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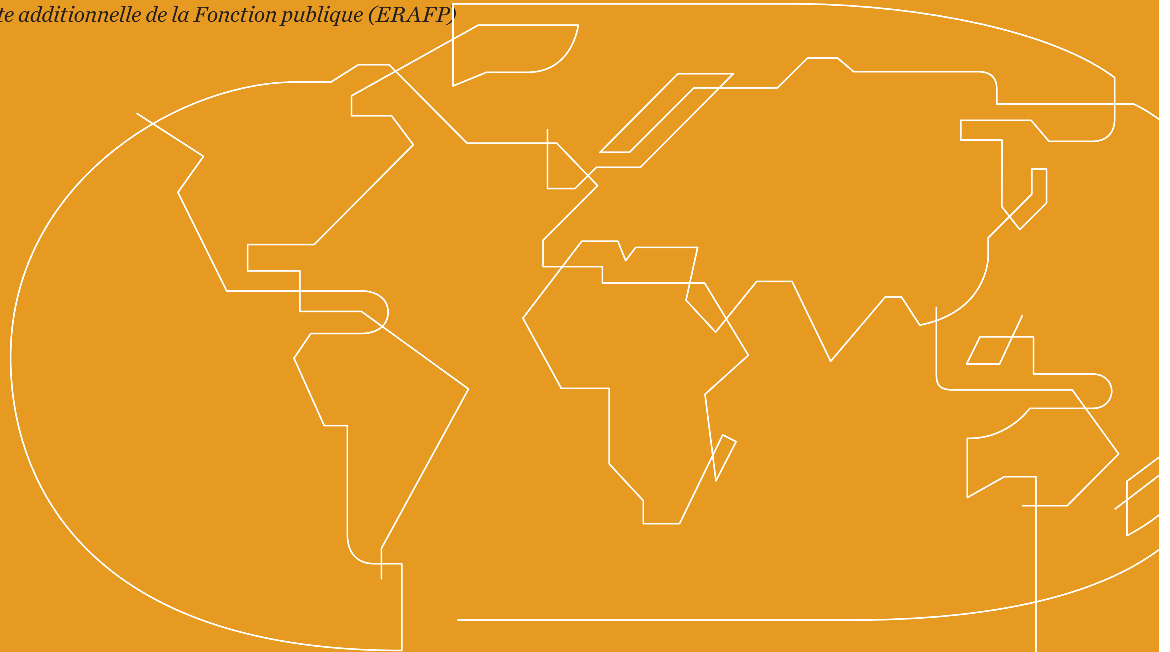

LET THE SAVERS SAVE EUROPE AND THEMSELVES

STATE STREET GLOBAL ADVISORS

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Low interest rates are an existential challenge to Europe's savers, particularly pension funds. At the same time, European economies suffer from a lack of investment, notably in infrastructure, as a result of fiscal limits and weak growth.

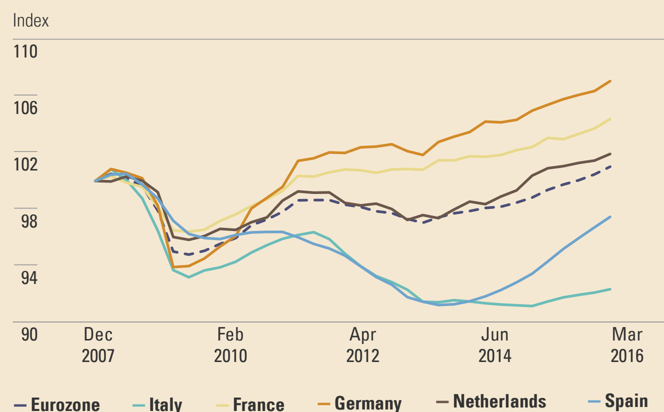
The ideal solution would be to channel larger portion of pension savings into the real economy, providing stimulus through infrastructure investment. If managed prudently, these investments would also yield a greater return than their substitutes in the pension fund portfolios, thus also helping to alleviate financial strains. This paper explores the challenge and offers potential solutions on how to shift pension savings into infrastructure investment within the spirit of funds' prudential guidelines.

I. Europe's Investment Shortfall

Brexit is only the latest of many shocks for the Eurozone. Weak economic performance since 2008 has lowered public opinion of the European Union and increased market scepticism of the currency bloc. Figure 1 shows how the Eurozone economy only recently regained its size held at the beginning of the crisis, about seven years later.

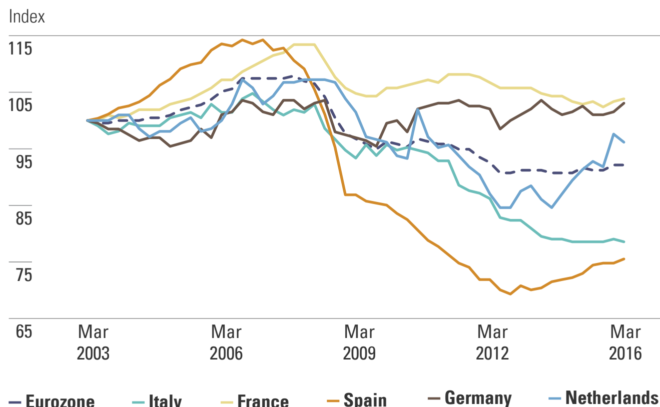
One consequence of the Eurozone crisis has been a decline in investment across the economy. For the Eurozone as a whole, from 2009–2016 investment has averaged 20.3% of GDP, down from 22.3% of GDP in the previous seven-year period.[1] While this is a substantial decline, the experience of individual states has differed with Germany and France sustaining similar levels while Italy and Spain experienced a sharp drop in investment levels equivalent to about 3% and 8% lower share of GDP, respectively, as per Figure 2.

Figure 1: Real GDP 2007–2016 in the Eurozone and Major Economies



Source: Eurostat, index of real GDP rebased with January 2007 as 100.

Figure 2: Investment Share of GDP for Eurozone and Major Economies



Source: Eurostat, index of gross capital formation as share of GDP with March 2003 rebased as 100.

Across the EU, the European Commission cites that overall investment in 2015 was €430 billion lower than 2007, indicating massive investment needs.[2] One reason for the drop has been austerity-induced reduction in public investment spending, particularly on infrastructure. Despite low interest rates, governments have not been able to borrow to promote investment and there has not been a rebound in private sector investment due to problems in Europe's banking sector. These problems have been exacerbated by regulatory changes requiring that banks hold larger capital buffers, thus curtailing their ability to lend. In essence, regulatory and monetary policy have been pursuing opposite aims, which has lowered overall investment, reinforced by the absence of wide scale funding in bond markets. For infrastructure in particular, the problem has been worsened by the dependency of certain investments on large-scale public participation.

II. European Pension Funds in the Era of Ultra-Low Interest Rates

Meanwhile, interest rates and bond yields continue to drop to ultra-low levels with little prospect of an imminent revival (see Figure 4). In this regard, the decline has affected both real and nominal interest rates as well as the risk-adjusted rates of return on risky assets. Once the expected rate of return on assets turns negative — as it has for many fixed income instruments (see Figure 5) — it leads to the discount factor becoming more of a 'compound' factor, thus worsening a pension scheme's balance sheet.[3] In other words, while investment assets accrue a negative yield and thus will have lower value in the future, a pension fund's liabilities continue to grow in value since the discount factor is still positive. The net present value of future balance sheet could thus turn negative. And indeed, the facts tend to bear out that this is already occurring. According to the European Central Bank, in the first quarter of 2016, the euro area pension sector's collective net worth was negative for the first time ever recorded.[4]

Figure 3: Net Worth of Euro Area Pension Funds (EUR bn)

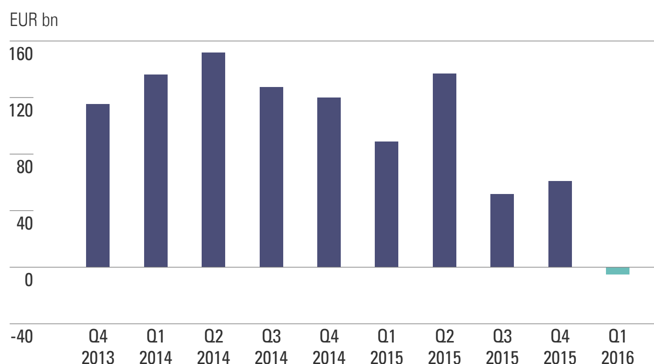
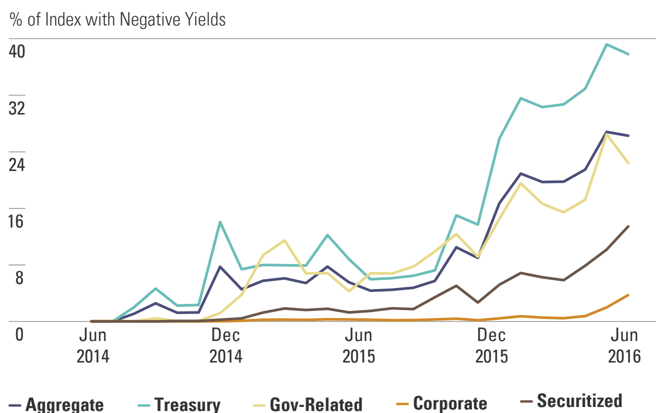


Figure 4: History of ECB Deposit Rate since EMU Inception in 1998

Source: European Central Bank and Bloomberg. E5 is the simple average of 10-year generic government bonds of Germany, France, Spain, Italy and Netherlands.

Past performance is not a guarantee of future results.

Figure 5: Share of Investment Grade Bonds Trading at Negative Returns



Source: Barclays POINT, as of 31 July 2016. Past performance is not a guarantee of future results.

The investors most challenged are therefore Europe's saving vehicles such as defined benefit pension funds who rely on large fixed income positions to provide a significant portion of their long-term return. Moreover, most pension funds are legally required to hold a minimum amount of their portfolio in fixed income, frequently even specified as risk-free government bonds. Many regulations do not adequately consider the differences in liquidity and duration of liabilities. Across financial industries, the 2008 crisis led to regulatory focus on liquidity and higher capital buffers in order to avoid another Lehman or AIG scenario. For example, the Solvency II approach demands insurance companies to hold minimum capital levels at designated risk ratings, with durations allowing for any company to pay all its short-term obligations. Similar concepts

have been applied to pension funds, but they ignore the fact that pension fund liabilities are particularly long-term and most have the capacity to sustain their positions for long durations — as such, from a prudential perspective, they should not need to hold significant portfolios of short — and medium-term bonds and should have more scope for other asset classes.

Moreover, pension fund regulation and governance across European jurisdictions originated in an era of defined benefit plans in a normal interest rate environment. The result is that most funds are required to hold a minimum amount of bonds (frequently with minimum amounts of sovereign or quasi-sovereign paper), thus also requiring them to repeatedly purchase new stock of bonds, regardless of the current yield. This exacerbates the long-term challenge and can no longer be justified on the basis of strategic asset allocation. In the case of ERAFP (Retraite additionelle de la Fonction publique), until 2015, a minimum of 75% needed to be invested in bonds, particularly in sovereign bonds. After several years of pushing for reform, this threshold was lowered so that today, roughly 50% of ERAFP assets remain in sovereign bonds. They will continue to constitute a large share of the portfolio even if new purchases are limited. ERAFP mirrors the largest euro area pension fund market, the Netherlands, where on average, bonds constituted 52% of their 2015 asset allocation.[5]

In other core Eurozone countries, pension funds have sounded the alarm over growing funding deficits. In May 2016, Germany's financial regulator BaFin highlighted the risks for pension schemes (and life insurance companies) whose reliance on fixed income would make them unable to service their commitments based on their own resources.[6] The logical conclusion is either to diversify the portfolio to include higher-risk assets or to raise revenue. For pension schemes, raising revenues would mean raising contribution rates of working members. And this appears to be occurring across Europe. For example, ERAFP has raised contribution rates by 4.5% in each of the past two consecutive years.

Such a development stands juxtaposed to current economic needs, which would be to stimulate both consumption and investment. However, higher savings rates (in the form of higher forced contribution rates) would come at the expense of current consumption. and in light of restrictions on pension schemes, these savings would primarily be channelled into financial assets and thus would not be boosting investment in the real economy. In other words, allowing pension schemes to continue operating under previous assumptions would be doubly harmful: hamper economic growth and allowing the financial health of pension funds to continue to deteriorate.

The irony of this downward trend in bond yields is that these bond portfolios have appreciated tremendously, but remain an unrealised capital gain — held captive by investment rules. Considering that many pension funds continue to enjoy favourable liquidity, in some cases, with considerable positive cash flow, could these resources not be better deployed?

III. Ideas to Transform Savings into Investment

From a macro-perspective, liberated capital needs to enter the real economy — not just balance sheets. In addition, money should go to sectors that lack capital yet hold great multiplier effects for the larger economy. In the Euro area, investments should ideally also support the promotion of more integrated capital markets and the broader European Union. Among asset classes, infrastructure would be the main vehicle to fulfil these conditions.

In this section, we lay out potential ideas on how to channel pension savings into infrastructure investment without sacrificing the prudential guidelines that underpin long-term financial stability in the pension sector. In this regard, we make the following assumptions:

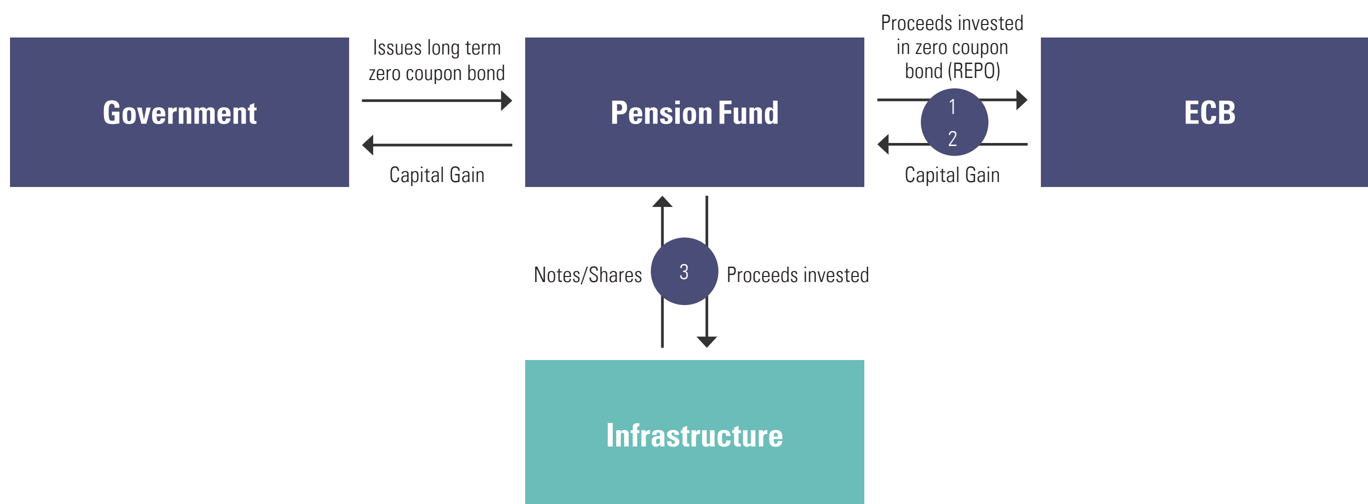
- Any change to pension funds' strategic asset allocation requires a thoughtful consideration as to how the replacing asset fulfils different purposes as the original asset. In simple English, if funds reduce their holdings of risk-free sovereign or quasi-sovereign bonds, then one needs to reflect the features of any replacement asset.
- The risk profile and the systemic approach should not lessen existing protections for pensioners, neither for an individual fund nor for the system.
- Each idea has varying effects on the real economy or on financial risk/return calculation for a pension fund. Some ideas have greater economic impact but carry greater risk for the pension fund, and others the opposite.

Bearing the above in mind, we believe there are three options to help channel savings from low-yielding bonds into higher-yielding infrastructure assets.

At the outset, the **first step is for the Pension fund to sell a portion of its government bond portfolio and generating the related capital gain**, the subsequent steps are as follows:

A) The Repo Model

1. **Proceeds are reinvested in a zero-coupon long term bond** issued by the national Treasury (preferably long-term between 20 and 30 years).[7]
2. **The zero-coupon bond would be immediately sold to the European Central Bank (ECB)** with an obligation on the pension fund to repurchase it just before it matures **(repo transaction)**.
3. **Proceeds from the sale to the ECB would be invested in infrastructure.** It is important that the maturity of the infrastructure projects match the maturity of the repo transaction. In addition, in this case, the pension fund carries the economic risk of the infrastructure on its balance sheet, though it is mitigated by the return threshold being equal to the zero coupon bond yield — a very likely prospect.



PRO

- Investment freedom for final proceeds
- Economic stimulus without government borrowing
- Use ECB balance sheet to transmit monetary policy via real assets, not only financial assets

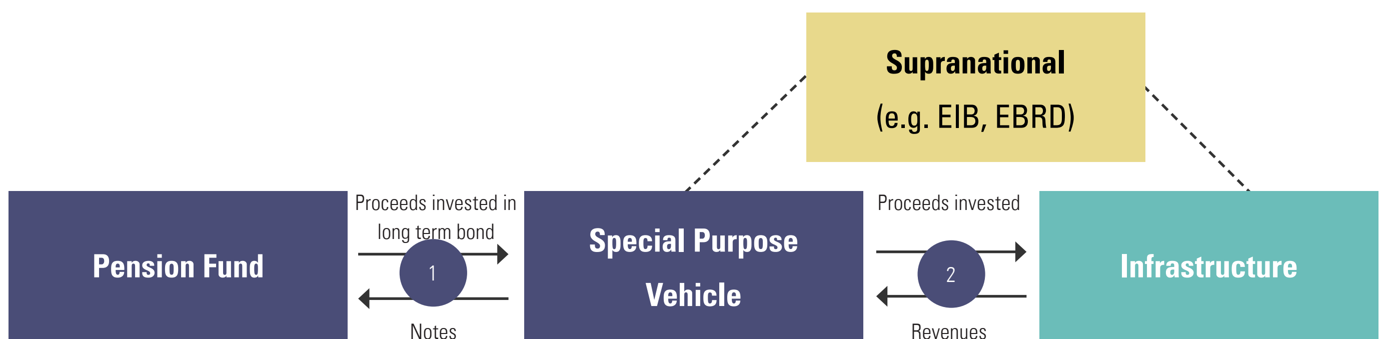
CON

- Requires coordinated policy modifications of several bodies:
- Government debt offices to issue zero coupon bonds;
- ECB to allow repo transactions for pension funds;
- Pension regulators to permit

B) The Securitization Model

Sequence:

1. **Proceeds are reinvested in a long term bond issued by a special purpose vehicle (SVP) linked to a specific revenue-generating infrastructure project.** The project enjoys backing by a high-grade supranational, e.g. the European Investment Bank.
2. **Special purpose vehicle uses bond proceeds to invest in infrastructure project.** In this case, the pension is not directly exposed to the economic risk of the infrastructure project. Instead, it only carries the credit risk of the issuing SPV that will enjoy a form of backing from a supranational. There are numerous different securitization models possible, such as a CDO (collateralized debt obligation) where the supranational provides the call at first loss for X % or that offers different tranches. This could occur in the spirit of the ECB's attempts to promote increased securitization of "simple, transparent and real" asset-backed debt.[8]



PRO

- Option already available — no innovation or changes needed
- Easy to execute for a pension fund (structuring would be done by banks)

CON

- Not scalable (limited supply of projects that meet this criteria)

C) The Guarantee Model

Sequence:

1. **Proceeds are reinvested in a long term infrastructure bond guaranteed by a national development bank or supranational agency.** The guaranteed share of financing used as anchor to attract private sector co-investment.[9] In this regard, this complements the Juncker Plan, by encouraging national guarantees through state agencies or development banks. In the case of full guarantees, the pension fund would benefit from taxpayer guarantee. Alternatively, the guarantee could be partial and not extend to full value, thus allowing greater mobilization of capital.

2. **Funds invested in infrastructure.**

PRO

- Aligned with current EU policy framework (fits in with Juncker Plan)[10]
- National or supranational guarantee also ensures infrastructure meets national priorities

CON

- Eurostat (ESA 2010) methodology counts guarantees as government debt, thus limiting scope

Glossary

Bond A debt investment in which an investor loans money to an entity (typically corporate or governmental) which borrows the funds for a defined period of time at a variable or fixed interest rate.

Bond Yields The amount of return an investor realizes on a bond.

Current Yield Current yield is an investment's annual income (interest or dividends) divided by the current price of the security.

Juncker Plan This is the European Commission's Investment Plan for Europe, an infrastructure investment programme first announced by the European Commission President Jean-Claude Juncker in November 2014, aims at unlocking public and private investments in the "real economy" of at least € 315 billion over a three years fiscal period (Jan. 2015 – Dec. 2017).

Real Interest Rates the "real" rate that the lender or investor receives after inflation is factored in; that is, the interest rate that exceeds the inflation rate.

Nominal Interest Rates the simplest type of interest rate. It is quite simply the stated interest rate of a given bond or loan.

Risk-adjusted Rate of Return Risk-adjusted return refines an investment's return by measuring how much risk is involved in producing that return, which is generally expressed as a number or rating. Risk-adjusted returns are applied to individual securities, investment funds and portfolios.

Multiplier Effect The multiplier effect is the expansion of a country's money supply that results from banks being able to lend. The size of the multiplier effect depends on the percentage of deposits that banks are required to hold as reserves.

Zero Coupon Bond A zero-coupon bond, also known as an "accrual bond," is a debt security that does not pay interest (a coupon) but is traded at a deep discount, rendering profit at maturity when the bond is redeemed for its full face value.

Securitization Securitization is the process through which an issuer creates a financial instrument by combining other financial assets and then marketing different tiers of the repackaged instruments to investors, and this process can encompass any type of financial asset and promotes liquidity in the marketplace.

IV. Conclusion

According to the European Central Bank, pension funds in the Euro area have €2.25 trillion in financial assets, of which roughly one-third is held in low-yielding fixed income.[11] Assuming one-tenth of that portfolio could be channelled into infrastructure in a short time, this could free up about €75–80 billion of capital investment. More importantly, it could:

- Ease the pressure on pension funds like the ERAFP and allow them to utilize their characteristics of long-term investors.
- Reassure the prudential authorities since matching would be maintained, except in the first scenario where over the duration of the zero-coupon bond the return on the infrastructure portfolio would be lower than the interest rate on the zero-coupon, which for the maturities envisaged is unlikely.
- Governments and the ECB would thus be indirectly facilitating the financing of infrastructure through long-term investors capable of carrying them long term on their balance sheet.

The proposal above is a conservative approach in an asset class that tends toward long-term stability. If this were implemented and seen to be prudential as well as effective, similar ideas could be applied to expand investments into other asset classes that would help pension funds' returns and deliver positive macroeconomic impulses. It is a first step, but should not be the last.

[1] Source: Eurostat.

[2] European Commission, 30 March 2015, "Why are investment levels so weak?", found at http://ec.europa.eu/economy_finance/graphs/2015-03-30_why_investment_low_eu_en.htm

[3] Buiter, Willem & Rahbari, Ebrahim. « How Many Financial Sector Business Models Are Damaged By Low and Negative Rates?", Citibank Global Economics Research, 20 June 2016, p.8.

[4] European Central Bank; Publications: Reports: Insurance corporations and pension funds: Euro Area: breakdown by sub-sector, Table 2.2.1 Aggregated balance sheet of euro area pension funds, table 2, found at http://sdw.ecb.europa.eu/reports.do?node=1000003541.

[5] Global Pension Assets Study 2016, Willis Tower Watson, p.7

[6] BaFin Präsident: "Niedrige Zinsen belasten Finanzsektor", 10 May 2016, found at http://bafin.de/SharedDocs/Veroeffentlichungen/DE/Pressemitteilung/2016/pm_160510_jahrespressekonferenz.html?nn=7954124

[7] In the past, European governments were very reluctant to issue zero-coupon bonds, given the difficulty of accounting for it in national budgets and contending with the high volatility of mark-to-market effects. This is slowly changing, but Eurozone states are incrementally moving toward that direction. For example, Germany issued 10-year zero coupon bonds for this first time in July 2016, suggesting that France, Netherlands and other core Eurozone countries should be able to follow suit. See "Germany claims Eurozone first with negative yield sale", Financial Times, 13 July 2016 http://ft.com/cms/s/0/25ae95da-48db-11e6-8d68-72e9211e86ab.html#axzz4E67jddW0.

[8] Draghi, Mario. ECB Press Conference, 7 August 2014, found at ecb.europa.eu/press/pressconf/2014/html/is140807.en.html.

[9] This co-investing could have a myriad of different structures. The important element is that the pension fund investment would benefit disproportionately from the sovereign guarantee and thus could consider it close to risk-free.

[10] For more information on the Juncker Plan, see Bergamaschi, Luca; Gaventa, Jonathan and Holmes, Ingrid, "Making the investment plan work for Europe", E3G Briefing Paper, April 2015, found at https://e3g.org/docs/E3G_Juncker_Investment_selection_criteria.pdf.

[11] European Central Bank; Publications: Reports: Insurance corporations and pension funds: Euro Area: breakdown by sub-sector, Table 2.2.1 Aggregated balance sheet of euro area pension funds, table 2, found at http://sdw.ecb.europa.eu/reports.do?node=1000003541.

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