



European Government Bonds

Overview

A government bond is a bond issued by a national government, generally with a promise to pay periodic interest payments and to repay the face value on the maturity date. Government bonds are usually denominated in the country's own currency. Another term similar to government bond is "sovereign bond". Technically any bond issued by a sovereign entity is a sovereign bond but sometimes the term is used to refer to bonds issued in a currency other than the sovereign's currency. If a government or sovereign is close to default on its debt the media often refer to this as a sovereign debt crisis.

The terms on which a government can sell bonds depend on how creditworthy the market considers it to be. International credit rating agencies will provide ratings for the bonds, but market participants will make up their own minds about this.

In this report we will focus on European government bonds, we will outline the different types of EU bonds, also we will talk about the risks that investors face in trading those bonds, in addition we will illustrate the relationship between the bonds yield and many economic factors such as inflation and interest rates, finally we will talk about the Influence of U.S. Data on European Bond Yields.

Euro-Zone Government Bonds

Each government in Europe issues bonds and individual investors across Europe buy bonds in their country of residence, whether in Europe or abroad. But investors can also invest in government bonds issued outside their country of residence. With the development of the Euro currency, Euro-zone investors can also buy government bonds in other Euro-Zone countries without incurring additional currency risk (assuming they are bonds issued in those countries in Euros). At the same time, individual government bond issues need to be attractive to investors from different countries.

National Treasuries have made an effort to improve the value of their government bond issues to investors. For example, they have made their bonds more similar in structure and

characteristics to those in other Euro-zone countries.

History

The first general government bonds were issued in the Netherlands in 1517. Because the Netherlands did not exist at that time, the bonds issued by the city of Amsterdam are considered their predecessor which later merged into Netherlands government bonds. The average interest rate at that time fluctuated around 20%.

The first ever bond issued by a national government was issued by the Bank of England in 1694 to raise money to fund a war against France. It was in the form of a tontine. The Bank of England and government bonds were introduced in England by William III of England also called William of Orange who copied the 7 Dutch Provinces approach of issuing bonds and raising government debt where he ruled as a Stadtholder to finance England's war efforts.

Later, governments in Europe started issuing perpetual bonds (bonds with no maturity date) to fund wars and other government spending. The use of perpetual bonds ceased in the 20th century, and currently governments issue bonds of limited term to maturity.

Advantages in investing in Government bonds

- Historically, risk is relatively low compared to equities and other asset classes, as interest and principal will be repaid provided the relevant governments do not default on their bonds.
- Bonds can be an excellent diversifier, as they frequently perform well when other asset classes perform badly
- Bonds have many embedded options like callable bonds, puttable bonds, sinking fund provisions...etc.

Disadvantages in investing in Government Bonds

- The interest paid on bonds or the 'yield' can be low.
- Bonds can lose value on the open market if interest rate or inflation expectations rise. This is because higher interest rates or higher inflation make the fixed interest paid by bonds less attractive.
- Long run returns tend to be lower than for riskier assets such as equities and property. However, bond returns tend to exceed cash deposits over long periods.
- Bonds can be vulnerable if the government that issues them enters a fiscal crisis that raises doubts about whether debt obligations will be honored.
- Bonds are not liquid in the secondary market, they are traded over the counter (OTC).

Government Bonds Risks

- Interest rate risk: While investors are effectively guaranteed to receive interest and principal as promised, the underlying value of the bond itself may change depending on the direction of interest rates. As with all fixed-income securities, if interest rates in general rise after a Government security is issued, the value of the issued security will fall, since bonds paying higher rates will come into the market. Similarly, if interest rates fall, the value of the older, higher-paying bond will rise in comparison with new issues. Interest rate risk is also known as market risk
- Reinvestment Risk: is the risk of having to reinvest proceeds at a lower rate than the funds were previously earning. One of the main ways this risk presents itself is when interest rates fall over time
- Inflation Risk: investors buy bonds to receive promised cash flow and the terminal value

of the bond at the end of the investment horizon ,so when inflation rate rise investors will see their purchasing power erode and may actually achieve a negative rate of return

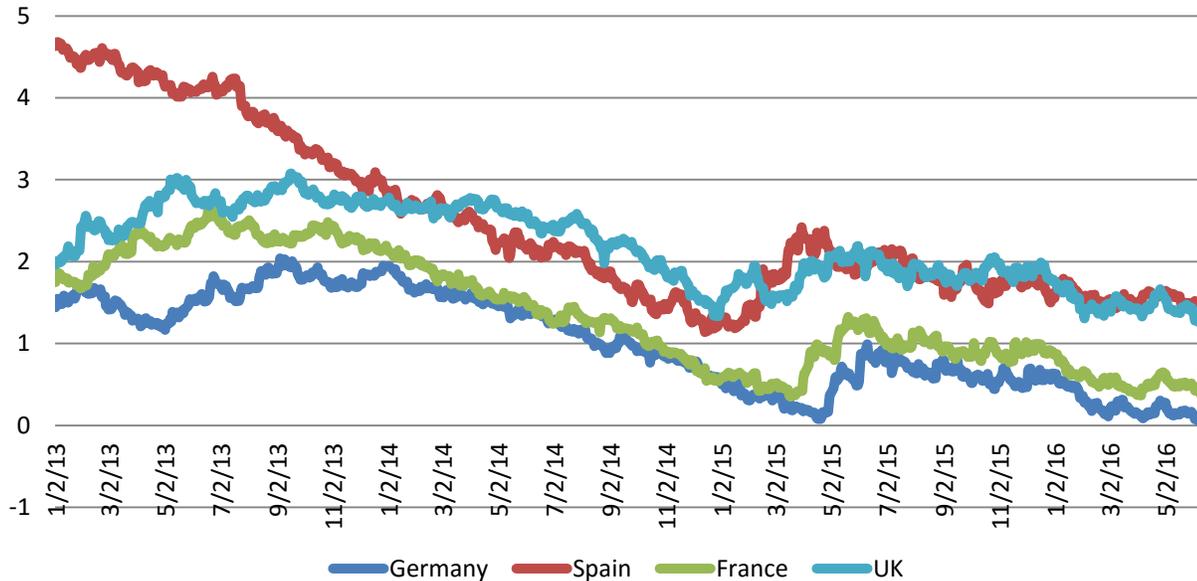
- Rating Downgrades risks: investors tend to think Government Bonds are always rated AAA and virtually free from credit risk, this is not the case in Europe. Consequently, investors face credit (ratings) risk in investing in Government bonds, since the ratings could be downgraded.
- Currency/Exchange rate risk: Investors who invest in a government bond that is not in his/her home currency also face currency/exchange rate risk since the value of his/her investment could go down as well as up depending on what happens to the currency exchange rate
- Political Risk: The risk that an investment's returns could suffer as a result of political changes or instability in a country. Instability affecting investment returns could stem from a change in government, legislative bodies, other foreign policy makers, or military control.
- Country Risk: is a collection of risks associated with investing in a foreign country. These risks include political risk, exchange rate risk, economic risk, sovereign risk and transfer risk, which is the risk of capital being locked up or frozen by government action. Country risk varies from one country to the next.

10 year EU Government Bonds yields

Yield is a critical concept in bond investing because it is the tool you use to measure the return of one bond against another.

In essence, yield is the rate of return on your bond investment. However, it is not fixed, like a bond's stated interest rate. It changes to reflect the price movements in a bond caused by fluctuating interest rates. Below are the yields on different types of EU bonds

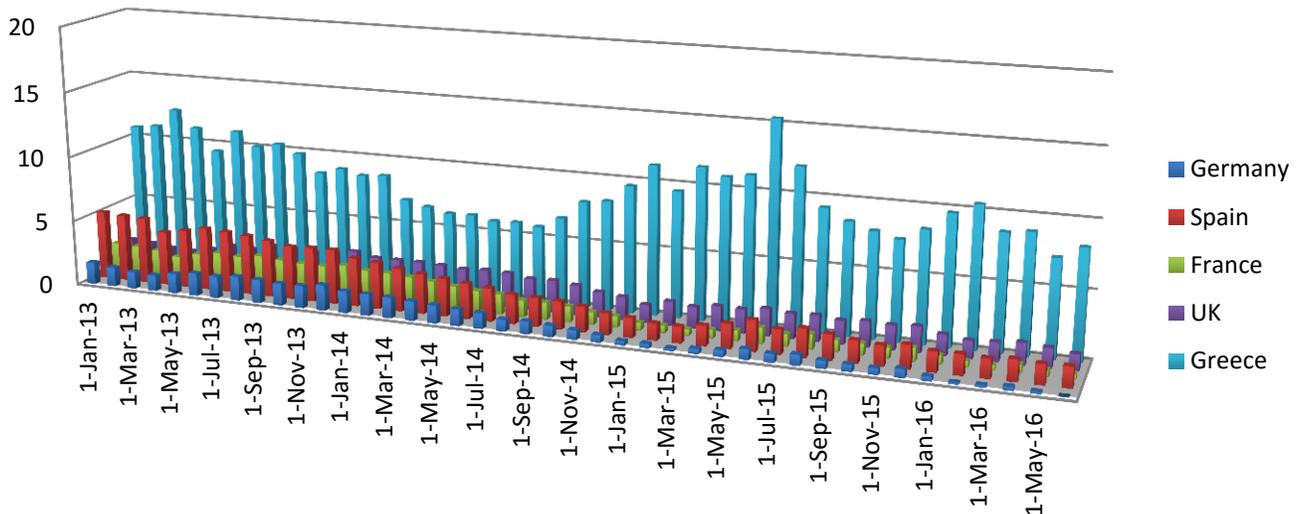
Daily 10 year yields



We can see that the yield on the 10-year benchmark German bond fell into negative territory for the first time ever, amid global growth concerns and fears over the U.K.'s upcoming referendum on its European Union membership, as investors continued to flock to safe-haven assets. Bond prices and yields move in opposite directions and a negative yield implies that investors are effectively paying the German government for the privilege of parking their cash. But the big question is what derives the yields to be negative?

- Negative yields could simply be a consequence of active monetary policy (with the expressed goal of stimulating economic activity) in a world where bond supply and demand is not balanced. It is certainly possible for negative short term deposit rates in concert with central bank purchases of scarce fixed income assets to drive bond yields negative; policymakers, in fact, hope that this development will drive investors out of “safer” government bonds into other riskier assets.
- Negative yields could potentially be correctly forecasting a sharp economic slowdown, which, as a consequence, could lead to an increase in defaults (both corporate and sovereign) in the future. Deflation has a similar effect. Paying up now and receiving less nominal money in the future can be profitable if the price of goods has fallen sufficiently. Note that defaults and deflation usually go hand in hand. In such a scenario, the return of money becomes more important than the return on money.

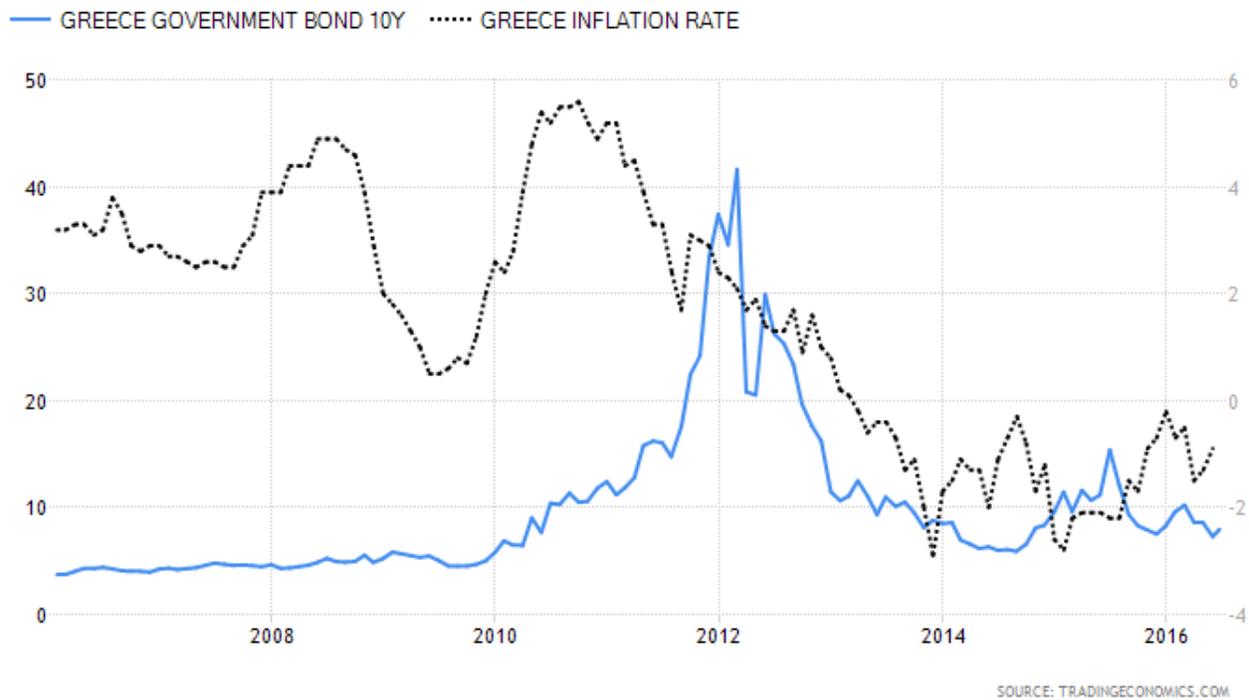
Monthly 10 year yields



We can see the huge difference between the German Bonds yields and the Greece bonds yields; there are many reasons that could explain the high spread between those two bonds. We will explain the factors that could affect the yields, also the relationship between those factors and the yields.

Inflation is a very important factor in determining bond yields. When the country faces high inflation bondholders will demand higher yields as compensation for the expected loss of purchasing power associated with higher inflation, during inflation reinvestment risk becomes higher because future coupons from a bond will not be reinvested at the prevailing interest rate when the bond was initially purchased. Reinvestment risk is more likely when interest rates are declining. Reinvestment risk affects the yield-to-maturity of a bond, which is calculated on the premise that all future coupon payments will be reinvested at the interest rate in effect when the bond was first purchased. Zero coupon bonds are the only fixed-income instruments to have no reinvestment risk, since they have no interim coupon payments.

Below is a graph the express the relationship between Greece 10 year government bond yields and Greece inflation

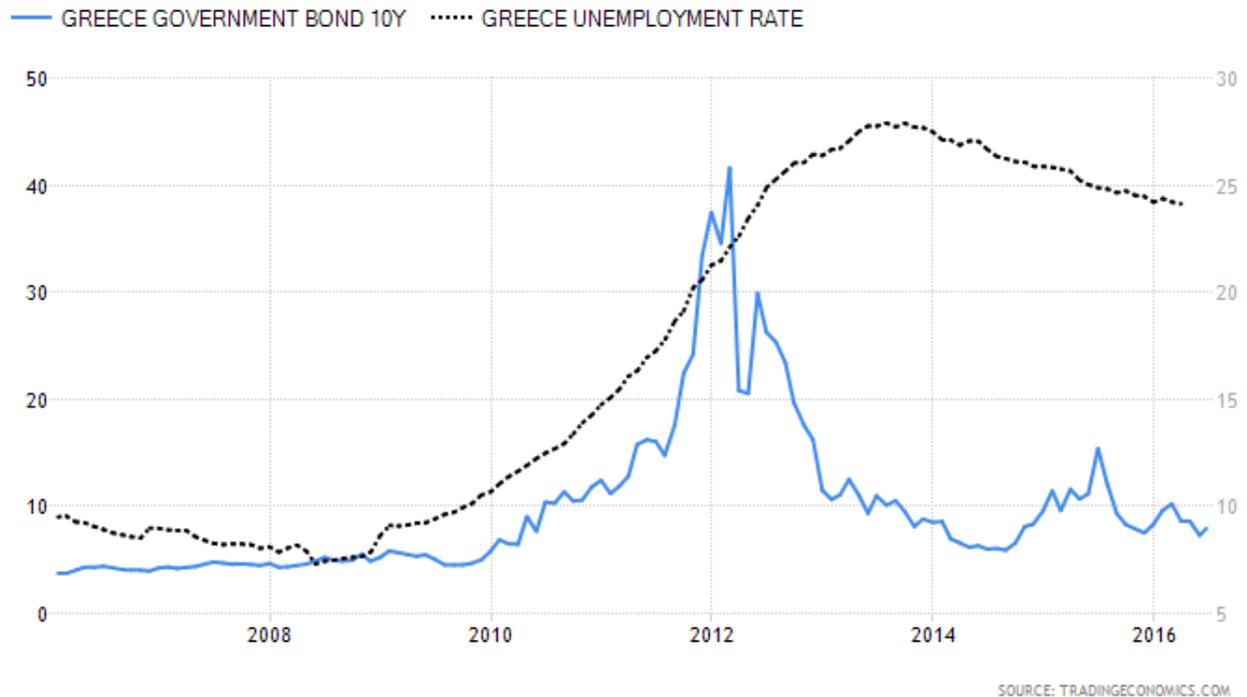


We can see that Greece faces negative inflation rates (Deflation) which is a general decline in prices that create a vicious spiral of negatives such as falling profits, closing factories, shrinking employment and incomes, and increasing defaults on loans by companies and individuals.

Announcements on labor market conditions, output, and consumer confidence had the strongest effects on yield changes. News of consumer and producer prices, although significant, had smaller effects. Specifically, yields rose following announcements of larger-than-expected real GDP advance numbers, payrolls, and employment cost indexes. Conversely, announcements of larger-than-expected unemployment rates and weekly unemployment claims caused yields to decline. Yields displayed a mixed response to price indicators, rising with reports of larger-than-expected PPI (producer price index) figures but falling with news of larger-than-expected CPI (consumer price index) numbers.

Returning back to Greece it is worth mentioning that Greece is one of the biggest countries in terms of Debt relative to GDP, in fact it's much higher than any other country in the Eurozone. But making matters worse is the fact that the financial markets no longer see Greece as debt-worthy. No one wants to lend to Greece at reasonable rates, so Greece can't keep paying to service its current debts while carrying out basic government functions.

Below is a graph that expresses the relationship between Greece 10 year government bond yields and Greece Unemployment rate.



Greece's problems are often framed as a financial crisis or a political crisis. But what they really are is a human crisis. Unemployment in Greece is over 25 percent now — higher than the United States during the Great Depression. And high unemployment is leading to political backlash.

Summary of Factors that Determine Bond Yields

- Is default likely? If markets fear default is likely they will demand higher bond yields to compensate for the risk. If they think that a country will not default, then bond yields can be quite high.
- Private Sector Saving. If the private sector has high levels of savings, there will tend to be higher demand for bonds because they are a good way to make use of savings.
- Prospects for Growth. Bonds are an alternative to other forms of investment like shares and private capital. If prospect for shares and private investment improves, bonds

become relatively less attractive.

- Inflation. If markets fear inflation, then inflation has the capacity to reduce the real value of the bond. If you borrow £1,000 now, but have inflation of 20% for the next 10 years, the £1,000 bond will rapidly decrease in value. Therefore, higher inflation will reduce demand for bonds and lead to higher bond yields.
- The risks in investing in a foreign country. These risks include political risk, exchange rate risk, economic risk, sovereign risk and transfer risk.

Understanding the Influence of U.S. Data on European Bond Yields

Economic announcements are a vital source of information for market participants, containing important news that spills over internationally across markets. Many U.S. announcements, for example, significantly affect yields in the German note markets. In fact, U.S. economic news is found to have a direct and large effect on German yields within an hour of its release. This strong effect on interest rates confirms a very high degree of interdependence between the U.S. and European financial markets. German and euro-area economic announcements, however, are far less influential for yields in the U.S. Treasury market. The direction of the effects of economic announcements supports the market expectation that yields will rise on signs of stronger economic conditions or faster-than-anticipated inflation. The largest effects found in both the U.S. and German markets are associated with labor market news on payrolls, the unemployment rate, and initial unemployment claims, as well as with advance readings of real GDP and reports of consumer sentiment.

Conclusion

The main role of government bonds is as a diversifier in low-medium risk or medium risk portfolios. Because government bond values tend not to move in line with equity values, they can help to reduce volatility in a portfolio significantly.

Government bonds may also prove useful for those who plan to use their pension fund to buy a guaranteed income for life, or 'annuity'. The price of an annuity is linked to the price of government bonds. Thus, when a pension fund holder nears retirement age, by purchasing bonds they can provide a good means of protecting its value for annuity purchase purposes.

Finally Bonds may generate an income stream for investors and, depending on the issue(s), they may also help mitigate overall portfolio risk. But keep the seven major risks of bond investing in mind before dabbling in these individual issues.

Sources

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