



The Negative Rate Debate

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Abstract: The European Central Bank (ECB) has for a significant period been engaged in operating a set of non-standard monetary policy mechanisms. Most recently it has gained increasing scrutiny over the persistence of negative interest rates.¹ In aggregate, nearly 25% of global GDP is produced in economies with a negative central bank interest rate. First we exam the relationship between the ECB's negative deposit rate and the negative yields for short-term euro-denominated sovereign and follow up with extensions to the induced responses in the corporate bond market. We conclude by outlining the positive and negative effects of continuing this policy stance.

Introduction

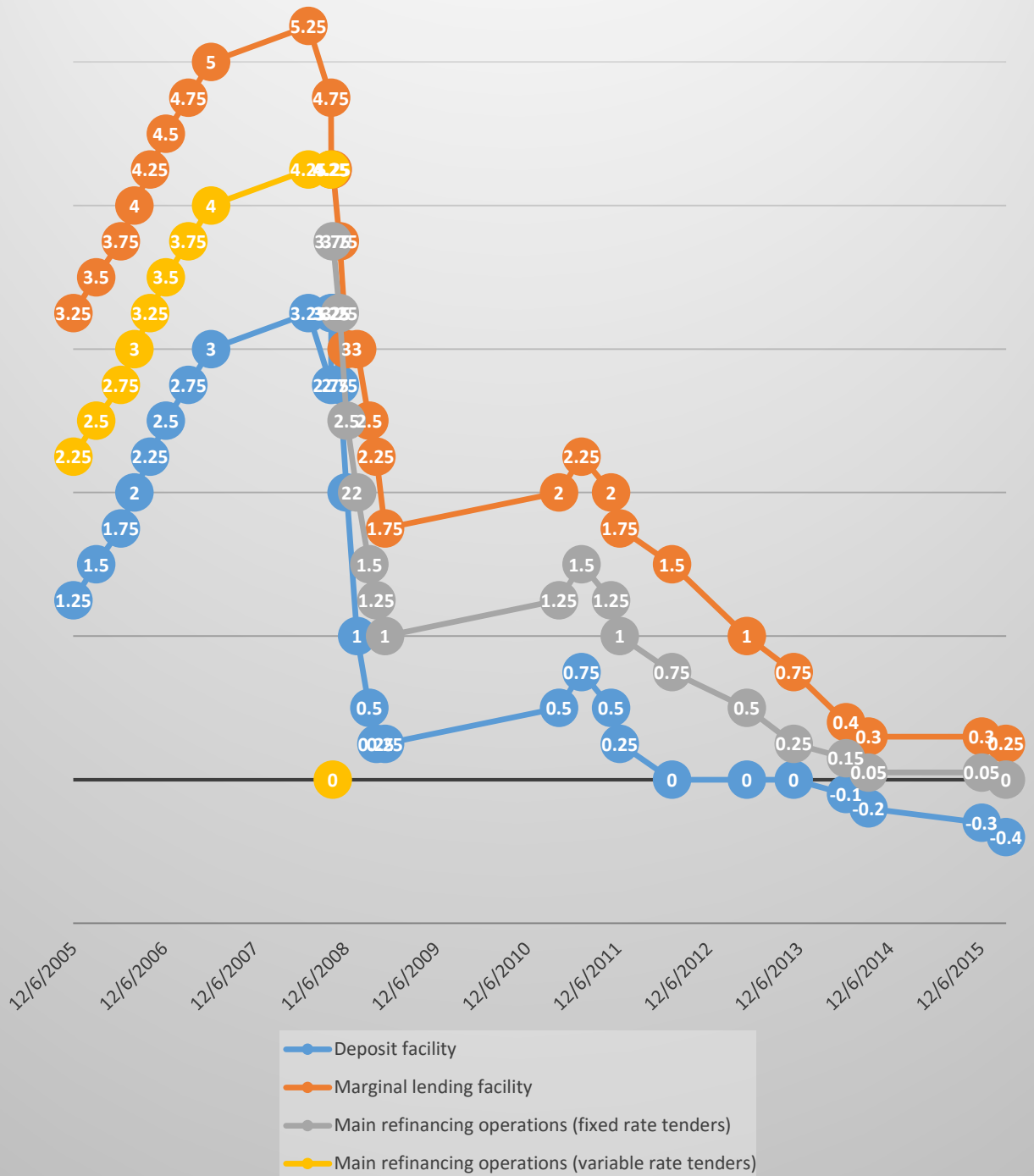
In mid-2012 the ECB dropped its deposit rate to zero and since mid-2014 has held the rate in the negative range with the current level at -40 basis points (bp). In effect the ECB is levying a charge on bank excess reserves rather than paying a positive rate of interest on those deposits. The ECB has also significantly lowered the rate at which it has been lending funds to banks via its marginal lending facility and the fixed- and variable-rate tenders under its main refinancing operations. The diagram on the following page charts the changes in these alternative ECB key interest rates.

In the run-up to the financial crisis there was an upward policy adjustment to a higher-rate environment which turned in mid-2008 as the crisis sent the economy into recession. Over the course of a year the deposit rate had dropped to a level of +25 bp. After a brief period of stability in ECB policy rates, the sovereign debt crisis forced the ECB into a steady downward revision of policy rates with the deposit rate now firmly anchored in the negative range.

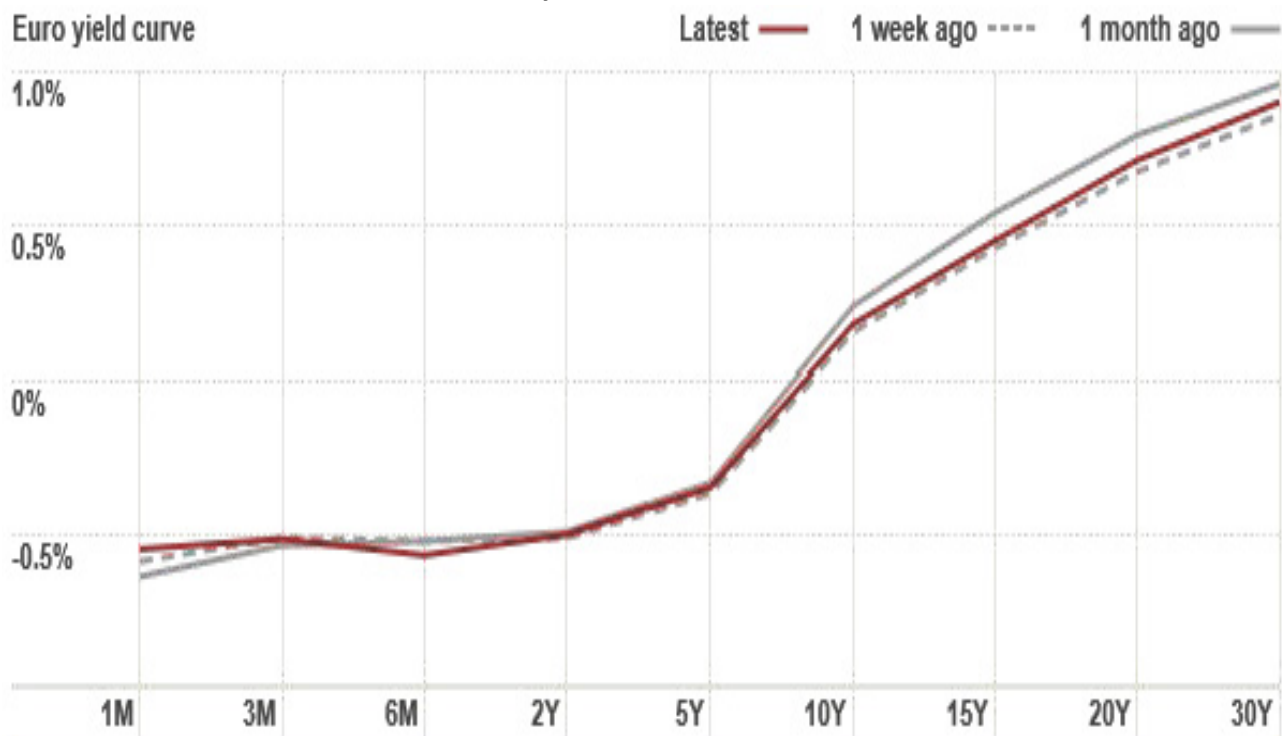
This low interest rate environment was generated by the push by the ECB to insure liquidity in the banking system and was accompanied by another non-standard monetary policy tool, quantitative easing. The massive purchase of outstanding sovereign bonds, and later corporate bonds, has primarily been a direct approach to driving down intermediate and long-term interest rates.

¹ Four other central banks have moved into the negative range for a key interest rate. Three of these are closely associated with the ECB: Danmarks Nationalbank (Denmark), Sveriges Riksbank (Sweden), and the Swiss National Bank (Switzerland). The fourth is the Bank of Japan (Japan) which is the most recent member of the negative interest rate club. The Swiss case is quite different in that it involves a major policy reaction to a significant exchange rate adjustment.

ECB Key Interest Rates (annual percentage)



Source: *Financial Times* Data Archive, 23 May 2016



The effect of quantitative easing on the level and slope of the term structure is illustrated in the current yield curve. The diagram above shows the extremely narrow range of a mere 150 bp between money market rates and 30-year governmental bonds denominated in the euro. Over this range, bond yields are currently negative well into the intermediate term maturities.

The remainder of this article will look at the interplay between ECB policy tools and market responses to better understand the current interest rate environment. We will examine how these forces are shifting the market away from bank lending toward capital market debt issuance and the impacts on costs and benefits of alternative market participants.

The Policy Environment

The liquidity-trap debate has evolved in the recent global economic policy world into several alternative hypotheses concerning the continuation of high levels of unemployment with exceedingly low rates of economic growth.² Banks find little demand for loans and are reluctant to have exposures outside of the circle comprised of the central bank or the highest rated sovereign debt instruments. The negative deposit rate is a means of discouraging banks from holding excess reserves while at the same time the lending facilities of the ECB have

² For an excellent discussion and overview of the impacts resulting from the global trends in opening financial markets see Rey (2013) and Summers (2016).

provided funding for banks at rates just above zero.³ The longer-term effects of a prolonged period where the central bank provides nearly zero-cost funding would include institutional and informational adjustment across the money market as there is likely to be extensive atrophy from the systematic reduction in the usage of traditional funding instruments. This may impose a high level of fixed costs in restarting the interbank market when rates begin to rise.

A concern is what the impact on primary intermediaries, such as money market funds, will be. As the profitability of the investment strategy dramatically shrinks, investors are sure to exit and funds will be hard pressed to maintain solvency. And as always there will need to be an assessment of what alternative risks will need to be borne in order to increase expected returns.

It is not clear in a competitive commercial bank environment, that downward pressure on retail deposit rates will occur. This then may produce the typical margin shrinkage on commercial bank loans which is observed in periods of declining and low interest rates. Offsetting this effect may be a reduction in lending standards in order to capture a compensating higher interest rate on lending. This will reduce the margin shrinkage in nominal terms but not necessarily on a risk-adjusted basis.

There have been reinforcing effects from the combination of the ECB's negative deposit rate and quantitative easing strategies. Direct effects of quantitative easing of the magnitude conducted by the EDB has been to shrink yield and term premia. Combined with negative central bank deposit rates, this has further forced money market rates downward.⁴

A portfolio adjustment channel for negative rate policy appears to be working. Money market rates have fallen in line with ECB deposit rates and, as expected, trade volumes in money market instruments have been reduced. What is not clear is whether this reflects negative rates per se, or is an artifact of the decline in demand as quantitative easing generates ample surplus liquidity. The portfolio adjustment channel is straightforward, as declining risk-free wholesale interest rates spark investors to sell off low-yield government securities and purchase riskier assets including corporate bonds, equities, or even property.

As a byproduct, lower capital market rates have reduced borrowing costs for large corporates who can also play the term structure from deciding to roll-over commercial paper or explore the term premia in the corporate bond issuance market. Note that this improved tradeoff also exists for public borrowers. The interest costs for new sovereign debt is much reduced from where it stood five years ago.

The governments of Germany and the Netherlands currently could issue 10-year debt with yields of 0.3% and 0.5% respectively. This is a global opportunity as reflected in the fact that last year US-based corporations were the biggest borrowers in euro-denominated corporate debt. In part this borrowing was further motivated to hedge financing costs from exchange-rate movements for their European operations. In both the governmental and

³ For a more general and detailed examination of the background and context for imposing negative deposit rates in the eurozone see World Bank (2015).

⁴ Negative deposit rates provide even more of a disincentive when commercial bank reserves are themselves priced at a negative yield.

corporate sectors, the flattening of the term structure has motivated sizable new extremely long-term issuances. Belgium and Ireland have both issued series of 100-year debt with a coupon interest rate of 2.3% on the €100 million borrowing by the Belgians. France recently place a 50-year issue at a 1.9% yield. In addition to the attractive low borrowing rates the lengthening of the borrowings duration will improve the average maturity of the debt and this may translate into an improvement in the country's credit rating.

A concern raised recently, most notably from a series of German politicians, is the adverse effects of the low and negative rate environment on savers. Certainly returns to German savers, who in the EU trail only the Swedish in their rate of saving, have declined and in a prolonged low-rate period they will suffer from unrealized expectations of savings and pension balances. A range of life insurers, pension funds, and savings instruments will suffer particularly from regulatory limitations on the range of investment instruments they are allowed to hold. In the case of life insurers, the low rate environment makes it very difficult to meet posted return guarantees. Some of this shortfall would once have been made up by having duration mismatches between the insurers' assets and liabilities but this risk can also explain the ability of high-credit debt issuers currently to find placements at attractive rates in the long end of the term structure.

The portfolio rebalancing effects being induced will surely lead to some forms of excessive risk-taking. With declining lending margins, some banks will lend to riskier clients and ultimately see higher default rates. There is also always a lag between making the loans, reselling or repackaging them for a secondary market, and the final realization of how the risk burden has been distributed across a series of balance sheets.

Summary

While the developed economies experience with negative nominal interest rates is for the most part an evolving experience, the early evidence is that the policy has, when combined with quantitative easing provide a continued monetary stimulus toward the ultimate goal of reviving economic growth and maintaining price stability. We have come very close to the limits of the lower bound on rates and we face a good deal of uncertainty about adverse consequences arising from maintaining a long-term negative rate environment. This begs the question of when we might expect that fiscal policy expansion might take up some of the slack?

References

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