

J.P. Morgan

Asset Management

2011

MARKET PULSE

EUROPEAN VIEWS ON FIXED INCOME

Institutional expectations, strategies
and concerns for an essential asset class



J.P.Morgan
Asset Management

Contents

Foreword	Page 03
Executive summary	Page 04
About this survey	Page 06
Survey respondents	Page 07
The findings	
1. Return expectations	Page 08
2. Asset allocation	Page 12
3. Objectives for fixed income	Page 16
4. Management of fixed income	Page 18
5. Portfolio duration	Page 22
6. Challenges ahead	Page 24
Conclusion	Page 25

Dr. Morgan

Foreword

For a relatively conservative asset class that's generally favoured for its stability and safe-haven status, fixed income has recently been the target of unprecedented attention and concern.

2011 has seen the almost unthinkable prospect of sovereign default arising in European markets including Greece, Ireland, Italy and Portugal. Meanwhile, concerns over the US economy and its level of borrowing have seen Standard & Poor's downgrade US sovereign debt from triple-A for the first time in the country's history. Against this backdrop, it is clear that fixed income investors are being taken into uncharted territory, which makes this report all the more timely.

Taking the fixed income pulse

On the following pages we have sought to 'take the pulse' of Europe's major fixed income investors - the institutional investors who rely on fixed income to deliver their funding requirements, meet their regulatory obligations, underpin their borrowings, and - often - shield them from the vagaries of other 'higher risk' asset classes.

Our research brings together the opinions of **166 institutional investors** from across **15 European countries**, including public and corporate pension funds, life insurers, reinsurers and charities.

We begin by assessing the returns that institutions expect to achieve from fixed income over the short and medium term. We consider how much fixed income European institutions are holding - and plan to hold in the future - given their return expectations. We look at the prime reasons for holding different types of fixed income and the investment approaches that investors use or plan to use in the future. Plus we canvass institutions regarding the biggest challenges they now face in managing their fixed income assets.

Through this research, we have built a comprehensive picture of current attitudes in Europe towards an asset class that has long been the foundation of institutional investment.

J.P. Morgan Asset Management would like to thank all 166 institutions who kindly participated in this research. These findings provide valuable illumination into attitudes at a time of unprecedented challenge for fixed income investors worldwide.

J.P. Morgan Asset Management, November 2011



A handwritten signature in blue ink that reads "Michael O'Brien". The signature is written in a cursive, flowing style.

Mike O'Brien
Global Head of Institutional

Executive summary

This survey brings together opinion on fixed income from 166 institutional investors from 15 European countries. Primarily, research has been conducted with Europe's public, corporate and industry pension funds but our findings also span life insurers, reinsurers, charities and banks.¹

Return expectations

Expectations for return from fixed income are moderately positive with the majority of investors expecting annual nominal returns of 0-4% over three years, which may translate to flat or negative real returns in an inflationary environment.

Within core fixed income, expectations are most positive for European investment-grade corporate bonds (from which 27% of respondents expect annual returns of 4-8% over three years), and least positive for US treasuries. Non-core fixed income classes such as global high yield and emerging market debt are expected to deliver the strongest overall performance (over half of respondents are expecting annual returns of 5-15% from emerging markets over three years, for example) and are believed to offer the greatest potential for alpha (excess return) generation. However, expectations for excess return from these segments may be over-ambitious in some cases.

Asset allocation

European institutions are allocating, on average, 56% of their portfolios to fixed income, twice their allocation to equity. While these average allocations show little planned change, a deeper drilldown shows that around 30% of respondents are looking to increase their fixed income exposure by the end of 2011, while 27% aim to reduce it, albeit mostly by 5% or less in both cases.

Reflecting their solvency requirements, life insurance companies hold the highest fixed income allocation at 74%, while public pension funds hold just 42% on average. There are also significant regional differences, with French institutions holding 70% of their portfolio in fixed income

compared to 37% among UK/Irish respondents. However, we see no large-scale changes in these market asset allocations in the near future.

In terms of composition, institutions are typically holding 75% of their exposure in core European sovereign and investment grade debt, while 25% of exposure is allocated to non-core fixed income segments.

Objectives for fixed income

Portfolio allocations to fixed income are primarily driven by respondents' return expectations, followed by volatility concerns and liquidity requirements.

Within core European fixed income, investment grade corporate bonds are primarily used to deliver return while lower-yielding sovereign debt has a more operative function of liquidity and duration-matching.

Conversely, reflecting the return expectations noted above, global high yield and emerging market debt are sought-after as sources of total return and yield generation.

Management of fixed income

Two-thirds of European institutions manage their fixed income on a wholly active basis. However, there is a growing minority looking to manage core assets such as domestic government bonds passively, primarily using index funds. We also see a marked interest in using in-house management for these core assets.

Where active management is used, there is a growing preference for total return rather than benchmark-aware strategies, using qualitative rather than quantitative investment approaches.

Derivatives are used for a blend of risk management and return generation. While in-house use of derivatives is limited, a third or more of investors are happy for their external managers to use currency forwards, futures and swaps, and one in four investors allow their external managers to use credit derivatives and options.

¹ Research was conducted by online poll in May and June 2011.

Portfolio duration

Half of European institutions have a fixed income portfolio duration of five to ten years, and a third of respondents maintain a duration of five years or less.

Two-thirds of respondents have no plans to alter their duration, which may reflect satisfaction with current portfolio weightings or lack of market/rate visibility.

One in five (21%) institutions intends to lengthen duration, mostly by two years or less, while just one in seven (14%) intends to shorten it, typically by a year or so. Duration lengthening is being driven by a mix of regulatory, return and risk factors while those shortening duration are all doing so because of market expectations of higher rates.

Future challenges

Looking at the future challenges of managing fixed income, institutions are primarily worried about achieving the returns they need in the current low-rate environment. Other major concerns are sovereign/political risk, effective means of managing portfolio risk and inflation/rising rates.

A number of institutions feel particularly squeezed by low/negative real returns at the short-end of the yield curve but also increased interest-rate risk impacting longer-term assets. The addition of sovereign default risk means that many institutions feel impeded in their investment strategy, with a limited range of safe haven assets to move to. One investor sums up the uncertainty:

“Inflation/deflation, growth/no growth – it is difficult to be a long-term investor since the future is so unclear.”

Conclusion

Institutional investors are faced with an unprecedented convergence of factors affecting their fixed income strategies – including economic slowdown, inflationary pressures, low real returns and sovereign default risk.

Faced with this unique combination of concerns, it is understandable that, overall, institutions appear to be making few major changes to their fixed income strategy, whether in terms of asset allocation or duration. The lack of clarity in markets is also underlined by the fact that, of the 56% of investors who are looking to amend their fixed income exposure, there is a broadly equal split between those looking to decrease exposure and those looking to increase it.

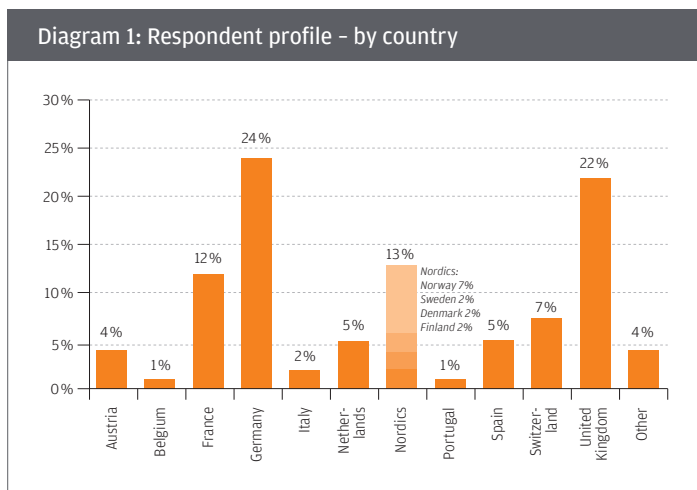
We also see some interesting trends emerging: active external management is being used extensively – and increasingly – for high-alpha fixed income segments; but perhaps in a bid to manage costs in a low-return environment, a growing minority of investors are looking to passive and/or in-house management to run their domestic/European sovereign bond exposure. We also see a strong interest in European investment-grade corporate debt as a potential safe (or at least lower-risk) haven that can deliver strong returns.

While Europe continues to offer many high grade fixed income opportunities, institutions are now faced with exceptional challenges in managing fixed income in line with their risk limitations and their liability requirements.

With the notion of risk in fixed income being redefined, we believe that institutions will need to review their use of fixed income, and the core and non-core assets they choose to hold, if they are to achieve their long-term return objectives.

About the survey

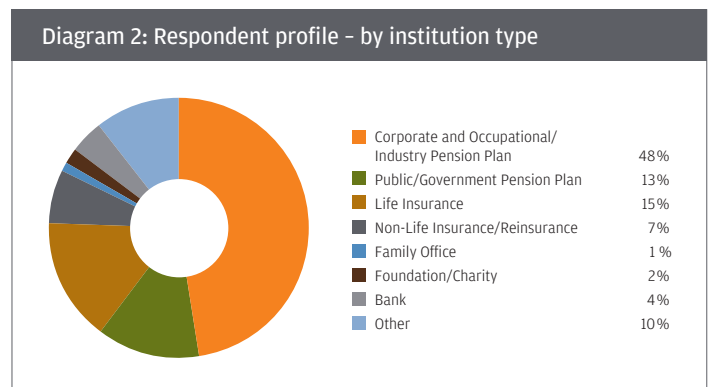
Our survey was conducted online over two months, concluding 23 June 2011. It brings together the opinions of 166 institutional investors from 15 countries across Europe, covering both Eurozone and non-Eurozone markets¹. The largest number of respondents came from Germany, the United Kingdom, the Nordic region and France.



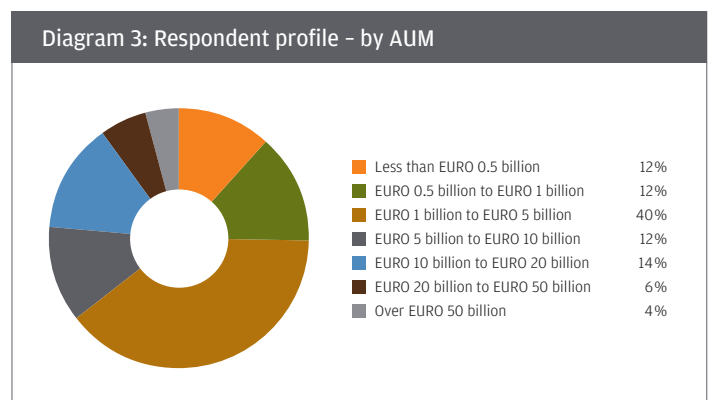
Base: 166
 Austria 7, Belgium 1, France 20, Germany 39, Italy 3, Netherlands 9, Nordics 22 (Denmark 3, Finland 4, Norway 4, Sweden 11), Portugal 2, Spain 9, Switzerland 11, UK 37, Other 6 (Ireland 4, Bermuda 1, Global 1)
 Q: Please indicate in which country your institution is based.

Type of institution

Respondents span a range of institutions, primarily corporate, occupational or industry pensions, public/government pensions and life insurers. In terms of size, assets under management among our respondents range from under EUR 0.5 billion to more than EUR 50 billion. The bulk of respondents (40%) manage assets of EUR 1-5 billion.



Base: 164
 Corporate and Occupational/Industry Pension Plan -78; Public/Government Pension Plan -21; Life Insurance -25; Non-Life Insurance/Reinsurance -11; Family Office 2; Foundation/Charity -3; Bank -7; Other -17
 Q: Please indicate your type of institution.



Base: 162
 Less than EURO 0.5 billion-20; EURO 0.5 billion to EURO 1 billion-19; EURO 1 billion to EURO 5 billion -65; EURO 5 billion to EURO 10 billion -19; EURO 10 billion to EURO 20 billion -23; EURO 20 billion to EURO 50 billion -10; Over EURO 50 billion -6
 Q: Please indicate the AUM bracket that best represents your institution.

¹ The results of our survey reflect the opinions of survey participants and are presented for informational purposes only. Results are based on available responses to specific survey questions and the number of survey respondents varies across collected data for different categories such as individual countries. Due to the small sample sizes for some countries or individual questions, results should be interpreted directionally only. However, this does not affect the overall direction and degree of the trends identified in this survey. The views that are shared in this document are the views of the participants in this survey, not J.P. Morgan Asset Management, unless otherwise stated.

Survey respondents

The following respondents have generously agreed to be acknowledged as participants in the survey.

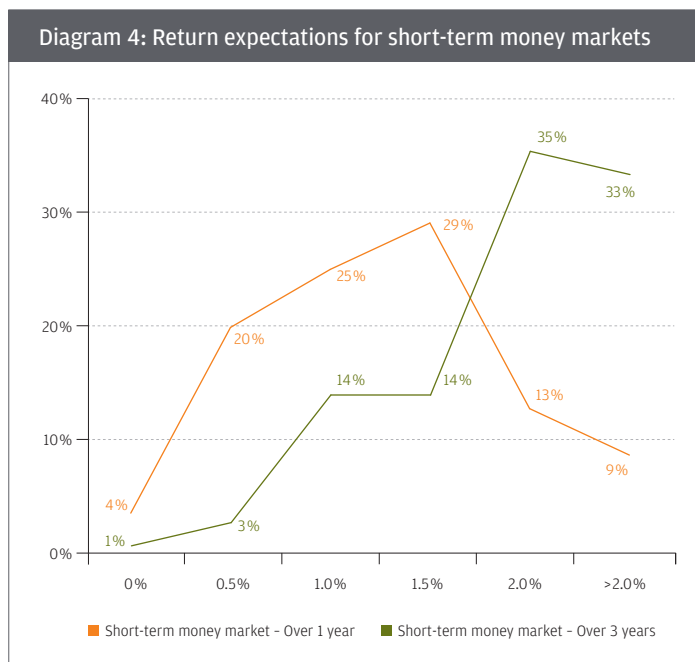
A APK AG	Milk Pension Fund
APICIL	L La Mutuelle Générale
Aprionis Humanis	N Nokia Siemens Networks
Arnotts Ltd	O OFI Mandats
B BNL Pension Fundcio	Österreichischer Rundfunk
BNP Paribas Cardif	P P&V Assurances
Caisse d'Epargne Bourgogne Franche Comte	PenSam
C CARAC	Pensionskasse für die Angestellten der Barmer Ersatzkasse VvaG
CAVP	PP Pension Försäkringsförening
CNP insurance services	Provinzial Lebensversicherung Hannover
Coras Iompair Eireann	R REUNICA
CRPN	S Sampo Group
D De Eendragt Pensioen N.V	SANOFI
Deutsche Post AG	SCA
Devon County Council	Stiftelsen Chalmers Tekniska Högskola
Dundee City Council	Sparkasse Osnabrück
E EGAMO	SPF Beheer
EnBW Energie Baden-Württemberg AG	SPP Livförsäkring AB
Europäische Patentorganisation	Stadtwerke München
F Fondazione Roma	Statens pensjonskasse
G Gjensidige	Stichting EDS Pensioenfonds
I IHK Hannover	Strathclyde Regional Council Pension Fund
Independent Trustee Services Ltd	T Telefónica S.A.
Intesa Sanpaolo Previdenza SIM	U Unilever Progress Pensioenfonds
K Kåpan Pensioner Försäkringsförening	V VersAM Versicherungs-Assetmanagement GmbH
Kesko Corporation	Versorgungswerk der Steuerberater im Land Nordrhein-Westfalen
Kirchliche Zusatzversorgungskasse Rheinland-Westfalen, Anstalt des öffentl. Rechts, Dortmund	W Württembergische Lebensversicherung AG
M Meridian Investment Consultancy	WWK Lebensversicherung a.G.
Merseyside Pension Fund	X Xerox Pensions Ltd

1. Return expectations

How core fixed income segments are anticipated to perform over the next three years.

Money markets

Return expectations at the front-end of the fixed income curve are largely positive among Europe's institutional investors. Over one year, over half (51%) are expecting a return of 1.5% p.a. or more from short-term money markets, while over three years 68% are expecting annual returns of 2% or more.



Base: 159

Q: What are your annualised return expectations for the following market segment over the next one and three years as of 31 March 2011?

Core European fixed income

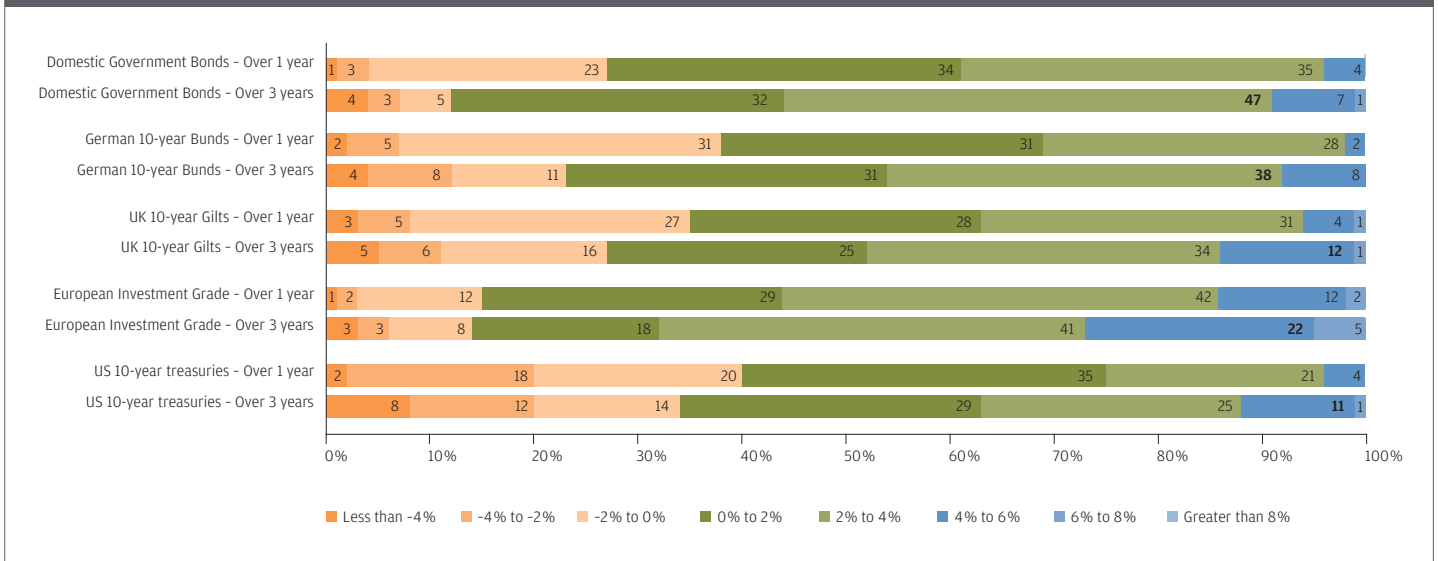
Low positive expectations generally prevail in longer-duration fixed income markets too. Over one year, the majority of institutions are expecting nominal returns of 2% or less from European sovereign debt. Over the medium term, the majority generally expect European sovereigns to deliver in excess of 2% a year, which may translate into negative real returns.

Returns from German bunds are generally expected to be more modest than from UK gilts and other domestic government issues - perhaps reflecting the lower yields that the German market can command as the Eurozone's largest and most stable economy, as well as concerns that interest rates will begin to rise.

Returns from European corporate bonds are expected to be significantly higher, with over two-thirds of institutions expecting returns of 2% or more a year, and 27% claiming to expect returns of 4-8% a year from European investment-grade corporate debt over three years.

Pessimism was already evident around US treasuries when our research was conducted in May/June 2011. Even over three years, 63% of European institutions expected annual returns from US ten-year treasuries to be 2% or less. A third of respondents (34%) expect negative returns to prevail over the next three years - see Diagram 5.

Diagram 5: Return expectations for core European fixed income vs. US Treasuries in percent



Base: Domestic Government Bonds 74, German 10 year Bunds 130, UK 10 year Gilts 129, European Investment Grade 130, US 10 year Treasuries 130.
 Domestic Government Bonds: Responses are from the following countries: Austria, Belgium, Denmark, Finland, France, Italy, Netherlands, Norway, Portugal, Spain, Sweden and Switzerland (Germany and United Kingdom are not included).

Q: What are your annualised return expectations for the following market segments over the next one and three years as of 31 March 2011?

Commentary

The return expectations across core European sovereign debt markets are indicative of expectations that interest rates will rise in the short to medium term. From these findings, we would conclude that investors largely expect real (after-inflation) returns from European sovereign debt to be flat to negative over the medium term, primarily in expectation that rates will rise at some point but perhaps also reflecting ongoing default concerns in some peripheral markets.

We anticipate government bond yields will remain comparatively low for years to come and move within a fairly narrow range, reducing the potential for investment appreciation but still keeping real returns in positive territory. In this environment, higher yielding fixed

income (such as emerging markets debt, corporate credit and high yield) and equities, while volatile, will conceivably account for an ever larger share of European institutional portfolios.

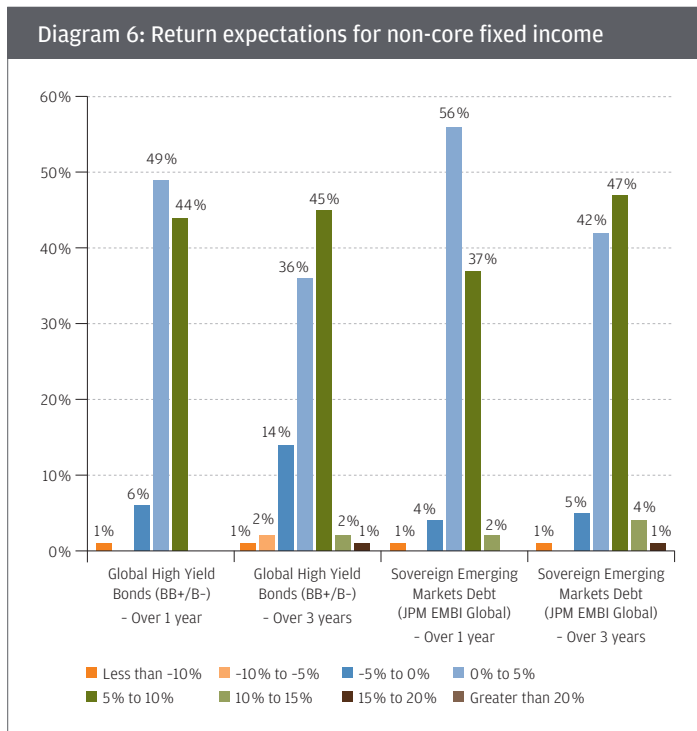
As to expectations for US treasuries, our research was conducted before concerns over US debt peaked in late-July/early August 2011. Nonetheless it is clear that European institutions were already bracing themselves for volatile performance from the US bond market. It is notable, for example, that 18% of respondents were expecting negative returns of -4% to -2% over one year from US treasuries – the most negative sentiment for any of the sovereign asset classes shown.

>>

Non-core fixed income

Return expectations from high yield and emerging market debt are largely positive over both one and three years. Emerging market debt, in particular, is expected to deliver strong performance between now and 2014 with over half of respondents expecting annual returns of between 5% and 15%.

However, it should also be noted that the minority of investors expecting a negative performance from high yield bonds actually increases between one and three years - see Diagram 6.



Base: 131

Q: What are your annualised return expectations for the following market segments over the next one and three years as of 31 March 2011?

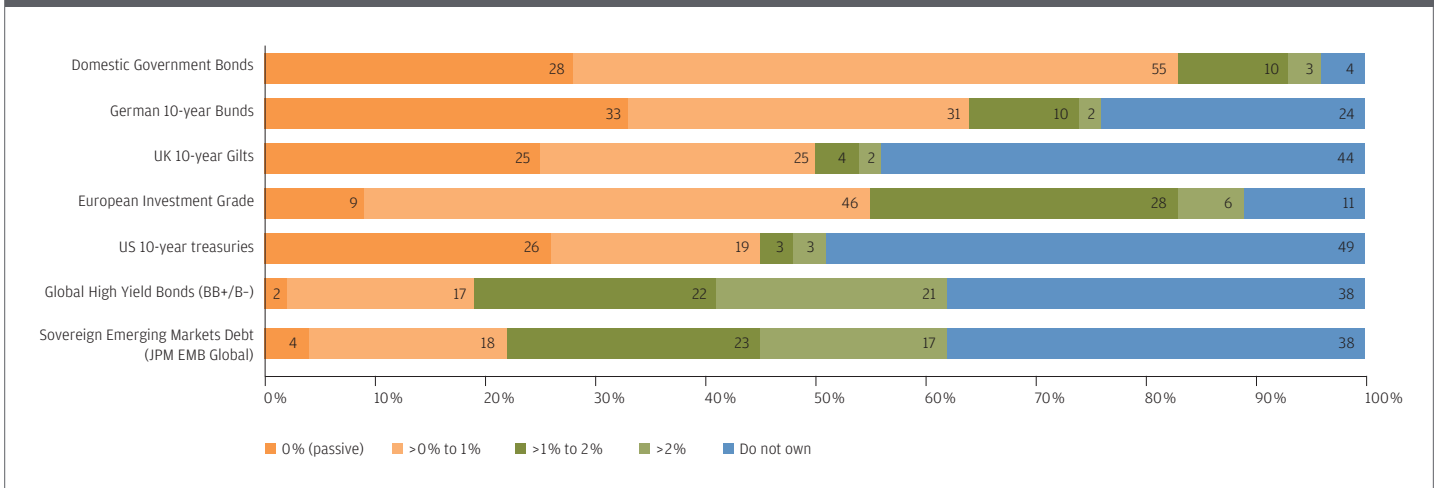
Alpha expectations

The return expectations shown in Diagram 6 are also reflected in the level of excess return that investors hope to achieve over and above market returns, whether from internal or external investment management.

For example, the potential to exceed benchmark returns is expected to be very limited within core European government bond markets over a market cycle. However, in European investment grade corporate debt, a third of institutions (34%) expect their chosen investment strategy to achieve an excess return of 1-2% or more a year over a market cycle - see Diagram 7.

In non-core bond markets, the potential for alpha is considered to be higher. A sizeable minority of institutions expect to achieve more than 2% a year in excess return over their benchmark in both global high yield and emerging market debt.

Diagram 7: Excess return expectations for fixed income in percent



Base: Domestic Government Bonds 68, German 10-year Bunds 123, UK 10-year Gilts 123, European Investment Grade 123, US 10-year treasuries 123, Global High Yield Bonds (BB+/B-) 127, Sovereign Emerging Markets Debt (JPM EMB Global) 128

Domestic Government Bonds: Responses are from the following countries: Austria, Belgium, Denmark, Finland, France, Italy, Netherlands, Norway, Portugal, Spain, Sweden and Switzerland (Germany and United Kingdom are not included).

Q: Over a market cycle, how much annual excess return on top of the relevant benchmark do you expect to be added to the following components of your fixed income portfolio?

Commentary

Return expectations for ‘higher spread’ bond markets such as global high yield and emerging markets are significantly higher than for core European markets, both in terms of nominal market returns and the opportunity for additional alpha generation.

As we will see later in this report, many institutions view these non-core asset classes as a primary source of investment return and are keen to use active management to optimise their return potential.

Given their comparatively more sound fiscal balances, the additional yield offered by emerging markets appears not only attractive but available for a reasonable level of risk. As long as the fundamentals do not change, we believe longer-term returns should remain attractive - particularly given the additional return potential from the ap-

preciation of most emerging market currencies against the US dollar, euro and sterling.

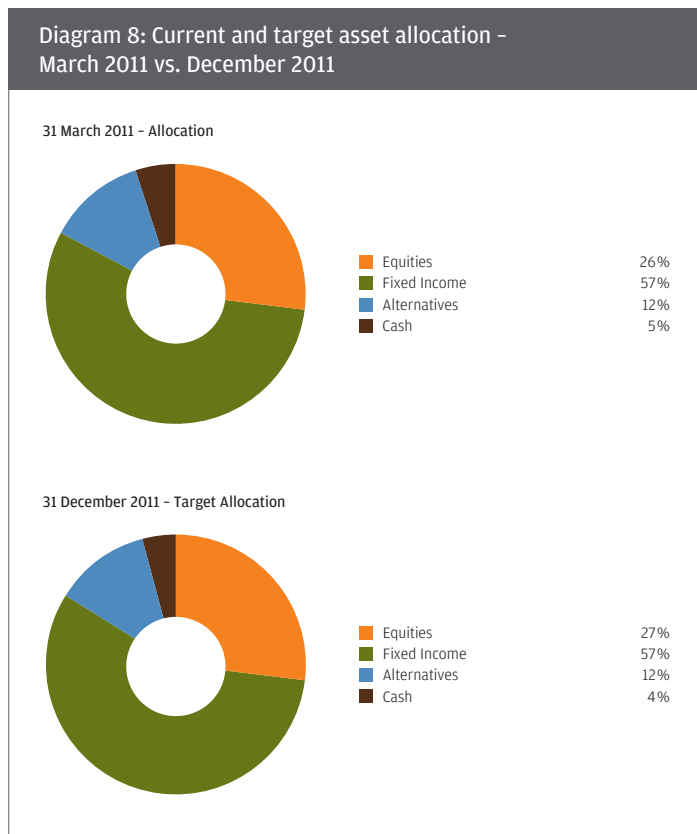
Nonetheless, investors need to be mindful that emerging market assets often suffer disproportionately during periods of investor anxiety, leading to short-term losses (as seen in September 2008 and August 2011).

High yield bonds also require a high degree of attention as spreads can move across a wide range, leading to substantial changes in valuation. Now more than ever, the appeal of additional yield has to be put in context of the outlook for each country’s economy and the prospect for increases in defaults.

2. Asset allocation

Breakdown of fixed income exposure and how target allocations are planned to change.

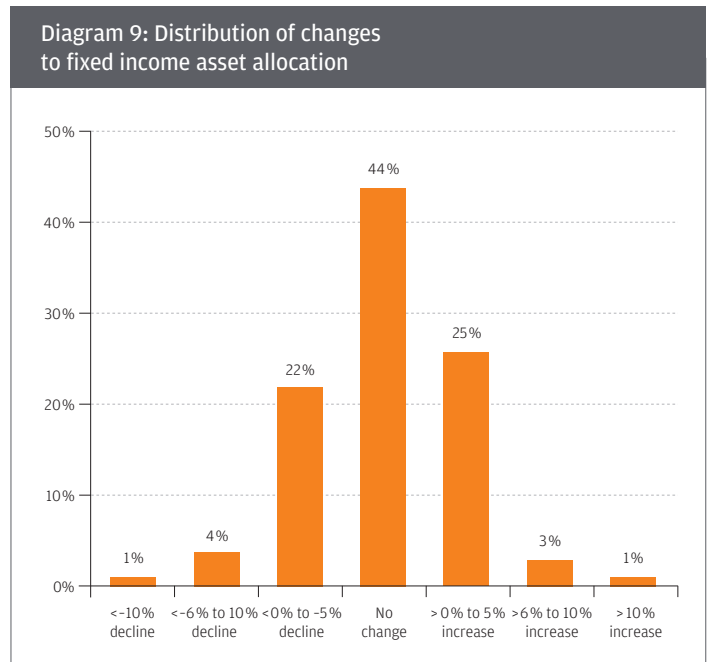
Fixed income accounts for well over half of the average European institutional investment portfolio and typically more than double the exposure allocated to equities – see Diagram 8.



Base: 105

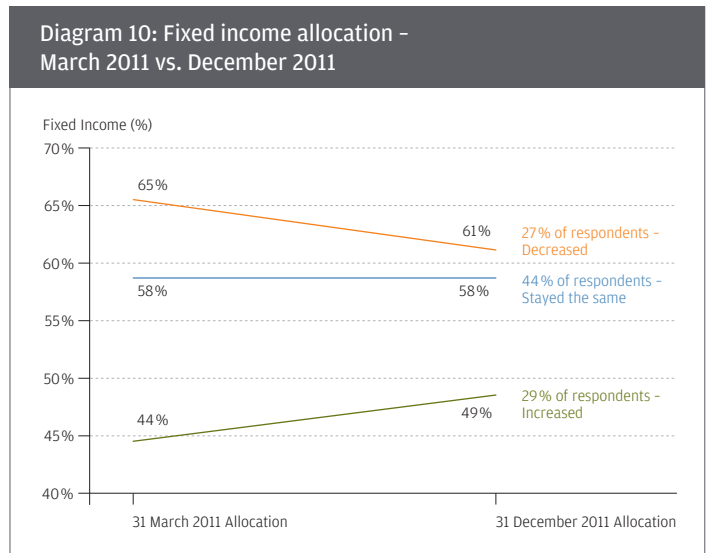
Q: Please indicate your total portfolio asset allocation as of 31 March 2011. Please also indicate what your target portfolio asset allocation is for the end of this year (31 December 2011).

Overall there appears to be very little planned change in this asset allocation between March and December 2011. However, if we break down these average responses, we see that just under 30% are increasing their target allocation while just over a quarter of institutions (27%) are looking to decrease it – see Diagram 9. These alterations are modest, however, with the majority looking to change their fixed income allocation by 5% or less.



Base: 105

Those looking to increase their fixed income exposure tend to hold below-average allocation while those looking to decrease are overweight compared to their peers – see Diagram 10. Overall we see that three-quarters of institutions are looking to maintain or increase their fixed income exposure by the end of 2011, suggesting general support for the asset class.



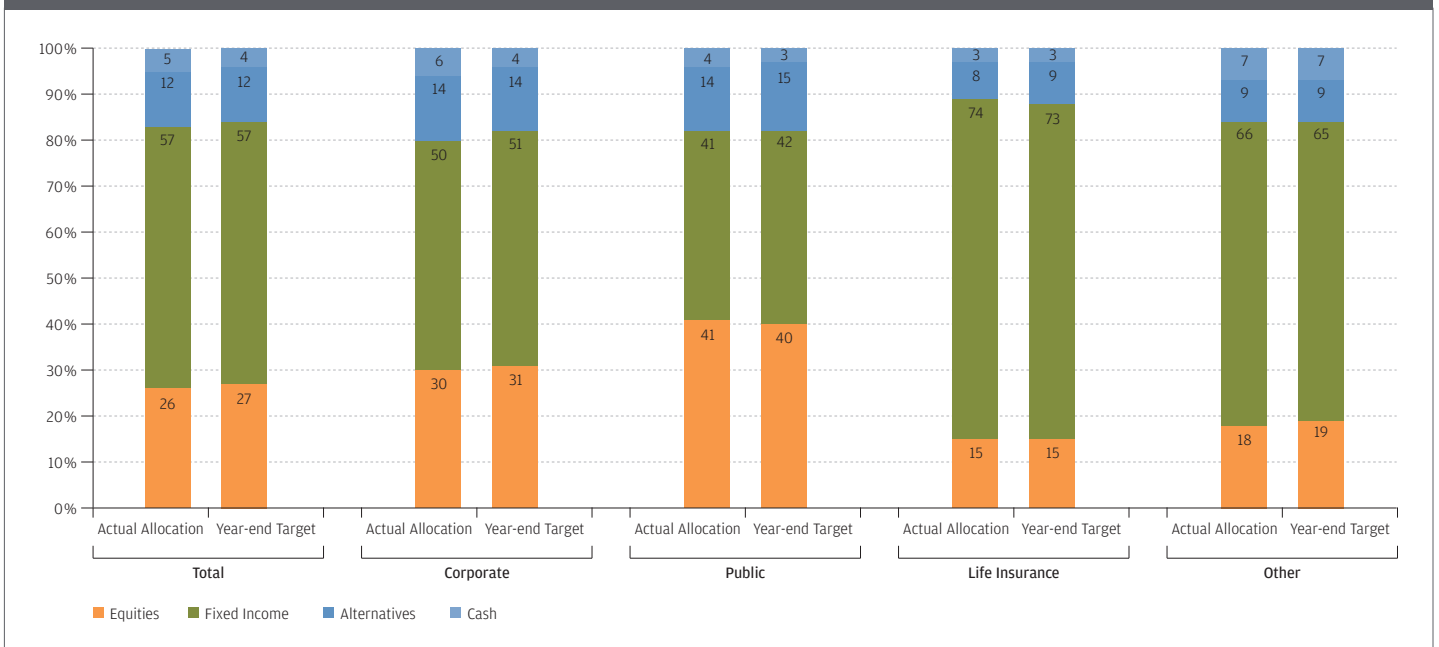
Base: 105

Asset allocation by institution and region

Looking beyond average allocations, respondents vary quite substantially in the level of fixed income they hold, both by type of institution and by region.

Life insurers have the highest allocation to fixed income at 74%, while public and government pension funds retain the lowest allocation of 41%. Public pensions also appear to have the highest exposure to risk assets, targeting allocations of 15% to alternatives and 40% to equities by end-2011.

Diagram 11: Asset allocation - by institution type in percent



Base: 105 - Total 105, Corporate 52, Public 13, Life Insurance 18, Other 22
 'Other' comprises small sample size institutions: Bank, Foundation/Charity, Non-Life Insurance/Reinsurance, Other)

Q: Please indicate your total portfolio asset allocation as of 31 March 2011 and your target portfolio asset allocation for 31 December 2011.

Commentary

The high fixed income allocation among European insurers is not simply indicative of current market uncertainty but is likely to be maintained in the long term as institutions comply with the stringent capital requirements demanded by the forthcoming Solvency II directive.

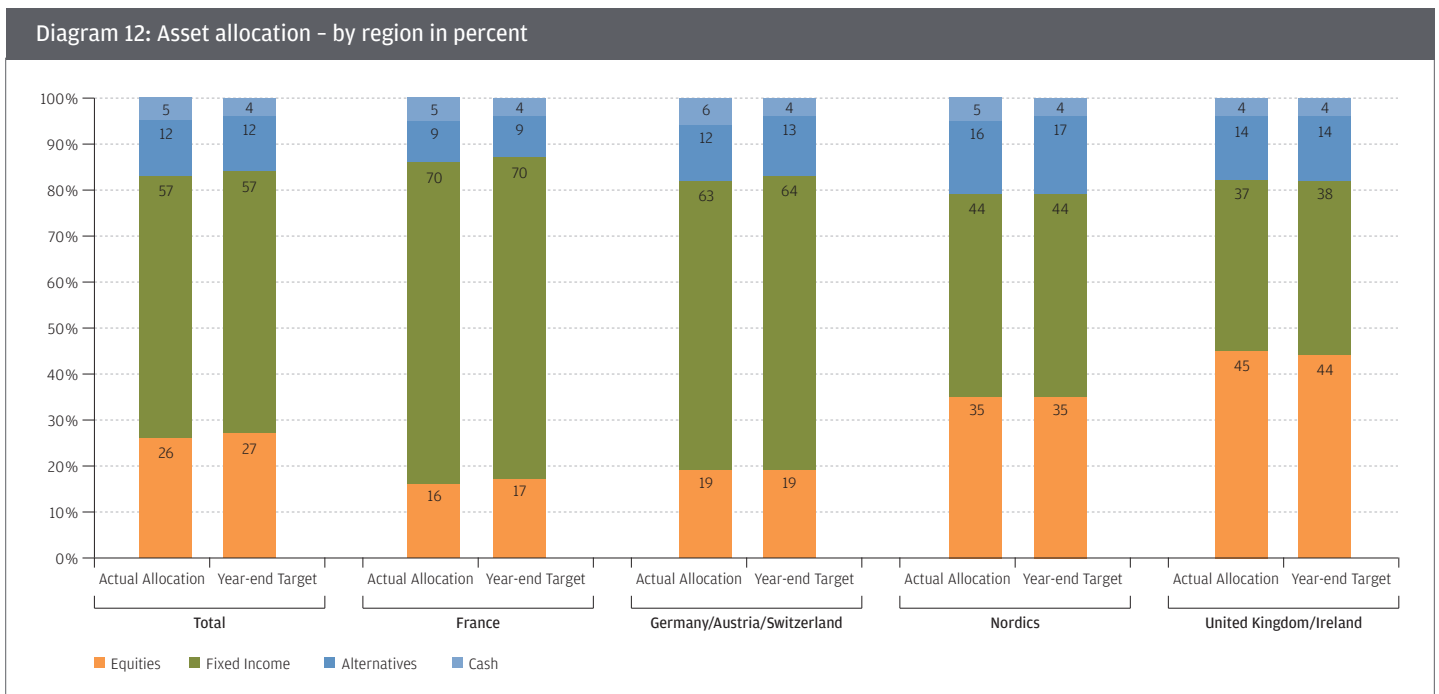
However, it seems ironic that regulatory changes are requiring insurers to increase their exposure to (sovereign) fixed income at the

same time that its safety is being questioned, and future returns are set to be below historical averages.

We anticipate that European insurers will continue to reallocate exposure from equity to fixed income in response to Solvency II requirements. But given the low return expectations for core sovereign debt they may perhaps look to increase exposure to high yield and emerging market debt. This could lead to a more stable long-term institutional European presence in these asset classes.

>>

We also see major differences in fixed income exposure by region - with allocations among Nordic, UK and Irish institutions standing at two-thirds or less of that held by investors in other European markets. No region has signalled any major change to their target fixed income exposure during the rest of 2011, as Diagram 12 shows.



Base: Total 105. Selected regions are shown as follows: France 17, Germany 30, Austria 3, Switzerland 6, Nordics 14 (Denmark 1, Finland 2, Norway 2, Sweden 9), United Kingdom 14, Ireland 4
 Q: Please indicate your total portfolio asset allocation as of 31 March 2011 and your target portfolio asset allocation for 31 December 2011.

Composition of fixed income exposure

Drilling down into the composition of their fixed income exposure, we see differences in allocations between Eurozone respondents and those outside the Eurozone - see Diagram 13.

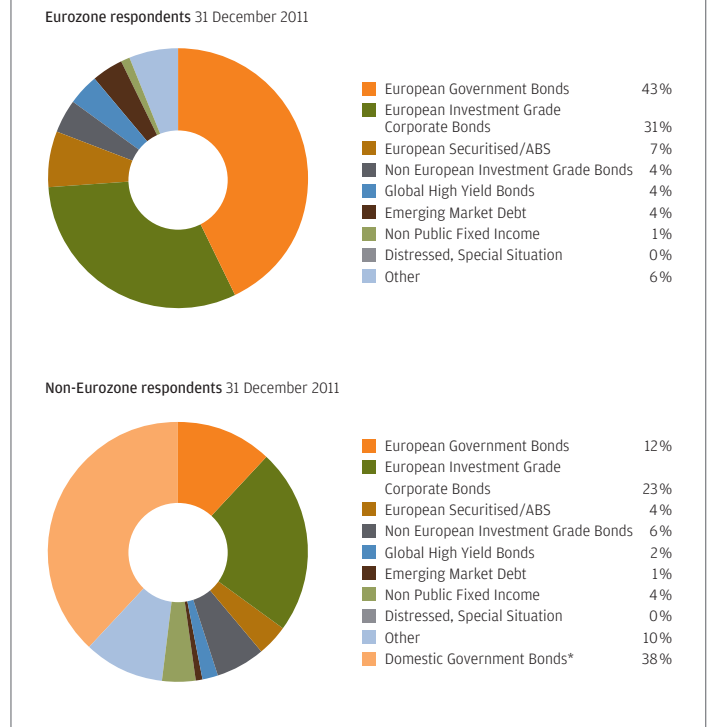
Among Eurozone respondents, 43% of fixed income is held in European government bonds, while 31% is held in European investment grade corporate debt.

Non-Eurozone respondents have a higher government bond allocation, choosing to diversify across both domestic and Eurozone issuance. Perhaps as a result of allocating 12% to Eurozone government bonds, their exposure to European investment grade corporate debt is lower than their Eurozone counterparts - 23% vs. 31%.

Both Eurozone and non-Eurozone investors look to hold, on average, a quarter of fixed income exposure in non-core/non-European assets. European securitised/asset-backed securities and non-European investment grade corporate debt appear to be the most popular non-core asset classes.

Eurozone investors appear to have more interest in global high yield and emerging market debt, holding 8% in these two sectors compared to 3% among their non-Eurozone counterparts.

Diagram 13: Fixed income target allocation breakdown - by Eurozone and non-Eurozone



Base: Eurozone respondents 55, non-Eurozone respondents (British, Danish, Norwegian, Swiss, Swedish) 26

* only applicable for respondents located outside the Eurozone: British, Danish, Norwegian, Swiss, Swedish

Q: Please indicate what your target fixed income allocation is for the end of this year (31 December 2011).

Commentary

It is to be expected that domestic/Eurozone sovereign debt accounts for the largest allocation in an institutional fixed income portfolio. However, the level of investment in European investment grade corporate bonds and other non-core fixed income sectors is already significant and perhaps reflects the higher return expectations for these sectors.

Eurozone investors appear particularly interested in investing in high grade European corporate debt - typically allocating around a third of their portfolio to it. Given macro-economic events, the question now is: will investors start to view selected high grade European corporate issuers as presenting less credit risk than some European sovereigns (a view that is increasingly visible in CDS markets, credit ratings and client guidelines)?

We are also interested in the impact of recent events on demand for corporate debt beyond Europe. While corporate debt allocations have been heavily focused on Europe, we as an investment house have seen increased interest in global corporate mandates as the Eurozone sovereign crisis starts to affect some Euro-based corporate, in particular financials.

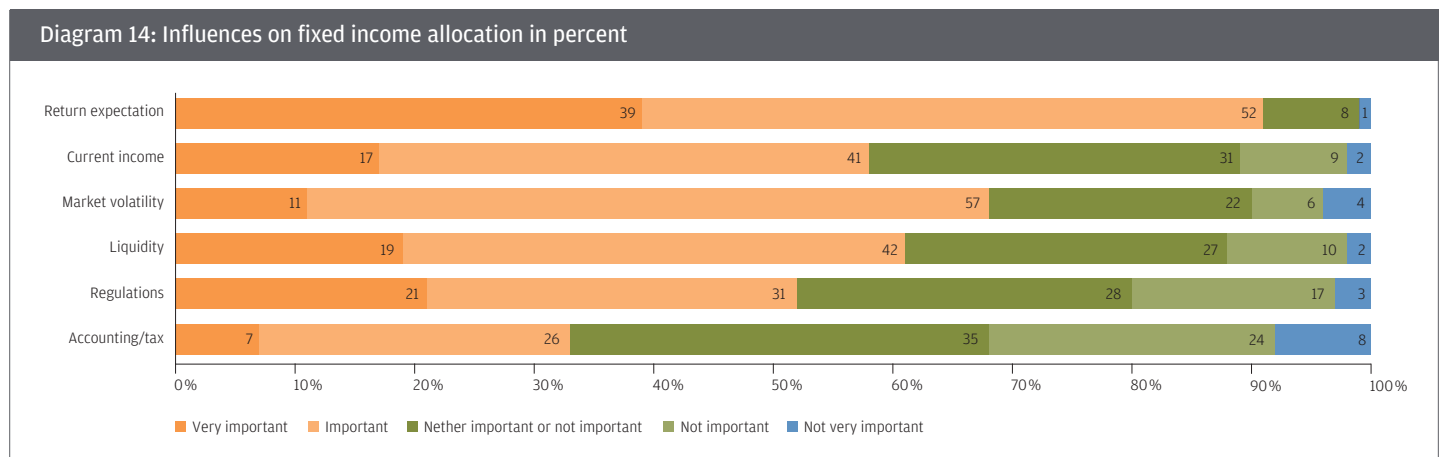
Our research shows that non-European investment grade bonds currently account for just 4-6% of institutional portfolios. We anticipate this allocation may increase as events in the Eurozone compel investors to look further afield for high-quality debt opportunities.

3. Objectives for fixed income

What drives fixed income allocation in Europe and the roles assigned to different fixed income segments.

The most important factor driving fixed income allocation is return expectation, followed some way behind by market volatility. Liquidity and

income requirements are also major drivers. Regulation drives fixed income allocation among just over half of respondents, with just over a fifth of investors classing it as a very important influence on how much fixed income they hold.



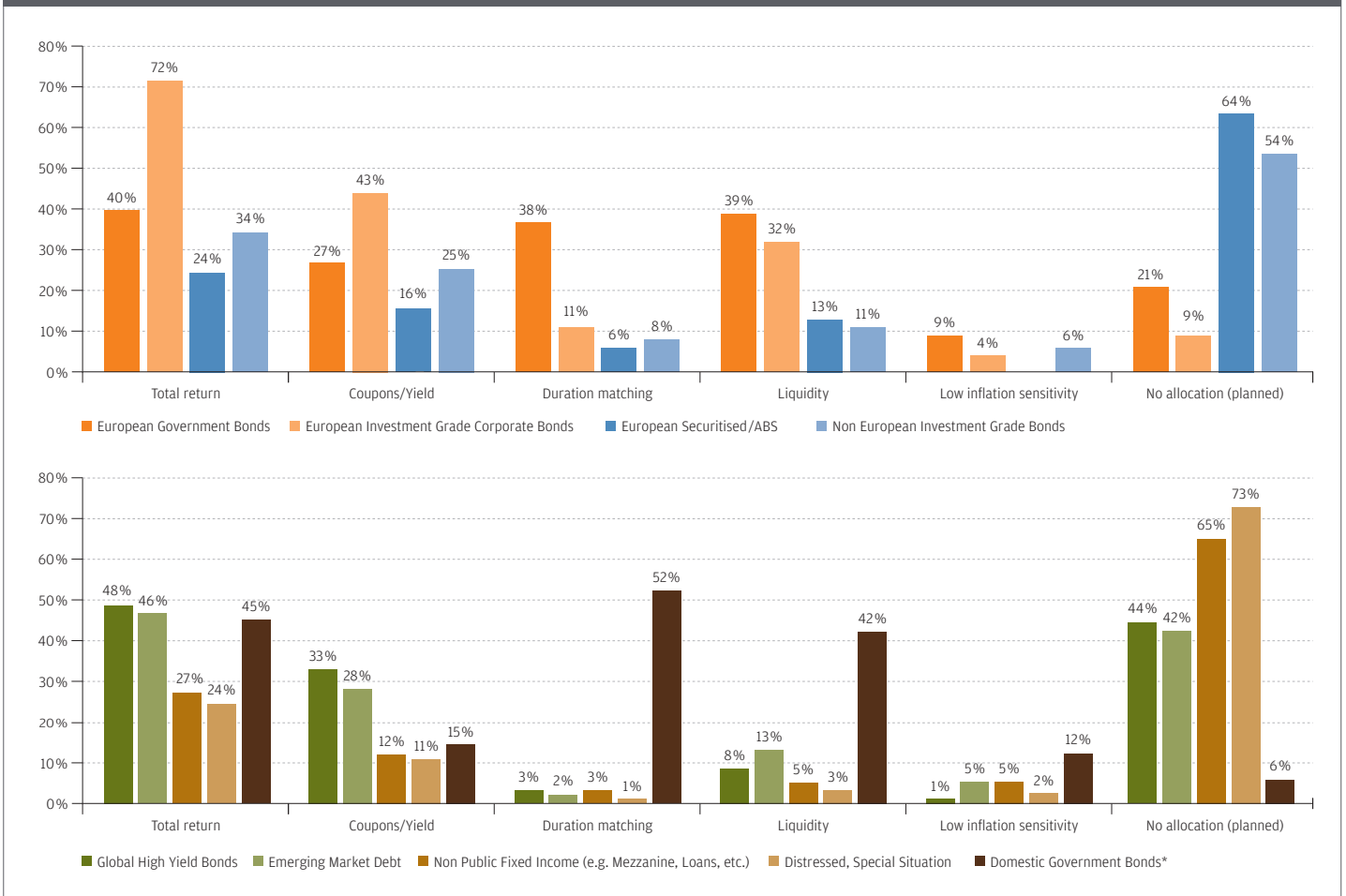
Base: Return expectation 104, Current income 103, Market volatility 104, Liquidity 104, Regulations 104, Accounting/tax 102
 Q: Please indicate the level of importance regarding the following criteria driving your year-end target fixed income allocation.

Roles of fixed income segments

In terms of instrument, European investment grade corporate debt is seen as the key provider of both total return and yield – see Diagram 15. European/domestic government bonds, conversely, are primarily used for duration-matching and to provide liquidity (although it is notable that a large proportion of non-Eurozone investors view their domestic bonds as a source of total return – see Diagram 15, second graph).

Among other types of fixed income, global high yield and emerging market debt are also held primarily for return and yield generation.

Diagram 15: Investment objective by security type



Base: 97
 Base: Global High Yield Bonds, Emerging Market Debt, Non Public Fixed Income, Distressed, Special Situation - 97; Domestic Government Bonds* 33;
 *only applicable for respondents located outside the Eurozone: British, Danish, Norwegian, Swiss, Swedish
 Q: Of the following, which are the TWO most critical investment objectives for the following components of your fixed income portfolio? (Choose up to two investment objectives per component).

Commentary

The stronger return expectations for investment grade European corporate debt, global high yield and emerging market debt witnessed earlier in our report are reflected once again in the roles that investors assign to these fixed income sectors in their portfolio.

Non-sovereign fixed income is relied on to deliver return and a reasonable level of yield, whereas domestic government debt appears to retain

a more 'operative' role of duration-matching against required income streams and providing liquidity.

The strong focus on European investment grade corporate debt as a source of total return underlines the increasing importance of this asset class within European institutional portfolios, as does the rising allocation to emerging market debt, albeit from a much lower base.

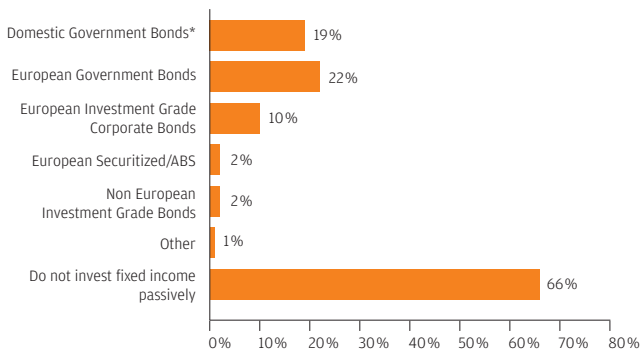
4. Management of fixed income

How institutional investors are choosing to run their fixed income portfolios.

Passive vs. active management

Two-thirds of European institutions manage their fixed income exposure on a wholly active basis. One in five institutions manages all European government bond exposure passively, while one in ten uses passive management for European investment grade corporate bond exposure.

Diagram 16: Passive management of fixed income



Base: 93

*only applicable for respondents located outside the Eurozone: British, Danish, Norwegian, Swiss, Swedish

Q: Please indicate the segments of your fixed income portfolio that are managed 100% passively? (Select all that apply).

The majority of institutions have no plans to alter this approach. However, a quarter of respondents say they are becoming more likely to use passive management for their European government bond exposure. A similar proportion claim to be less likely to use passive management for corporate, high yield and emerging market debt - see Diagram 17.

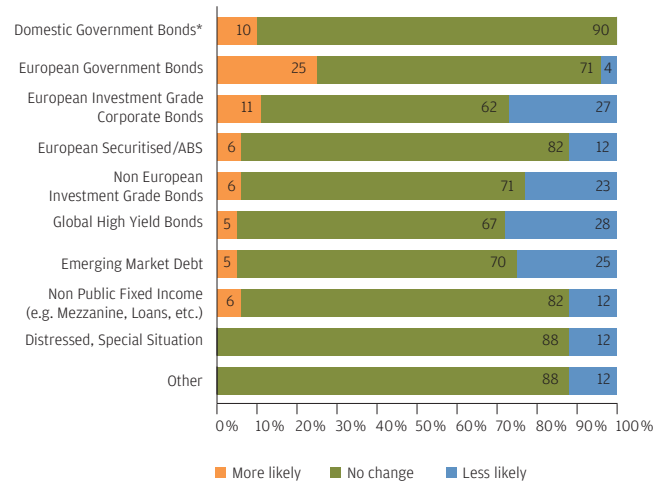
Commentary

In a low-return environment, it is understandable that institutions may want to use low-cost passive management, particularly for straightforward duration-matching purposes where long-term bonds may be primarily held on a 'buy and hold' basis. >>

>> But passive investing has often been considered less appropriate for fixed income. The inherent bias of increasing allocations to an issuer whose indebtedness (and hence riskiness) is increasing is one concern. There are also potentially opportunities to obtain above-market returns through research particularly in those fixed income markets that have less analyst coverage.

Investors also need to ask themselves whether European sovereign debt needs to be actively managed, particularly in the current environment where tactical market and issuer selection may be crucial to optimising return and minimising capital loss.

Diagram 17: Passive management usage in percent



Base: Domestic Government Bonds 10, European Government Bonds 24, European Investment Grade Corporate Bonds 26, European Securitized/ABS 17, Non European Investment Grade Bonds 17, Global High Yield Bonds 21, Emerging Market Debt 20, Non Public Fixed Income 17, Distressed/Special Situation 16, Other 8

*only applicable to respondents outside the Eurozone: British, Danish, Norwegian, Swiss and Swedish

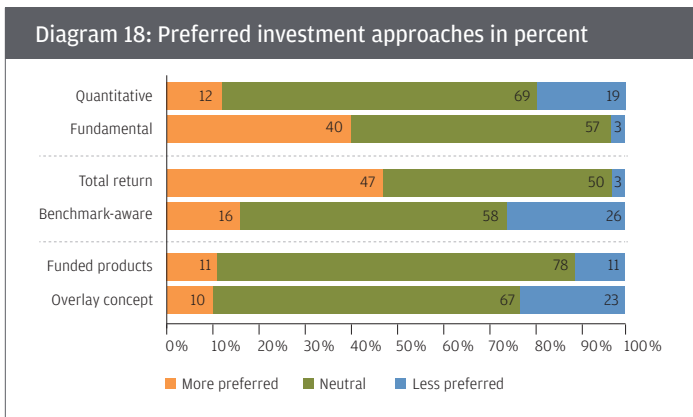
Q: Please indicate whether you are more or less likely to index/invest passively in the following categories versus a year ago.

Of those institutions that do use passive management for some element of their fixed income exposure, 70% use index funds and segregated passive mandates, while 15% use ETFs. Only 4% use derivatives to achieve passive exposure.

Preferred active approaches

Where active investment is desired, there has been a slight shift over the last year in how investors want their fixed income to be managed. Four out of ten European institutions say they are more interested than they were a year ago in using a fundamental approach to investing, while quantitative approaches have experienced a decline in interest - see Diagram 18.

There is also a stronger interest in investing to achieve a total return (by which we mean a target return that can be achieved at low correlation to bond markets) while at the same time benchmark-aware strategies are falling from favour. We also see a decline in interest in overlay strategies that use derivatives to achieve desired fixed income exposure/duration. Fully funded approaches that don't use derivatives see no net change in preference.



Base: 98

Q: Please rate your preferences for the following fixed income processes/approaches today versus one year ago.

Commentary

It is clear from our findings that the majority of institutions prefer to use active management to run their fixed income portfolios.

Within active management, there is a preference for fundamental and total return investment approaches. This may be a reaction to rising market volatility and changing perceptions about the risks and potential returns of various fixed income asset classes, demanding a more aggressive approach to fixed income investing.

Nonetheless our research has also shown that a growing minority of respondents are looking to use passive strategies, particularly for managing their core government bond exposure.

We think two trends may be sustained: a growing number of institutions will seek to use passive management (primarily via index funds) to achieve their core European government bond exposure. At the same time, more investors will seek out active management - with a focus on fundamental, total return approaches - to help maximise return from non-core fixed income sectors such as investment grade corporates, high yield and emerging markets.

Defining our terms

Quantitative: An investment approach that primarily uses systematic mathematical modelling and processes to determine investment selection.

Fundamental: A portfolio management approach where human evaluation of securities, markets and the economy primarily determines investment selection.

Total return: An investment approach that targets a certain overall return (for example, an excess return over a risk-free return) over a given period, irrespective of market returns. This approach also means that asset allocation is not tied to benchmark weightings.

Benchmark-aware: An investment strategy where investment performance, and therefore asset allocation, is referenced to a particular market benchmark and therefore has a degree of correlation to that benchmark.

Funded products: Where the investment strategy is created purely by investment in cash securities, with no use of derivatives.

Overlay concept: A portfolio management approach where derivatives are used to adjust investment exposure or duration without disrupting the underlying portfolio of 'physical' assets.

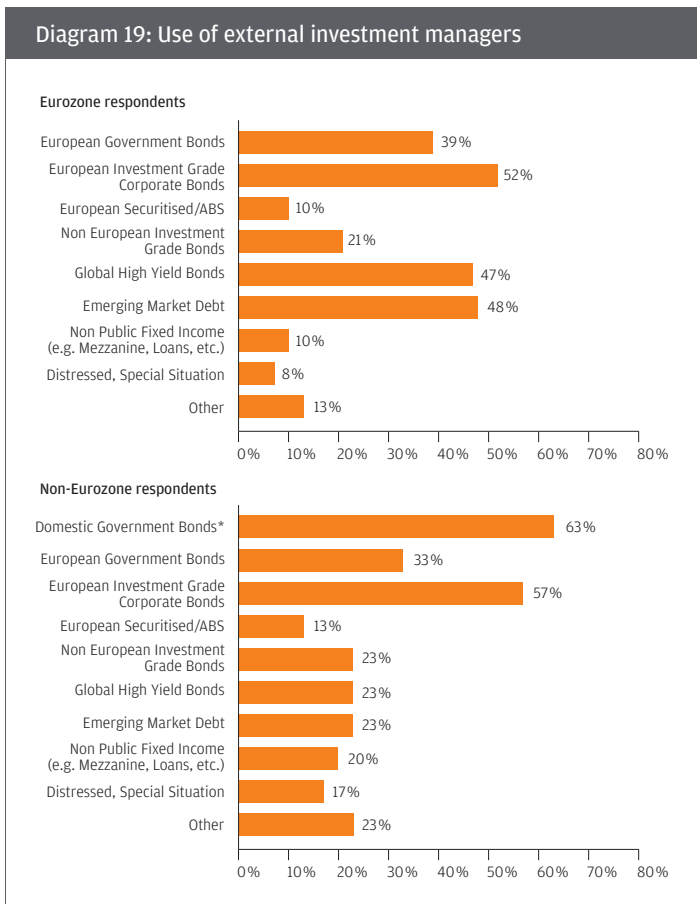
>>

Use of external managers

When it comes to who manages a fixed income portfolio, we see variations between Eurozone and non-Eurozone respondents. Eurozone respondents have a lesser tendency to use external managers to run their European government bond portfolios. However there is a strong preference among both Eurozone and non-Eurozone investors to use external managers to run European corporate bond investments.

There is also a preference to use a third-party manager to oversee non-core fixed income segments such as global high yield and emerging market debt (the low take-up of external managers for these segments among non-Eurozone respondents can be attributed in most markets to low portfolio allocation).

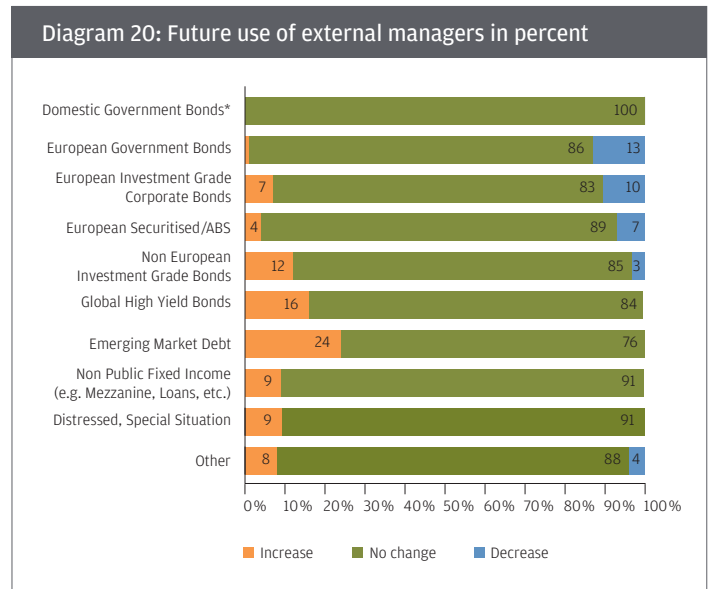
Both of these trends looks set to grow, albeit gradually - 13% of respondents say they plan to decrease their use of external managers for European government bonds, while 16-24% intend to increase their use of external management for global high yield bonds and emerging market debt - see Diagram 20.



Base: 30

* only applicable for respondents located outside the Eurozone: British, Danish, Norwegian, Swiss and Swedish

Q: For which of the following fixed income asset classes do you use external managers? (Tick all that apply, even if only part of a segment is managed externally.)



Base: Domestic Government Bonds 28, European Government Bonds 70, European Investment Grade Corporate Bonds 73, European Securitized/ABS 56, Non European Investment Grade Bonds 61, Global High Yield Bonds 68, Emerging Market Debt 68, Non Public Fixed Income 57, Distressed/Special Situation 55, Other 25

* only applicable to respondents outside the Eurozone: British, Danish, Norwegian, Swiss and Swedish

Q: Please indicate how you plan to change the use of external managers for the following fixed income asset classes.

Commentary

Institutions appear keen to use third-party expertise in those fixed income sectors (high yield and emerging markets) where they believe most alpha can be delivered. In contrast, there is a greater tendency to manage government bonds in-house.

As institutions look to manage their costs, we anticipate a widening distinction between core fixed income that is managed passively and/or in-house to achieve market returns and non-core fixed income that is managed actively by external managers to achieve a high level of total return or excess return.

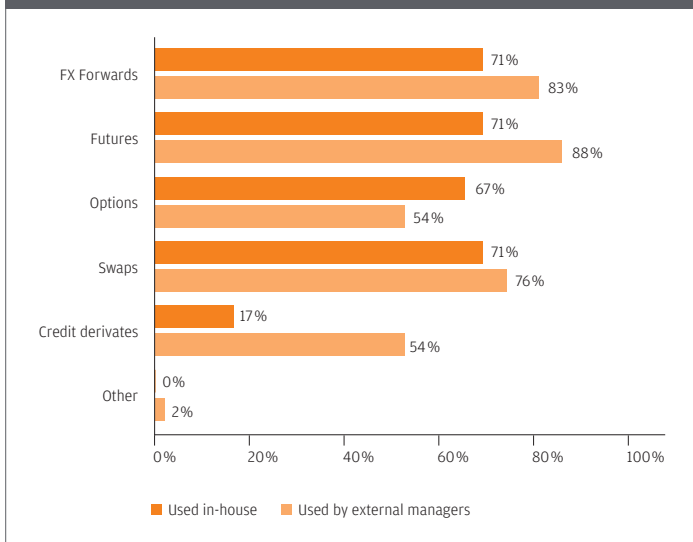
Use of derivatives

In our survey, 59 % of institutions said they used derivatives in the management of their fixed income portfolios. Of institutions that do use derivatives, 53 % use them solely for risk management/hedging and 47 % use them for both risk management and to source investment return.

Just over a third (35%) of all respondents are using derivatives within their in-house fixed income investment activities, while almost half (47%) allow their external managers to use them. (Additionally, others may have external derivative exposure but are unsure because external management is conducted using funds).

Based on those 59 % who use derivatives, currency forwards and futures are the most widely-used derivative instruments within both in-house and external fixed income investment. Credit derivatives are used reasonably widely by external managers but are used far less extensively in-house - see Diagram 21.

Diagram 21: Derivative usage internally and by external managers



Base: Respondents who use derivatives in-house 48, respondents who allow derivatives to be used by external managers 59

Q: Which derivatives do you use in-house/do your external managers use? (Select all that apply.)

Commentary

Our research has already revealed a decline in interest in overlay strategies (see Diagram 18, page 19) for fixed income management, so it is not surprising that adoption of derivatives in order to achieve return - as opposed to managing or hedging risk - is fairly limited among European institutional investors.

We believe that derivatives will continue to be used primarily as a risk management tool rather than a means of enhancing investment return. In particular, the flexibility offered by derivatives will remain essential to controlling duration risk and implementing liability-driven investment strategies.

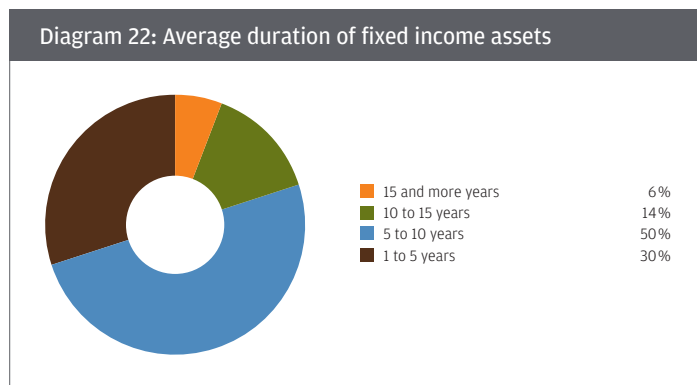
Credit derivatives are likely to continue to be used in externally managed portfolios both for risk management and alpha generation. The specialist knowledge often required to complete the necessary legal documentation for credit derivatives may explain their limited use in-house.

5. Portfolio duration

How institutions are managing their levels of interest-rate sensitivity.

Duration measures the average time-weighted maturity of income streams in a fixed income portfolio. It is widely used as a measure of a portfolio's sensitivity to changes in interest rates. As a rule, the longer a portfolio's duration, the greater its price sensitivity to changes in interest rates. Shortening duration is therefore considered a means to reduce interest rate risk in a fixed income portfolio.

The most common average duration for fixed income among the European institutions we surveyed is five to ten years, reflecting the long-term nature of their liabilities, although a third of respondents retain a duration of just one to five years.



Base: 98

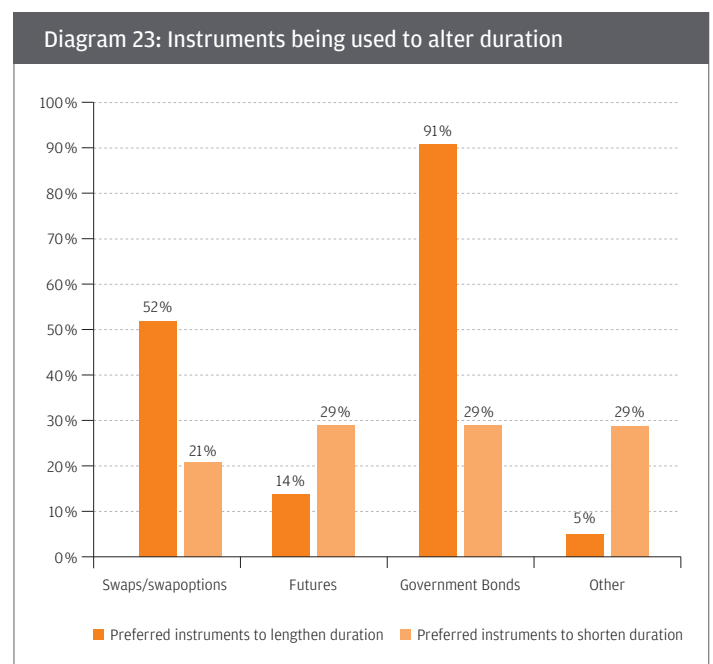
Q: What is the average duration of your fixed income assets?

The majority of investors (64%) have no plans to change their overall duration during 2011; one in five institutions (21%) plan to lengthen their duration, while 14% intend to shorten it.

Implementing duration changes

Of those looking to lengthen portfolio duration, 85% are expecting to extend it by two years or less. Reasons for lengthening duration are split equally between market expectations, regulatory requirements and internal risk management. The majority of those looking to lengthen duration intend to do so by purchasing physical government bonds, while half also intend to use swaps or swaptions.

The majority of investors seeking to shorten duration also intend to reduce it by two years or less, with 50% looking to reduce by one year. All are doing so in response to market expectations. The preferred method of shortening duration is fairly evenly spread between using swaps, futures and government bonds.



Base: Respondents planning to lengthen duration 21, respondents planning to shorten duration 14

Q: Which instruments do you plan to use to achieve your desired portfolio duration? (Select all that apply)

Commentary

Institutional investors such as pension funds and life insurers are often constrained in how far they can alter their duration by the maturity of their liabilities. Nonetheless, the average duration among institutions suggests that investors are either broadly comfortable about their duration risk or feel there is no material benefit to altering it.

But as we will see in our 'Challenges ahead' section (see page 24), investors feel bound by low real returns at the short end of the yield curve and inflationary/rising rate concerns at the longer end - thus making it difficult to make any confident change to portfolio duration.

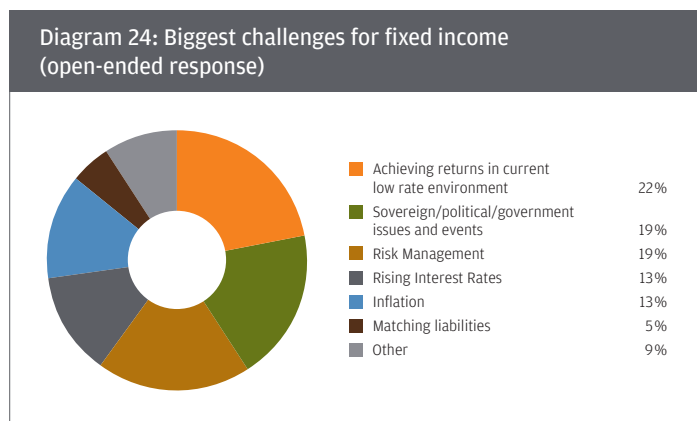
The risks of such uncertainty are reflected in recent activity among some European insurance companies to sell duration under the assumption that yields were at historical lows. By doing so, they actually increased their duration risk, as their asset liability match widened as yields continued to fall.

The choice of instruments to amend duration reflects spreads in the market. Given that the yield on longer-term bonds was higher than the interest-rate swaps yield as at mid-2011, it makes more sense to use physical bonds to lengthen duration. Likewise, swap spreads at the front-end of the yield curve make it more attractive to use derivatives rather than shorter-dated bonds to shorten duration.

6. Challenges ahead

Institutions voice their biggest concerns regarding fixed income investment

When asked about their biggest challenges and concerns regarding fixed income, institutions are equally split between concerns about achieving return in a low-rate environment, matching liabilities and managing sovereign risk.



Base: 74

Q: What is the biggest challenge you face when you think about the performance of your fixed income investment portfolio?

Return concerns

Interest rates are presenting challenges for investors at both ends of the yield curve. While many respondents cite concerns about achieving required real returns from short-term fixed assets, they are equally concerned that interest rates may rise rapidly, affecting the ability of their longer-term fixed income investments to achieve positive absolute returns. As one investor puts it “We are faced with a low yield environment where rates can realistically only go in one direction but the safe end of the yield curve offers next to nothing”.

Keeping assets in line with liabilities is a widespread concern, with one institution referring to the difficulty of “matching duration without losing too much value” while another refers to the need to “match liabilities and at the same time create a positive return in all market conditions”.

Broadening the investment universe

There are also signs that - in an environment of heightened interest rate and credit risk - investors would like greater investment flexibility. One investor suggests “allowing managers more latitude in our credit

portfolios” and another says their biggest challenge is “finding possibilities for diversification in an environment of increasing interest rates”. One respondent simply wants to determine what in the current environment constitutes “secure fixed income assets”.

Government bond risks

Sovereign default was already a widely-cited concern in May/June 2011, with a number of investors referring specifically to potential default in Greece, Ireland, Italy, Portugal, and Spain. Combined with interest rate concerns, this is seen to be creating a perfect storm for investors. “How do we generate attractive returns in an environment of probably rising interest rates and increased sovereign default risk?” asks one institution.

The overall result appears to be a severe lack of visibility for institutional investors. As one puts it “Inflation/deflation, growth/no growth - it is difficult to be a long-term investor since the future is so unclear.”

Commentary

Concerns over European sovereign default are clearly a new development that would not have arisen had we asked this question three - perhaps even two - years ago. It is indicative that investors are facing a unique confluence of factors - low interest rates, inflationary pressures, sovereign default risk - that present challenges across all parts of the yield curve and appear to leave few ‘safe haven’ fixed income assets to move to.

Under these circumstances, it is perhaps not surprising that we have seen little overall change in institutional fixed income asset allocation so far in 2011. Faced with high market uncertainty but also stringent liability and regulatory obligations, many institutions may decide that the best course of action is to sit tight.

But it is also important to acknowledge that the Eurozone crisis has created new opportunities for fixed income investors. Compared to five years ago, there is much greater differentiation between the credit risks posed by different sovereign issuers in the Eurozone. The convergence that occurred in the run-up to the euro has essentially been reversed, as investors once again take country risk into account. This differentiation (by both quality and return potential) is likely to continue even when the current default concerns recede.

Conclusion

This survey has offered extensive insight into institutional investment thinking at a challenging time for fixed income markets and those who invest in them. We would summarise the core conclusions - and our responses - as follows:

Overall, fixed income allocation and duration remain steady

Between Q1 and Q4 2011 we see no major changes in fixed income allocation or portfolio duration among Europe's institutional investors, although small amendments to reweight bond exposure are taking place. This may reflect confidence among investors in their present strategy; but equally it may indicate that uncertainty in markets is limiting effective decision-making.

Institutions are still backing government bonds but high grade credit is of increasing interest

Institutions across Europe are still looking to their domestic government debt and other European sovereign issuance to underpin their portfolios. But we are also seeing a strong focus on high grade corporate bonds as a source of return, yield and even liquidity. With fewer 'safe haven' assets to choose from, we anticipate that the highest-quality European corporate debt will be increasingly sought-after among institutional investors.

Interest in in-house and/or passive management needs careful assessment

A growing minority of institutional investors is considering moving more core assets to passive and/or in-house management. But in the current volatile environment, the use of passive management needs careful evaluation. Periods of deep market and economic uncertainty often call for an active investment approach, be that in terms of market and issuer selection, duration or yield curve management. In Eurozone sovereign markets in particular, careful analysis of individual country risks is now essential.

More fixed income investors to adopt a 'core/satellite' approach

Most institutions continue to invest their fixed income allocations using active, third-party management. But as yields continue to adjust to the low level of global growth, fixed income investors are likely to become even more judicious in how they extract return from global bond markets. Consequently, we believe, the 'core/satellite' portfolio structure widely adopted by equity investors is likely to become more in evidence among fixed income investors. Most notably, as investors look to deploy their risk and cost budgets as efficiently as possible, we anticipate growing interest in a structure whereby in-house/passive management is used for at least some 'core' domestic/sovereign debt.

At the same time, active/external management is used to optimise the higher return potential of 'satellite' non-core fixed income assets such as global high yield and emerging market debt.

Concepts of 'risk' need to be revised

Many institutions throughout our report have cited their concern regarding the low real returns to be achieved from core fixed income assets. Yet they are limited - whether by risk budget, regulation or available expertise - in how much they can allocate to those other fixed income asset classes and markets that are seen to have the potential to achieve the returns they require.

Definitions as to what constitutes a risky or a risk-free asset need to be revisited. Many institutional investors are obliged to hold high levels of domestic sovereign debt in their portfolios to meet their risk budgets. Now those budgets run the risk of being thrown into disarray as the riskiness of assets is redefined.

Rewriting the rules

In short, the rules of fixed income are being rewritten as markets and investors are faced with unprecedented convergence of issuer, interest rate, inflation and counterparty risks, together with sustained low rates of global growth.

Our research has shown that fixed income investors are making few major changes to their fixed income allocation in 2011. It is understandable that institutions want to do as little as possible either to crystallise potential capital losses or to change strategy when visibility in markets is so limited.

However, we anticipate that changes in fixed income approaches may lie ahead. The stability of many major European sovereigns and leading credit names will ensure that fixed income remains central to prudent institutional portfolio management. But as sources of high-quality yield continue to decline, we anticipate a growing role for a greater variety of fixed income asset classes.

Active, fundamental and total return management of high grade corporate bonds, global high yield and emerging market debt is likely to become more important as European institutions seek ways to diversify their risks and achieve the returns expected of them. In a challenging and exceptional market environment, the established rules and parameters for fixed income investing will need to be revisited.



THIS MATERIAL IS INTENDED FOR USE SOLELY BY PROFESSIONAL ADVISERS AND INSTITUTIONAL INVESTORS. NOT FOR PUBLIC DISTRIBUTION.

The opinions expressed in this document are those held by the authors at 31.10.2009 respectively reflect the opinions of the participants of the survey and are presented for information purposes only. The views expressed herein are not to be taken as an advice or recommendation to support an investment decision. The information included in this document has been taken from source considered as reliable; J.P. Morgan Asset Management cannot however guarantee its accuracy and no liability in respect of any error or omission is accepted. They may be subject to change without reference or notification to you. These materials have been provided to you for information purposes only and should not be relied upon by you in evaluating the merits of investing in any strategies, securities or products mentioned herein. They are not intended as an offer or solicitation in any jurisdiction with respect to the purchase or sale of any product.

J.P. Morgan Asset Management is the brand for the asset management business of J.P. Morgan Chase & Co. and its affiliates worldwide.

The above information is issued by the following entities: in Continental Europe by JPMorgan Asset Management (Europe) Société à responsabilité limitée, European Bank & Business Centre, 6 route de Trèves, L-2633 Senningerberg, Grand Duchy of Luxembourg, R.C.S. Luxembourg B27900, corporate capital EUR 10.000.000, in the United Kingdom by JPMorgan Asset Management Marketing Limited which is authorised and regulated by the Financial Services Authority. Registered in England No: 288553, Registered address: 125 London Wall, London EC2Y 5AJ, and in the United States by J.P. Morgan Investment Management Inc., which is regulated by the Securities and Exchange Commission.

© 2011 J.P. Morgan Asset Management.