

Claeys, Grégory; Efstathiou, Konstantinos

Research Report

Is the recent increase in long-term interest rates a threat to euro-area recovery?

Bruegel Policy Contribution, No. 2017/14

Provided in Cooperation with:

Bruegel, Brussels

Suggested Citation: Claeys, Grégory; Efstathiou, Konstantinos (2017) : Is the recent increase in long-term interest rates a threat to euro-area recovery?, Bruegel Policy Contribution, No. 2017/14, Bruegel, Brussels

This Version is available at:

<https://hdl.handle.net/10419/173110>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Is the recent increase in long-term interest rates a threat to euro-area recovery?

Grégory Claeys and Konstantinos Efstathiou

Executive summary

GRÉGORY CLAEYS
(gregory.claeys@bruegel.org) is a Research Fellow at Bruegel

KONSTANTINOS EFSTATHIOU
(konstantinos.efstathiou@bruegel.org) is a Research Assistant at Bruegel

This policy contribution was prepared for the Committee on Economic and Monetary Affairs of the European Parliament (ECON) as an input for the Monetary Dialogue of 29 May 2017 between ECON and the President of the ECB. (<http://www.europarl.europa.eu/committees/en/econ/monetary-dialogue.html>). Copyright remains with the European Parliament at all times.

AFTER REACHING HISTORICALLY low levels in the first half of 2016, European long-term sovereign yields experienced a notable increase in the second half of 2016 and at the beginning of 2017, before stabilising in the last few months.

THE NOMINAL LONG-TERM interest rate can be decomposed into the following components: a risk-free rate, various premia to compensate investors for future inflation and potential defaults, and a term premium.

ALL OF THESE components have been on a downward trend over the last few years. But some of these trends might have reversed in the second half of 2016, leading to an increase in long-term yields.

UNDERSTANDING THE MAIN factors driving interest rates higher in recent months is important. If the rise in interest rates is driven by good news for the economic outlook for the euro area, it would represent a welcome normalisation of the European situation. However, if higher rates are unjustified by economic fundamentals (ie higher growth and inflation expectations), it would represent an unwarranted tightening of financial conditions that could jeopardise the recovery.

IN FACT, THE recent movement in sovereign yields in the euro area has resulted from the combination of several factors: 1) a rise in country-specific risks arising mainly from political uncertainty in some euro-area countries; 2) a revision of market expectations for inflation, growth and the path of future interest rates because of good news about the recovery in the euro area; 3) spill-overs from increasing yields in the US coming from the normalisation of monetary policy by the Fed and a potential fiscal policy shift by the new administration; and 4) an increase in the term premium reflecting uncertainty around markets' expectations.

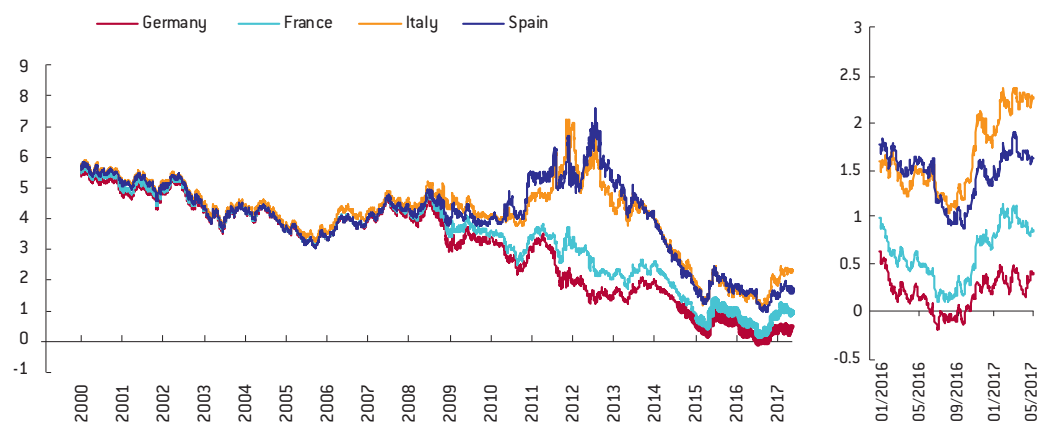
THE RECENT RISE is thus mainly driven by good news and does not represent a strong tightening of financial conditions for euro-area households and companies, nor does it currently endanger public finances. Moreover, from an historical perspective (especially when compared to the significant decline in yields over recent decades), the recent rise is of a relatively moderate magnitude and very much similar to previous benign episodes of yield increases (such as in early 2015). The ECB should monitor the situation carefully but it should not be a major concern for the moment.

NEVERTHELESS, IF IN the future sovereign yields from euro-area member states drift away from levels compatible with economic fundamentals, or threaten the European recovery and the return of inflation towards 2 percent (which is not the case at the moment) the European Central Bank's expanded toolbox should be sufficient to influence the yield curve.

1 Introduction

After reaching historically low levels in the first half of 2016, European long-term interest rates recorded a notable increase at the end of 2016 and have generally stabilised since the beginning of 2017. In terms of timing, as Figure 1 shows, the increase in 10-year sovereign yields has been very much synchronised across the four largest euro-area economies, taking place mainly during the fourth quarter of 2016. In terms of size however, the increase has been different in different countries. From October 2016 to May 2017, the biggest change in yield was in Italy (+141 basis points, bps), followed by Spain (+80bps), France (+67bps) and Germany (+45bps). From an historical perspective, the magnitude of this increase in interest rates is not particularly remarkable and is similar to the increase that took place at the beginning of 2015. Overall, with the notable exception of Italy, European government yields are now back to the levels prevailing at the beginning of 2016 and are still well below historical averages.

Figure 1: 10-year sovereign yields (in %)



Source: Bruegel based on Bloomberg. Note: right panel zooms in on 2016-17.

Why did bond yields fall in the first place? As explained in details in Claeys (2016), there were many reasons for the significant fall in long-term nominal yields of the last few years. First, the fall in inflation expectations from the high levels of the beginning of the 1980s was amplified in recent years by the crisis, during which actual inflation fell to very low and, on two occasions, negative levels. Second, the risk premia that rose during the euro crisis fell significantly after the introduction of institutional innovations intended to avoid a break-up of the monetary union (in particular the European Stability Mechanism, Outright Monetary Transactions and the banking union). Finally, the decline in yields was the result of the fall in the real (ie inflation adjusted) interest rate. The decrease in the real rate is itself driven mainly by the decline in the 'neutral' rate – the short-term equilibrium rate between demand for and supply of funds compatible with full employment and price stability. This led the European Central Bank, in order to fulfil its price stability mandate, to pursue an accommodative policy, through lower policy rates and through unconventional measures such as large-scale asset purchases.

However, in recent months some of these trends might have reversed. Rising long-term rates might be an indication that, with the recovery picking up in the euro area, markets have reviewed their expectations and now anticipate higher growth, inflation and short-term policy rates in the euro area. Another possible explanation is that political risk and electoral

uncertainty, which have both featured prominently in market commentary in the last six months, might have risen again and led to an increase on sovereign yields.

Understanding the main factors driving long-term interest rates higher in recent months is challenging but important. If the rise in interest rates is driven by good news for the economic outlook for the euro area, it would represent a welcome normalisation of the European situation. On the contrary, a significant increase in yields that is unjustified by economic fundamentals (ie higher growth and inflation expectations) would represent a tightening of financial conditions that could jeopardise the recovery, especially given the current European situation characterised by high levels of public and private debt. This Policy Contribution will therefore tackle the following questions: What are the factors driving the recent increase in long-term interest rates? Is there a risk of long-term rates overshooting the rates justified by economic fundamentals? Could rising rates put pressure on public finances and derail the recovery? Could they compromise the conduct of monetary policy and endanger financial stability? If this is the case, should the ECB react and, if so, how?

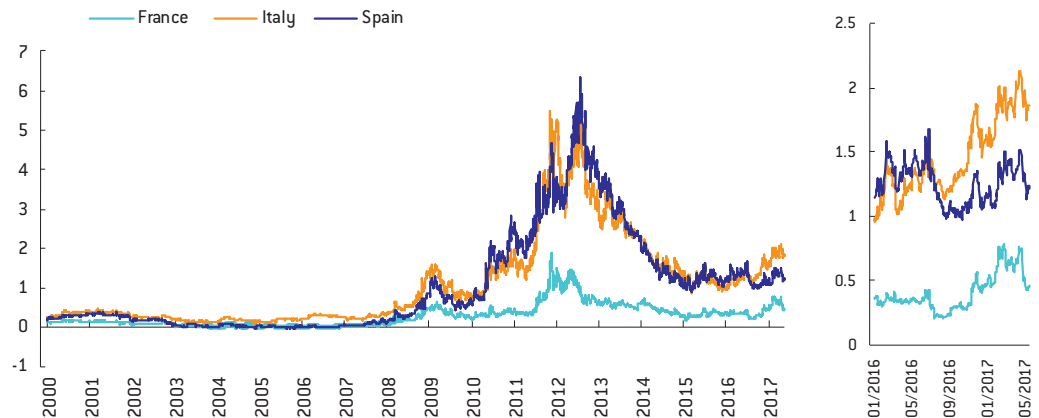
2 Long terms rates in 2016-17

A nominal long-term interest rate can be decomposed into the following components: a risk-free rate, a term premium reflecting uncertainty about longer investment horizons and other risk premia to compensate investors for credit and inflation risks. Yields on 10-year government bonds, which form the benchmarks for other long-term interest rates relevant for the financing of the real economy (such as mortgage and corporate interest rates), are thus determined by markets' expectations about the future path of the risk-free rate, inflation expectations, the uncertainty regarding both these expectations and a perception of country-specific risks. Starting with the latter, we take a look at each of these factors.

2.1 Country-specific risks

Among other factors, rising long-term yields reflect investors' pricing of country-specific risks. During the euro crisis, as a result of the prospect of default of some euro-area members and the threat of a euro-area break up, government bond yields of several euro-area countries soared. At the same time, investors seeking a safe asset turned to bonds of other countries, such as Germany, sending their yields down (in a typical movement of flight to safety). Thus, the spread between the German yield and the sovereign yield of another euro-area country reflected the relative risk characterising that specific country compared to a safe asset. In addition, a synchronised rise in spreads for a set of countries, as was the case in 2011-12 (Figure 2), might also have signalled a systemic risk for the euro area as a whole, such as a risk of break-up of the euro area followed by a conversion of sovereign bonds into new national currencies.

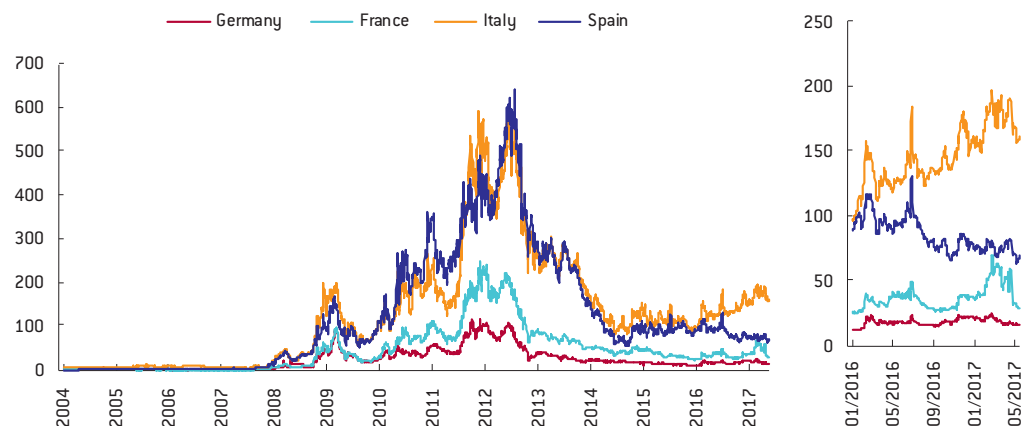
Figure 2: 10-year spreads vs. Germany (in %)



Source: Bruegel based on Bloomberg. Note: right panel zooms in on 2016-17.

To what extent can the current rise in long-term rates be the result of rising country-specific risk? Probably to a limited extent only: the rise in spreads observed at the end of 2016 is not comparable to the 2011-12 rise. Nevertheless, spreads relative to Germany have not evolved uniformly in different euro-area members. In Spain it was pretty stable during 2016, but in France and Italy 10-year yields spreads have recently reached levels not seen, respectively, since 2012 and 2014. As shown in Figure 3, credit default swaps (CDS), which offer protection against default, basically tell the same story.

Figure 3: 5-year CDS (in bps)



Source: Bruegel based on Bloomberg. Note: right panel zooms in on 2016-17.

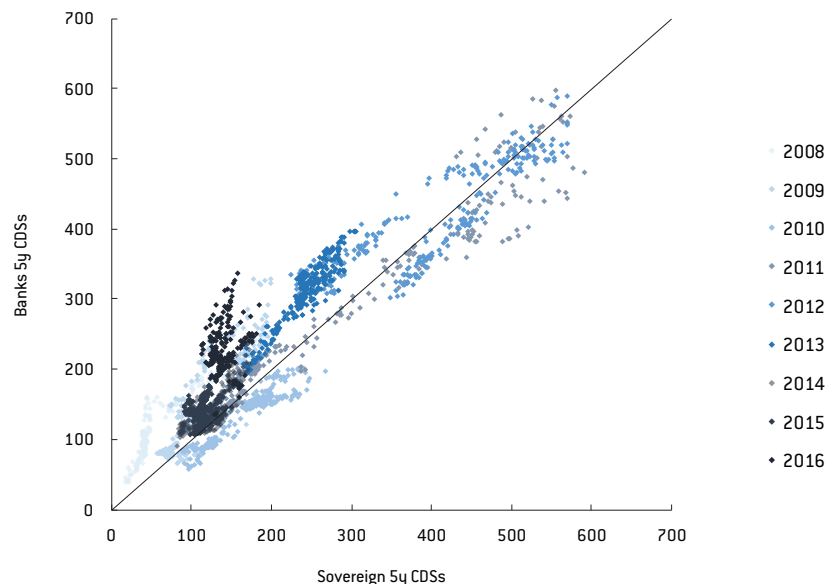
These developments have taken place against the backdrop of significant political events, in Europe and abroad. These events and their impact on perceptions of relative risk can be traced with ease in the right panel of Figure 3, eg the June 2016 Brexit referendum or the run-up to the May 2017 French presidential elections. However, in the case of the French presidential elections – marked by a debate over the benefits and costs of exiting the euro, see for instance Claeys (2017) – the effect is dissipating since the tail risk of a victory of a Eurosceptic candidate did not materialise: spread and CDS are returning to previous levels.

On the contrary, Italy's country-specific risk (represented by its spread with Germany or by its CDS) has mainly been trending upwards since the beginning of 2016. Country-specific risk can arise from various sources, and in the Italian case, there might be multiple factors at

play simultaneously. Indeed, country-specific sovereign risk can be associated either with credit risk or redenomination risk. The latter refers specifically to the risk arising either from the possibility of a particular country exiting the euro area or from a potential complete break-up of the euro area. Since the beginning of 2016, the Italian CDS spread has been slowly and steadily rising, to levels not seen since 2013. This development can be interpreted as redenomination risk creeping back in through the emergence of Eurosceptic parties such as the 5-Star Movement or the conversion of established parties such as Forza Italia to Eurosceptic ideas.

The struggles of Italian banks also contribute to the pricing of increased risk. The mechanism behind this connection is known as the bank-sovereign vicious cycle (Véron, 2015). The implicit or explicit dependence of domestic banking systems on national governments for support suggests a sizable fiscal burden on public finances. Instability in the banking sector can squeeze credit and stifle growth, thus further undermining the sustainability of the fiscal situation. The feedback loop from sovereigns onto the banking system derives either directly from holdings of government bonds or indirectly, through the erosion of public guarantees (Véron, 2015). Despite the creation of the banking union to break the link between banks and sovereigns and the recapitalisation of several Italian banks over the last few years, Figure 4 shows the continuing co-movement of Italian sovereign and banking sector CDS spreads.

Figure 4: Italy sovereign-bank loop (represented by CDS in basis points)



Source: Bruegel based on Bloomberg.

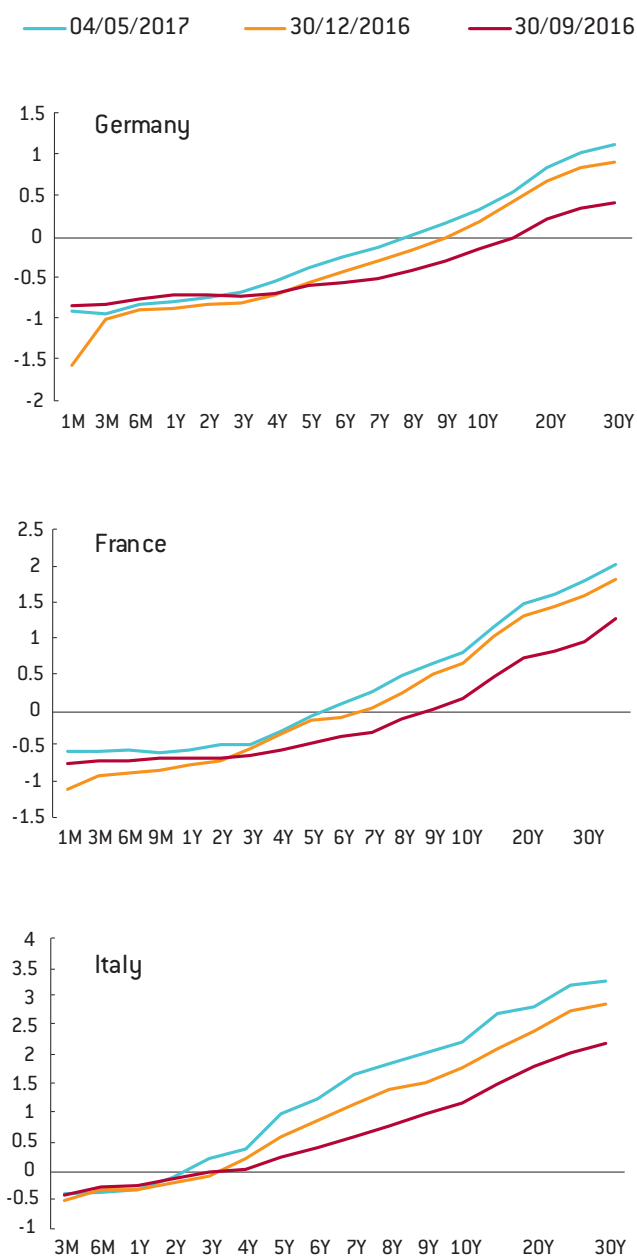
The Italian banking system has been in the spotlight over the last two years. Concerns about Italian banks stem from the large stock of non-performing loans (NPLs) sitting on some banks' balance sheets, which puts their solvency in question. The problem acquired a political dimension because of new rules on public support and resolution in the Bank Recovery and Resolution Directive (BRRD, 2014/59/EU) and the fact that many of the banks' junior debt holders are retail investors. Enduring fragility in the banking sector can only further undermine Italy's economic prospects and once again set in motion the bank-sovereign feedback loop, unless decisively dealt with. Nevertheless, with the possibility of an election in Italy in 2017 or early 2018, the prospect of decisive action soon looks slim (Merler, 2016).

2.2 Market expectations about growth, inflation and central bank rates

Even though country-specific factors might have played a role in the recent increase of yields in the euro area, the synchronisation of this development across countries also suggests that there are some common factors at work. So besides country-specific risk, what is behind the simultaneous rise in long-term interest rates?

The answer may be found in the slope of the yield curve. The yield curve shows the prevailing market yields for the same issuer of a bond at different maturities (from one month to 30 years). For the three largest euro-area countries (Germany, France and Italy), as shown in Figure 5, interest rates have not risen uniformly across maturities in the recent period. In fact, between the three points in time considered, ie the beginning of Q4 2016, the end of 2016 and early May 2017, rates with short maturities actually fell in the last quarter of 2016 before returning to previous levels, while long-term rates went up during the whole period covered, ie the yield curve clearly steepened.

Figure 5: Sovereign yield curves



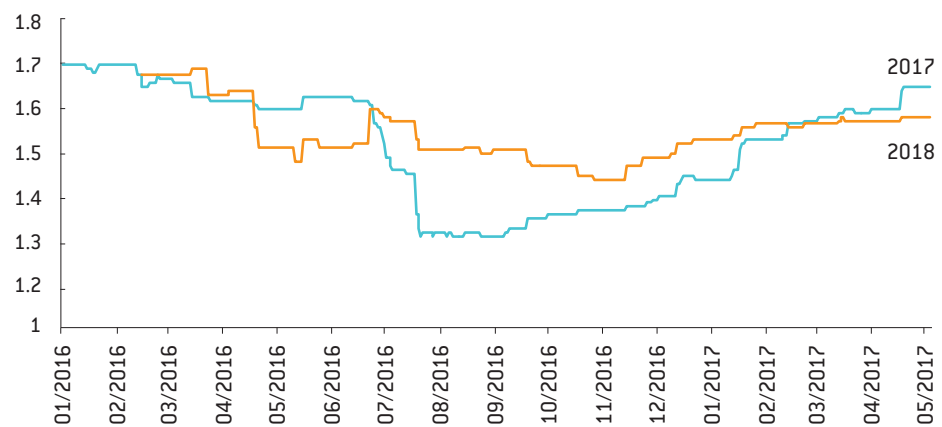
Source: Bruegel based on Bloomberg.

What accounts for the steepening of the yield curve? Arguably, long-term yields increase relative to short-term yields when the markets revise upwards their expectations about the future path of short-term interest rates. The argument goes as follows: to assess whether holding a 10-year bond is a worthwhile investment, one has to compare it to the alternative of rolling-over short-term securities. This requires a forecast of the evolution of short-term rates over the investment horizon, which is strongly related to the expected path of policy interest rates set by central banks. In turn, the expected path of policy interest rates reacts to changes in the economic outlook, ie growth and inflation. Thus, if higher inflation and growth are anticipated in the future, so are higher rates and the yield curve steepens. In the opposite case, the curve flattens.

In other words, the slope of the yield curve reflects market expectations about future growth, inflation and short-term interest rates. That is why we now turn to the question of how short-term and long-term expectations on these variables have evolved during the period coinciding with the steepening of yield curves.

Starting with economic activity, market participants' expectations (from a Bloomberg survey) about real GDP growth in the euro area exhibit a clear pattern. On average, market participants forecast real annual growth for 2017 at around 1.7 percent at the beginning of 2016 (Figure 6). Their forecast fell slightly during the first half of 2016 and was significantly revised downwards (down ~0.5 percent) during the summer. However, after September 2016, forecasts gradually improved and came back to the level of the beginning of 2016. Concerning expectations regarding growth in 2018, after falling slightly in the first three quarters of 2016, they also started to increase in the fourth quarter and are at the time of writing around 1.5 percent.

Figure 6: Average euro-area growth forecasts for 2017 and 2018



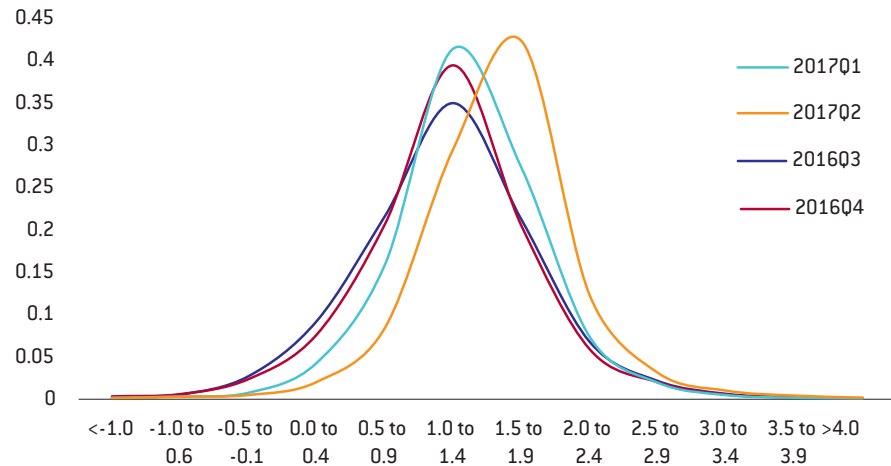
Source: Bruegel based on Bloomberg survey.

Turning to inflation, the year-on-year growth of the overall Harmonised Consumer Price Index (HCPI) has increased in recent months, after hovering around zero for a few years. The threat of deflation appears to be fading and inflation clearly looks to have bottomed out. In February, headline inflation in the euro area even reached 2 percent, and a month later it stood at 1.5 percent. However, given that base effects and a rise in energy prices are the main engines pushing prices up, the gradual rise in headline inflation is not tracked by core inflation. Inflation excluding energy and food has remained stuck below 1 percent for about four years, well below historical levels.

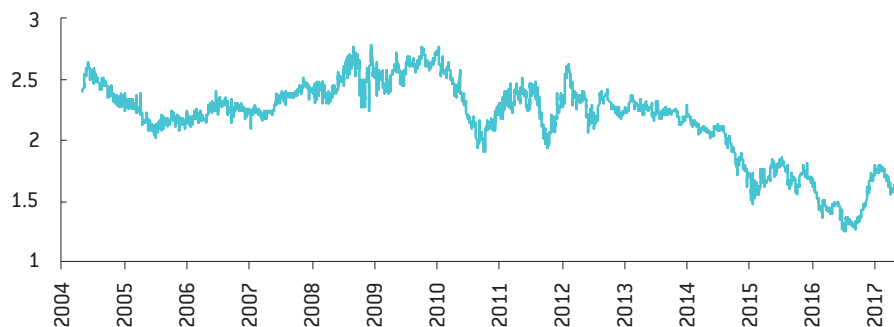
This recent increase in current inflation was accompanied by a simultaneous rise in inflation expectations. The top panel of Figure 7 plots the distribution of responses in the four most recent editions of the ECB Survey of Professional Forecasters (SPF) with respect to 2017 euro-area inflation. The upward shift in inflation expectations visible in the latest wave of the ECB survey (published in early April 2017) is clear compared to the three previous surveys.

Figure 7: Short and long-term inflation expectations

Panel A: SPF distribution of forecasts



Panel B: 5y5y EUR inflation swap rate (%)



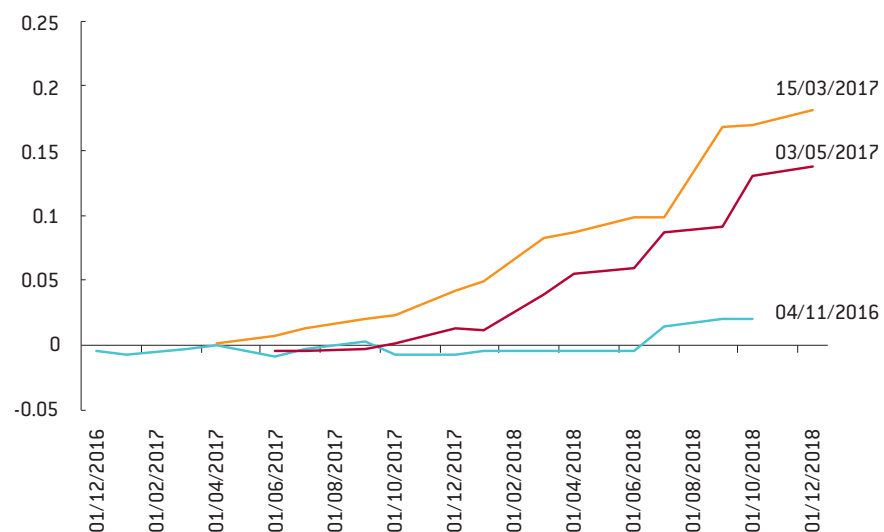
Source: Bruegel based on ECB, Survey of Professional Forecasters, Bloomberg.

In terms of long-term inflation expectations (which are even more relevant as far as long-term rates are concerned), as the bottom panel of Figure 7 shows, the average expected inflation rate for five years starting five years ahead (measured by swaps) has been on a downward trend since 2012, but this decline appears to have ended during the last quarter of 2016, although it might be too early to talk about long-term inflation expectations returning to historical average levels.

Overall, the evidence is consistent with market expectations of higher growth in the short-term and inflation both in the short and the longer term coinciding with the increase in long-term rates. Investors' interest-rate expectations depend on an assessment of the future economic environment because that affects official interest rates set by central banks. In particular, investors expect central banks with a price stability mandate to adjust official interest rates in line with price developments, also inextricably linked to developments in real economic activity. That is why, as Figure 8 shows, the improvement in expectations for growth and inflation has translated into a higher expected path for the ECB main policy rate.

The main refinancing operation (MRO) rate, which was set to zero in March 2016 by the ECB Governing Council, is now expected to rise again during 2018. Encouraged by solid hard data (in terms of GDP, unemployment, inflation and industrial production) and surveys (with eg the euro-area composite PMI output index at a 6-year high), market participants revised their expectations significantly upwards between the beginning of November 2016 and March 2017. Nevertheless, there has been a slight downward revision since then. Indeed, the markets' upbeat expectations might have been dampened by ECB President Draghi's dovish introductory statement during his April 2017 press conference, when he restated that the Governing Council *"continue[s] to expect [key ECB interest rates] to remain at present or lower levels for an extended period of time, and well past the horizon of our net asset purchase"* which are themselves *"intended to run until the end of December 2017, or beyond, if necessary"*.

Figure 8: Market-based average expected MRO rate



Source: Bruegel based on Bloomberg.

In addition to the developments in the euro-area economy, international developments might also have played a role in the recent increase in European yields. Developments in the last few decades have shown that long-term rates are more influenced than before by external factors as capital markets become more integrated worldwide. The increase in US yields observed in 2016 might thus have had an impact given the strong correlation between German and US yields, even if we observe a decoupling between the two – in terms of level at least – since the end of 2013 (Figure 9). The increase in US yields was itself driven by two main factors.

First, US yields have been affected by the normalisation of monetary policy initiated by the Fed with three increases of 25bps in the Federal Open Market Committee's (FOMC) target federal funds range in December 2015, December 2016 and March 2017. On top of that, policy rates are expected to rise further in the next few years. As revealed by the Fed after its March 2017 meeting, the median member of the FOMC predicts the Fed funds rate between 1.25 and 1.5 percent at the end of 2017, suggesting two further hikes before the end of the year, and a gradual path towards 3 percent in the long run.

Second, as in Europe, expectations shifted in the second half of 2016. The increase in bond yields that was already palpable since the summer of 2016 has intensified with the election

of Donald Trump on 8 November 2016. The US election resulted in a quick re-pricing of many financial assets, based on expectations of a significant shift in US fiscal policy. Markets sharply revised their expectations for medium-term inflation and interest rates to be consistent with a substantial fiscal stimulus with tax cuts and an increase in infrastructure spending. Nevertheless, the hopes of such a fiscal shift have been dashed in recent months, resulting in the stabilisation and even a slight decrease in inflation expectations and yields in the US.

Figure 9: 10-year US and German yields (%)



Source: Bruegel based on Bloomberg.

Last but not least, an additional factor influences long-term yields. If the expected path of macroeconomic variables and policy rates heavily influences long-term yields, the degree of certainty with which expectations about fundamentals are formed also matters. Forecasting interest rates and fundamentals many years ahead is inherently uncertain, so investors might arguably demand compensation for taking that risk. The pricing of such a risk is called the term premium. The level of this rate premium is obviously higher the longer the maturity, but most importantly it also changes over time as uncertainty builds up or subsides. Moreover, that change in uncertainty need not be uniform over different investment horizons, so the market might turn relatively confident about the short-run compared to the long run. The bottom line is that the yield curve might be steepening because the markets expect higher rates in the future but also because they are more uncertain about their predictions. The two effects are hard to disentangle. However, after years of relative certainty about the medium-term path of policy rates (with the ECB repeating at each meeting since July 2013 that it *“expects the key ECB interest rates to remain at present or lower levels for an extended period of time”*), the recent increase in European yields might also reflect an increase in uncertainty about the speed and the destination point of the monetary policy normalisation process (because of the uncertainty concerning the level of the ‘neutral’ rate¹).

¹ See Claeys (2016) for more details.

3 The potential risks of higher yields and policy implications for the ECB

The recent and overall moderate increase in European yields is therefore the result of three main factors: 1) political uncertainty in France and Italy that could have had a major impact in terms of default probability or the possibility of a currency redenomination of sovereign bonds; 2) a revision of market expectations for inflation, growth and the path of future interest rates, because of a stronger than expected recovery in Europe and a potential policy shift in the US; and 3) rising uncertainty around these expectations. This suggests that for the moment the increase in yields is justified by fundamentals and does not constitute a form of overshooting of the bond market. However, a sharp increase in sovereign bond yields (away from fundamentals) could easily derail a recovery that is still fragile and characterised by high levels of public and private debt, and could slow the return of inflation towards the ECB's "low but close to 2 percent" target, which inflation has been below since the beginning of 2013. We discuss the potential implications of such an increase next, starting with public finances.

3.1 Implications for public finances

Rising interest rates can have an adverse impact on public finances if they are not driven by higher real growth and inflation. Sovereigns face a higher cost of borrowing when rolling over old debts or issuing new debt to finance deficits on the market. In turn, the rising cost of servicing debt further increases budget deficits and financing needs. What is more, if accompanied by low real growth and inflation, a spike in the (real) rate is bound to increase the debt-to-GDP ratio which, as a result, might drive borrowing costs even further because of higher default probability. What would be the impact of a further increase in interest rates for public finances?

The extent to which rising rates can destabilise public finances is of course linked to the level of the budget deficit and government debt, but also to the maturity profile of sovereign obligations given that the maturity profile determines the amount of debt that needs to be rolled over in the short term and that will be refinanced at a higher rate. In order to assess this risk for the four biggest euro-area economies, we look at the additional financing needs that could accrue to governments in the rest of 2017 and in 2018, should interest rates increase further.

For financing needs we take the total amount of maturing debt for the rest of 2017 and for 2018, and add the forecast budget balance (including currently forecast interest expenditure) over the same horizon. For the budget balance, we take the latest European Commission forecasts published in May 2017; thus, every incremental rise in interest rates adds to the interest rates assumed in these forecasts.

Table 1: Potential cost of an increase in interest rates (in % of GDP)

	Germany		France		Italy		Spain	
<i>Yield increase by:</i>	<i>2017</i>	<i>2018</i>	<i>2017</i>	<i>2018</i>	<i>2017</i>	<i>2018</i>	<i>2017</i>	<i>2018</i>
+50bps	0.03%	0.04%	0.05%	0.08%	0.07%	0.10%	0.06%	0.08%
+100bps	0.05%	0.09%	0.11%	0.15%	0.15%	0.21%	0.11%	0.16%
+150bps	0.08%	0.13%	0.16%	0.23%	0.22%	0.31%	0.17%	0.25%

Source: Bruegel based on Bloomberg and AMECO. Note: Financing needs are equal to the general government budget balance plus the principal from maturing bonds issued by sovereigns during the period.

For simplicity, we make the following simplifying assumptions: 1) all else is held constant, ie real GDP and inflation do not change because of the increase in yields (this seems to be a very bold assumption given that rate increases should ultimately impact the saving and borrowing behaviour of companies and households, but for relatively moderate yield increases such as those considered, the effects would take a few years to materialise²), and conversely the yield increase is not driven by a contemporaneous increase in real GDP or inflation; 2) the additional increase in rates is uniform across maturities (in contradiction to our discussion about the term premium); 3) the maturing debt is rolled-over with the same maturity distribution as that prevailing today; and 4) this is a one-off increase in interest rates that takes place today, with no other changes up to the end of 2018.

Table 1 shows the results of this simple simulation of the cost for public finances of a potential additional increase in government interest rates by 50, 100 and 150 bps (compared to a situation in which yields stay at the current level). While the precise numbers shouldn't be taken too literally given our simple assumptions, we believe that these results give us a better idea of the overall and relative (between countries) costs of a further increase in yields. First, for a moderate yield rise, the short-term impact on public finances would be relatively manageable and would not endanger the sustainability of public finances. This is because only a fraction of debt is rolled-over with high frequency and the window over which effects are considered is relatively short. It would take an increase in yields of 300bps unjustified by economic fundamentals – similar to that that took place in Italy and Spain between 2010 and 2012 (see Figure 1) – to have a sizeable effect on public finances (and this effect would be amplified by the impact that such a significant financial tightening would have on the real economy). Second, the exposure of public finances to higher rates is greatest for Italy, followed by Spain and France, whereas the effect would be much smaller in Germany. This disparity simply reflects differences in financing needs, resulting from both the level and the maturity profile of the current debt and the size/sign of the forecast budget balance.

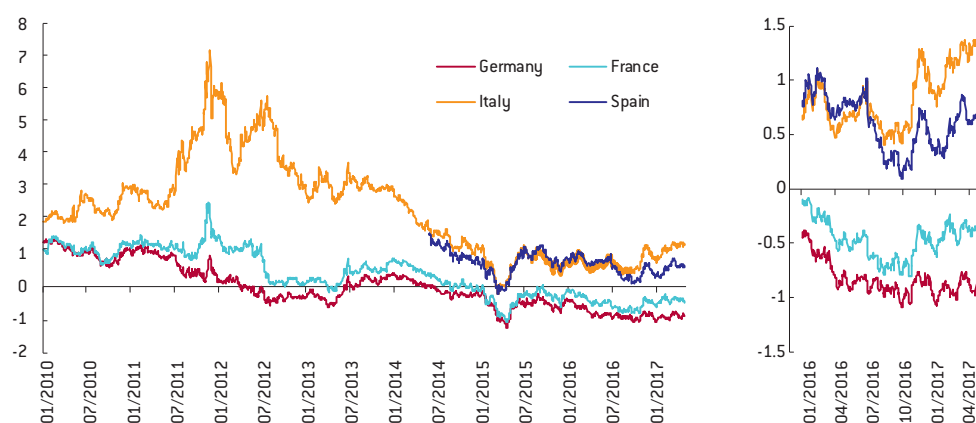
3.2 Implications for financing conditions

The other major implication of a rise in sovereign yields is that it could represent a tightening of financing conditions not only for governments but also for companies and households through an increase in corporate and mortgage rates, for which sovereign yields often act as a benchmark. This in turns would affect investment and savings decisions of households and firms, and would negatively impact growth and inflation. Measuring precisely the impact of an increase in long-term rates is beyond the scope of this Policy Contribution, but according to the OECD macro model (Hervé *et al*, 2010) an increase in euro-area policy interest rates by 100 basis points reduces cumulatively GDP by 1.6 percent and inflation by 0.4 percent over five years. An increase in long-term rates is not equivalent to a policy rate hike, but it gives us a general idea of the potential impact that such a tightening of financial conditions might have in terms of growth and inflation.

However, there are also reasons to believe that the effects of the recent increase should not be overestimated. First, it is important to put this interest rate rise into historical perspective. It appears that the recent movement is of relatively modest magnitude in light of the overall downward trend of the last few decades. Moreover, when considering real rates (which are what ultimately matter for investment and saving decisions) instead of nominal rates, the increase looks much smaller – if not totally negligible for Germany – and levels are still near historical lows (see Figure 10) and should ensure that financing conditions are supportive of the current recovery.

² See for instance the estimates of the OECD macro model (Hervé *et al*, 2010).

Figure 10: 10-year real interest rates (from inflation-indexed bonds)

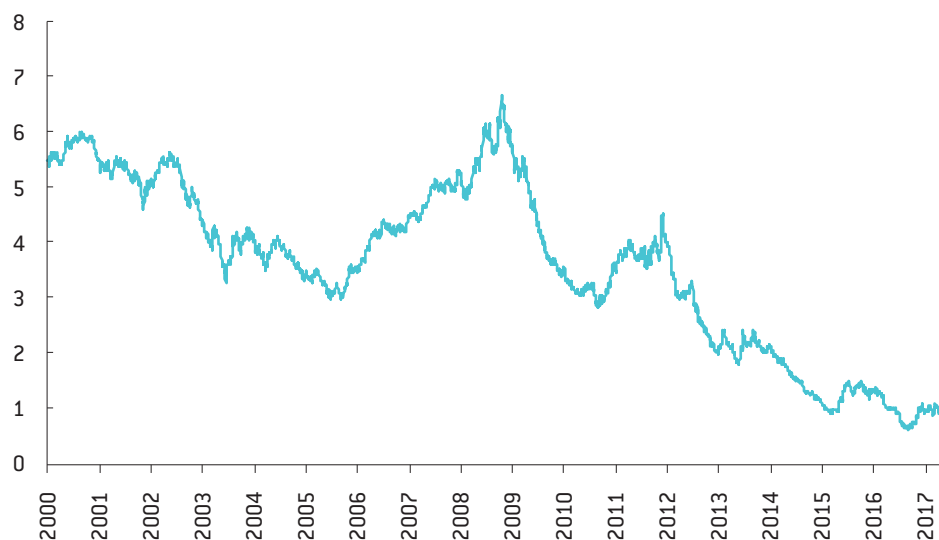


Source: Bruegel based on Bloomberg. Note: right panel zooms in on 2016-17.

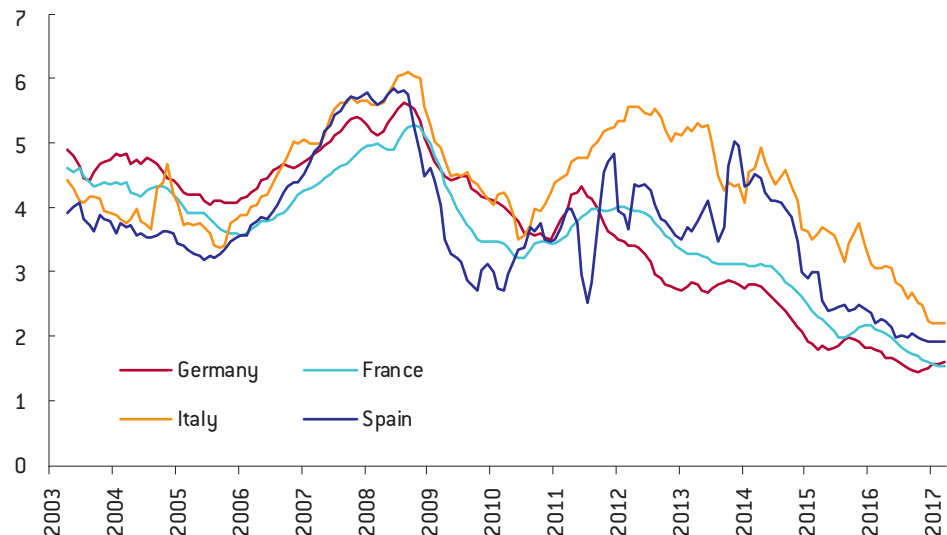
Second, even though sovereign yields often play an important benchmark role for other rates, their increase has not translated yet into a significant tightening of financing conditions for euro-area companies. As shown in Figure 11, while corporate bond yields have rebounded slightly since the beginning of 2016 before stabilising in 2017, rates paid by non-financial corporations for new bank loans in three of the four largest countries of the euro area have continued to fall in recent months, while they have increased only very slightly in Germany from extremely low levels.

Figure 11: Financing conditions for corporates in the euro area

Panel A: ≥ 10 -year corporate bond yields (%)



Panel B: ≥ 5 -year NFC loan rate (%)



Source: Bruegel based on Bloomberg (Merrill Lynch Euro Corporate Euroland Issuers Index); ECB (new business, 3-month backward-looking moving average).

3.3 Implications for ECB policy

As previous sections discussed, the increase in yields that took place mainly during the fourth quarter of 2016 resulted from a reassessment by the markets of the fundamental situation: higher expectations in terms of growth and inflation in the euro area justifying an upward revision of the expected path of the ECB's policy interest rates, and external factors, in particular increasing US yields. In addition, country-specific risks (mainly political) in France but also in Italy, led to an increase in spreads relative to Germany (which was temporary in the case of France). This leads us to believe that the recent increase should not for the moment be a major source of concern for the ECB.

However, even if there was a concern, the ECB would have everything it needs in its toolbox to take care of the situation. Since the beginning of the crisis, the ECB, like other major central banks around the world, has expanded its traditional toolbox with new instruments (such as asset purchases, forward guidance and long-term refinancing operations) in order to influence more directly the longer end of the yield curve. Two very different cases could trigger a reaction from the ECB.

First, in the case in which a yield increase represents an unwarranted tightening of financing conditions that threatens to derail the recovery and to impact negatively medium-term inflation forecasts, pushing inflation away from the 2 percent target, the ECB could use its unconventional tools forcefully. The ECB could increase the total size of its asset purchase programme either by announcing that the programme will continue after December 2017 or by increasing its monthly purchases, bringing them back to €80 billion per month, which should mechanically weigh on yields. The ECB could also use its forward guidance and communication strategy to shape longer-term expectations and reduce uncertainty around the path of future policy rates. This would reduce the term premium and provide additional accommodation. Communication would also be a key instrument should the ECB take the view that market expectations on the future path of policy rates are not warranted, and do not fit the Governing Council's reaction function and its own views on the future policy path. For instance, it seems that at the end of 2016, the markets might have adopted an overly optimistic view on the future path of ECB interest rates, which might have contributed to higher yields. However, this has been corrected since then thanks to the ECB's December 2016 decision to extend the horizon of asset purchases by at least nine months and to its March 2017

decision to continue to mention in the introductory statement of the press conference that policy rates would “*remain at present or lower levels for an extended period of time*” – which markets interpreted as a dovish signal. In particular, in the coming months, the ECB could use these tools to try to shield the European yield curve from external factors, in particular the spill-overs from the Fed’s tightening.

Second, in a situation in which European sovereign yields drift far away from fundamentals, as in 2012, because of a self-fulfilling liquidity crisis (which, we repeat, has nothing to do with today’s situation), the ECB should use its Outright Monetary Transactions (OMT) programme. This programme, announced by the ECB on 2 August 2012 and formalised on 6 September 2012, allows the ECB to buy an unlimited amount of sovereign bonds in the secondary market to “*safeguard an appropriate monetary policy transmission and the singleness of the monetary policy*”, as long as the country in question participates in an ESM programme. As the 2012 experience showed, the mere existence of such a contingency plan can be sufficient to prevent the emergence of a bad equilibrium in which yields move away from fundamentals, as long as the central bank is credible and appears ready to act if necessary. However, the credibility of the programme might be tested one day and the ECB might have to put it into practice to convince markets that it is ready to play its role as lender of last resort for illiquid but solvent member states of the monetary union.

4 Conclusions

European long-term sovereign yields experienced a notable increase in the second half of 2016 and at the beginning of 2017 before stabilising or even falling again in some countries. This movement resulted from several factors: 1) a rise in country-specific risks resulting mainly from political uncertainty in some countries; 2) a revision in market expectations for inflation, growth and the path of future interest rates due to good news about the recovery in the euro area; 3) spill-overs from increasing yields in the US coming from a normalisation of monetary policy by the Fed and a potential fiscal policy shift from the new administration; and 4) rising uncertainty about markets’ expectations.

Overall, it might of course be too early to judge, but for the moment, from an historical perspective, the recent increase is of a relatively moderate magnitude and is similar to previous benign episodes of yields increases. Given the main factors behind the increase, as listed above, the recent increase in sovereign yields in the euro area appears to be justified by economic fundamentals and is mainly the result of good news. Moreover, the rise in sovereign yields does not represent a strong tightening of financial conditions for euro-area households and companies, nor does it endanger the public finances of the four largest euro-area economies.

Nevertheless, if in the future sovereign yields from euro-area member states drift away from levels compatible with economic fundamentals or that endanger the European recovery and the return of inflation towards 2 percent, the ECB’s expanded toolbox should be sufficient to influence the yield curve. Large-scale asset purchases, forward guidance, long-term refinancing operations and – in the extreme case of a self-fulfilling liquidity crisis in the sovereign bond market – its essential OMT programme could be used to bring long-term yields back towards levels compatible with the mandate of the ECB.

References

- Claeys, Grégory (2016) 'Low long-term rates: bond bubble or symptom of secular stagnation?' *Policy Contribution* 15/2016, Bruegel
- Claeys, Grégory (2017) 'Debunking 5 myths about Frexit', *Bruegel Blog*, 10 March, available at <http://bruegel.org/2017/03/debunking-5-myths-about-frexit/>
- Hervé, Karine, Nigel Pain, Pete Richardson, Franck Sédillot and Pierre-Olivier Beffy (2010) 'The OECD's New Global Model', *OECD Economics Department Working Paper* No.768
- Merler, Silvia (2016) 'Financial implications of the Italian referendum', *Bruegel Blog*, 2 December, available at <http://bruegel.org/2016/12/financial-implications-of-the-italian-referendum/>
- Véron, Nicolas (2015) *Europe's Radical Banking Union*, Essay & Lecture Series, Bruegel