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**The corporate sector purchase programme (CSPP): Effectiveness and challenges ahead**  
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In-depth analysis for the ECON Committee





DIRECTORATE GENERAL FOR INTERNAL POLICIES  
POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

# The corporate sector purchase programme (CSPP): Effectiveness and challenges ahead

IN-DEPTH ANALYSIS

## Abstract

In March 2016 the ECB announced the launching of the Corporate Sector Purchase Programme (CSPP), enabling the direct purchase by the ECB of investment grade euro-denominated bonds issued by non-bank corporations based in the Euro area in the primary and secondary markets. Although a new monetary policy instrument in the Eurosystem, the CSPP is not a global innovation, since other central banks have resorted to similar initiatives since the onset of the Great Recession in 2008. While undoubtedly contributing to the smooth functioning of the transmission mechanism for monetary policy, CSPP also present challenges, like other aspects of the ECB's Asset Purchase Programme. This note discusses the effectiveness of the programme and some options available to the ECB.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

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## EXECUTIVE SUMMARY

The ECB announced last year the launching of the Corporate Sector Purchase Programme (CSPP), enabling the direct purchase by the ECB of Investment Grade euro-denominated bonds issued by non-bank corporations based in the Euro area in the primary and secondary markets.

CSPP holdings so far tended to be skewed towards bonds issued more recently but with lower quality. The ECB now holds 229 bonds out of a total 952 (whose total notional outstanding is EUR 664 billion), of 24%, which are rated BB+ or non-rated (NR).

Recent developments in the bond market, while attributable to the technical support provided by the CSPP, reflect also an improvement in market sentiment driven by reduced fears about Brexit and the European elections, together with a rise in flows into bond funds, which have helped to increase demand at a time when there is scarcity of European Investment Grade supply.

The "supply response" from eligible issuers has increased at the same time. Since the inception of the CSPP, new issuances of corporate bond have picked up especially for firms below or close to the eligibility frontier. Although most evidence is anecdotal (and it is too early to conclude that the increase in issuance volume was merely driven by the CSPP), several large companies have taken advantage of exceptionally good market conditions to access the debt market since March 2016.

The improvement of financing conditions following the CSPP helped (mainly large) firms to finance themselves through capital markets, bypassing the banking system. The program had limited effects so far for the universe of SMEs. As small-and-medium enterprises only account for a very small fraction of euro-area bond markets, the scope to buy SMEs' debt directly is limited.

The programme has nevertheless spawned some favourable bond market conditions which have indirectly facilitated loans to the SMEs, as large corporations increasingly financed themselves through issuing bond (rather than bank loans) thus releasing capacity in the balance sheets of banks for potential SMEs lending.

It may be advantageous to bypass banks, but it certainly will not be enough going forward. For the programme to be successful, the corporate sector will need to keep channelling the money borrowed to the real economy. This will be particularly true as long as the restructuring and deleveraging of the banking sector will go on.

European banks' credit profiles have stabilised in recent years thanks to tighter regulation, stronger capitalisation, and a modest pick-up in private sector credit demand. Nevertheless, the de-leveraging in the banking system is not over yet and this will keep having an effect on the credit supply. In fact, since the global financial crisis in 2008, the stocks of non-performing loans (NPLs) on the balance sheets of European banks have risen substantially. One of the main channels through which high NPLs can have a feedback effect on the macroeconomic environment - potentially counteracting the ECB's technical support through the CSPP - is indeed through their impact on the bank lending capacity to the economy.

NPLs risk weighs on the supply of credit by locking in bank capital and funding in the financing of non-productive assets. This may lead to less balance sheet space available for new lending. Furthermore, NPLs can reduce the profitability of banks, which over time tends to additionally weigh on loan supply (through higher funding costs and increased credit constraints), all other things being equal.

While the loan to the retail funding ratio has strengthened since 2011, corporates in countries like Italy and Spain, where the banking system is more under pressure, might benefit less from the CSPP.

Loan provision by banks constitutes the overwhelming share of non-equity funding for euro area non-financial corporates, and, here, the impact of CSPP on bank lending rates has been indirect and limited. While it is possible that some corporates were successful in negotiating lower interest on their loans, with banks willing to compromise to avoid losing business, this does not appear to have happened on a sufficiently large scale to materially reduce average lending rates.

In the light of a weak (for now) link between better financial conditions and higher business investment, lending to non-banks should continue with a focus on SMEs lending - this is particularly needed in countries having a frailer banking sector - in order to warrant a continuation of the process of financial integration across the Eurozone. An example could be Bank of England's 'Funding for Lending' (FLS) program.

Since the Bank of England's Corporate Bond Purchase Scheme (CBPS) program was announced after the ECB, it would be hard to draw any stronger conclusions from the BoE experience. The Eurozone experience is consistent with the BoE available evidence: significant drops in the corporate bond spreads for investment grade and for high yield corporate bonds. As for the development of the common currency, the ECB is taking stock of the strong euro, indicating that "[t]he recent volatility in exchange rates requires monitoring for its implications for monetary policy". This might signal the possibility of future foreign exchange interventions (the latter being anyway beyond the scope of the CSPP).

The CSPP should nevertheless not substitute the ECB's effort in boosting central bank lending to banks (the latter along the lines of the already implemented Targeted Long Term Refinancing Operations – TLTROs, for instance). Central bank loans should be done in conjunction with the CSPP, and the APP more broadly, in respect of the separation principle between monetary policy and liquidity management of the ECB.

While it is too early to talk about a concrete withdrawal of the CSPP, volatility might increase in light of the phasing out phase, as valuations would become less attractive as the programme will come to an end. It is nevertheless plausible to assume such an increased volatility would anyway be capped by the ECB's CSPP program itself. Given the possible spill-over between the ECB's public and private sector purchases, measures such as forward guidance and signalling that the ECB will stand ready to back-up the tapering by means of a permanent support facility such as the OMTs may indeed provide further confidence to markets, limiting corporate bond yields volatility further.

## 1. INTRODUCTION

In March 2016 the ECB announced the launch of the Corporate Sector Purchase Programme (CSPP) which enables the ECB's direct purchase of investment grade euro-denominated bonds issued by non-bank corporations based in the Euro area in the primary and secondary markets (except in the case of public undertakings). Since then, the ECB has accumulated approximately EUR 100 billion in CSPP holdings. CSPP purchases are conducted by six national central banks, which follow operating guidelines, always subject to the final supervision of the ECB.

The ECB opted for direct corporate bond purchases in order to "strengthen the pass-through of [its] asset purchases to the financing conditions of the real economy." CSPP has managed to lower yields on corporate bonds and increase the issuance volume, in a context in which the banking system has frequently been unable to adequately provide credit to the real economy - despite the low interest environment - due to, inter alia, the non-performing loan (NPL) burden, higher capital requirements and ongoing restructuring. The impact of CSPP on capital formation and job creation will depend on how corporates will make use of the borrowed funds, since no conditionality is attached to the purchases of corporate bonds on the part of the ECB.

CSPP, although a new monetary policy instrument in the Eurosystem, is not new, since other central banks have resorted to similar initiatives since the onset of the Great Recession in 2008. While undoubtedly contributing to the smooth functioning of the transmission mechanism for monetary policy, CSPP also present challenges, like other aspects of the ECB's Asset Purchase Programme. For instance, national central banks are frequently criticised for not being sufficiently transparent in their CSPP operations and for favouring some issuers against others. Furthermore, the continuation for an extended period of the CSPP may increase the risks of bubbles in the corporate bond market while other companies (SMEs in particular) cannot directly benefit from such a monetary policy tool. Amid market optimism, during the last Governing Council, September 7, 2017, the ECB announced the next steps for the QE that will be introduced before the end of the year. The outlook is a reduction of the purchase programme starting from the next year for 40 billion euro the first tranche and 20 billion during the next one.

Against this background, this note briefly discusses the possible outlook for the ECB's corporate sector purchase programme (CSPP) and takes into account possible options to make the CSPP more effective, also in the light of comparable practices by other central banks.



## 2. THE CORPORATE SECTOR PURCHASE PROGRAMME

### 2.1. Aim and objective of the programme

The ECB announced last year the launching of the Corporate Sector Purchase Programme (CSPP), enabling the direct purchase by the ECB of Investment Grade euro-denominated bonds issued by non-bank corporations based in the Euro area in the primary and secondary markets. Although a fresh monetary policy instrument in the Eurosystem, the CSPP is not new as an unconventional monetary policy tool.

The Bank of England first initiated an asset purchase programme of £50 billion targeting corporate bonds in 2009, which was largely phased out in 2010 (Bank of England, 2017). In September 2016 after the referendum about Brexit, the Bank launched its Corporate Bond Purchase Scheme (CBPS), with the ultimate goal of purchasing 'a portfolio of up to £10bn of sterling bonds representative of issuance by firms making a material contribution to the UK economy, in order to impart broad economic stimulus'.

The ECB has recently expanded its QE programmes to include corporate bonds as well, with a first formal announcement in March 2016. The ECB started the Corporate Sector Purchase Programme (CSPP) on June 8, 2016 to 'provide further monetary policy accommodation and contribute to a return of inflation rates to levels below, but close to, 2%' (ECB, 2017a).

To qualify for purchase under the CSPP, the ECB established seven conditions which any given debt instrument should meet in order to be notionally eligible under the CSPP. These requirements are defined in the Guideline on the implementation of the Eurosystem monetary policy framework (ECB/2014/60).<sup>1</sup> The debt instruments involved need to be:

- a) Euro-denominated;
- b) Considered as 'investment-grade' by at least one major rating agency (Standard & Poor's or Moody's, FitchRatings, DBRS), rated a minimum first-best credit assessment of at least credit quality step 3. This means split-rated (BBB-/BB+) bonds are eligible, if there is one investment grade rating;
- c) A minimum remaining maturity of 6 months up to a maximum of 31 years (i.e. purchases of securities with a residual maturity of 30 years and 364 days are admitted) at the time of the purchase. The maximum residual maturity limit is in line with that applied for the public-sector purchase programme (PSPP). The minimum residual maturity limit ensures that bonds issued by small and medium-sized corporations are in principle part of the universe of eligible bonds, allowing – at the same time - to curb the magnitude of redemptions during the duration of the CSPP.
- d) Issued by a corporation established in the euro area. Bonds issued by corporations based in the euro area whose parent is not based in the euro area are also eligible for purchase under the CSPP, provided that all the other eligibility criteria are fulfilled;<sup>2</sup>
- e) Issued by a corporation which is not a credit institution or it does not have any parent undertaking;

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<sup>1</sup> Besides these criteria, the ECB maintains a list of all eligible assets that are allowed to be bought in the APP.

<sup>2</sup> This also implies that market capitalisation provides a weighting for each of the different jurisdictions of issuance within the benchmark.

- f) Issued by a corporation that is not an asset management vehicle, an investment firm, or a fund established to support financial sector restructuring and/or resolution. In other words, the issuer must be a non-financial corporation.<sup>3</sup>

In addition, bonds issued by an entity which is under the supervision of the Single Supervisory Mechanism, as well as its subsidiaries, are not eligible for purchase under the CSPP. Issuers with a parent company that is subject to banking supervision outside the euro area are equally excluded (ECB/2014/70).

Each of these criteria narrows the range of eligible bonds, from a universe of about 80,000 euro-denominated corporate bonds to 1,156.

The programme is being carried out by the ECB in coordination with six national central banks (Banco de España, Banca d'Italia, Banque de France, Deutsche Bundesbank, Nationale Bank van België/Banque Nationale de Belgique, and Suomen Pankki/Finlands Bank). Each national central bank is responsible to buy corporate sector bonds in the secondary market, as well as debt instruments of non-public corporations directly at issuance. For bonds issued by corporations under public undertakings, no primary market purchases can take place in line with the "no-monetary financing" rule laid down in Article 123 of the TFEU.<sup>4</sup> The jurisdictions of the purchase are detailed in Table 1.

**Table 1: Bond purchases under the CSPP according to the geographical location of the issuer**

NCB	Market segment
Nationale Bank van België/Banque Nationale de Belgique	Belgium, Cyprus, Greece, Luxemburg, Malta, Portugal, the Netherlands <sup>4</sup> , Slovenia and Slovakia
Deutsche Bundesbank	Germany and the Netherlands <sup>1</sup>
Banco de España	Spain and the Netherlands <sup>2</sup>
Suomen Pankki/Finlands Bank	Austria, Estonia, Finland, Ireland, Lithuania, Latvia
Banque de France	France
Banca d'Italia	Italy and the Netherlands <sup>3</sup>

**Note:**

<sup>1</sup> Includes bonds of issuers with the Netherlands as residence country and Germany as country of risk

<sup>2</sup> Includes bonds of issuers with the Netherlands as residence country and Spain as country of risk

<sup>3</sup> Includes bonds of issuers with the Netherlands as residence country and Italy as country of risk

<sup>4</sup> Includes bonds of issuers with the Netherlands as residence country and a country of risk other than Germany, Spain and Italy

**Source:** ECB (2017b)

Like other asset purchase programmes (PSPP, CBPP3 and ABSPP), the six NCBs publish *ex post* the debt instruments' holdings under the CSPP, but not the amounts purchased by issuer/individual securities. The fact that the purchase targets are not published *ex ante* allows the monthly purchase volumes to remain flexible to adjust to prevailing market liquidity conditions.

**Given limits in terms of assets apply to the maximum amount of purchases.**

Particularly, the Eurosystem applies an issue share limit of 70% per any given single type of security based on the outstanding balance. This percentage is lower for specific cases

<sup>3</sup> This means that entities that are comparable to banks in terms of their activities, e.g. the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis according to the Markets in Financial Instruments Directive (MiFID II), but which are classified as MiFID investment firms from a legal perspective, are not eligible.

<sup>4</sup> CSPP holdings are also available for securities lending by the NCBs involved.

such as securities issued by public undertakings, to level up CSPP purchases to those made under the PSPP. Also, limits are placed at issuer group level to ensure a certain degree of diversification and neutrality in the allocation of purchases across corporations.<sup>5</sup> These limits are determined on the basis of the market capitalisation of the eligible bonds of a given group as a proportion of the total eligible assets of the programme.

As for the APP, the eligible instruments must be bought above the deposit facility rate (at the moment of writing, -0.4%).

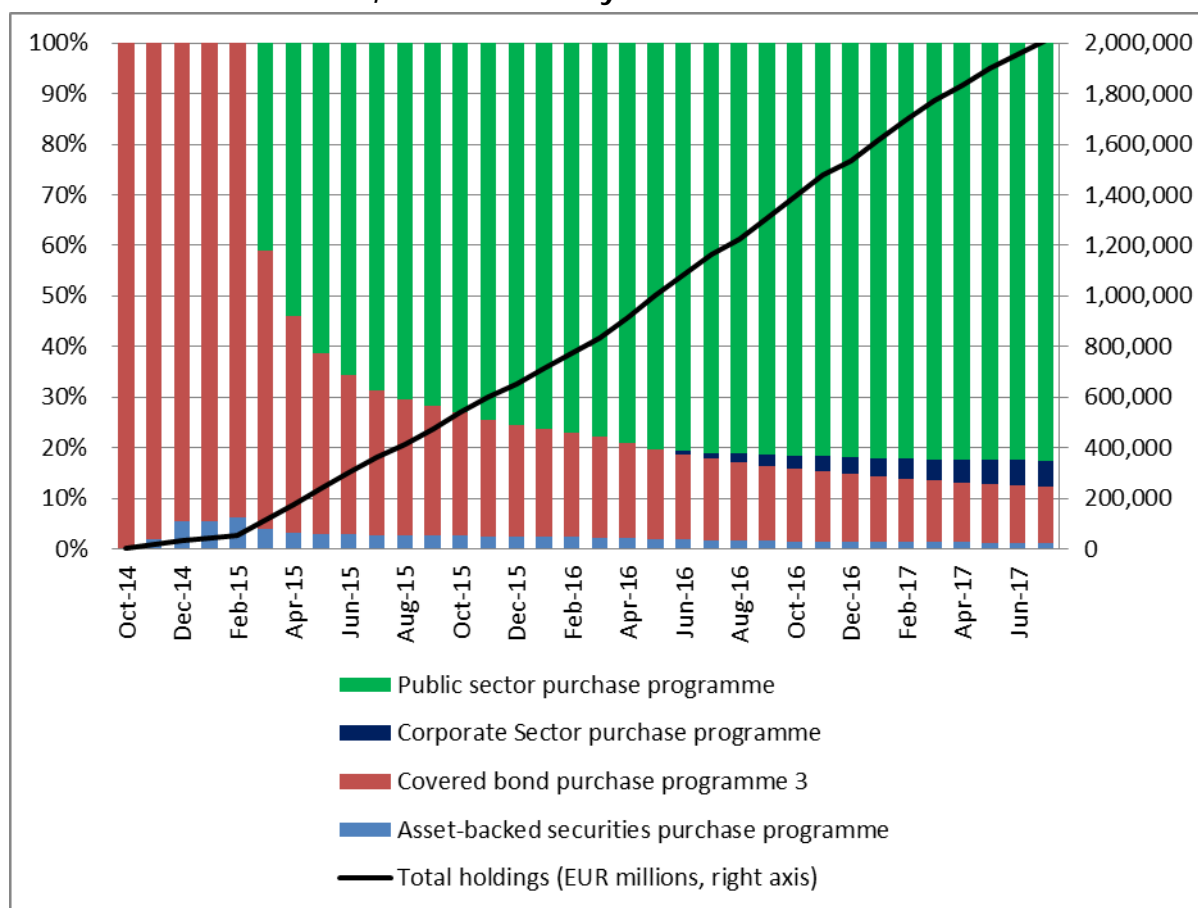
The purpose of these limits is to ensure that the securities portfolio purchased under the CSPP is heterogeneous in terms of risk, credit quality, sector, jurisdictions, and issuers.

**Table 2: Asset purchase programme holdings of the European Central Bank, June 2016 to July 2017 (EUR millions)** (End of month, book value at amortised cost)

	<b>Asset Backed Securities Purchase Programme (ABSPP)</b>	<b>Covered Bond Purchase Programme 3 (CBPP3)</b>	<b>Corporate Sector Purchase Programme (CSPP)</b>	<b>Public Sector Purchase Programme (PSPP)</b>	<b>Total Asset Purchase Programme (APP)</b>
Holdings June 2016	19,585	183,377	6,398	875,201	1,084,561
Holdings July 2017	24,616	225,103	102,226	1,661,202	2,013,147
Net purchase	5,031	41,726	95,828	786,001	928,586
Share of Total APP (2017)	1.2%	11.2%	5.1%	82.5%	100.0%

**Source:** ECB Statistical Warehouse data. Authors' computations.

<sup>5</sup> These limits are neutral in the sense that they are meant to reflect proportionally all outstanding issuances which qualify for the programme.

**Figure 1: Share of the asset purchase programme holdings of the European Central Bank, Oct 2014 - July 2017**

**Note:** Total holdings are end of month, book value at amortised cost - right scale.

**Source:** ECB Statistical Data Warehouse. Authors' computations

From its launch, up until the end of July 2017, the Eurosystem has purchased around EUR 100 billion euro in corporate bonds, at list 8 billion a months, corresponding to around 11% of the CSPP-eligible bond universe (ECB, 2017). As illustrated in Table 2, while the CSPP has exceeded the asset-backed securities purchase programme (ABSPP), its volumes are still small compared to the third covered bond purchase programme (CBPP3) and the public-sector purchase programme (PSPP). The EUR 1.6 trillion of PSPP holdings alone account for more than 80% of the total asset purchase programme (APP) holdings, where the CSPP accounts for nearly 5%.

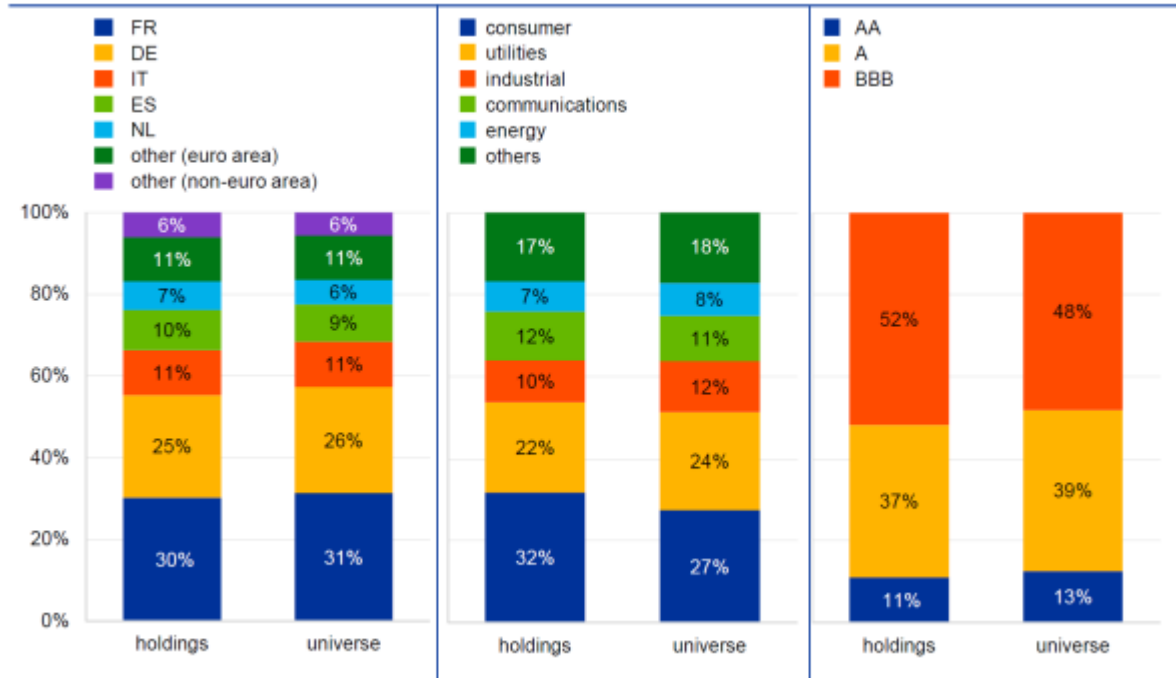
In June, the breakdown of CSPP holdings by country of risk followed that of the CSPP-eligible bond universe very closely (see Figure 2). 12% of CSPP holdings were purchased at negative yields (but still above the -0.4 level of the deposit facility rate).

## 2.2. Distribution

Market segments for bond purchases under the CSPP are allocated to the purchasing NCBs according to the geographical location of the issuer (Table 1). Although the ECB does not disclose the exact amount purchased for each bond, purchases so far under the CSPP have included large Investment-Grade companies rated low single-A/high-Baa in the utility, automotive and telecom sectors which have attracted most CSPP demand. The European Investment-Grade corporate debt market is mainly represented by issuers in Germany and France in the utilities, telecoms, and auto manufacturing sectors.

**CSPP holdings so far tended to be skewed towards bonds issued more recently but with lower quality.** Since its inception, 15% of CSPP holdings have been purchased in the primary market – the latter have been increasing during the summer from July (where primary market purchases represented 12.4%) and June (6%). Owing to purchases at first issuance and better liquidity conditions in newly issued bonds CSPP holdings so far tended to be skewed towards more recently issued bonds.

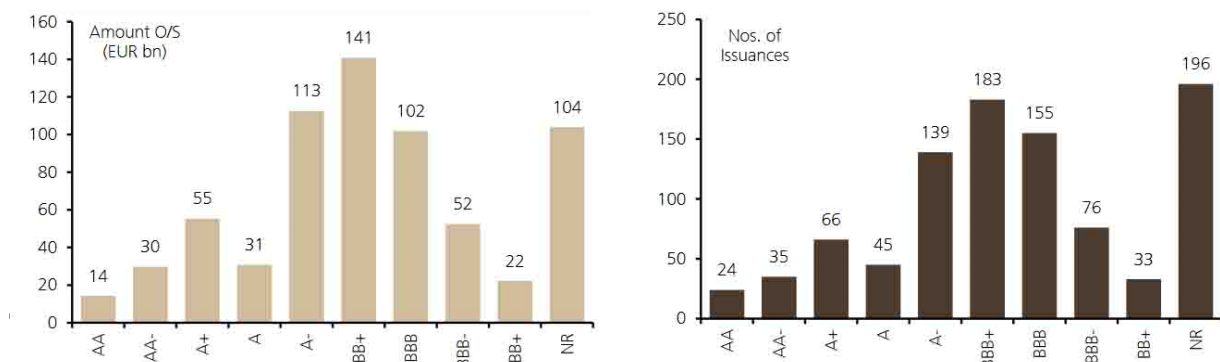
**Figure 2: Country, sector, and rating classification of CSPP holdings and CSPP-eligible bond universe**



Source: ECB (2017b)

However, the ECB now holds 229 bonds out of a total 952 (whose total notional outstanding is EUR 664 billion), of 24%, which are rated BB+ or non-rated (NR), suggesting there may be a drift toward lower quality holdings (Figure 3).

**Figure 3: Breakdown by ratings**



Source: UBS research.

### 2.3. Channels of Transmission of the CSPP

In the following, we discuss different transmission channels of how asset purchases can affect asset prices and whether we can expect any spillover effects from one asset class (corporate bonds) to another.

The standard view in macroeconomics is that asset purchases in general should not have an effect on the macroeconomy (see, e.g., Woodford, 2012). The intuition is that the monetary policy stance can be fully described by the current and expected future level of the nominal short-term interest rate. Once these are known to market participants, bond prices, as well as other asset and real prices will adjust instantaneously. Quantitative easing presents a mere reallocation of these assets from the balance sheet of private investors to the central bank. The reallocation on its own is not changing the price of the assets. Central bank purchases, therefore, should be irrelevant.

Recent empirical and theoretical research, however, emphasizes two main channels through which quantitative easing can affect asset prices. The most prominent one is the so-called *portfolio-balance* channel, whereby the amount of bonds outstanding matters for risk premia, and security prices adjust with the supply of bonds. Standard asset pricing models predict that the amount of bonds should not matter for its prices as these are determined by the bonds' characteristics and the investors' risk aversion; both of which are unaffected by the total amount available to investors. The intuition of the portfolio balance channel is as follows: when the central bank purchases certain assets and thereby reduces the amount of the securities that the private sector holds, private investors will substitute with other assets and thereby affect risk premia. In the context of the ECB's bond purchases, this amounts to a reduction in duration (interest rate) risk and therefore a compression of term premia.

The second channel is the so called *signalling* channel which is akin to forward guidance. Announcements of ECB purchases may be taken as a signal of a more accommodative stance of the ECB. Thus, these announcements may be seen as a signal to keep bond yields of corporate bonds low in the future. This effect has been shown to be important for the US quantitative easing programs, see for e.g., Krishnamurthy and Vissing-Jorgensen (2011).

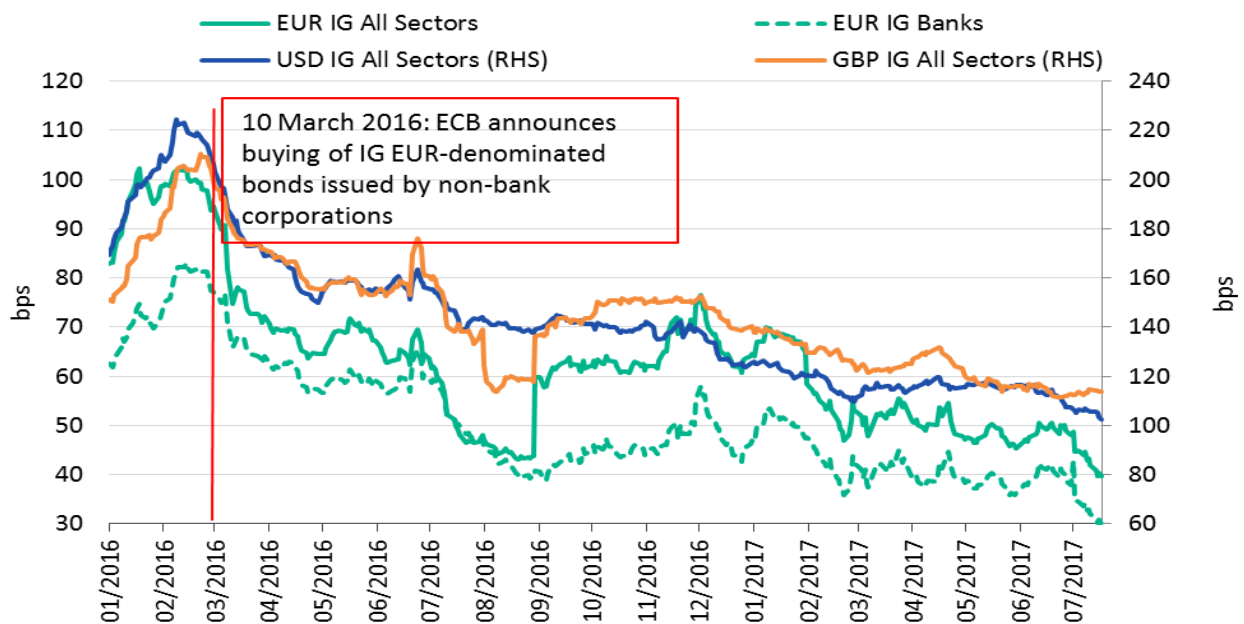
Preliminary evidence in Andrade *et al.* (2016) suggests that in the case of the ECB's asset purchase programs (excluding the CSPP), macroeconomic quantities and asset prices have been significantly affected through these two channels. First, the duration channel discussed above led to an increase in the price of sovereign bonds and thereby to a higher valuation of the assets on banks' balance sheets. This provided banks with a form of capital relief which counteracted some of the negative effects on banks' margins through a flattening of the yield curve. The subsequent reduction in bank leverage led to an expansion in lending to other institutions. The signalling channel adjusted downwards market participants' expectations of future short-term interest rates while inflation expectations increased. **The overall lesson from this experience is that longer maturity (higher duration risk) and riskier assets seem to profit more from the ECB's asset purchases.**

### 3. SHORT TERM

#### 3.1. Markets' reaction/scarcity

After 10 March 2016, when the ECB announced the purchases of Investment-Grade (IG) Euro issued by non-bank corporations, credit spreads of euro-denominated IG bonds for all sectors continued to decline in the period following the announcement and the introduction of the programme. Market volatility increased in June last year, because of the UK vote to leave the EU and this year because of the French election. Euro area corporate bond yields increased again amid an expansion in the supply of new bonds and a rise in risk premia globally and this temporarily overpowered the positive technical effect from CSPP. Since the beginning of 2017, euro area corporate bond yields have, however, mostly declined. Overall, IG Euro corporate bond all sector index spread (measured against German Bund) narrowed by 75,2 basis points on 10 March 2016 to a minimum of 40,5 basis points on July 20, 2017.

**Figure 4: Spreads of Investment-Grade (IG) bonds**



**Source:** Bloomberg data. Authors' computations

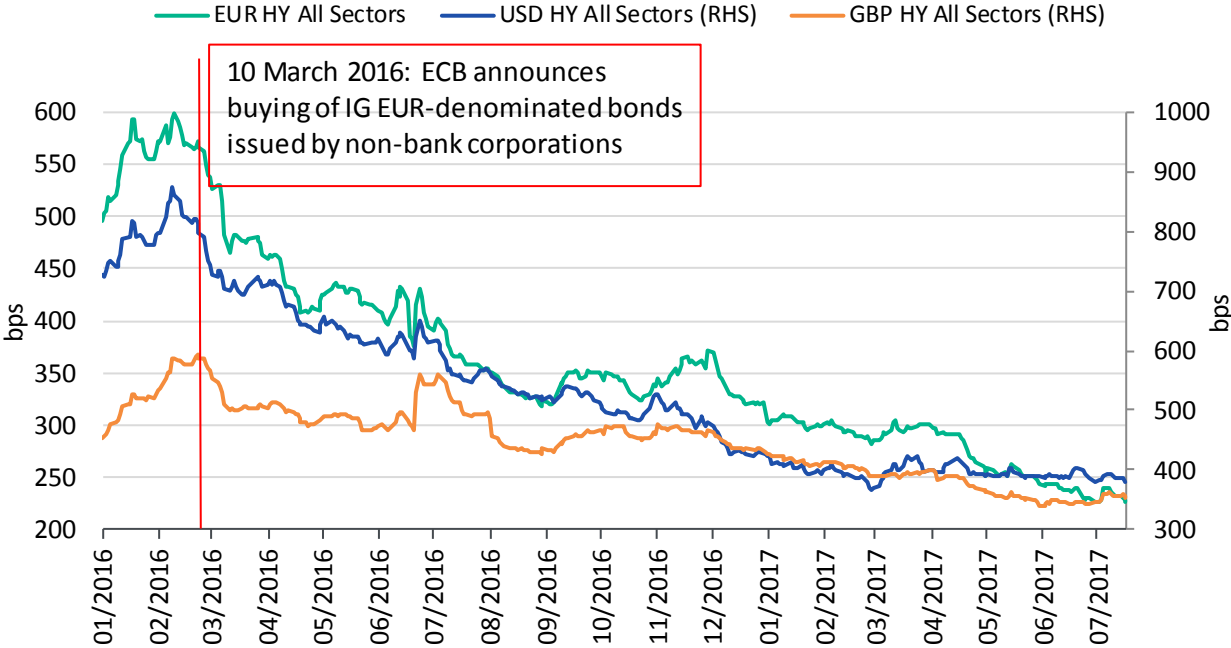
The reduction has been spread among other denominated currencies as GBP IG bonds narrowed to 114,2 basis points from the initial 180 basis points. Equally, US dollar IG bonds narrowed down to 102,5 from 184,5 basis points (Figure 4). The discontinuity in spreads observed before and after the announcement on March 10, 2016 suggests that the main reason of the yield drop for eligible and non-eligible bonds was the announcement of CSPP. In addition, the observed decrease in yields took place against the backdrop of interest rates on other long-term debt securities, such as the Overnight Index Swaps (OIS) or long-term public debt, barely changing, suggesting that the fall can be generally explained by the programme.

That said, however, **recent developments, while attributable to the technical support provided by the CSPP, reflect also an improvement in market sentiment driven by reduced fears about Brexit and the European elections, together with a rise in flows into bond funds, which have helped to increase demand for this asset class at a time when there is scarcity of European IG supply.**



This market reaction was consistent with the program’s objective to lower yields at which corporates can issue market debt. The effects also spread more widely to other corporate bond market segments which do not qualify for purchases under the CSPP, including not only high-yield, USD and GBP denominated debt, but also issues of banks, thereby broadening the program’s impact (Figure 5).

**Figure 5: Spreads of High Yield (HY) corporate bonds**



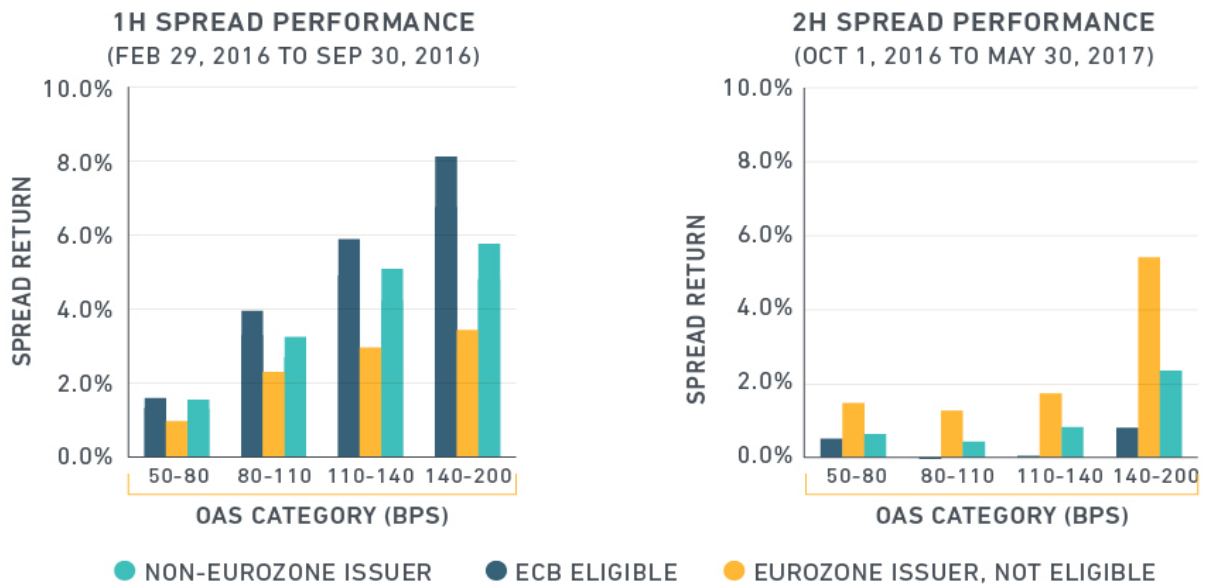
Source: Bloomberg data. Authors’ computations.

The credit premium has been in almost continuous decline since the CSPP announcement, reflecting investors’ appetite for bonds issued by lower-rated companies. The impact on High Yield Euro-corporate bond all sector index spread has been more evident, as it dropped down to 260 basis points from 550 basis points over the same period (Figure 5).

Equally, companies issuing non-eligible bonds experienced a large drop in their yields as a consequence of the programme (Adibi *et al.* 2017). That was possible because investors in anticipation of lower yields have been rebalancing their portfolios to favour riskier non-eligible assets pushing the yields of these assets even lower. This was the case of the Eurozone in the context of a low interest rates environment, a flatter yield curve, and tight spread between investment grade and high yield bonds. Market participants also note that, because of the CSPP, investors are also rebalancing their portfolios to adjust the geographical distribution to holdings, with possible spill-over effects also for non-eligible assets outside the euro area.



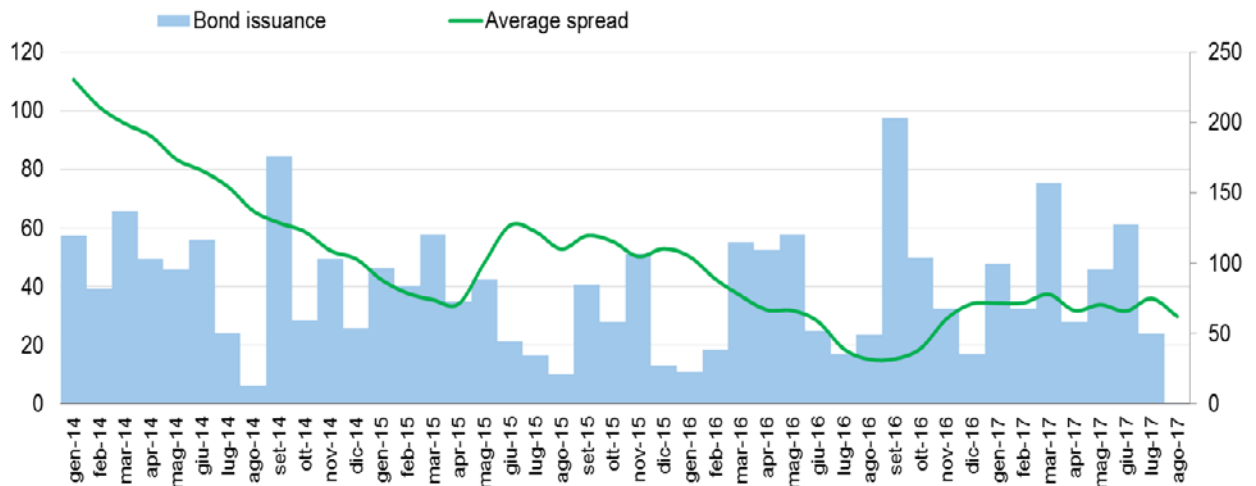
**Figure 6: Spread returns and spill-over effect of the CSPP**



Source: Sparks (2017).

**The "supply response" from eligible issuers has increased.** Since the inception of the CSPP, new issuances of corporate bonds have picked up especially for firms below or close to the eligibility frontier. Although most evidence is anecdotal (and it is too early to conclude that the increase in issuance volume was merely driven by the CSPP), several large companies have taken advantage of exceptionally good market conditions to access the debt market since March 2016 (see for instance Demertzis, 2016).

**Figure 7: Non-financial corporate bond issuances in euro (Spread measured against German govt bonds)**



Note: Total bond issuance end of months – left scale; average spread - right scale.

Source: Thomson Reuters data.

The progressive decrease in debt instrument yields has also led to an increase in primary market activity and to the appearance of new non-financial issuer corporations, generally smaller than those already present in the market segments, with an overall record level of corporate debt issuance since the CSPP (Yap, 2016).

**Liquidity conditions remain favourable and finance for corporations have improved.** The CSPP has been a factor that has supported the ability of companies to issue bonds and deepened the corporate bond market. However, the CSPP does not appear to have directly triggered an increase in issuance by new or infrequent euro area issuers. Keohane (2016) suggests that these benefits, where present, have accrued selectively, with the issuers of CSPP-eligible bonds benefiting from lower yields relative to unpurchased or ineligible bonds, as indeed the literature on differential effects for different asset purchases would suggest.

**The improvement of financing conditions following the CSPP helped (mainly large) firms to finance themselves through capital markets, bypassing the banking system.** Intervention to sustain the bond market also reduced European corporates' reliance on the banking system which, at least in certain European countries, remains structurally vulnerable. That is the first positive impact of the ECB's corporate security purchase programme stemming from a reduction in corporate lending costs and increased availability of funding. This effect is apparent not only for bonds eligible under the programme, but also extends to other assets, such as the fixed-income securities issued by non-financial corporations with credit ratings below investment grade and, to a lesser extent, to those issued by financial institutions. Non-eligible high-yield issuers benefited from a reduction in investment-grade spreads as well. This is sustaining corporate access to the capital market by reducing the cost of debt and *indirectly* helping SMEs to access the market. Some comments are warranted in the next section.

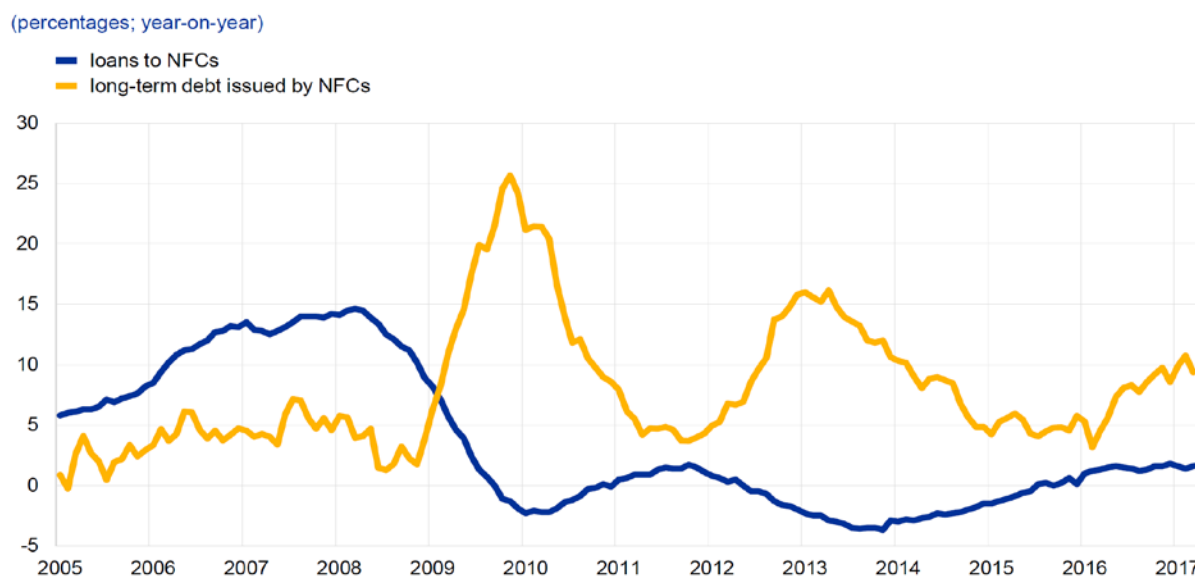
## 4. MEDIUM TERM

### 4.1. Credit to the real economy and SMEs

**The aim of corporate bond purchases was to strengthen the pass through of asset purchases to the financing conditions of the economy. Is it working? Yes, but the effect has been limited.** A sign that the CSPP may have been welcome by corporates in the euro area was the lack of bank lending to the real economy in recent years. Figure 8 shows the year-on-year change of loans to non-financial corporates (NFCs); the latter has been in negative territory since the 2012 and has only stabilized around zero since mid-2015 (ECB, 2017b), suggesting that bank lending to NFCs has not increased during the last five years. Banks are still in the process of recapitalization after the 2010 debt crisis due to the recent changes on regulation. Hence, it is unlikely to expect banks to increase their lending significantly in the near future (Demertzis & Wolff, 2016). The CSPP still represents a suitable alternative in providing credit to corporates by bypassing banks. This way the ECB can take on the risk that banks are currently unable or unwilling to take.

The CSPP is expected to benefit particularly companies which do not rely on capital markets for their financing and purchasing mostly instruments issued by private companies and state-controlled companies. This is consistent with the program's specification to allocate purchases among entities according to the nominal outstanding amount of bonds issued as a share of the bond universe qualifying for the purchases. **As small-and-medium enterprises (SMEs) only account for a very small fraction of euro-area bond markets, the scope to buy SMEs' debt directly is limited.**<sup>6</sup>

**Figure 8: Changes in sources of financing for euro area non-financial companies (NFCs)**



Source: ECB (2017).

**The CSPP has nevertheless spawned some favourable bond market conditions which have created some positive spill-over effects supporting bank lending, including loans to SMEs.** For example, when large corporations increasingly finance

<sup>6</sup> In addition, many SMEs' bonds do not possess an Investment-Grade rating and are therefore excluded from purchases.

themselves through issuing bond (rather than bank loans) this releases capacity in the balance sheets of banks for potential lending to SMEs. The results of the Survey on the Access to Finance of Enterprises in the euro area – October 2016 to March 2017 – confirm that SMEs indirectly benefited from the increased availability of bank loans at lower interest rates. This happened at a much larger pace than reported in the previous survey (ECB, 2017b).

**It may be advantageous to bypass banks, but it certainly will not be enough going forward. For the programme to be successful, the corporate sector will need to keep channelling the money borrowed to the real economy.** Between 2012 and the first quarter of 2016, EUR 344 billion net issuance by non-financial companies at the euro area level appears to have largely offset a reduction of EUR 471 billion in bank loans, which is a fairly reasonable amount considering the ongoing balance sheet restructuring on the banking sector and therefore the reduced capacity of banks to provide finance to the real economy. Here, a substitution effect between bank lending and debt capital market instruments seems to be in place.

European banks' credit profiles have stabilised in recent years thanks to tighter regulation, stronger capitalisation, and a modest pick-up in private sector credit demand. Nevertheless, **the de-leveraging in the banking system is not over yet and this will keep having an effect on the credit supply. In fact, since the global financial crisis in 2008, the stocks of non-performing loans (NPLs) on the balance sheets of European banks have risen substantially.** Besides raising concerns on the soundness of the banking sector, this phenomenon might trigger a vicious circle where the contraction in credit supply driven by the level of NPLs lead to lower growth, a slower recovery and hence a further deterioration in bank balance sheets.

**One of the main channels through which high NPLs can have a feedback effect on the macroeconomic environment - potentially counteracting the ECB's technical support through the CSPP - is through their impact on the bank lending capacity to the economy.** NPLs risk weigh on the supply of credit by locking in bank capital and funding in the financing of non-productive assets. This may lead to less balance sheet space available for new lending. Furthermore, NPLs can reduce the profitability of banks, which over time tends to additionally weigh on loan supply (through higher funding costs and increased credit constraints), all other things being equal.

However, the supply of credit is not causally determined by the level of NPLs: the negative correlation between the NPLs and credit growth is due mainly to changes in economic and financial conditions of firms and to contraction in their credit demand. So, exogenous increases in NPL, with the relative increases in provisions, may determine a negative correction in the supply of loans (Accornero *et al.*, 2017).

Market access, thanks to supportive ECB actions, has been the main resource for funding and reasonably priced, even for mid-sized banks, more vulnerable to change in market sentiment. ECB funding is used more to boost profitability rather than to cover immediate funding needs. Funding needs are, in fact, limited due to the low pace of growth of the eurozone economy which constrains demand for new loans. This is manifested in a stable stock of loans. While the loan to the retail funding ratio has strengthened since 2011, **corporates in countries like Italy and Spain, where the banking system is more under pressure, might benefit less from the CSPP.** Better access to higher quality and cheaper funding will also reduce refinancing risks and improve issuers' liquidity profiles. However, investment-grade companies already have solid liquidity on average and those are the ones benefitting more from the programme.

**Figure 9: Retail and corporate lending**

Source: Allianz Global (2017).

It must be said that **loan provision by banks constitutes the overwhelming share of non-equity funding for euro area non-financial corporates, and the impact of CSPP on bank lending rates has been indirect and limited.** While it is possible that some corporates were successful in negotiating lower interest on their loans, with banks willing to compromise to avoid losing business, this does not appear to have happened on a sufficiently large scale to materially reduce average lending rates. **In fact, since the CSPP was announced, the cost of borrowing for households purchasing property has fallen by more than the cost of bank debt for non-financial corporations, despite more immediate economic links.**

One should expect there will eventually be welfare effects from the programme over the medium term, by having a healthier corporate sector overall. Particularly, some positive effects on economic growth mainly due to the more direct impact these purchases have on corporates' borrowing costs and access to the capital market. Over time this might stimulate an increased investment appetite and support the economic recovery across Europe. **The CSPP is expected to give a slight indirect boost to investor and corporate confidence. This in turn should have a positive impact on unemployment rates and, eventually, improve consumer confidence.** Stronger consumer confidence would sustain higher levels of consumption and hence fuel economic growth and demand for goods.

#### 4.2. Implications for the universe of non-purchasable assets

Insofar investors regard other assets as substitutes, corporate bond purchases are likely not to just lower yields on the bond purchased but also spillover to other bonds (with different ratings) or asset classes (such as equities).

Earlier evidence from the ECB's asset purchase program indicated that not just government bond yields declined upon announcement but also corporate debt yields declined, and equity prices rose. For example, corporate bond yields (7-10 year maturity) declined by 10 basis points in case of AA-rated bonds and by 13 basis points in case of BBB-rated bonds (see, e.g., Altavilla, Carboni and Motto, 2015).

Looking at the US evidence, Krishnamurthy and Vissing-Jorgensen (2013) argue however that the Fed's purchases of long-term U.S. Treasury bonds significantly raised Treasury bond prices, but has had limited spillover effects for private sector bond yields, and thus

limited economic benefits for the private sector. The intuition for this isolated effect of quantitative easing on government bonds only lays in the specialness of government bonds *vis-à-vis* other assets, such as corporate bonds. As the authors argue, investors have a demand for long-term safe assets that result in a safety premium on Treasury bonds. The safety premium is driven by the economic benefit Treasury bonds provide as high-quality collateral and a long-term extremely safe (in nominal terms) store of value. The Fed's purchases of long-term safe assets reduce this supply and hence increase the safety premium on long-term safe bonds.

## 5. LONG TERM

### 5.1. Is there a risk of another 'infinity' scenario?

A strong rally in non-financial corporate sectors like industrials and utilities took place immediately after the ECB's announcement in March and in particular its intention to include non-bank credits as part of its purchase program.

The surprise 'Brexit' vote did have a negative impact on the credit market in June 2016, but the effect was short-lived. Spreads and yields had reverted back as they are driven by investors search for yield, with the added impact of the ECB's corporate purchasing program fuelling demand. This also reflects increased confidence on the markets.

The strong initial ECB-inspired performance was followed by much weaker market performance during the following eight months, when the ECB sector posted generally negligible spread returns and significantly underperformed other sectors. This second period was characterized by rising inflation and growing market debate about the potential timing and magnitude of program tapering.

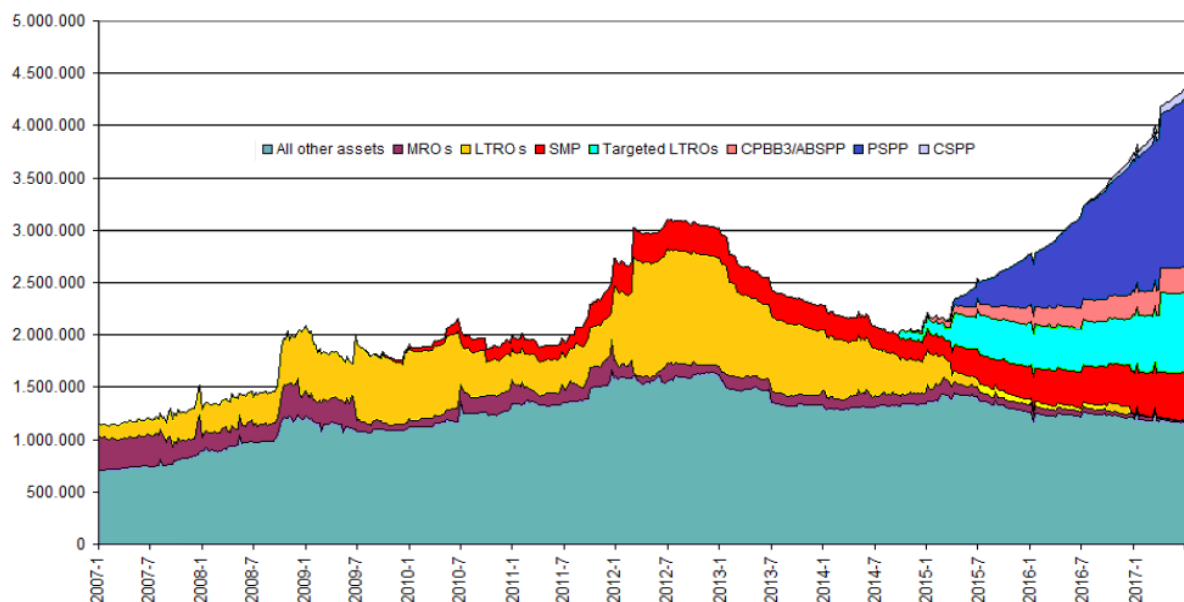
Based on the current stance of the ECB on growth, inflation and the larger than expected slack in the labour market in the euro area, it seems the ECB could (and markets expect them to) extend the corporate bond-buying program beyond 2017. During the last Governing Council, September 7, 2017, the ECB however announced the next steps for the QE that will be introduced before the end of the year. The outlook is a reduction of the purchase programme starting from the next year for 40 billion euro the first tranche and 20 billion during the next one.

**While it is too early to talk concretely about a possible future withdrawal of the CSPP, volatility might increase in light of the phasing out phase, as valuations would become less attractive as the programme will come to an end. It is nevertheless plausible to assume such an increased volatility would anyway be capped by the ECB's CSPP program itself.** Given the possible spillover between the ECB's public and private sector purchases (Altavilla, Carboni and Motto, 2015), measures such as forward guidance and signalling that the ECB will stand ready to back-up the tapering by means of a permanent support facility such as the OMTs may indeed provide further confidence to markets (see also De Grauwe, Macchiarelli and Ji, 2017), thus limiting corporate bond yields volatility further.

### 5.2. Redistributive effects and governance

In line with the other APP programmes, principal payments on the securities purchased under the CSPP will be "reinvested as they mature, for as long as necessary" (ECB, 2017a). In general, income and losses from decentralised monetary policy operations conducted by the Eurosystem are shared. This is to say that the CSPP is subject to a full income and loss sharing regime, consistent with the treatment for other APP purchases (see also De Grauwe, 2015).



**Figure 10: Balance sheet of the Eurosystem (EUR millions)**

Source: ECB Data Statistical Warehouse data.

**Given the design and neutrality of the purchases under the CSPP, there does not seem to be a larger risk for the ECB's balance sheet compared to other purchases under the APP.**

### 5.3. Comparable evidence

Right after the ECB's announcement, the Bank of England followed up with an announcement of corporate bond purchases on 4 August 2016. More specifically, the Bank of England announced not only a 25bps Bank Rate cut but also the purchase of GBP 10bn of UK corporate bonds, financed by the creation of central bank reserves. The Corporate Bond Purchase Program (CBPP) was designed to boost the UK economy amid a more negative outlook post-Brexit. We can take this announcement to study its effect on asset prices.

While a 25bp cut in Bank Rate had been widely expected by market participants, the breadth and size of the accompanying package of measures was a surprise to many in the market. As a result, there was a significant impact across a range of asset prices, both on the day of announcement and immediately afterwards. While the rate cut was fully priced in, there was little reaction at the short-end of the curve. However, Haldane *et al.* (2016) find significant drops in longer maturity bonds and Gilts, a depreciation of the British Pound, a significant increase in the FTSE equity index and significant drops in the corporate bond spreads of 20bps for investment grade and 22bps for high yield corporate bonds. The announcement of the Corporate Bond Purchase Scheme, and fall in sterling corporate bond spreads, appears to have also had some impact on the issuance market. Corporate bond issuance by investment grade UK non-financial corporates picked up sharply following the announcement. The total sterling issuance of investment grade non-financial corporates was around GBP 3.4bn in August and GBP 4.5bn in September, with around 80% being issued by UK firms.



## 6. OUTLOOK AND CONCLUSIONS

As discussed before, while it is too early to talk about a possible future withdrawal of the CSPP, volatility might increase in light of the phasing out phase, as valuations would become less attractive as the programme will come to an end. It is nevertheless plausible to assume such an increased volatility would anyway be capped by the ECB's CSPP program itself. Given the possible spillover between the ECB's public and private sector purchases (Altavilla, Carboni and Motto, 2015), **measures such as forward guidance and signalling that the ECB will stand ready to back-up the tapering by means of a permanent support facility such as the OMT may indeed provide further confidence to markets** (see also De Grauwe, Macchiarelli and Ji, 2017), thus limiting corporate bond yields volatility indirectly.

The ECB's commitment to continue the CSPP is helping to keep corporate bond spreads low but the program's impact on economic growth will remain limited, not least because the proposed link between better financial conditions and leading to higher business investment has been weak so far. If growth continues to broaden and deepen in the euro area, over time the ECB may be able to remove some of its extraordinary stimulus coming from the CSPP. At the same time, yields and possibly spreads on corporate debt should rise. But that should not come as a surprise: instead, it would reflect the normal response of monetary policy (and yields) to a stronger economic outlook. At the same time, however, **the continued reduction of the NPLs** is expected to be driven by a positive evolution the recovery of the economy, helping a new wave of corporate lending by the European banking system.

Since the Bank of England's Corporate Bond Purchase Scheme (CBPS) program was announced after the ECB, it would be hard to draw any stronger conclusions from the BoE experience. What we find is pretty much in line with what the BoE reports to date for the UK (see Haldane *et al.*, 2016): significant drops in the corporate bond spreads for investment grade and for high yield corporate bonds. As for the development of the common currency, the ECB is taking stock of the strong euro, indicating that "[t]he recent volatility in exchange rates requires monitoring for its implications for monetary policy", thus opening to the **possibility of foreign exchange interventions**.

**The CSPP should nevertheless not substitute the ECB's effort in boosting central bank lending to banks** (the latter along the lines of the already implemented Targeted Long Term Refinancing Operations – TLTROs, for instance). This should be done in conjunction with the CSPP, and the APP more broadly, in respect of the separation principle between monetary policy and liquidity management of the ECB.

**Lending to non-banks should continue with a focus on SMEs lending. An example could be Bank of England's 'Funding for Lending' (FLS) program**, offering banks and building societies a cheap source of funding. Under this scheme, banks can exchange loans on their books for UK Treasury bills for up to four years. The aim is to push the banks to borrow against those Treasury bills to increase their lending (see also Labonte, 2014; Gerba and Macchiarelli, 2016). The Bank and HM Treasury announced yet another extension to the FLS on 30 November 2015, allowing participants to borrow from the FLS until January 2018, with incentives to boost lending skewed indeed towards SMEs. A similar scheme could be considered for the Eurozone.

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