

ASCENT

BY PETERCAM INSTITUTIONAL ASSET MANAGEMENT

N°3 SUMMER 2013

**FOCUS ON
DIVIDENDS**

**LOOKING BACK ON FIXED
INCOME MARKETS**

**CORRELATIONS BETWEEN
EQUITIES AND BONDS**

Petercam



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EDITO

Dear reader,

Welcome to the summer edition of Ascent, Petercam Institutional Asset Management's newsletter on its research and management capabilities.

Markets are volatile at the time of writing. Emerging market equities and bonds have felt the brunt of slowing capital flows and rising interest rates across the board. Gold also is suffering from these adverse conditions. Challenging market conditions, to say the least.

Against this backdrop, it is interesting and relevant to assess whether bonds continue to provide a sound diversification and hedge in a balanced portfolio. Do they live up to expectations and reduce overall portfolio risk? Petercam's proprietary research aims to provide an answer to those questions, drawing on quantitative analysis and in-depth research.

Secondly, we aim to provide a mid-year overview of how bond markets have fared so far. This question is all the more relevant in a climate of rising rates and volatile currency markets. Johnny Debuyscher, CIO Fixed Income, draws on his rich experience of over 27 years to address a number of issues and aims to answer some questions fixed income investors may have in the current environment.

Furthermore, we aim to provide some insights into how Petercam's dividend portfolios are managed. As you will see from the discussion, we have compelling arguments to demonstrate that high-dividend equities merit a place in any diversified portfolio with a long-term orientation.

We do hope you will enjoy reading this third edition as much as we have enjoyed writing it. Please do not hesitate to pass on your feedback to us.

Sincerely,

Hugo Lasat, *Partner & Head of Institutional Asset Management*
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Writing finished on July 15, Number 3 - summer 2013

Editor: Jurgen Vluijms | Publisher: Hugo Lasat | Photography: iStock | Layout: Shake

IT'S ALL ABOUT CONFIDENCE



Johnny Debuyscher,
Partner & CIO Fixed Income

I have been at Petercam for nearly twenty-seven years now, and all the time I have been involved in fixed income markets.

When I started my career, things were relatively straightforward: government bonds were perceived as risk-free and one could safely assume that the principal would be redeemed at maturity, and that coupons would be paid on time. In other words, confidence has always been key, and remains so today. Unfortunately, trust today is a lot more fragile than it used to be.

Indeed, with the onset of the financial crisis six years ago, things started to change. The ensuing sovereign debt crisis in Europe has questioned the role of the risk-free assets that government bonds used to be, and interest rate differentials between countries have started to increase. We have illustrated this in the graph showing the evolution of interest rates in some Eurozone countries since

the creation of the single European currency in 1999.

One could say the crisis started in the banking sector as a result of the Lehman Brothers bankruptcy in 2008. This bank was the largest victim of the sub-prime crisis. Apart from the fact that, in my view, letting Lehman go under was one of the biggest mistakes ever, the way the bankruptcy was dealt with was even more important.

As a result, confidence levels of business leaders and consumers in Europe are currently quite low. Both retail and institutional investors ask themselves various questions. Which bank is the safest and thus the best place to keep deposits with? Will countries renege on their debt? What countries will remain

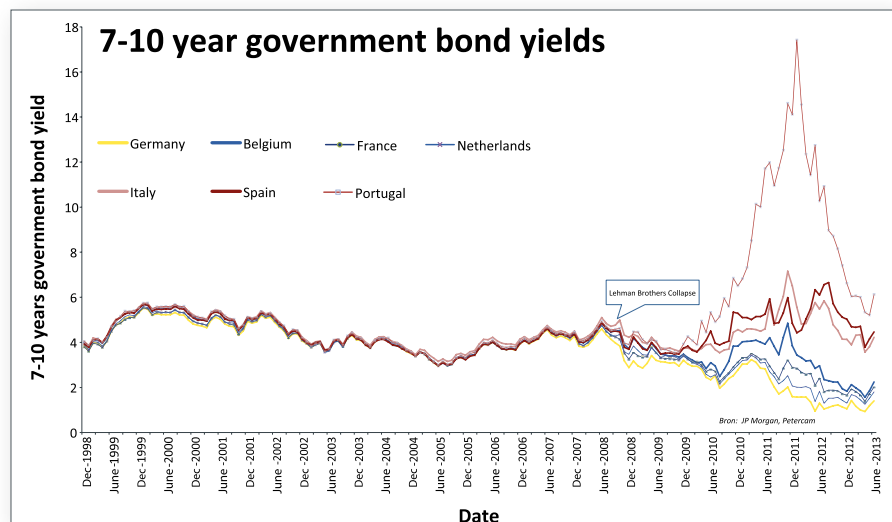
in the Eurozone, and what will be the price they will have to pay for this? What companies are still willing to invest in Europe? And finally, do individuals have another option but to save a high percentage of their income?

Awareness is growing that there is too much leverage in the system, for individuals, companies and governments. Hence, saving can be considered as one of the solutions. In that context, there has been a paradigm shift, which is characterised by some elements which we discuss below.

Firstly, countries should aim at (annual) zero deficits, with a maximum debt ratio of 120% of GDP. As such, that is a sound target, but bond holders should realize that they will not be fully redeemed when countries fail to achieve this target. Only the very strongest countries will continue to have the confidence of investors.

Secondly, banks need to deleverage. They are subjected to stress testing, need to enforce capital ratios and improve liquidity. Bond holders will not be repaid if a bank goes belly-up. Consequently, financial markets have no confidence in banks, except in the strongest ones. But how can individuals and companies know which banks are the safest to put their money with?

Thirdly, individuals save a large proportion of their income as a response to





potential job loss, new taxes or uncertainty over financial investments with higher risk profiles.

Finally, companies have little reason to continue investing if customers, the government and other companies cap their expenditure. As a result, they will invest outside of Europe. The response of European leaders has been to primarily focus on exports, but the issue is that the euro is currently one of the strongest currencies in the world.

These examples illustrate that various stakeholders have little confidence. This should not come as a surprise as the uncertainties on financial markets have increased substantially over the past couple of years.

Various imbalances have also been created, with various pockets of excessive debt but also of excessive savings. Markets have difficulties adapting to this 'new equilibrium'.

What should fixed income investors do in current circumstances? Unfortunately, the answers are not very straightforward. Nonetheless, there are certain guidelines we can follow to make sure the risk return ratio is optimised.

Firstly, we believe that the core of the portfolio should consist of industrial companies, both in Investment Grade

and in Higher Yield.

Secondly, in financial bonds we prefer insurance companies (senior as well as subordinated debt). In banking securities, we prefer covered bonds, which offer an additional pool of guarantees.

Thirdly, a lot of value can be found in inflation linked bonds issued by countries with better growth prospects such as the United States,

Mexico and Australia (in local currency).

Finally, we believe the current correction on the fixed income markets offers a nice opportunity to increase exposure to emerging markets. Nonetheless, investors should stay clear of dictatorships and add an additional sustainability filter to avoid tail risks. To that end, our newly launched strategy Petercam L Bonds Emerging Markets Sustainable can be a suitable vehicle.

Confidence levels of business leaders and consumers in Europe are currently quite low.

TO STYLE OR NOT TO STYLE, THAT'S THE QUESTION!



Moudy El Khodr, CEFA Senior Portfolio Manager
Kris Hermie, CFA Senior Portfolio Manager

Today's investors have the opportunity to put money to work in just about every investment style worldwide. From "value" to "growth", from "small caps" to "big caps"; in financial markets, every style has its day.

The crowd will never stick to one particular segment of the market forever of course, but as Maynard Keynes once said, "The market can stay irrational longer than you can stay solvent", which suggests to us that trying to time styles according to the mood of the markets can be a costly endeavour. That said, a little common sense goes a long way.

With our experience of running value/dividend-focused funds for over a decade, we think it is a good time right now in the current environment to share some thoughts on this subject, together with some theoretic work in support of our approach.

First of all, let us pause for a couple of minutes on the subject of what exactly value is. Basically, value is a very broad range of things. Intuitively one would expect stocks with low valuation metrics such as price to earnings, price to book and with dividends to be considered stocks of value. In other words, you expect to generate a return from a normalization of valuation, or as Warren Buffett puts it: "Price is what you pay, value is what you get".

This shortcut is, we believe, a good definition of what we are trying to achieve in our dividend strategies at Petercam. We search for attractively-valued companies where we don't need to pay up for expected growth. We do not search for dividend yield alone though, we use the yield as a valuation indicator alongside our proprietary value models.

In the end, it all boils down to valuation.

Investors have a pre-set intuitive idea on what value should look like in terms of sectors and stocks, but because nothing is static over time, many are surprised about how our investable universe looks. If one questions investors on the importance of technology in the US, one will find that very few of them consider it to be a high-value sector. The

sector is still perceived by many to be the perfect example of a growth sector. However, the reality is that technology in US is twice as important in terms of weight in a value universe than the telecom sector, which intuitively seems a bit odd. Many "tech stocks" have initiated dividends over the past two years, including well-known names such as Apple, Cisco and Symantec.

In Europe, the banking sector has been on a rough rollercoaster ride. Back in 2006, the European banking sector represented some 48% of a standard European MSCI value index, dropping to just 28% in 2011.

In the end, it all boils down to valuation. Cycles exist, as do fashions for themes or styles. Investors over the last five years have been driven by a combination of fear and prudence. They are hardly to blame - given the rollercoaster ride that we have witnessed - but as always things return to the mean very often and markets typically exaggerate in both directions. In the last couple of years, many yielding instruments have either disappeared or seen their yield attractiveness deflated. Yields dried up in the developed fixed income world and are today not far from historically

low levels (for how long is a question you'll probably soon be hearing quite often). This yield desert has prompted many investors thirsty for income to add dividend-focused equities to their portfolio allocation.

We have witnessed the emergence of the so called quality/growth segment of the market. Earnings uncertainty has been left behind and stable growth, often inspired by emerging markets, has been favoured. The valuation spread between the growth and value area of the market has reached multi-year highs.

This move was a natural one and enjoyed the support of many strategists, since dividends make up the largest part of your total returns over time, a strategy to which we indeed subscribe strongly at Petercam. But some dividend stocks were (and still are) seen like oases in the yield desert. In fact, several types of investors shared this thirst for income and started to fill their portfolios with "high quality dividend" stocks, especially in the US. This fashion of searching for "simple" dividends has resulted in many players carrying a group of overvalued stocks. US equity sectors most commonly targeted by investors for income are trading at historically high valuations as noted earlier; and the same holds true for many valuation metrics.

This supports our view that many yield hunters are in the wrong place (income/high dividends) and are there for the wrong reasons (low bond rates and lack of yield). Even though dividend yields may be attractive, we believe that the high valuations of these assets are at the very heart of our concern

6,32	9,21	11,16	15,8	18,7
2,51	2,02	2,40	30,1	20,0
18,01	11,16	0	15,9	30,8
4,80	2,40	0,26	-	-
22,70	12,00	1,00	18,3	140,0
39,80	10,00	0,21		

about a crowded dividend trade. If history serves as any guide, this will not be the case forever.

In our dividend approach at Petercam, we endeavour to balance the importance and the quality of the dividends, combined with a fundamental approach based on a clear valuation discipline. In other words, we believe that buying high quality dividends regardless of price might not be enough anymore.

Reconciling specialised screening tools with a valuation framework could form a clear differentiating factor moving forward.

Many external factors impact and change market dynamics with variable strength throughout the cycle. Keeping our focus on fundamentals, being disciplined and daring to go against the crowd from time to time is something that has historically been rewarding to us.

We truly believe that emotions, uncertainty and fear can be allayed by process, discipline and fundamentals. This is a common theme that can be found in the European, North American and Global equity dividend funds at Petercam.

THE ACADEMIC WORLD ON DIVIDENDS!

1. Why a dividend?

Dividends have a clear signalling function and are considered a sign of confidence. Good company prospects are thus translated in attractive dividends. Lintner (1956) stated that “a high [dividend] payout ratio indicates managerial confidence in the stability and growth of future earnings”. Dividends offers a return component to the shareholder who carries the investment risk.

Merton Miller and Kevin Rock (1985) suggested that “dividend announcements convey information regarding the firm’s future prospects”. Further academic work shows that stock prices tend to increase with an increase in dividends and vice versa.

2. Financial Theory and Dividend Pay-out

Modigliani and Miller stated that “investors should be indifferent between the two companies offering the same expected return”. Suppose company A pays a nice dividend yield with less earnings growth while company B pays no dividend with excellent expected earnings growth, both having the same total return expectations. Which one do you choose?

The academic debate on dividend distribution is lengthy...

Gordon (1959) tells us that “paying dividends actually increases the shareholder value” and hence investors should invest in Company A. On the other hand, Litzenberger and Ramaswamy (1979), advocate that “dividends decrease shareholder wealth”, hence Company B.

There is no consensus regarding dividend policy and its impact on shareholder value. The discussion is further complicated by taxes and different needs of the various investor groups. From our experience, we believe company A is a better company in which to invest. The risks and volatility are lower as dividends are paid upfront (cash in hand). We don’t have to wait for future growth to potentially boost the share while we run less risk of growth disappointments.

3. Growth versus Dividends

The idea that dividend-paying companies have less growth is a common argument against them. However, history tells a different story!

In their article “Surprise! Higher Dividends = Higher Earnings Growth”, R. D. Arnott and C. S. Asness investigate the relationship between dividend policy and earnings growth. They found that expected future earnings growth is faster when current dividend pay-out ratios are high, and vice versa. Inefficient empire building, using retained earnings to make expensive acquisitions often destroy shareholder value. Companies paying out higher dividends have limited retained earnings and hence tend to be careful in selecting projects. Companies with higher retained earnings (low dividend pay outs) tend to be less critical in selecting projects and may end up with projects that do not create shareholder value.

HOW EFFECTIVE ARE BONDS AS A HEDGE IN AN EQUITY PORTFOLIO?



Frederiek Van Holle,
Quantitative Specialist

“Don’t put all your eggs in one basket.” This is an important lesson in portfolio construction. By combining different asset classes such as bonds and equities in a portfolio, an investor can diversify away some of the portfolio risk when the asset classes do not move perfectly in tandem (i.e. when they are not perfectly correlated).

EFFECTIVENESS OF DIVERSIFICATION

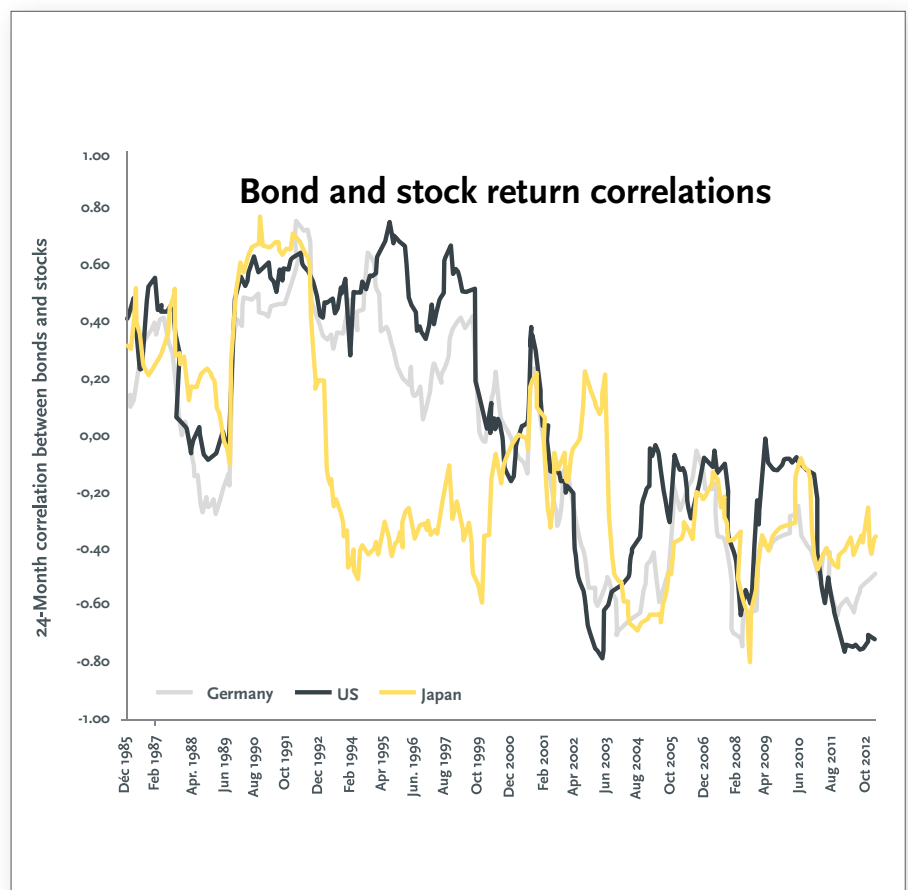
Due to the fact that, for example, stocks and bonds do not move up and down at the same moment, the resulting portfolio moves will be smoothed off and hence portfolio volatility will be lower.

In this note, we will take a closer look at this correlation between bond and stock returns and the effectiveness of adding bonds to an equity portfolio with the purpose to reduce overall portfolio risk. Three markets are analysed: Germany, the US and Japan. For each market we use a broad local equity and bond index. The graph on the right shows the correlation between bond and stock returns for these three markets. Some interesting observations can be made. First, the correlation between bond and stock returns is not constant over time. There are periods where correlations are very positive (above 70%) and periods where correlations are clearly negative (below -70%). This time-dependent correlation behaviour has important implications for portfolio construction. Indeed, since correlations vary over time, the optimal mix between bonds and stocks also varies over time given a certain risk budget. Second, there seems to be quite some persistence in the correlations. Correlations do not change dramatically; there is a gradual change in the correlations. Finally, the evolution of the correlations is very similar for the markets presented. Before 1999, correlations were typically positive and they moved (significantly) into negative territory in the years after 1999.

BOND PERFORMANCE DURING EQUITY BEAR CYCLES (TABLE 1)

A natural question is whether bonds have typically positive returns when equities are in negative territory. As a first analysis, we split the samples into bullish and bearish equity periods. Over each bearish equity cycle, the bond returns are computed. Note that there

is no fixed cycle length. Without exception for the US, Japan and Germany, the bond performance was positive when equities realized a bearish cycle. This is rather convincing evidence of the equity downside risk hedging capacity of government bonds.





BOND PERFORMANCE DURING EQUITY BULL CYCLES (TABLE 2)

What about positive equity cycles? Will bonds “eat away” the positive equity return during equity bull cycles? When the correlations do not change, when equities perform well, bonds are expected to underperform. Table 2 shows the bond returns during equity bull cycles. During equity bull cycles, bonds do not typically generate negative returns. On the contrary, most of the time bonds have positive returns although they are clearly less than during equity bear cycles. This shows that bond correlations tend to change when equity markets are in a bullish phase.

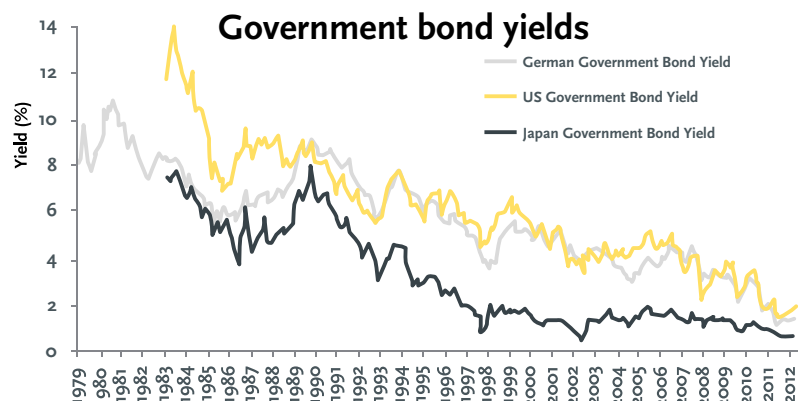
The above analysis shows that bonds are an attractive asset in an equity portfolio on a longer term perspective (an equity bull/bear cycle typically lasts for a few months/years) because they have significant positive returns during equity bear cycles and they also tend to perform well during equity bull cycles. One could conclude that bonds always have a positive return. It is true that among the samples studied, government bond yields trended down. This is supportive for bonds. However, don't let the lower bond volatility fool you. In Germany, for example, in the early 1980s, government bonds realized their maximum drawdown of -11.5%. Although bonds tend to have positive returns on an annual horizon, there are quite a few periods with annual returns of between -5% and -10%. The average duration of this bond index is 7.7 years. There are years in this sample where the yields jump 200 basis points higher. However, yield changes (volatility) are related to the yield level.

Table 1: bearish equity

	Germany		US		Japan	
	Equity	Bonds	Equity	Bonds	Equity	Bonds
Cycle 1	-5,0%	9,6%	-28,0%	5,1%	-5,0%	9,6%
Cycle 2	-11,6%	8,5%	-5,1%	2,8%	-18,2%	10,3%
Cycle 3	-30,7%	6,4%	-3,4%	0,7%	-46,2%	51,1%
Cycle 4	-2,6%	1,7%	-27,5%	13,8%	-16,4%	16,0%
Cycle 5	-12,2%	9,8%	-20,3%	15,7%	-31,5%	6,9%
Cycle 6	-43,5%	11,8%	-48,6%	14,0%	-24,4%	8,3%
Cycle 7	-51,0%	13,1%	-7,3%	10,4%	-0,8%	7,7%
Cycle 8	-0,6%	0,8%	-7,3%	10,4%	-58,7%	6,3%
Cycle 9	-46,3%	11,2%			-8,0%	6,1%
Cycle 10	-17,4%	8,1%			-18,3%	4,1%

Table 2: bullish equity

	Germany		US		Japan	
	Equity	Bonds	Equity	Bonds	Equity	Bonds
Cycle 1	12,0%	-2,3%	117,8%	60,1%	12,0%	-2,3%
Cycle 2	274,5%	75,7%	55,9%	25,9%	213,3%	37,8%
Cycle 3	7,4%	-2,3%	426,3%	90,7%	47,5%	1,5%
Cycle 4	65,5%	12,2%	12,7%	5,3%	8,7%	-6,2%
Cycle 5	13,3%	3,7%	8,8%	-6,9%	22,6%	14,2%
Cycle 6	387,7%	64,0%	108,5%	14,8%	3,3%	-0,3%
Cycle 7	17,8%	-4,3%	82,0%	2,3%	10,3%	1,9%
Cycle 8	108,1%	14,8%	22,6%	3,5%	43,4%	-9,0%
Cycle 9	38,2%	1,3%			54,3%	1,5%
Cycle 10	81,0%	9,3%			25,3%	1,0%
Cycle 11					10,2%	-0,2%
Cycle 12	21,4%	4,3%			33,5%	4,7%



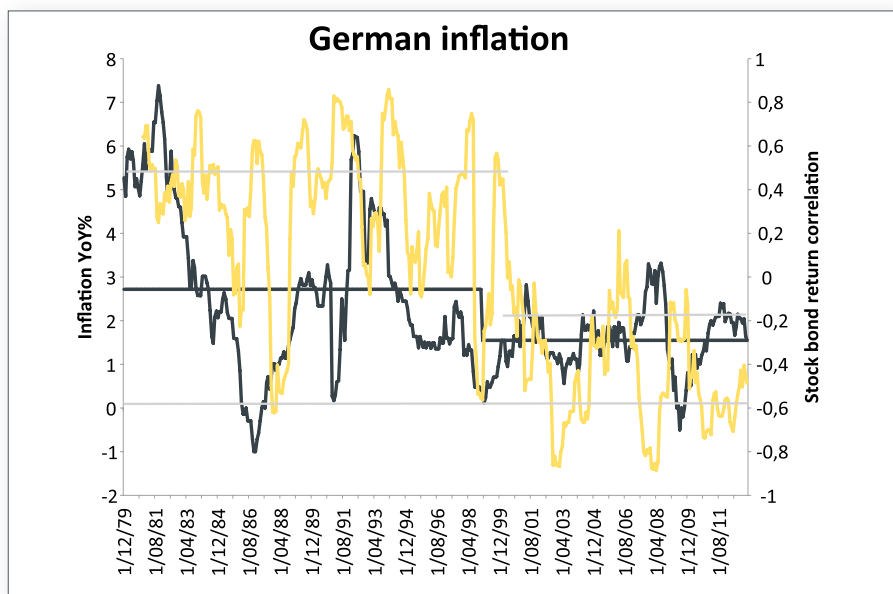
BALANCED MANAGEMENT



The larger jumps tend to occur at moments when the yields are higher. As a result, the carry on the bonds buffers away an important part of the negative duration impact. Note that over the period studied, the distribution of positive and negative months for bonds and equities are very comparable. Of the 398 months in the sample, equities had 242 positive months, compared to 258 for the bonds. The reason why bonds generated these stable returns is twofold. Firstly, as indicated before, the size of the yield shocks tends to be proportional to the yield level. As a result, in an adverse bond scenario the carry buffers the negative impact of the yield shock. Secondly, the general level of the yields has dropped gradually. Although

performance driver is disappearing and the carry buffer is also much smaller. Although this low yield environment limits the hedging capacity of German bonds, there is still margin for further yield drops in the case equities should revert southwards. So holding German government bonds is still sensible as a tail risk hedge in an equity portfolio. Moreover, although bonds clearly have some periods of negative returns, these periods tend to be out of phase with a typical equity cycle. A statistical analysis based on the monthly returns of stocks and bonds also confirms the above findings on a monthly investment horizon. So why is this correlation negative? Nowadays, government bonds of key countries are being considered as

high or sell equities and switch to government bonds when risk aversion increases. In the past, this was not necessarily the case. Bond and stock returns were typically positively correlated. So, when yields went down, equities performed well and vice versa. This could mean that today changes in the government bond yields are interpreted differently than before. One explanation could be the totally different current period mindset. Before 1999, the current Eurozone was managed by national governments. Inflation expectations were much less anchored compared to the period after 1999 when the ECB was established with only one mandate: to control inflation in the Eurozone in the medium term. Therefore, before 1999, a rise in government bond yields probably signalled increased inflation expectations and was mostly a foretaste of upcoming restrictive monetary policy. After 1999, inflation expectations are better anchored and less volatile and so there is less of a risk factor. So rising yields are considered more as a growth story than an inflation story. A closer look at the German inflation rate (YoY, %) seems to confirm the inflation volatility story. We can clearly see a change in the inflation profile from 1999 onwards. Before 1999, inflation swings were much larger and the average inflation level was also higher. The grey lines show that the bandwidth has been seriously reduced. The yellow line shows the 12-month moving correlation between bond and equity returns (pulled forward by 12 months). This graph shows that there is a clear link between the evolution of the inflation and the correlation between bond and equity returns 12 months later. When inflation rises, typically, the return correlation between bonds and equity rises too, 12 months later. The size of the correlation swings is also



there were clear upward shocks in the yields, on average the yields went down. Given the low yields for the moment, this falling-yield

safe haven assets and this explains their negative correlation with equity returns. Investors either switch to equities when risk appetite is



proportional to the swings in inflation rates. So, combining the two elements: the average inflation is lower nowadays and inflation swings are lower too. This goes hand in hand with lower correlations between bond and equity returns and less dramatic swings in correlation levels. We get the same picture for the US and Japan.

Correlation is not a static statistical number

Now, let's test the more formal hypothesis that bonds are a hedge during equity bear cycles (with a negative correlation) and that the correlation switches to positive when equities do well. The setup of the test is as follows. First, based on the dataset, two dummy variables are defined: D+ and D-. D+ takes the value of 1 when monthly equity returns are ≥ 0 and zero otherwise. D- takes the value of 1 when the monthly equity returns are < 0 . Using

these definitions of the dummy variables, they are mutually exclusive. Next, the following equation is estimated:

$$R_{b,t} = \alpha_1 \times D_{+,t} \times R_{e,t} + \alpha_2 \times D_{-,t} \times R_{e,t}$$

where $R_{b,t}$ is the monthly bond return at month t and $R_{e,t}$ is the monthly equity return at month t.

Our hypothesis is confirmed when the α_1 are significant and for an α_1 that is positive, signalling a positive correlation when equity returns are positive and a negative α_2 , signalling a negative correlation when equities have a negative monthly return (and hence bonds have a positive return). This regression will provide information on the conditional correlation of stock and bond returns and the effectiveness of the hedge.

This equation is tested on the three datasets (Germany, Japan, US). The table below presents the results. For all the countries, the

coefficients have the expected sign, confirming the correlation shift hypothesis conditional on the equity returns. The α_1 is always highly significant. This means that positive monthly equity returns are typically accompanied by positive bond returns

The size of the coefficients is also interesting. The size of α_1 and α_2 is comparable within a market. For Germany, for example, about 10% of the equity downturn is compensated by the bond return. This means that if one wants to construct a mixed portfolio that is capable of hedging the equity downside risk, the portfolio should be 91% bonds and 9% equities. For the US, this "perfect" hedge portfolio has slightly less bonds (87%).

In conclusion, this analysis has shown that correlation is not a static statistical number. The correlation between bond and stock returns varies over time and even switches sign. For the US, Germany and Japan, correlations between stock and bond returns were typically positive in the past and switched sign somewhere in the 1990s. Bond returns turn out to be typically positive when equities are distressed and positive when equities perform well. This return profile makes bonds an indispensable asset within an equity portfolio. When equities are distressed, 10-year government bonds typically hedge approximately 10% of the negative equity return. Therefore, the "perfect" hedge portfolio has about 90% in bonds and 10% in equity. One could also leverage the equity component by adding bond futures contracts. A fundamental explanation for the sign switch is difficult to find. Less inflation volatility (better anchoring of inflation expectations?) could be a driver of these lower correlations.

GERMANY - 31/12/1979-28/02/2013					
	Coefficient	S.E.	Pvalue	Optimal hedging portfolio	
α_1	0.091**	0.0196	0.00	Bonds	91.3%
α_2	-0.095**	0.0214	0.00	Equity	8.7%
US - 31/12/1983-28/02/2013					
α_1	0.149**	0.035	0.00	Bonds	87.1%
α_2	-0.148**	0.040	0.00	Equity	12.9%
JAPAN - 31/12/1983-28/02/2013					
α_1	0.072**	0.0223	0.00	Bonds	94.2%
α_2	-0.062**	0.0239	0.00	Equity	5.8%

α_1 and α_2 are the estimated coefficients of $R_{b,t} = \alpha_1 \times D_{+,t} \times R_{e,t} + \alpha_2 \times D_{-,t} \times R_{e,t}$. D+ and D-. D+ takes the value of 1 when monthly equity returns are ≥ 0 and zero otherwise. D- takes the value of 1 when the monthly equity returns are < 0 . $R_{b,t}$ is the monthly bond return at month t and $R_{e,t}$ is the monthly equity return at month t. ** indicates significance at the 99% level.

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