in corporate bond markets.

"Regarding credit and EM bonds, we believe that selection will be increasingly relevant in order to find the names and sectors with the most appealing risk/ return profiles".

- **Credit and EM:** credit markets can offer attractive opportunities, especially in a phase of economic expansion and a still-benign default outlook. As spreads are quite tight, selection is key to uncovering the names and sectors with the most appealing risk/ return potential. In our view, the investment grade space could continue to benefit from the pick-up in growth and healthy balance sheets, while sectors such as financials could be supported by reduced regulatory pressure and rising rates. Within developed markets, our preference is for European financials. Valuations are relatively attractive and credit quality is likely to improve as a strengthening economy lifts loan growth & net interest margins, and reduces Non-performing loans. European banks are at the end of the capital raising era with few concerns about large banks having insufficient capital. In EM, solid fundamentals and macroeconomic backdrops, and demand driven by the hunt for yield makes selective EM bonds opportunities attractive[5].

Figure 14: Euro credit spreads



Source: Amundi analysis on Bloomberg. Data as at 30 March 2018. Indexes ICE BofA Merrill Lynch (EB00, EN00, ER40, EBSL, ENSU).

"We believe that active managers with a strong focus on diversification should put a strong emphasis on portfolio construction within a strong risk budgeting framework".

Investing in global fixed income markets provides a wide range of instruments that can be used to apply a specific view. For this reason, we believe that active managers with a strong focus on diversification should put significant emphasis on portfolio optimisation and construction to ensure the implementation of investment views with a preference for low correlated strategies and within a strong risk budgeting framework, where ex ante risk is allocated to different potential sources of performance.

While a global approach can benefit from an extended opportunity set and can help optimise risks across the different markets, we believe that market phase that is opening in front of us can offer opportunities for different active and flexible fixed income investment approaches which can help investors reach their goals.

[5]See also our recent paper "Emerging Markets: How to unlock the next wave of returns"
http://research-center.amundi.com/page/Article/Insights-Paper/2018/02/Emerging-Markets-How-to-unlock-the-next-wave-of-returns

Amundi
ASSET MANAGEMENT

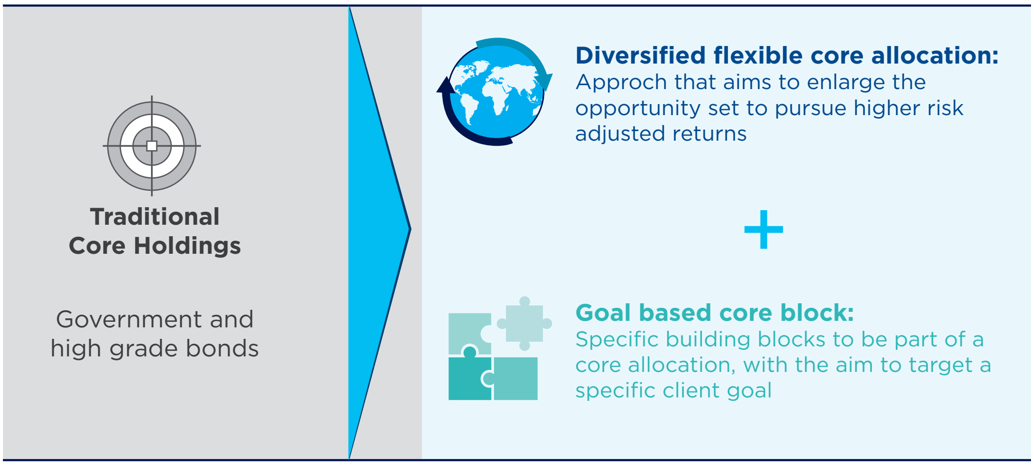
Find the appropriate core bond allocation to address investor goals

"Investors should carefully assess their primary objectives in the search for their most appropriate core bond allocation".

Income, capital preservation, total return and diversification within an overall multi-asset allocation are among the key goals that investors seek through their core fixed income allocation. While a prolonged period of low volatility and CB easing has benefitted a wide range of bond investment strategies, as we enter a new phase of less accommodative policies, not all of these goals will be achievable within a unique investment strategy. Thus, investors should carefully assess their primary objectives in the search for their most appropriate core bond allocation strategy.

In our view, a way to target investor specific goals could be by combining a well-diversified and flexible core bond allocation with specific building blocks designed to target a specific goal.

Figure 15: Rethink core fixed income allocation



Source: Amundi, for illustrative purposes.

Active diversified core allocation approach

"Active diversified fixed income approaches can exploit a wider opportunity set and potentially help in this new market environment by targeting both relative and total return".

In general, a diversified flexible core allocation strategy should aim to optimise bond investing opportunities while targeting income/total return and still provide diversification in a balanced portfolio, as these are core elements of any core fixed income allocation. With today challenges this more and more means capturing income opportunities with a strong focus on diversification. Different approaches can, however, be put in place to target these goals and could suit different investors (for example, US dollar-based investors vs European ones).

1. Global high quality "alpha" approach

This approach, as we have seen in the previous section, aims at optimising the alpha opportunities available in global bond markets by playing directional and relative value opportunities in multiple sectors, regions, curves and currencies. A strong focus on quality and liquidity is required as well as the ability to tactically play duration exposure. This approach can benefit from the potential to add value by exploiting different low correlated strategies that allow for a reduction in overall portfolio risk and enhancement of the potential to generate total return in bond markets. In our view, the global focus of the strategy makes this approach valuable for any investor and in particular for these in developed countries exposed to ultra-low yields.

2. Active multi sector bond allocation

A multi-sector dynamic approach to sector allocation, based on a deep understanding of relative value, volatility and correlations across sectors, may benefit from an expanded opportunity set to achieve potentially higher returns, and benefiting from lower correlations of certain sectors, to dampen overall volatility. This flexible approach allows investors to respond to the changing price and quantity of risk, as well as changing economic and market regimes. Especially for US-dollar based investors, including sectors of the US markets such as ABS, Residential Mortgage Backed Securities, Municipal, Floating Rate Bank Loans and Treasury Inflations Protected Securities makes this approach compelling in a rising rates environment.

"A framework based on the mix of diversified and goal-based investment strategies can benefit investors targeting specific goals within their fixed income allocation".

Adding specific goal-based building blocks

In our view, a framework based on the mix of different strategies can benefit investors targeting specific goals within their fixed income allocation.
Examples of goal-based building blocks that could be of interest in this phase include:

- **High quality short duration:** Investors wishing to mitigate volatility in a phase of rising rates could consider to diversify into high quality short duration strategies.
- **Optimal yield approach:** Investors posing a greater emphasis on income generation, but still willing to mitigate risks due to possible rising rates, could opt to increase their exposure to optimal yield approaches that seek to enhance income opportunities with a strong focus on capital preservation.
- **Credit continuum:** Investors seeking an approach that aims to make the most of the whole credit spectrum ranging from liquid corporate bonds (both IG & HY) to lesser liquid assets such as secured assets and private debt. The purpose is target attractive yields by tapping opportunities across the credit spectrum, with a focus mainly on cash-flow generating assets.
- **Unconstrained/absolute return:** Investors concerned about being too exposed to duration and credit risk moving towards a more uncertain environment could focus on increasing sources of diversification through absolute return investing.

Figure 16: Building blocks of the "new" core fixed income allocation

Source: Amundi, for illustrative purposes.

As we move into uncharted waters, where multiple investment scenarios could emerge, we believe that asset managers will need to further engage with investors in order to understand their specific needs. Doing this would allow managers to build portfolios that through a combinations of different investment solutions can be tailored around the specific risk profile and goal mix of each investor and that could be tactically reassessed should market conditions or investor priorities change over time.

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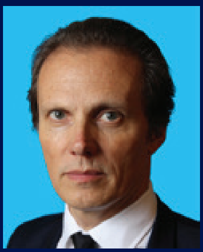

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Date of First Use: April 15, 2018.

Amundi Investment Insights Unit

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