HANWAY CAPITAL

October 23rd, 2019

The hidden risks of Fixed Income

If there is a sacred norm that wealth managers have always transmitted to savers, is that the least risky financial product is fixed income. When faced with a conservative profile, a manager's suggestions will almost always be to increase the percentage of wealth that is invested in fixed income.

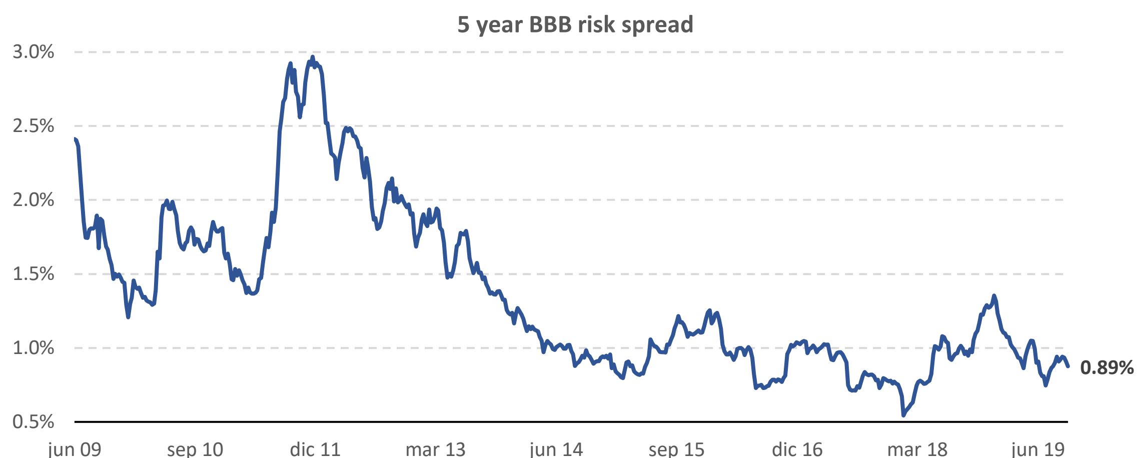
However, we believe that there is some misinformation about what this asset really represents. In this report, we will try to explain what the risks are when buying a corporate or sovereign bond, and how exactly we are being rewarded for each of them.

Default risk (A)

The first risk we take when we lend money to a company or state is the possibility that it will not be able to return that money to us when the due date arrives. The more likely that possibility is, the more interest we will demand to compensate for risk. When lending money to Sacyr for 5 years, the annual interest offered to us is 4.19%; for the same period, Ferrovial pays us 0.26%. It easily follows that lending money to Sacyr is much riskier than lending to Ferrovial. However, how much of the 0.26% that Ferrovial offers us is strictly to reward us for the risk of default?

To find out, we must find a bond with a very similar expiration date, but without default risk. A German sovereign bond that expires in 5 years offers us an interest of -0.63%. With an easy subtraction we see that Ferrovial's risk premium is 0.89%; Sacyr's is 4.82%.

Below, we can see the evolution of the risk premium that companies with similar risk to Ferrovial (BBB rating) offer for borrowing money at 5 years:

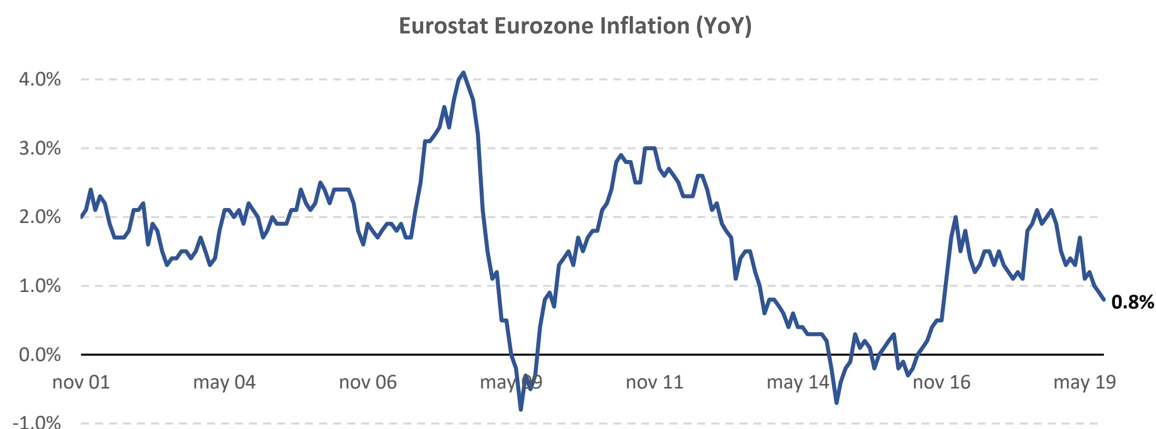


It shows that the corporate risk premium is highly correlated with the economic cycle: the better the economy is, the less likely it is for companies to go bankrupt. Therefore, 0.89% in which it is now is a very little reward for the real risk that is being assumed. We should remember that historically, 1.42% of companies with this risk level have failed within 5 years.

Inflation risk (B)

The next cost to consider when investing in fixed income is inflation, given money will lose value every year. As in the case of default risk, inflation risk is compensated with interest. The higher the inflation expectations, the more interest will be demanded.

Inflation expectations right now are at almost historic lows. In the Eurozone, for example, it is expected that in the next 5 years, average inflation will top 0.74% per year. This expectation is low, but it's in line with what we have experienced in Europe since the financial crisis.



If we therefore subtract the "inflation expectations" component (0.74%) of our 5-year German sovereign bond that paid us -0.63%, we will see that the real interest offered is -1.37%. Consequently, 3 scenarios may occur at the expiration of such sovereign bond:

1. Inflation during these five years meets the 0.74% annual forecast. Of the €100 we lend Germany, €97 are returned to us. But because of inflation, these €97 will buy us what we could buy today with €93.
2. Inflation during these five years is greater than the 0.73% forecasted say for example, it goes up to 3%. Of the €100 lent to Germany, €97 are returned to us. But because of inflation, these €97 will buy us what we could buy today with €83 (our real return is -3.63% per year).
3. Inflation during these five years is less than 0.73% (for example, down -1%). Of the €100 lent to Germany, €97 are returned to us. But thanks to deflation, these €97 will buy us what we could buy today with €102.

This risk, of course, is also inherent in the 5-year Ferrovial bond that paid us 0.26%, although in this case there is one more scenario to consider:

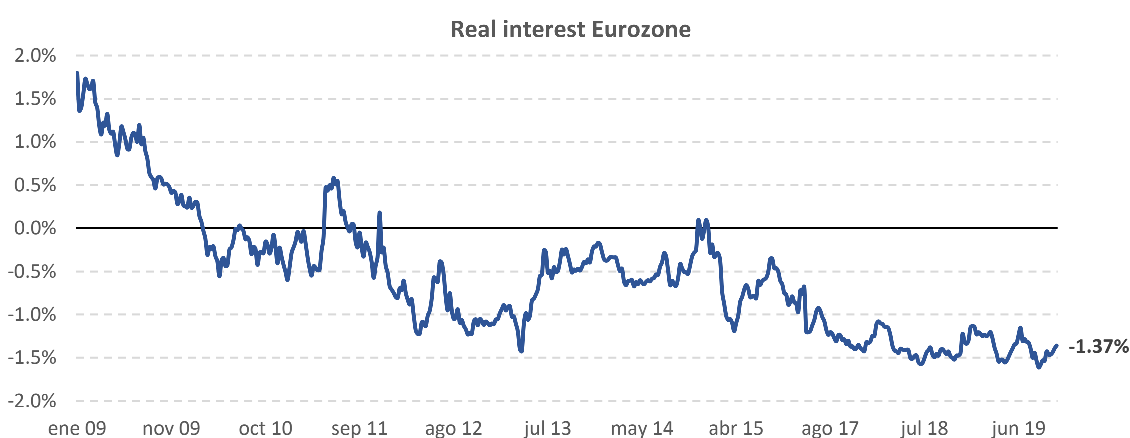
1. Inflation is 0.74%: Of the €100 lent to Ferrovial, €101 are returned, which are worth €98 because of inflation.
2. Inflation is 3%: Of the €100 lent to Ferrovial, €101 are returned, which are now worth €87.
3. Inflation is -1%. Of the € 100 lent to Ferrovial, €101 are returned, which are now worth €106.
4. Ferrovial goes bankrupt and is not able to return our €100.

Opportunity cost risk (C)

The last cost of lending money to a company or state is that we will not be able to dispose of it for a long period of time. We can find this cost in any European bond: we can start from the interest paid and subtract the premium for default risk and the premium for inflation risk. Taking Sacyr's bond mentioned before, it would look like this:

+ Gross interest: 4.19%
- Inflation premium: 0.74%
= Real interest: 3.45%
- Risk premium: 4.82%
= Real interest without risk: -1.37%

The evolution in recent years of the 5-year real interest rate has been as follows:



As observed, since 2009 the real interest received for lending money in Europe has fallen steadily. In addition, since 2014 and because of the extreme monetary policy that the European Central Bank (ECB) has introduced, we find ourselves with the world upside down: those who lend money must pay interest to those who borrow it.

Putting all the pieces together

Now that we have seen that the interest that a bond pays depends on (1) the real interest rate, (2) inflation expectations and (3) risk premium, let's see how changes in these parameters affect the price of a corporate bond.

The price of a corporate bond moves in reverse direction to its interest rate. That is, the higher the interest offered by a bond, the more its price will fall. Let's look at an example of what can happen in the coming years with a real case (the Ferrovial bond mentioned before).

(a) Initial Situation

Ferrovial has issued a bond with 2024 maturity and a 2.5% coupon that is quoted at €110. An investor decides to buy this bond: the interest rate he is accepting is 0.26%, since he is paying €110 for the bond and at maturity Ferrovial will only have the obligation to return €100 (which is the principal). In addition, the investor will receive coupons worth €2.5 for 5 years.

HANWAY CAPITAL

It should be recalled that this 0.26% is composed of the sum of -1.37% (real interest rate) + 0.74% (inflation expectation) + 0.89% (risk premium). Therefore, its real interest rate is -0.48% (0.26% - 0.74%). Now let's suppose the following events occur:

(b) Ferrovial's business prospects get worse. The risk premium rises from 0.89% to 2.00%.

The bond's interest will therefore rise from 0.26% to 1.37%. And the price of the bond? It will then fall from €110 to €105. In this case the investor has two options: sell the bond at €105 and assume a loss of €5 or wait until maturity. If we wait until maturity, and Ferrovial does not go bankrupt, the investor will receive €112.5 for their investment of €110 (€2.5 in coupons for 5 years and €100 of principal). However, if inflation expectations have been met, those €112.5 will buy what they bought €108 today.

(c) In addition, inflation expectations rise from 0.74% to 2.00%.

Bond interest will rise from 1.37% to 2.63%. The bond's price will fall from €105 to €99. The loss assumed now if the bond is sold is €11. If the investor waits until maturity, on the other hand, €112.5 will be received, but these will only be worth €101 today.

(d) Finally, the ECB undoes its negative interest rate policy and real interest rates rise from -1.37% to 0.00%.

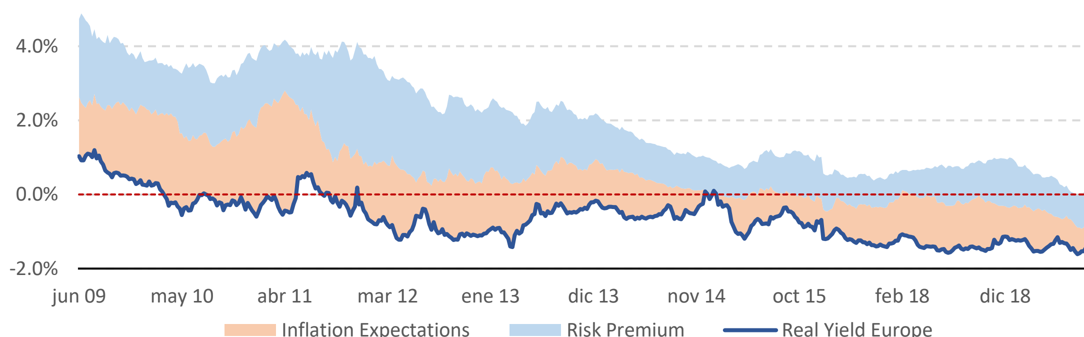
Bond interest will rise from 2.63% to 4.00%. The bond's price will therefore fall from €99 to €94. The loss if sold will be €16. If the investor waits until maturity, €112.5 will be recovered, which will be worth €101 today.

We therefore see that the type of loss suffered when the price of a bond falls depends on what is causing it:

- If the loss is due to a rise in the risk premium, it is a theoretical loss that will be recovered if the company does not declare bankruptcy (although our loan will now be riskier).
- If the loss comes from a rise in inflation expectations, our loss is real and inevitable. Purchasing power has been lost.
- If the loss comes from a rise in real interest rates, our loss comes via opportunity cost: we are receiving less for our money than we could receive with a new loan.

Analyzing together the 3 components of a fixed income instrument interest, it seems a bad time to invest in this product. The three factors are at historical lows (see chart), and the possibility of any of them going up is very real. An economic crisis can lead to generalized increases of risk premiums. On the other hand, an acceleration of the economy can lead to a rise in inflation expectations that also allows the European Central Bank to normalize interest rates.

Evolution of the components of fixed income interest (Eurozone)



HANWAY CAPITAL

What alternative are out there?

The current options for a conservative investor are very difficult. Even so, there are some possibilities that we find interesting:

a. **Investing in inflation-linked bonds**. These bonds increase the principal to be returned each year based on the inflation that is produced. Unfortunately, these bonds today in Europe are only issued by states and not companies. The Spanish 5-year inflation-linked bond for example, offers a -1.0% return. In this case, the "inflation expectations" component disappears from the equation and only the real interest rate of -1.37% and Spain's risk premium of 0.37% remain.

b. **Stay in cash**. When the alternatives are so bad, sometimes the right decision is to stop playing. Leaving the money in cash will guarante a -0.73% loss per year because of inflation if the estimates are correct. We will be slightly worse off than if we invested in Ferrovial's bond (with which we would obtain -0.48%). But when interest rates rise again, we will have the opportunity to enter the fixed income market at a much more interesting interest and without suffering losses on bonds purchased at the worst time.

   The reason why most managers suggest conservative investors to invest in fixed income is because of its very low historical volatility, and it is certainly true that a portfolio invested 100% in equity will suffer a greater volatility than one invested 100% in fixed income. But a portfolio invested 40% in equities and the remaining 60% in cash will have a similar volatility to that which invests only in fixed income and much better prospects (in our opinion).

c. **Seek refuge in alternative investments.** In addition to cash, there are other ways to reduce the expected volatility of a portfolio that does not require investing in an asset with prospects as bad as fixed income. The one we like the most is to invest in alternative investment funds, which behave in a way that is de-related to the rest of traditional assets.

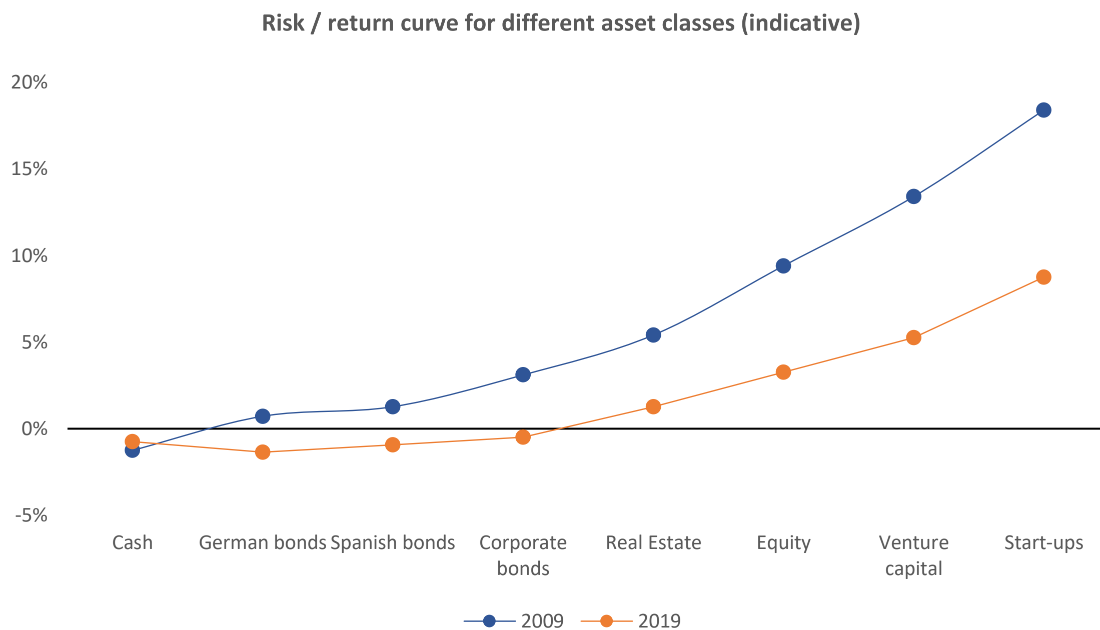
Key take-aways

1. For the past 30 years, fixed income has been an excellent investment product: it provided diversification from equities, was less volatile and had very respectable returns.
2. This return has benefited from 3 tail winds that we believe can now turn against them: lower inflation expectations, reduction of risk premiums and lower real interest rates to stimulate the economy.
3. To give an example: in May 2013 the Spanish state issued a bond maturing in 2023 offering investors a 4.5% coupon, consisting of 0.3% real interest, 2.4% risk premium and 1.8% inflation expectations. Today that bond offers a return of -0.3% composed of -1.3% real interest rate, 0.4% risk premium and 0.6% inflation expectations.
4. Whoever bought that bond at €100 in 2013, today would have received €26 in coupons and would have seen the value of their bond raise to €119. In total, €45 profit. But until its expiration in 2023, only €18 more in coupons will be received and the bond's price will lose €19 in value since only €100 of principal will be returned.
5. If, as we anticipate, any of these 3 factors that make up a bond's interest turn around, fixed-income investors who are typically conservative, will take a nasty surprise seeing what they considered a conservative investment fall sharply.
6. A bond's price throughout its life until maturity matters a lot, for two reasons:

- When bonds fall in value, this theoretical loss is reflected in investor's extracts. This can lead to panic sales that exaggerate price drops.
- If this fall in value has been caused by an increase in inflation expectations, the loss will be real and not only theoretical.

7. For all these reasons, we would not recommend investing in fixed income products at this time of the cycle. Whether a new crisis breaks-out or the economy accelerates, fixed income will be negatively affected.
8. Alternatives for investors looking for low volatilities consist of inflation-linked bonds, increase of liquidity or investments in alternative funds.

Lastly, we would like to end this report with an observation: real interest rates are the basis from which the entire risk / return curve is constructed for all investment decisions. In recent years, the entire curve has shifted downwards as a result of central bank policies. But the fact that a bond now pays us much less interest than 10 years ago does not imply that it is less risky: it is our perception of risk that has changed.



These materials have been provided to you by Hanway Capital S.L. (Hanway Capital) and do not constitute under any circumstance investment advise nor commercialization and marketing of any fund. The purpose of these materials is solely to provide a general macroeconomic view and update of the financial markets. In addition, these materials may not be disclosed, in whole or in part, or summarized or otherwise referred to except as agreed in writing by Hanway Capital. No part of these materials may be used or reproduced or quoted in any manner whatsoever by the press. The information used in preparing these materials was obtained from public sources. Hanway Capital assumes no responsibility for independent verification of such information being complete and accurate in all material respects. To the extent such information includes estimates and forecasts of future financial performance, we have assumed those represent reasonable estimates. Nothing contained herein should be construed as tax, accounting or legal advice.

Readers of these materials are advised that any discussion, recommendation or other mention of any security is not a solicitation or offer to transact such securities. This document provides general information only, and neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g. options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). Investors should seek financial advise regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed in this document and should understand that statements regarding future prospects may not be realized. Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance.

This information may contain references or links to third-party websites. Hanway Capital is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by Hanway Capital. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. Hanway Capital is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

Carrer Balmes 188
08006 Barcelona
+34 93 152 10 28