

During the years following the financial crisis 2008-2009, central banks in the United States, the euro area and the United Kingdom among others, have used low policy rates and unconventional measures to try to stimulate real economic growth and ensure financial stability in various forms. This has led to historically-low interest rates and that investors' expected return on safe assets has declined. This has caused a 'search for yield' among investors, which means that they are taking greater risks than before to achieve returns. If certain investors expose themselves to risks that are so high they are unable to manage the losses when the risks are realised, financial stability may be threatened if this in turn gives rise to contagion effects between financial institutions and in the end threatens the functioning of the financial system. This Economic Commentary aims to describe the concept of search for yield and the possible factors behind it, as well as providing examples of it today and what problems it could lead to.

Search for yield in a low-interest rate environment

Tor Johansson¹

The author work in the Financial Stability Department at the Riksbank.

A simple term for a complex behaviour

'Search for yield' is often used as a general concept to represent an increased risk taking in exchange for higher expected return during periods with relatively low interest rates (Rajan, 2005). It has thus been pointed out as one of the reasons why monetary policy affects risk taking in the financial system.² Economic literature differentiates between both *who* is increasing their risk and *in what way* they are doing it. In this commentary we choose to define the search for yield as representing *investors'* increased risk taking, which many others also tend to do. In addition, we define the term investors as covering those who invest in equity and fixed income securities and other *financial instruments traded on financial markets*.³ Here, the institutional investors predominate. Private investors tend to invest in funds or insurance products which in turn are managed or issued by institutional investors. Asset managers, insurance companies and pension funds are examples of institutional investors.

Despite the term search for yield implying that investors demand fixed income securities with higher yield to maturity, the concept is linked to a more general increase in risk taking that need not only take place by investing in higher-risk fixed income assets. Investors have various possibilities to take greater risk to try to achieve higher higher return, of which one is to allocate to allocate their investments towards higher-risk assets – fixed income or not. This involves increased exposure towards various types of risk, which are often categorised as market risk, credit risk and liquidity risk (Crouhy et al, 2001). Market risk entails exposure to losses resulting from changes in market prices of financial assets. Credit risk entails exposure to losses as a result of the counterparty having a lower credit quality or defaulting on a payment. Liquidity risk in this context entails exposure to losses as a result of being unable to sell an asset quickly when necessary at the prevailing market price due to limited demand. The investors can also take greater risk by funding their investments with borrowed money rather than their own capital. This means that when the value of the assets increase, the profits are greater, but when the value of the assets decline, the losses are greater. Higher leverage also means that the investors are more dependent on being able to borrow at a low cost. By increasing their leverage and by taking greater market, credit or liquidity risk the investors can potentially obtain higher return, but at the same time they are exposed to potentially larger losses.

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2. See (Apel and Claussen, 2012) for a more in-depth discussion of the risk-taking channel that primarily focuses on how low policy rates can in various ways make the banks take greater risks.

3. Thus, we exclude a possible increased risk taking through other types of asset, such as traditional bank loans or housing investments, as long as these are not included in some form of instrument traded on financial markets.

There are various explanations as to why low interest rates lead to increased risk taking

Since the financial crisis 2008-2009, the policy rates in several advanced economies have been at historically-low levels during relatively long periods of time (see Figure 1). Moreover, central banks in the United States, the euro area and the United Kingdom, among others, have used a number of unconventional measures to attain macroeconomic targets or to ensure financial stability, which has resulted in their total assets increasing substantially (see Figure 2). They have, for example, bought government bonds and/or provided liquidity support to the banking systems which has contributed to lower interest rates, rising asset prices and lower volatility on the financial markets (see Figures 3 and 4).


As the yields on, for instance, government bonds and other relatively safe fixed income assets have fallen to historically-low levels, investors with predetermined return requirements have found it increasingly difficult to achieve their targets. For example, some money market funds have restructured over the past year to be able to take more risk as the yields on the short-term assets they normally invest in have decreased to almost zero per cent. Another example is the pension and insurance companies who today lack sufficient funds to cover their future commitments and therefore need to attain a particular return over time. Companies may deal with this problem to some extent in several different ways in the longer run, for instance, by requiring higher premiums from their policyholders or by changing their business models. However, one possible and more short-term alternative is to invest in higher-risk assets (Antolin et al, 2011).

Another reason for the search for yield is the fund manager's compensation system which may mean that the potential financial advantages of increased risk taking are greater than the disadvantages, both at individual and company level. This is because many managers charge a performance-based fee in relation to return above an absolute level or a benchmark index. On the other hand, increased risk taking may be limited by managers often having to follow investment policies and being evaluated in terms of return in relation to risk. This means that the managers probably try to keep within given limits with regard to different risk measures. However, the positive market development and unusually low volatility may have contributed to these risk measures implying relatively lower risk than before and giving scope for increased risk taking. In addition, the manager may also take risks that these risk measures generally have difficulty in measuring. Then it is often a question of risks that lead to potentially larger losses in exceptional cases but in return provide a higher return the rest of the time. The fund manager's search for yield may also be reinforced by the fact that they may follow each others investment strategies to prevent that they perform worse than their competitors.

Lower risk premiums and increased issues of risky fixed income assets may be signs of a search for yield

Unfortunately, it is difficult to determine how common and how extensive the search for yield is as there is very little data on investors' aggregate balance sheets and risk exposures. On the other hand, lower risk premiums and a larger supply of risky fixed income assets may be signs of increased risk taking. With risk premiums, we primarily mean the difference in yield between high and low risk assets. However, this can be the result of other factors. Risk premiums may have fallen because the underlying risk is assessed to have declined rather than investors requiring less compensation for a specific level of risk. Increased issuance of risky fixed income assets may in turn be supply-driven rather than demand-driven. For example, relatively low interest rates may mean that companies with poorer credit quality choose to issue bonds to a greater extent than companies with better credit quality as they are more sensitive to interest rates. Increased issues of risky assets may also be a result of the banks having become more restrained in their lending.

Investors who have traditionally invested in low risk bonds may have found corporate bonds to be an attractive alternative that can provide higher return in exchange for



larger credit and liquidity risk. In recent years, the US non-financial corporate sector has issued increasing volumes of high-yield bonds and high-yield syndicated loans (see Figures 5 and 6). In the euro area, where companies have tried to a greater extent to reduce their substantial leverage and moreover been exposed to a weaker economic development, the issue volumes of high-yield corporate bonds have also increased. However, it is important to take into account the fact that the corporate bond market in the euro area is smaller than that in the United States. The development of issuance volumes are reminiscent of developments during the period 2004-2007 which has since often been held up as a period of unsustainably high risk taking and underestimation of risk.

Many investors may also have been attracted by relatively higher yields and diversification benefits with bonds issued by governments and companies in emerging economies. These institutions have issued increasingly large volumes of bonds both in local currency and foreign currency, primarily US dollars (see Figure 7). These assets are generally less transparent, poorly regulated and linked to political risks which makes them more risky than the corresponding assets in advanced economies. If the bonds are issued in local currencies, foreign investors may also have tried to achieve higher returns by taking exchange rate risk.


Risk premiums for corporate bonds have generally fallen significantly recently (see Figure 8). This could be due to investors in general having a more optimistic outlook and assessing that the risks have declined, partly because the unease on the financial markets over developments in the euro area has diminished. On the other hand, underlying real economic factors have not improved to the same extent. For example, reduced risk premiums for US corporate bonds may imply that investors have assessed that the credit risk among US companies has declined. However, this is not clearly indicated by estimates of probability of default (see Figure 9). Another explanation might be that investors have assessed that the liquidity risk has declined as a result of rising demand for corporate bonds or as a result of the good access to short-term funding arising from the measures taken by central banks. However, the liquidity of these assets has traditionally been low during times of unease.

To summarise, lower risk premiums could therefore indicate increased risk taking but it is difficult to estimate to what extent they have fallen due to that the underlying risk is assessed to have declined. However, what one can note is that risk premiums are currently higher than they were prior to the financial crisis, indicating that investor risk taking and their underestimate of risk are not as extreme as then.

Search for yield can create risks to financial stability that must be considered

It should be pointed out that it is often desirable to have a moderate increase in risk taking among investors when monetary policy is expansionary and aimed at promoting a balanced development in the real economy. Low interest rates and increased risk taking have made it possible for many governments and companies to reduce their funding costs, extend the time to maturity of their debt and fund long-term investment projects.

However, the search for yield risks leading to increased vulnerability within the financial system that could create problems for financial stability. We know from earlier experiences that the search for yield has contributed to inflated asset prices which in crisis situations have suddenly adjusted in the opposite direction and led to major losses for investors. In this type of scenario, financial stability may be threatened if certain investors have exposed themselves to risks to such an extent that they are unable to manage the losses if the risks are realised, and the negative effects spread to other financial institutions. This could concern, for instance, highly-leveraged investors, which would find themselves in a difficult financial situation in a scenario with falling asset values and rising funding costs, and might in turn cause loan losses for their counterparts. This could lead to general confidence in the counterparts' credit quality declining substantially and threaten the functioning of the financial system.



Substantial losses could arise for investors through several different scenarios after a prolonged period of search for yield. One scenario is if investors have attained large exposure to market risk in the form of interest rate risk, i.e. losses due to movements in interest rates, and if the interest rates in general suddenly rise rapidly, for instance as a result of central banks raising their policy rates and/or withdrawing their unconventional measures sooner than expected. The market value of interest-sensitive assets would fall and lead to large realised losses for investors that are forced to sell these assets prior to maturity (Fitch Ratings, 2012). Another scenario is if investors have attained large exposure to credit risk through corporate bonds and the companies' financial positions deteriorate. There are currently signs that the investors' search for yield has contributed to corporate leverage increasing at a fast rate in, for instance, the United States and certain emerging market economies (see Figure 11) (Global financial stability report, 2013). Higher leverage makes the companies more vulnerable to increasing interest rates in relation to their earnings. If the outlook for the real economy deteriorates or if the interest rates increase without corporate earnings benefitting from a stronger economic situation, future loan losses may rise and cause the value of the corporate bonds to drop. Regardless of the trigger factors, rapid price falls can be reinforced by limited liquidity for these instruments. That is, limited demand for assets leads to investors being forced to sell them at heavily reduced prices.

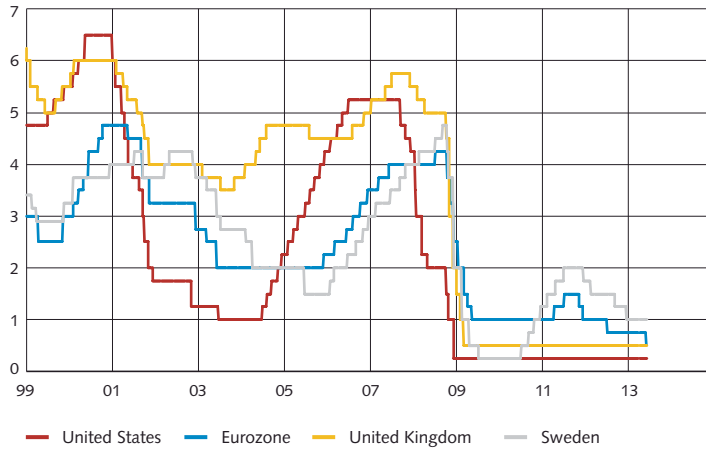
In conclusion, we can establish that there are signs that investors' risk taking in general has increased over the past year. If this trend continues, the vulnerabilities in the financial system may increase and result in some investors incurring losses they are not able to handle. Financial stability may then be threatened if this gives rise to contagion effects between financial institutions and in the end threatens the functioning of the financial system. It is thus important going forward to monitor signs of a search for yield and to take the risks to financial stability into account, for instance, when central banks will phase out their unconventional measures.

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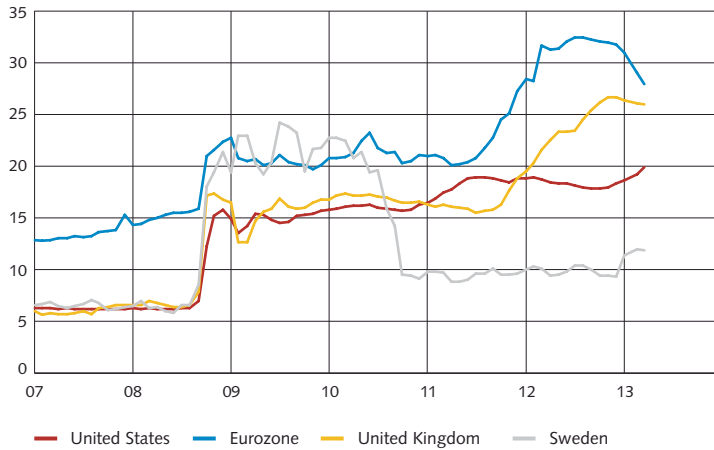
Figures

Figure 1. Policy rates
Per cent



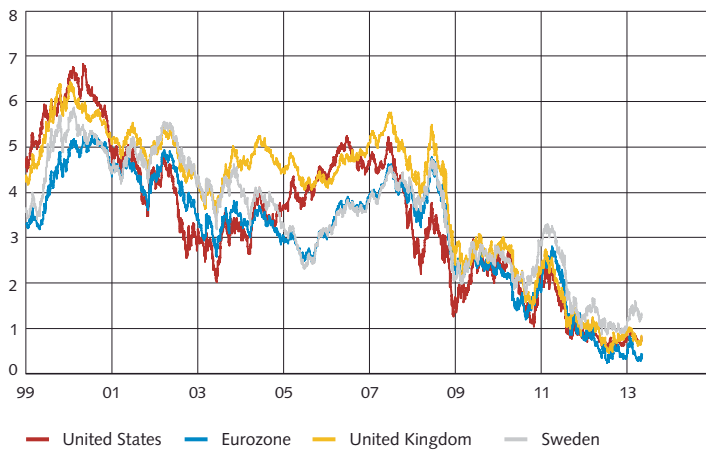
Source: Reuters Ecowin

Figure 2. Central bank total assets
Per cent of GDP



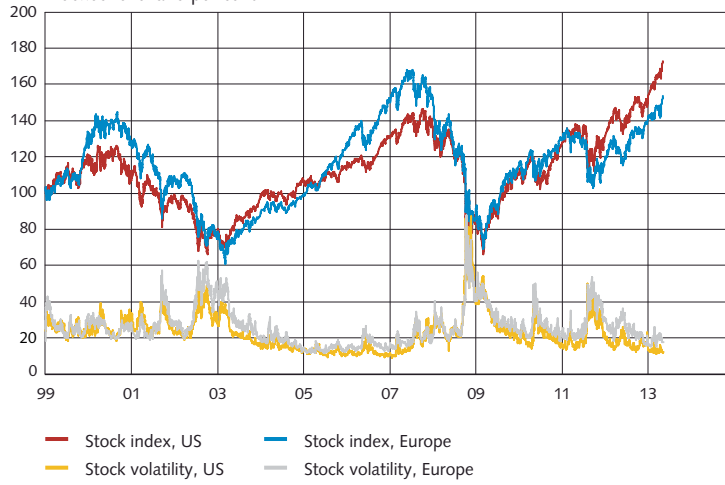
Source: Reuters Ecowin

Figure 3. 5 year government bond yields
Per cent



Source: Reuters Ecowin

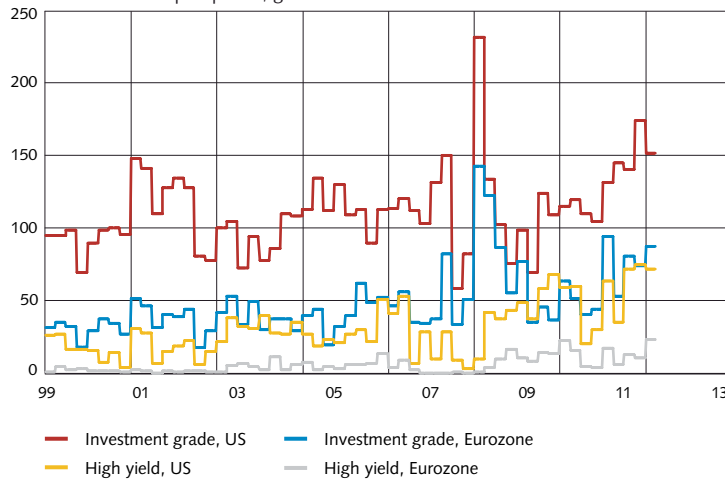
Figure 4. Stock indices and stock volatility
Indexed level and per cent



Note. Time series represent S&P 500, STOXX 600, VIX and VSTOXX.

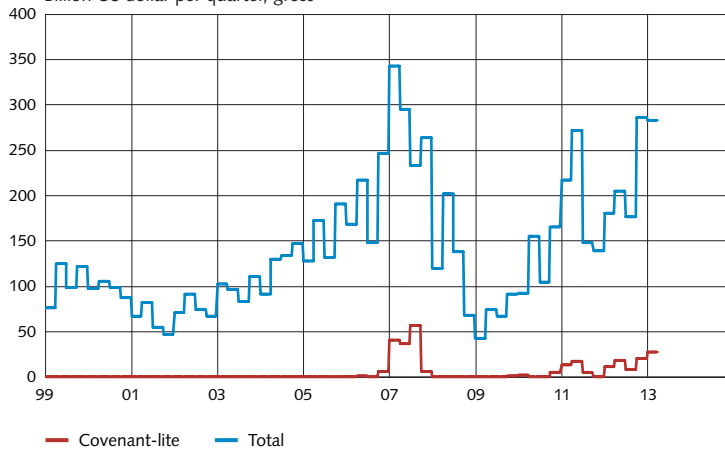
Source: Reuters Ecowin

Figure 5. Issuance volumes of corporate bonds with different credit rating in different regions
Billion US dollar per quarter, gross



Source: Dealogic

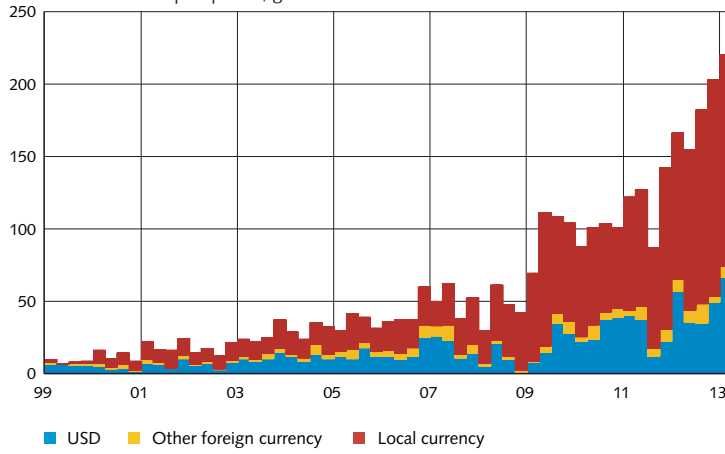
Figure 6. Issuance volumes of high yield syndicated loans in US
Billion US dollar per quarter, gross



Note. Covenant-lite means lower requirement on the issuer with regard to for example income, collateral and payment terms.

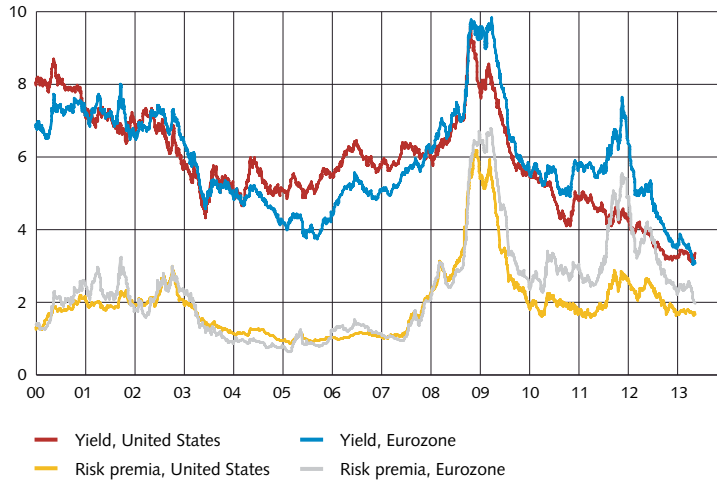
Source: Dealogic

Figure 7. Issuance volumes of corporate bonds in emerging markets
Billion US dollar per quarter, gross



Source: Dealogic

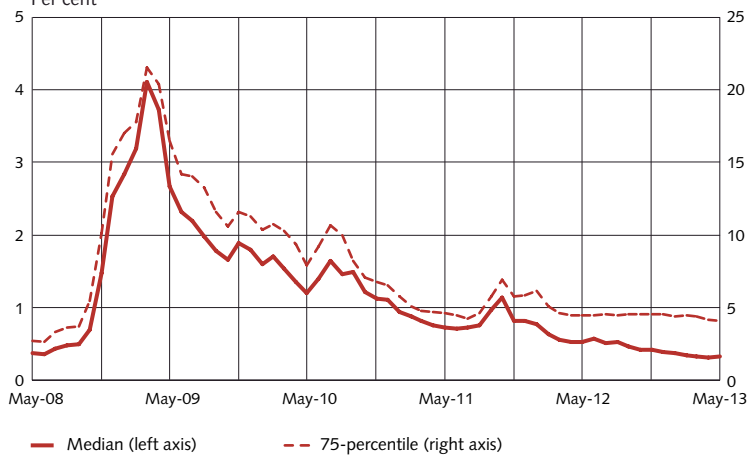
Figure 8. Yields and risk premiums for BBB-rated corporate bonds with 7-10 years maturity
Per cent



Note. Risk premia in the sense of yield minus government bond yield.

Source: Barclays

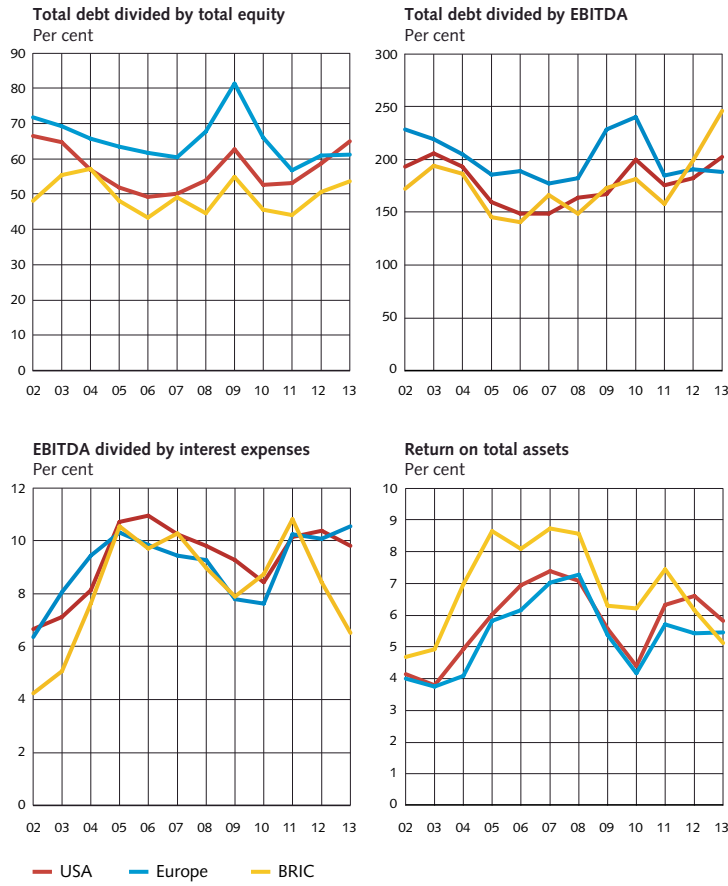
Figure 9. Probability of default within a year for US corporates
Per cent



Source: Moody's Credit Edge



Figur 10. Increased leverage among non-financial companies in the US and emerging countries.



Note. Each time series shows the median of around 400 of the largest listed non-financial companies domiciled in the corresponding region. EBITDA means earnings before interest, taxes, depreciation and amortization.

Source: Bloomberg