

# ECB non-standard- policies and collateral constraints

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Monetary Dialogue July 2018





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## **Abstract**

Collateral constitutes an indispensable lubricant for the financial system. Government bonds constitute the most important source of collateral, for use in inter-bank and repo transactions. But, the vast bond buying program of the ECB in the context of the Public Sector Purchase Programme has not led to any collateral scarcity. Banks still hold very large amounts of sovereign bonds and they have ample other collateral should they want to borrow more from the ECB for 'standard' monetary policy operations. Banks tend to use less liquid assets as collateral with the ECB, but this does not mean necessarily more risk for the ECB for which liquidity is not important.

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## LIST OF ABBREVIATIONS

<b>ABSPP</b>	Asset-Backed Securities Purchase Programme
<b>APP</b>	Asset Purchasing Programme
<b>CBPP</b>	Covered Bond Purchase Programme
<b>CSPP</b>	Corporate Sector Purchase Programme
<b>ECB</b>	European Central Bank
<b>ECTS</b>	European Credit Transfer System
<b>LTRO</b>	Long Term Refinancing Operation
<b>GDP</b>	Gross Domestic Product
<b>PSPP</b>	Public Sector Purchase Programme
<b>SMP</b>	Securities Market Programme
<b>TLTRO</b>	Targeted long term refinancing operation

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## EXECUTIVE SUMMARY

Collateral is a key 'lubricant' for financial markets. In many transactions, the parties use collateral to reduce their risk in case the counterparty cannot perform its obligation. In the euro area, one must distinguish between two different aspects.

- Banks need high quality collateral if they want to borrow from the Eurosystem in the context of its standard lending operations.
- Many inter-bank and other financial transactions, such as repo operations and derivative transactions, involve the posting of collateral.

Government bonds constitute the most important collateral, for use in inter-bank and repo transactions. The vast bond-buying program of the Eurosystem within the context of the Asset Purchase Programmes (APP) has reduced especially the amount of government bonds available on the market. But the ECB has bought less than one third of all government bonds outstanding. This implies that there is little reason to think that the PSPP has led to a generalized collateral scarcity.

What matters for monetary policy are the assets banks hold on their balance sheet which are accepted as collateral by the ECB (so-called eligible assets). There is no sign that the PSPP has led to a reduction in the eligible assets held by the banking system. In particular banks still hold almost the same amount of sovereign bonds as four years ago, i.e. before the start of the PSPP. Moreover, banks have ample other collateral should they want to borrow from the Eurosystem for standard monetary policy operations.

There is little sign of a lowering of the credit quality of the assets effectively used as collateral by the ECB, but banks tend to prefer less liquid assets as collateral in their operations with the Eurosystem. Given that the Eurosystem does not need liquidity this should not be of great concern.



## 1. INTRODUCTION

After the great financial crisis central banks first reduced their policy rates to zero. When this was not enough to offset the weakness of the economy they turned to non-standard monetary policy measures with the aim to increase inflation with an expansion of the balance sheet. The Eurosystem followed a similar path embarking in early 2015 on its Asset Purchase Programme (APP), including the Public Sector Purchase Programme (PSPP) and the Corporate Sector Purchase Programme (CSPP). The Eurosystem had already started to buy securities much earlier, but these purchases were either linked to specific episodes of financial market tensions (SMP) or relatively small in size such as the covered bond purchase program. The PSPP constituted thus a radical change in the nature and scale of central bank asset purchases in the euro area.

With standard operations the balance sheet of the Eurosystem is determined by the willingness of banks to borrow from it. For these borrowings the banks need collateral. A scarcity of collateral could thus limit the size of the balance sheet of the ECB and, at the same time, the ability of the banks to refinance at the ECB the financing they are providing for the real economy. A scarcity of collateral could thus impair the monetary transmission mechanism.

However, it is highly unlikely that collateral will become so scarce that it constitutes a real limitation on the refinancing of banks or monetary policy in general. In purely quantitative terms, there exists a vast pool of unused potential collateral. At present, commercial banks have borrowed only 700 billion euro from the Eurosystem, mostly under longer-term operations, like the LTRO and the TLTRO. For this, about 1,500-billion-euro collateral has been pledged, a fraction of the total existing collateral of about 14,000 billion euro.

Collateral is a key 'lubricant' for financial markets in general. In many transactions, the parties use collateral to reduce counterparty risk. In the euro area, one must distinguish between two different aspects.

- Banks need high quality collateral if they want to borrow from the Eurosystem in the context of its standard lending operations.
- Many inter-bank and other financial transactions, such as repo operations and derivative transactions, involve the posting of collateral.

In general, government bonds constitute the most important collateral, for use in inter-bank and repo transactions because they are liquid and have a transparent pricing. The vast bond-buying program of the Eurosystem within the context of the Asset Purchase Programmes has reduced the amount of government bonds available on the market. However, this has not led to any perceptible collateral scarcity. The Eurosystem has anyway bought less than one third of the total outstanding. Moreover, banks still hold very large amounts of sovereign bonds on their balance sheets and they have ample other collateral should they want to borrow from the Eurosystem for standard monetary policy operations.

This contribution sets out the main parameters of the Eurosystem's collateral policy, describes collateral availability and use. It also measures the impact of the Eurosystem's bond buying on the availability of collateral in wider financial markets.

## 2. COLLATERAL IN 'STANDARD' MONETARY POLICY OPERATIONS

Collateral provides protection for the central bank when lending to banks. This is especially important for the Eurosystem, for which 'standard' monetary policy operations consist mainly of collateralized lending to banks under its various types of operations (main refinancing operations and longer-term refinancing operations).

The availability of collateral is thus key for a smooth transmission mechanism of monetary policy.

The ECB uses several mechanisms to protect itself against potential losses: i) restrictions on the type of collateral it accepts, including eligibility criteria with ratings thresholds (see Guideline ECB/2014/60), ii) haircuts, when it does not accept the collateral for its full value, and, iii) valuation standards.

This implies that *de facto* the Eurosystem has a double protection against losses. First, the claim of the central bank is on the bank. Second, it has the collateral, which represents due to the valuation standards and haircuts a substantially higher value than the claim of the central bank on the bank. The collateral would only become relevant if the bank concerned became insolvent.

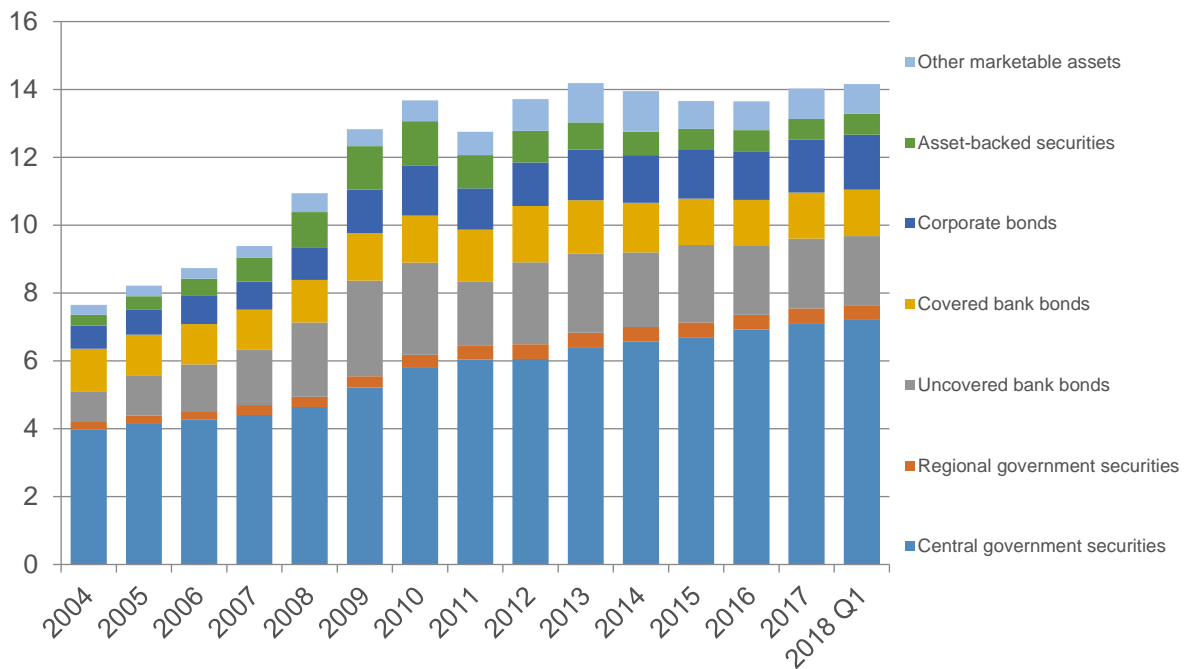
In reality, the ECB accepts wide variety of marketable securities, which in some cases are low rated and foreign currency denominated. The securities have to be rated investment grade by at least one of four major ratings agencies. The official list shows about 30 thousand different assets, which are accepted with an average haircut of about 10%. But the haircuts range between 0.5% for most short-term Euro-area central government bonds to up to 57% for long-term bonds issued by the Greek government<sup>1</sup>. Additionally, banks can also present non-marketable securities as collateral such as large loans or mortgages, which they have securitized themselves.

Government bonds constitute of course the most important asset class available for collateral, amounting to slightly over one-half of the total. Covered bank bonds, corporate bonds, asset backed securities and other marketable assets form the other half. In total, the eligible marketable assets amount over 14 thousand billion euro, about 125 % of the euro area GDP (See Figure 1).

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<sup>1</sup> Eurosystem eligible assets as of 4 July 2018.

Figure 1: Marketable assets eligible as collateral (2004-2018Q1, EUR trillion)

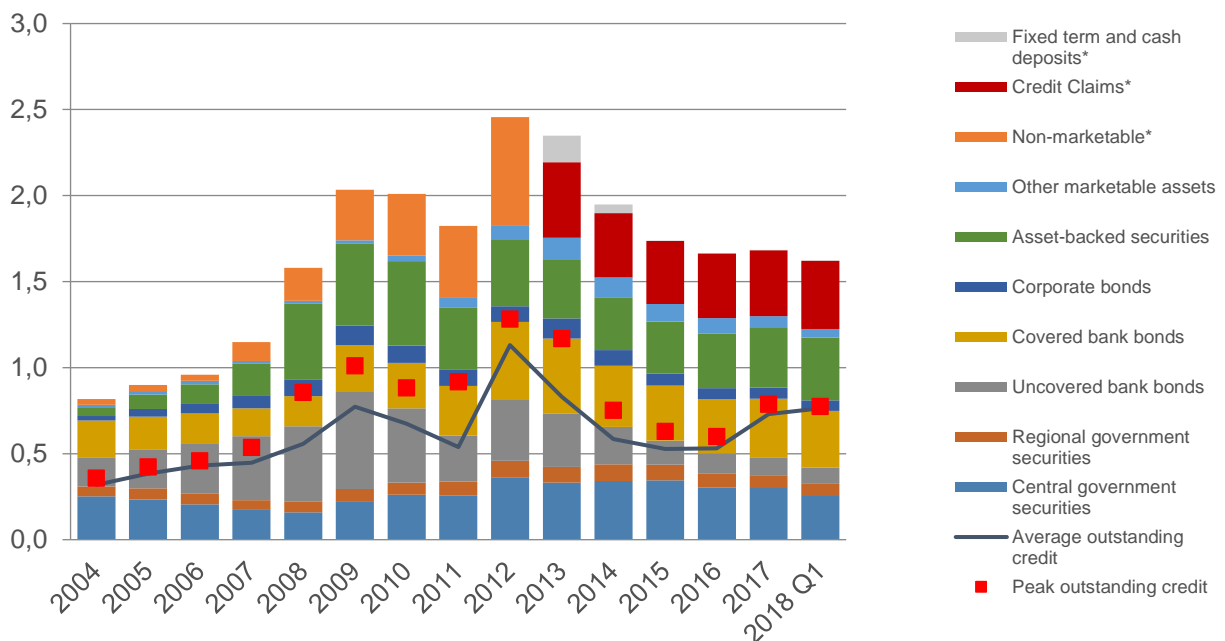


Note: Amounts represent the average nominal amount calibrated based on the averages of end of month data for each time-period.

Source ECB.

However, government bonds do not constitute the most important element in the collateral actually used. Banks seem to prefer to use less liquid assets, such as credit claims or non-marketable assets (See Figure 2). This is not surprising: these less liquid assets can often not be used as collateral with other counterparties. It thus makes sense for the bank to use these less liquid assets for the credit obtained from the Eurosystem. As long as the haircuts are applied properly and valuations are sufficiently conservative the risk to the Eurosystem should be limited. With less liquid assets the Eurosystem might not be able to recover its claim quickly. But this should not be a concern since liquidity is not a problem for a central bank.

Figure 2: Used collateral by type and credit provided (2004-2018Q1, EUR trillion)



Note: Amounts represent the averages of end of month data for each time-period after valuation adjustments and haircuts. The distribution of non-marketable assets between credit claims and fixed-term and cash deposits is only available since 2013.

Source: ECB.

Figure 1 and 2 have a different scale and base. Notwithstanding the valuation adjustments and haircuts, the total marketable assets used as collateral as shown in Figure 2 is about 1,200 billion euro (total 1,600 billion), which is equivalent to 9% of the total amount of marketable assets theoretically available for collateral (see Figure 1). The right hand panel also shows the total amount of outstanding credit (towards banks), which amounts to almost 800 billion euro. This implies that banks pledge collateral worth more than two times the amount they receive from the Eurosystem. But even with this security margin there does not seem to be prospect of a collateral scarcity for the ECB's 'standard' operations any time soon.

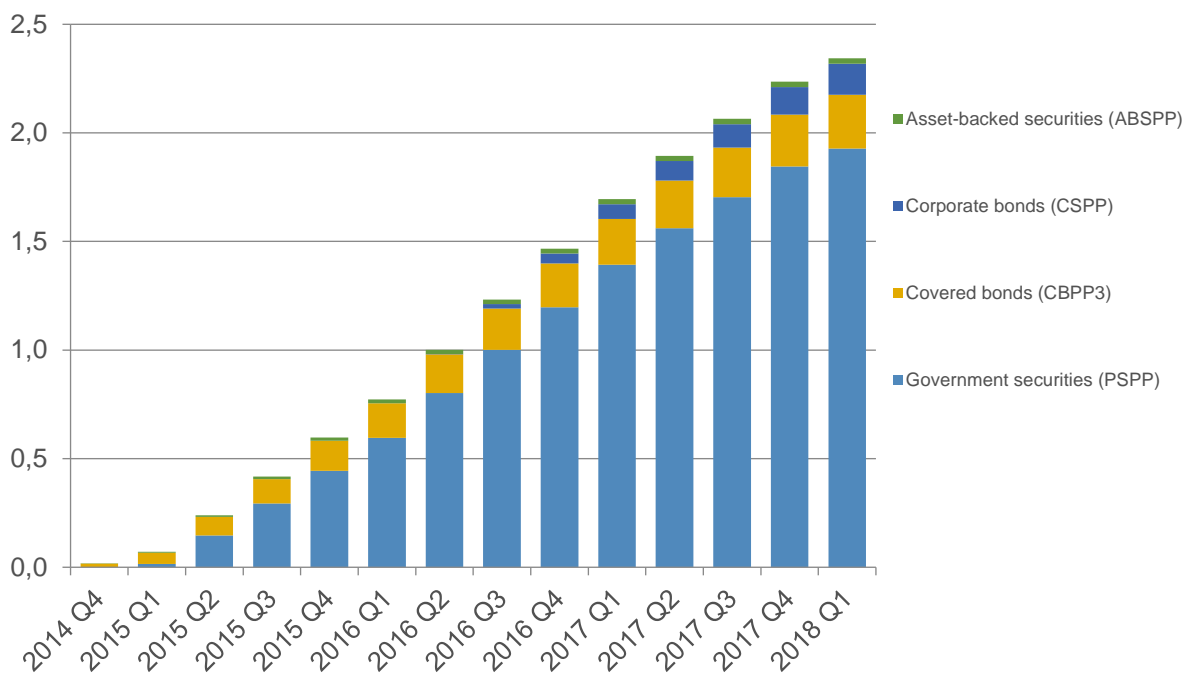
The comparison between the stock of ECB eligible assets and their effective use is, of course, misleading in that what matters for banks is not the total stock of government bonds in the hands of the public, but the bonds which the banks can effectively use, i.e. the ones they have on their balance sheet. In these terms there seems to be less of an abundance of collateral, since banks hold 'only' about EUR 1.500 billion worth of general government bonds (out of the total of over EUR 7 billion shown in Figure 1).

However, even on this basis, there seems to be no collateral scarcity since banks have used only about 300 billion, or about 20 % of their government bond holdings as collateral with the ECB. For other types of securities, the percentage used as collateral is much higher. There are no detailed statistics available, but the broad trend is clear. The aggregate balance sheet of the euro area banking system shows holdings of securities except government securities, at around 2.000 billion euro. The collateral use figures in Figure 2 imply that banks have used with the ECB collateral consisting of non-governmental securities worth around EUR 1.000 billion (the sum of covered and uncovered bank bonds, corporate bonds, asset-backed securities and other marketable assets). This would indicate a collateral usage ratio of close to 50%.

### 3. COLLATERAL AND 'NON STANDARD' MONETARY POLICY OPERATIONS (QE)

The non-standard operations of the Eurosystem are essentially the bond purchasing programmes. When the Eurosystem, usually through the NCBs and ECB, buys bonds it takes securities from the market, which could serve as collateral for other financial market transactions as well.

Figure 3: Asset purchases under the Asset Purchase Programme (2014Q4-2018Q1, EUR trillion)

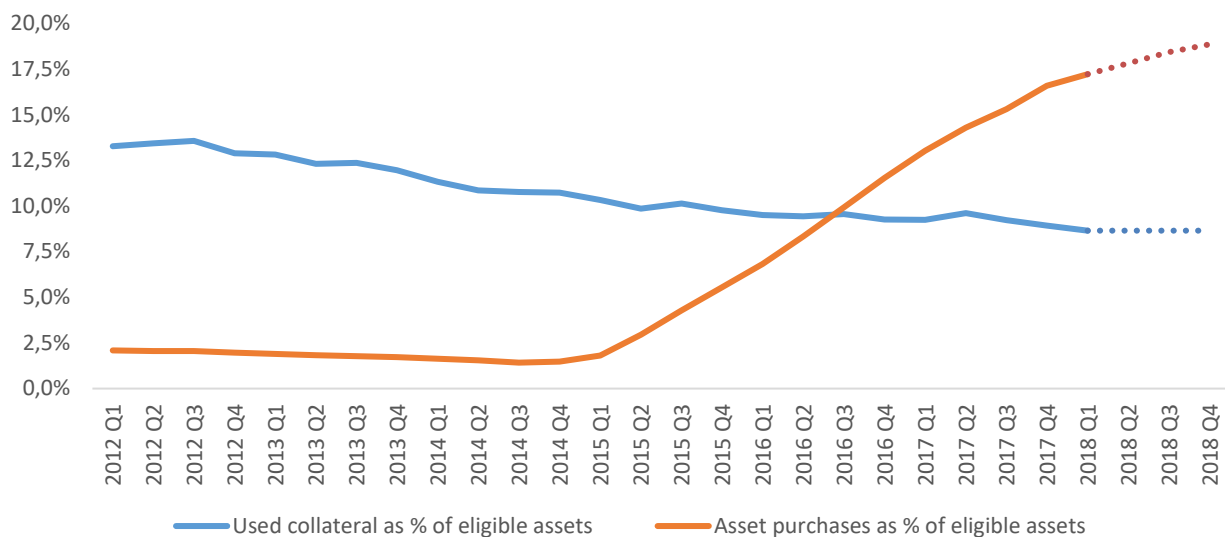


Note: Amounts represent the averages of end of month-amortized costs for each time-period.

Source: Author's elaboration based on ECB.

This has led to the question whether the Asset Purchase Programme (APP) and in particular the Public Sector Purchase Program (PSPP) of the ECB could lead to collateral scarcity in financial markets in general, not only on banks' balance sheets. This seems unlikely mainly because the Eurosystem holds only fraction of total (government bonds) outstanding. Even at end of the APP and PSPP, programmed for the end of 2018, the Eurosystem holdings of government (and supra-national) bonds will amount less than 20% of the total (See Figure 4). This is implicit already in the limitation, which the ECB has given itself, not to own more than the fraction of the total issue of any bonds, which would give it a blocking minority in any restructuring.

Figure 4: Asset purchases and used collateral as share of eligible assets (2012-2018Q1)



Note: The amounts used and total eligible assets constitute only marketable assets. The marketable assets account for approximately 75% of the total assets used as collateral. The asset purchases contain both the assets purchased under the APP and the SMP. The shares for 2018Q2 to Q4 are estimated assuming that the total eligible and used collateral will remain constant and the Eurosystem will conduct the asset purchases as announced.

Source: ECB.

Moreover, the available evidence indicates that bank holdings of government securities, those which banks could use to borrow more from the Eurosystem, have changed little. At the end of 2014 euro area MFI (Monetary Financial Institutions, ECB term for banks) held about EUR 1.800 billion in general government bonds. By June 2018 the figure had fallen to about EUR 1.500 billion, i.e. 300 billion less (compared to Eurosystem purchases of over EUR 2.000 billion).

To these considerations, one should add that the ECB had been aware of the potential of a collateral shortage and has created a securities lending program. This program is modest in size, but has been under-utilized in the past. Today the securities lending program is capped at EUR 75 billion, with an increasing about being used (EUR 60 billion on average in May 2018).

## 4. CONCLUSIONS

There seems to be no danger of collateral scarcity as a result of the non-standard operations of the ECB, like the APP and its main component PSPP. The government bonds bought by the Eurosystem are only to a very limited extent still available to market participants as collateral, but Eurosystem holdings amount only to about a fifth of government bonds. Government bonds constitute the collateral that is easiest to use, but the ECB accepts a wide variety of other assets as collateral. Euro area banks thus have many other sources they could mobilize if needed to obtain credit from the Eurosystem. The APP has thus immobilised only a low fraction of the total assets, which the ECB would accept as collateral for its own standard monetary policy operations.

Banks have borrowed at present EUR 700 billion euro, for which they have posted about EUR 2 thousand billion in collateral, only a small fraction of the total of over EUR 14 thousand billion of collateral acceptable by the ECB and also less than half of the eligible collateral which banks carry on their balance sheets. Moreover, the ECB also accepts non-marketable assets, such as loans which could alleviate any collateral scarcity. Finally, banks also hold at present around EUR 2 thousand billion in deposits at the Eurosystem. There cannot be thus a great need for more liquidity in the banking system. All in all, there is little reason to think that the bond buying has led a scarcity of collateral, which impair the smooth functioning of monetary policy.

There is evidence that banks preferred to use less liquid, perhaps less easy to value, assets as collateral with the ECB. Hair-cuts and conservative valuations should limit the credit risk for the ECB. In the unlikely case a bank defaults, the losses for the ECB should then be limited. With less liquid assets, the ECB might not be able to realise their value quickly, but this should not be a cause of concern for a central bank which, by definition, does not have a liquidity problem.

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Collateral constitutes an indispensable lubricant for the financial system. Government bonds constitute the most important source of collateral, for use in inter-bank and repo transactions. But the vast bond buying program of the ECB (PSPP, APP) has not led to any collateral scarcity. Banks still hold very large amounts of sovereign bonds and they have ample other collateral should they want to borrow more from the ECB (i.e. for 'standard' monetary policy operations).

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