



24 April 2015

PensionsEurope Paper on the effects of Quantitative Easing on pension funds

Key messages

- PensionsEurope calls upon regulators to address the specific effects of both low interest rate environment and Quantitative Easing policies on pension funds. However, we do not question Quantitative Easing (QE) policy as such.
- Decreasing interest rates can put funding ratios of DB schemes under pressure and increase the price of annuities for both DB and DC schemes. This can mean lower pension benefits and/or increase in contributions.
- Pension funds are by their nature long term investors due to the duration of their liabilities, but are now faced with the effects of short term QE. Therefore national and European regulators need to find an adequate balance between the short/medium term challenging environment and the sustainability of pension promises.

1. Introduction

The ECB's policies are directed at maintaining price stability and *"support[ing] the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union"*¹ including inter alia full employment and balanced economic growth. Since sound occupational pension provision is based on price stability and economic growth, PensionsEurope acknowledges the importance of these goals. However, this paper does not address the question whether or not quantitative easing is the right way to achieve these goals. Rather, we would like the regulators to be aware of the various effects those policies and the current low-interest rate environment have on pension funds.

We can draw from experience in the UK, where the Bank of England has executed a policy of QE since 2009, which has had considerable effects on pension funds. Pension funds throughout Europe have been in a low interest rate environment for quite some time now and the policy of QE will only further deepen the consequences of this low interest rate.

This paper aims to summarize the effects of QE - and low interest rate environment in general - on pension funds and to stress the lack of flexibility that pension funds have to cope with such an environment. In conclusion we provide several solutions which could help pension funds to go through this challenging period.

¹ <https://www.ecb.europa.eu/mopo/intro/objective/html/index.en.html>

2. ECB policy

On 22 January 2015, the Governing Council of the European Central Bank (ECB) announced² an expanded asset purchase program (so-called Quantitative Easing or QE). Aimed at fulfilling the ECB's price stability mandate, this program will see the ECB add the purchase of sovereign bonds to its existing private sector asset purchase program in order to address the risks of a prolonged period of inflation considered too low. The Governing Council took this decision in a situation in which most indicators of actual and expected inflation in the euro area had drifted towards their historical lows. As potential second-round effects on wage and price-setting threatened to adversely affect medium-term price developments, this situation required a forceful monetary policy response – according to the ECB - with the aim of achieving inflation rates below, but close to, 2% over the medium term.

Asset purchases would provide monetary stimulus to the economy in a context where key ECB interest rates are at their lower bound. Those purchases further ease monetary and financial conditions, making access to finance cheaper for firms and households. This tends to support investment and consumption, and ultimately aims to contribute to a return of inflation rates towards 2%.

The program will encompass the asset-backed securities purchase program (ABSPP) and the covered bond purchase program (CBPP3) which were both launched late 2014. Combined monthly purchases will amount to €60 billion. They are intended to be carried out until at least September 2016 and in any case until the Governing Council sees a sustained adjustment in the path of inflation that is consistent with its aim of achieving inflation rates below, but close to, 2% over the medium term.

The ECB will buy bonds issued by euro area central governments, agencies and European institutions in the secondary market against central bank money, which the institutions that sold the securities can use to buy other assets and extend credit to the real economy.

On 9 March 2015 the European Central Bank started the purchase of euro-denominated public sector securities in the secondary market.

3. What are the effects for pension funds³?

As the QE program has just started, the effects of such policy are still not clear. However, some effects are already visible in the market. For the content of this section we can draw from literature as well as experience in the UK where the Bank of England has executed a policy of QE since 2009, which has had considerable effects on pension funds. Overall, PensionsEurope acknowledges the core issue is the low-interest rate environment which is not only driven by Quantitative Easing policies.

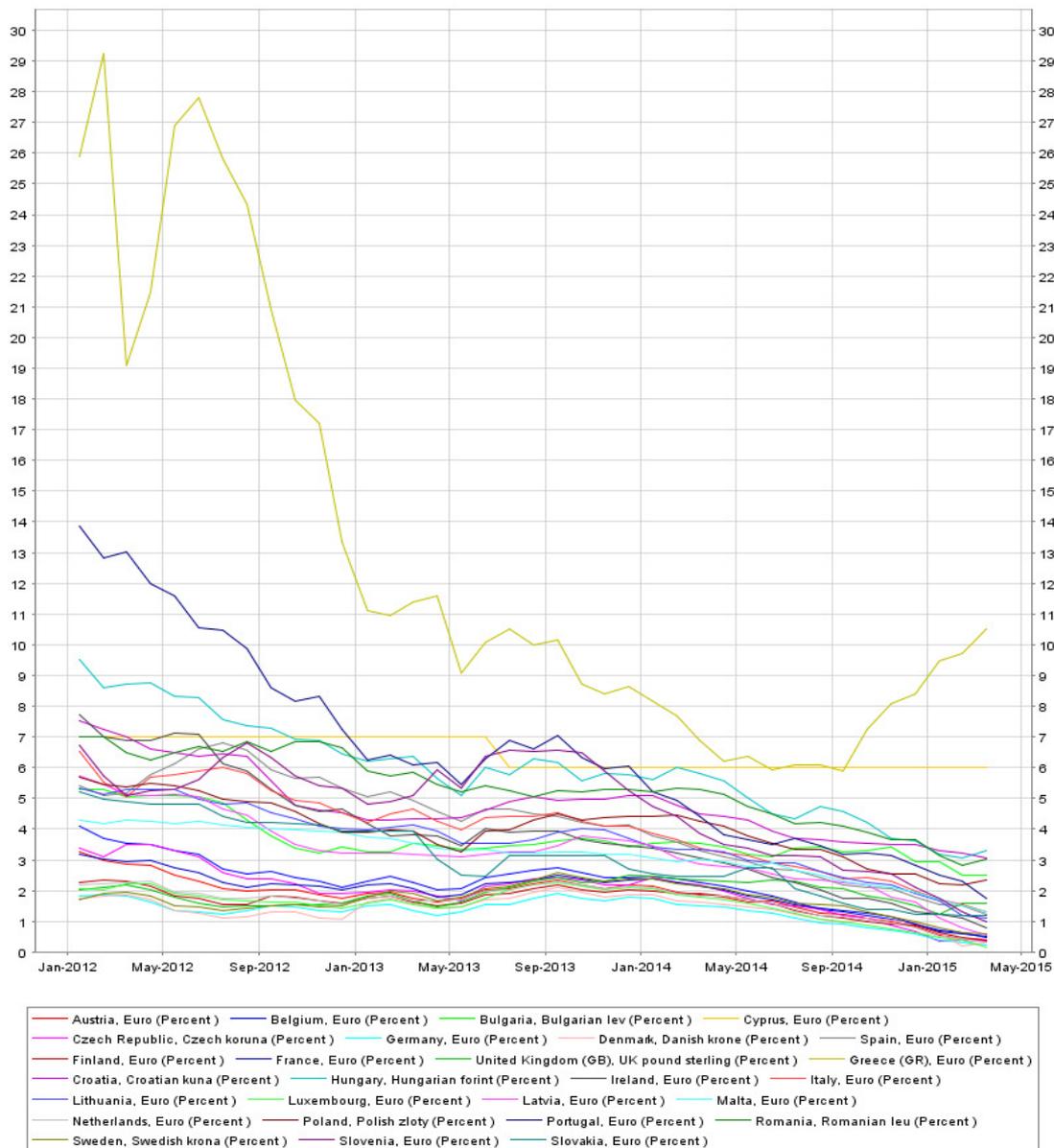
² http://www.ecb.europa.eu/press/pr/date/2015/html/pr150122_1.en.html

³ In some Member States such as Germany, employers have to make sure that the given promises are met. Therefore QE will have consequences for the sponsors, too.

The precise effect of low interest rates depends on many factors. The effects would differ for defined-benefit (DB) pension funds and defined-contribution (DC) funds. The impact will also depend on the level and type of guarantees offered by the pension fund.

Effect 1: QE will further drive down interest rates – Impact on pension funds’ funding ratio

According to the ECB⁴, “In recent years, monetary policy interest rates have been reduced to exceptionally low levels. The main reason for maintaining highly accommodative monetary conditions has been to avert the risk of an economic depression and to counter deflationary pressures.” The following chart displays the trend in the long-term interest rates (10Y) since January 2012:



Source: ECB

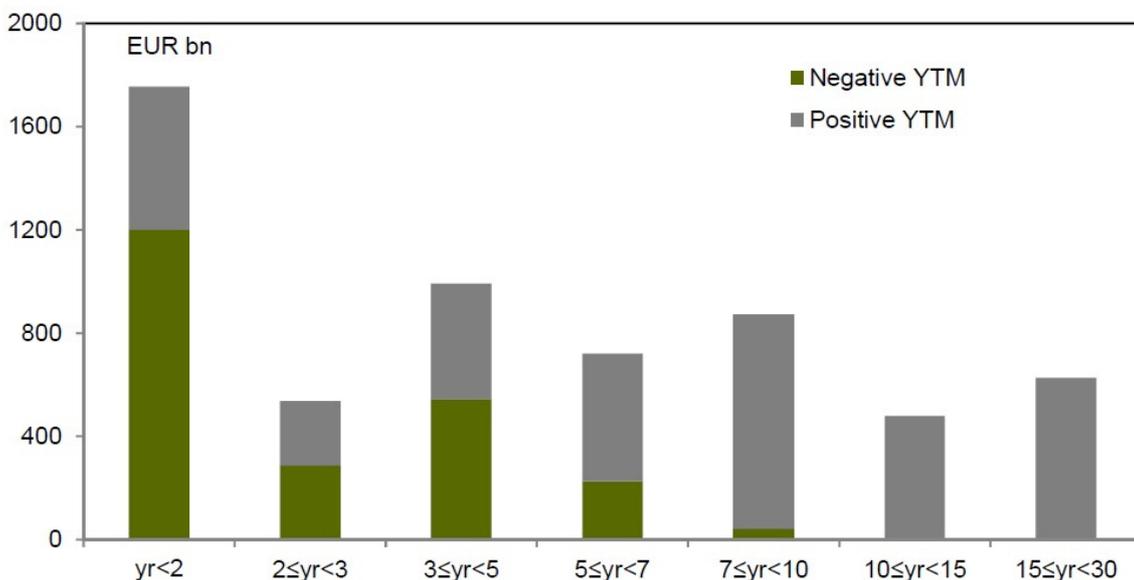
⁴ <http://www.ecb.europa.eu/press/key/date/2013/html/sp131009.en.html>

Along with this low-interest rate environment, the QE policy is likely to further decrease long-term interest rates. Indeed, although the markets had anticipated the ECB policy of QE, after the announcement, 10 year interest rate on German bunds further decreased with 16 base points to 0.36%, but hereafter increasing to 0.39%. The 30 years swap interest rate decreased with 12 base points to 1.24% but in the following days increased with 6 base points again.

On March 9, the first day of QE purchases, the yield on German bonds decreased from 0.39% to 0.31%. Dutch 10-year bonds showed the same trend: from 0.44% to 0.35%. According to a study, over 2 trillion euros of outstanding euro zone sovereign debt now has a negative yield:

Negative Yields Have Become the 'New Norm' in the Euro area

Outstanding amount of Euro area government debt securities (*) by maturity bucket (EUR bn) and 0% yield threshold



Source: Bloomberg, Goldman Sachs Global Investment Research. (*) We include Euro-denominated government debt securities (notional values) of 10 major Euro area countries: Germany, France, Italy, Spain, Netherlands, Belgium, Austria, Finland, Portugal and Ireland. We exclude inflation-linked securities.

The main consequences of this low-interest rates environment and the ECB QE policy are:

For Defined Benefit (DB) schemes:

- Defined Benefit funds funding ratio is likely to further decrease (as liabilities will increase as they are calculated using the long term interest rate). In some cases deficits might arise which need to be filled by corporate sponsors or cuts in benefits, depending on the relevant legislation and the type of pension promise made.
- In general, interest rates have high impact on funding rates of pension funds. For an average fund a 1%-point decrease in the interest rate will lead to 20%-point decrease in the funding

ratio. If 50% of this risk is hedged, the impact on the funding rate would be 10%-points. It is worth noting the overall effect also depends on the duration of assets and liabilities. It can be expected that DB pension funds with long-dated, interest rate-sensitive liabilities will - unless they are hedged - have a negative duration gap.

- Finally, the impact of a long lasting low interest rate environment is likely to further accelerate the closure of DB schemes.

According to a study⁵: *“European corporate pension funds have also experienced an increase in unfunded liabilities due to lower interest rates. Defined-benefit plan liabilities increased by 31 percent from 2007 to 2012, with the majority of this increase due to a decrease in the discount rate, similar to the changes in US plans. Unlike in the United States, total assets have increased, but by only 23 percent. That means that the funding gap has widened. We estimate that the change in the value of pension plan assets due to price changes in the underlying securities had a negligible, or slightly negative, impact between 2007 and 2012. This means that the increase in pension plan assets was mainly due to additional contributions from plan sponsors. At the same time, these plans lost interest income in fixed income portfolios of about \$9 billion in 2012, equivalent to just 0.7 percent of assets in 2012.”*

For Defined Contributions (DC) and DB schemes:

- DC (and DB) pension funds, to the extent they offer no guarantees regarding returns or benefits, will experience gains in their bond holdings from the drop in interest rates, the size of which will again depend on the duration of their assets and the slope of the yield curve. Hence, (DC and DB) pension funds can see a temporary improvement in investment performance.
- However, pension funds will be faced with more expensive annuities because low interest rates raise the price of annuities. In many Defined Contribution schemes, an annuity is bought when the beneficiary reaches the retirement age. National regulation defines whether this is mandatory or optional and whether the annuity should be life-long or not. In case of individual DC, this risk is carried by the individual who will be left with a much lower pension benefit than expected.

Effect 2: QE will drive up equity/bond prices and drive down bond yields

QE aims to encourage investors to invest less in bonds and more in equity, as the bonds yields will decrease while their price will increase:

- On one hand, QE pushes up the price of bonds, which increases asset values for pension funds with (government) bond holdings, but means lower returns on pension funds' new

⁵http://www.mckinsey.com/insights/economic_studies/qe_and_ultra_low_interest_rates_distributional_effects_and_risks

investments in bonds (due to downwards pressure on bond yields). On the other hand, pension funds may seek to hedge interest rate risk by increasing bond allocations and portfolio duration and via derivative transactions, creating further downward pressure on bond yields.

- Higher equity prices have positive effects on the value of assets currently in possession by funds; however, acquiring equity will be more expensive.
- For regulatory regimes with risk-based solvency capital requirements, the acquisition of equity will lead to higher own capital requirements / will trigger the need to install other risk buffers.

4. Options for pension funds are limited

Pension funds have limited options to respond to the QE and low-interest rate-environment:

- Pension funds' investments are guided by the prudent person principle and therefore have limited options to move into other, riskier, asset classes. They will always have a significant part of their portfolio invested in (now even lower yielding) government bonds. According to a NAPF survey⁶, *“around the third of respondents to an NAPF survey said they were likely to change their investment strategy as a result of low gilt yields. However, they were torn between whether to move away from gilts towards riskier investment (as might be anticipated by the Bank of England in response to rising prices and lower yields on gilts) or whether to continue to shift into gilts and pursue de-risking strategies. This highlights the conflicting pressures on DB pension schemes and the uncertain environment in which they are operating.”*
- National supervisory frameworks define boundaries. For example, the Dutch FTK does not allow increasing risk in the strategic asset allocation in case of low funding ratios (under 105%). Therefore, changing asset allocation due to low interest rates might be restricted.
- It is doubtful whether pension funds are willing to sell bonds to the ECB as new bonds have lower yields than old bonds. Furthermore, turning bonds into cash is no option as there are negative deposit rates;
- The mark-to-market valuation of liabilities applied to certain pension funds render the solvency position of those pension funds very challenging;
- In some countries, (short term) risk-based capital charges for equity holdings tend to incentivize pension funds to invest in low-risk assets such as government bonds. This makes the investment strategy of DB pension funds managers very difficult as bonds yields are very low.

⁶http://www.napf.co.uk/PressCentre/Press_releases/~//media/Policy/Documents/0221_Exceptional_times_exceptional_measures_economic_developments_and_the_impact_on_pension_schemes_and_members__March_2012.ashx

5. Experience with QE in the UK

In the UK, the Bank of England has executed a policy of QE since 2009. The NAPF found that:

- Pension funds get into deficit for billions of pounds;
- Company money is diverted away from investment into filling pension funds' deficits.

According to the NAPF, Defined Benefit schemes are affected because of lower returns on government bonds and more expensive funding because of a lower discount rate. Defined Contribution schemes have also been affected. The NAPF found that falling annuity rates mean the average person with a pension pot of £26K retiring now would get 22% less income than if they had annuitised four years ago. This is a loss of £440 a year.

Furthermore, research from the NAPF confirms that the major part of pension funds did not change their investment strategy, although one of the aims of QE was to make riskier assets more attractive to investors.

Respondents to the survey were also asked what they wanted the UK Pensions Regulator (TPR) to do in response to the market conditions. The most popular option was for TPR to say something explicit about the use of more stable, longer-term discount rates (57% put this first and 81% put this either first or second) followed by TPR extending recovery plans (16% put this first and 49% put this either first or second).

6. Conclusion - Topics for discussion

Although PensionsEurope acknowledges that economic growth is crucial for Europe and has no position on whether QE is good or bad policy, pension funds cannot be just seen as 'collateral damage' of QE as this concerns pension provision for millions of Europeans. Therefore, PensionsEurope calls upon regulators to specifically consider and address the effects of QE on pension funds. We propose below some solutions to be discussed:

- The regulators could extend recovery periods for DB schemes;
- The regulators could correct the interest rate term structure that pension funds must use for valuing their liabilities in order to take the distortionary impact of QE into account;
- The regulators could correct the interest rate term structure for the distortionary impact of QE by introducing a floor in the term structure or by fixing the term structure to the last undistorted one;
- The regulators could publish guidance on how best to adapt the asset allocation to the market conditions on the short and medium term, without harming the schemes long term goals;
- The regulators could give more flexibility to any "full funding of technical provisions at all times" requirements;

- The regulators could encourage the use of a long-term discount rate for valuing liabilities that removes the temporary impact of QE;
- The regulators could suspend valuations until market conditions improve (e.g. when ECB puts up interest rates or starts to sell back bonds);
- The regulators could publish guidance to encourage schemes to update their scheme valuations and recovery plans if/when economic conditions improve;
- The regulators (and central banks) could publicly stress the distortionary impacts of QE on DB scheme deficits to offset the negative impact those deficits might have on sponsors' share values;
- As pension funds are often asked to invest in risk-free (government) bonds, the regulators could reconsider what 'risk free' means, especially in the context of the current low interest environment;
- The regulators could confirm that pension fund managers should consider there is a distortionary effect and take this into account when negotiating actuarial assumptions used in setting technical provisions and the recovery period;
- The regulators could provide some explicit encouragement to the use of assets other than government bonds with cash flows that are good if not appropriate match for liabilities (e.g. corporate bonds, infrastructure, property leases);
- The regulators could encourage the use of high-quality corporate bonds as a basis for valuation;
- The regulators could encourage scheme valuations to be based on an average funding figure over a defined number of last years to even out any adverse effects of QE on real bond yields;
- The regulators could allow out of cycle valuations, either early or late;
- The regulators could allow the postponing of buying of the annuity (or at least part of it) hoping that the interest rate will rise in the meantime. We acknowledge that the main issue with this alternative is that people who waited for the last two years are now even worse off because interest rates decreased even further;
- Adequate EET framework: Real returns which are close to zero or even negative mean lower pension benefits and / or require higher contributions. These can be paid by the employer, by the employee or by both and they are sometimes covered in wage agreements. The tax framework applied to occupational pension should take this change into account and allow higher contributions to make up any of the shortfalls created by the current environment;
- No Solvency-II-style requirements for pension funds: As stated in many position papers before, we are strictly against the introduction of a Holistic Balance Sheet for pension funds as it would make pension provision in the EU more expensive without making it safer.

About PensionsEurope

PensionsEurope represents national associations of pension funds and similar institutions for workplace pensions. Some members operate purely individual pension schemes. PensionsEurope Members are large institutional investors representing the **buy-side** on the financial markets.

PensionsEurope has **24 member associations** in EU Member States and other European countries with significant – in size and relevance – workplace pension systems⁷.

PensionsEurope member organisations cover the workplace pensions of about **80 million European citizens**. Through its Member Associations PensionsEurope represents approximately **€ 3.5 trillion of assets** managed for future pension payments.

PensionsEurope has established a **Central & Eastern European Countries Forum (CEEC Forum)** to discuss issues common to pension systems in that region.

PensionsEurope has established a **Multinational Advisory Group (MAG)** which delivers advice on pension issues to PensionsEurope. It provides a collective voice and information sharing for the expertise and opinions of multinationals.

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⁷ EU Member States: Austria, Belgium, Croatia, Finland, France, Germany, Hungary, Ireland, Italy, Luxembourg, Netherlands, Portugal, Romania, Spain, Sweden, UK. Non-EU Member States: Guernsey, Iceland, Norway, Switzerland.