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(Research Papers)

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The papers published in the 'Markets, Infrastructures, Payment Systems' series provide information and analysis on aspects regarding the institutional duties of the Bank of Italy in relation to the monitoring of financial markets and payment systems and the development and management of the corresponding infrastructures in order to foster a better understanding of these issues and stimulate discussion among institutions, economic actors and citizens.

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ISSN 2724-6418 (online)
ISSN 2724-640X (print)

Banca d'Italia
Via Nazionale, 91 - 00184 Rome - Italy
+39 06 47921

Designed and printing by the Printing and Publishing Division of the Bank of Italy

TLTROs AND THE COLLATERAL AVAILABILITY IN ITALY

by Annino Agnes, Paola Antilici and Gianluca Mosconi*

Abstract

In response to the Covid-19 pandemic, the ECB has adopted a broad set of measures aimed at ensuring that banks maintain wide access to central bank liquidity. In an environment where refinancing operations are conducted under a full allotment regime, it is important to analyze whether collateral scarcity might have influenced participation in the TLTRO-III operations and the contribution made by collateral easing measures.

The analysis shows that the collateral availability of the Italian banking system proved to be adequate and it allowed Italian banks to benefit from the favorable conditions introduced under the TLTRO-III programme. For almost all the banks, the absence of collateral easing measures would not have been a restricting factor on a full TLTRO-III take-up. Such interventions have allowed banks to increase the usage of non-marketable assets as collateral and have reduced their reliance on more liquid assets. Empirical evidence suggests that the monetary policy package, together with the fiscal measures adopted by the government, have helped to support bank lending to the real economy.

JEL: E52, E58.

Keywords: TLTRO, collateral, collateral easing measures, refinancing operations.

Sintesi

In risposta alla crisi pandemica, la BCE ha introdotto misure volte a garantire l'accesso delle banche al finanziamento dell'Eurosistema. In un contesto in cui le operazioni di politica monetaria sono condotte mediante aste a piena aggiudicazione degli importi, si rende utile valutare se la partecipazione al programma TLTRO-III possa essere stata condizionata dalla disponibilità di garanzie e quale sia stato il contributo fornito dalle misure di *collateral easing*.

Il lavoro mostra che la disponibilità di garanzie del sistema bancario italiano è risultata adeguata e ha permesso di sfruttare le condizioni più favorevoli introdotte per le TLTRO-III. Gran parte delle banche non avrebbe riscontrato limiti al pieno accesso alle operazioni, anche in assenza delle misure di *collateral easing*. Tali interventi hanno permesso alle banche di aumentare l'utilizzo di prestiti a garanzia e di liberare attività più liquide. L'evidenza empirica suggerisce che gli interventi di politica monetaria, insieme alle misure di bilancio adottate dal governo, hanno contribuito a sostenere l'erogazione del credito a famiglie e imprese.

* Bank of Italy, Directorate General for Markets and Payment Systems.

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1. *Introduction*[1]

Since March 2020, in response to the economic crisis caused by the COVID-19 pandemic, the Governing Council of the ECB has adopted a broad set of monetary policy measures aimed at ensuring banks' access to central bank liquidity at favourable conditions, thereby supporting the provision of credit to households and firms.[2] In particular, the Governing Council introduced new longer-term refinancing operations (additional LTROs and PELTROs) and applied more favourable terms to the third series of targeted longer-term refinancing operations (TLTRO III).[3]

In accordance with Article 18(1) of the Statute of the European System of Central Banks, loans to banks are provided against adequate collateral. Thus, the availability of collateral places a limit on the amounts that counterparties may request, especially in the context of a fixed rate full allotment procedure.[4] In order to guarantee adequate collateral availability and to ensure the full effectiveness of the new measures introduced, the ECB temporarily relaxed the eligibility criteria for collateral (collateral easing measures), increasing risk tolerance[5] and allowing NCBs to extend the scope of eligible loans through national additional credit claims (ACC) frameworks.

It is therefore useful to assess whether, since the outbreak of the pandemic, participation in TLTRO III[6] in particular, could have been constrained by collateral availability, and to evaluate the contribution made by collateral easing measures to meeting the funding needs of Italian counterparties. For this purpose, we carried out a simulation to find whether restrictions would have occurred without the collateral easing measures.

2. *The monetary policy framework*

The European Central Bank (ECB) pursues the primary objective of price stability by steering interest rates, the liquidity circulating in the euro area and, more generally, market conditions. Open market operations are among the main instruments used by the ECB, in addition to the standing facilities and minimum reserve requirements.[7] The former include, in particular, 'temporary' operations, i.e. refinancing operations with counterparties, as well as 'outright' operations, i.e. the purchase programmes.

Since the outbreak of the financial crisis, in addition to the standard monetary policy instruments, the ECB has also introduced non-standard measures. These include asset purchase programmes and targeted longer-term refinancing operations (TLTROs). TLTROs provide long-term

[1] We would like to thank Stefania Bacchetta, Gioia Cellai, Stefano Iacobelli, Alberto Locarno, Maria Lucia Marras, Salvatore Nasti, Nicola Pellegrini, Simone Pezzini, and Stefano Siviero for the useful comments received. The views expressed are personal and do not necessarily reflect the Bank of Italy's position.

[2] See Nasti and Pasqualone, Benigno et al. (2021).

[3] See ECB (2021).

[4] The refinancing operations were conducted through a competitive variable rate tender until the global financial crisis in 2008. Since then, the fixed rate full allotment procedure has been in place: banks can accordingly receive the full amount they request from the central bank, provided that they have adequate collateral under the rules of the Eurosystem collateral framework.

[5] In 2020, the Bank of Italy increased the general risk provision, which addresses financial and operational risks, in view of the increase in the size of the balance sheet and the overall riskiness taken on by the Bank.

[6] TLTRO III operations currently represent almost all of the liquidity provided by the Bank of Italy and are the most advantageous in terms of pricing for counterparties.

[7] See ECB (2011).

funding to euro area credit institutions and are aimed at strengthening the monetary policy transmission mechanism. Compared with the Eurosystem's 'regular' credit operations, i.e. the main and longer-term refinancing operations (3 months), they are aimed at encouraging banks to lend to the real economy. The maximum amount that credit institutions can borrow is linked to the volume of loans granted to households and non-financial corporations.[8]

Eurosystem credit is provided against adequate collateral[9] in order to protect the central bank's balance sheet against the risk of non-repayment in the event of a counterparty default. Broad collateral availability is therefore necessary for credit institutions to permit full access to central bank liquidity. The rules on the assets that can be accepted as collateral for the liquidity provided therefore play a key role in the Eurosystem's operational framework and are crucial, especially in times of financial stress. The assets provided as collateral by counterparties constitute the collateral pool of monetary policy. The total value of the assets is constrained proportionally to the counterparty's exposure vis-à-vis the Eurosystem; banks can mobilize or replace any asset in the pool provided that the value of the remaining assets is at least sufficient to secure funding. The share of unencumbered collateral in the pool represents the credit line and can serve several purposes, including accessing intraday credit, protecting against the risk of price fluctuations, which change the value of collateral, or increasing Eurosystem funding in the future.

The Eurosystem accepts a broad range of assets as collateral, including both marketable assets[10] and bank loans[11] to companies and the public sector. These assets must meet specific eligibility criteria, related to their place of issue, their currency of denomination, the country of residence of issuers/debtors/guarantors and their creditworthiness. For the purposes of calculating the net value of the collateral (*collateral value*), the Eurosystem applies haircuts to the value of the assets pledged with the aim of mitigating credit and market risks in the event of liquidation. Other risk control measures are also foreseen, such as limits on exposure to the same bank issuer or the prohibition of the use of unsecured securities issued by the same counterparty.[12]

Eligibility criteria and risk control measures are harmonized across all banks operating in the euro area, and financial risk is shared among national central banks (NCBs). The only exception is represented by credit claims received under the national additional credit claims (ACC) frameworks,[13] for which the individual NCBs[14] define the specific criteria and take on the risk of potential losses. Credit claims that do not fulfil all eligibility criteria laid down in the Eurosystem's ordinary collateral framework are accepted under this framework. These may include, *inter alia*, consumer loans, mortgages and loans granted to borrowers of lower credit quality than generally accepted.

3. Participation in TLTRO III operations

In view of the economic and inflation outlook, the ECB introduced the third series of targeted longer-term refinancing operations in 2019. TLTRO III operations have a maturity of three years and, as of September 2019, are conducted on a quarterly basis. The overall amount that may be borrowed

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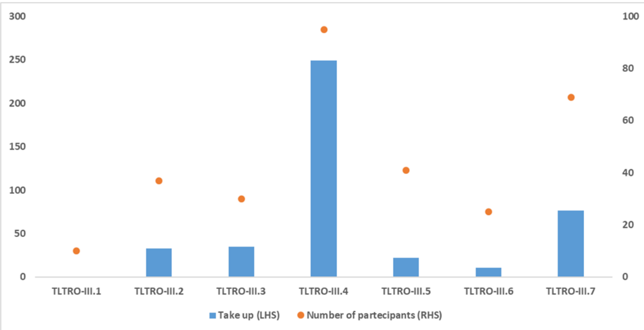
[8] See ECB (2021a).
[9] See Bindseil et al. (2017).
[10] Public sector securities, corporate bonds, bank bonds and ABSs.
[11] Introduced as of 2007 with the adoption of a single harmonized list at the euro area level.
[12] See ECB (2015).
[13] See ECB (2021b).
[14] The introduction of the ACC framework takes into account national specificities and allows NCBs to adapt eligibility criteria to national practices. The Bank of Italy introduced its ACC scheme in 2012, expanding it several times over the years.

by participants in the programme (*borrowing allowance*) is equal to 55 per cent of the loans[15] granted to non-financial corporations and households (excluding mortgages). The interest rate applied to the amounts borrowed shall be the same as the interest rate on the Eurosystem's main refinancing operations, with the exception of the period from 24 June 2020 to 23 June 2022, in which it is 50 basis points lower. Banks can also obtain a rate cut depending on their lending to households and non-financial corporations. To this end, there are three criteria for assessing lending performance and three observation periods[16] for the origination of eligible loans.[17]

Participation in the TLTRO III programme, initially low in terms of both bid amounts and number of participating banks, was encouraged by changes in the operational parameters that have taken place since the outbreak of the pandemic crisis.[18] The effects of these changes were particularly visible in the June 2020 operation (TLTRO III.4), when bids amounted to €249.3 billion from 95 Italian banks, and in the March 2021 operation (TLTRO III.7), when 69 counterparties requested a total of €76.8 billion (Figure 1).

Figure 1 – TLTRO III participation

(billions of euros and number of banks)



By June 2020, Italian banks had already availed of 80 per cent of the total borrowing allowance; the relaxations subsequently decided by the Governing Council, [19] including a further increase in the borrowing allowance from 50 per cent to 55 per cent of the reference aggregate, permitted widespread participation in March 2021 (Figure 2a). The total liquidity provided by the Eurosystem under the TLTRO III programme, also taking into account the March 2021 operation, is in fact higher than the previous borrowing allowance (Figure 2b).

[15] Stock of loans as at 28 February 2019.

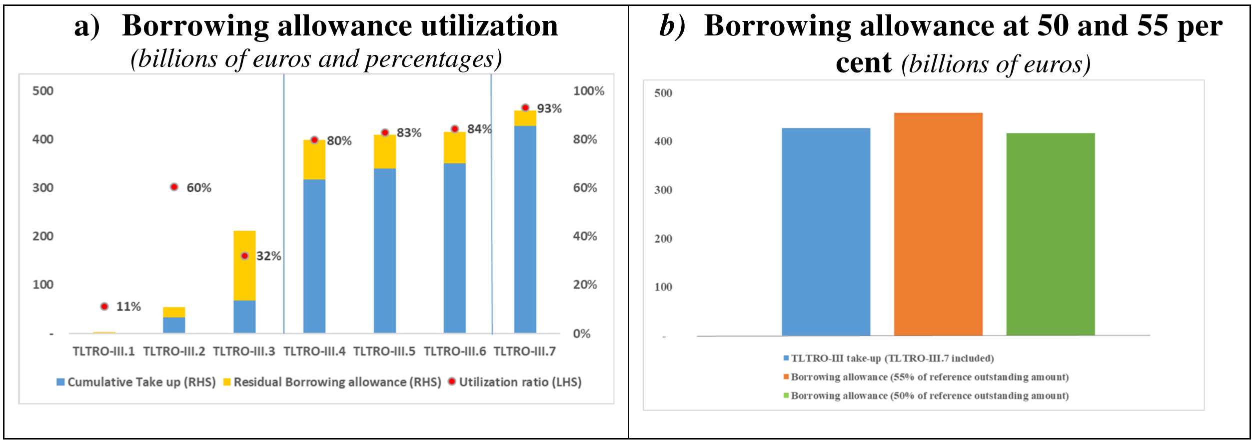
[16] 1 March 2020-31 March 2021 (special reference period); 1 April 2019-31 March 2021 (second reference period); 1 October 2020-31 December 2021 (additional special reference period).

[17] See Decision ECB 2019/21, as amended.

[18] They played a major role: (i) a 50 basis point reduction, from the average rate on the deposit facility and the average main refinancing rate, in the minimum and maximum interest rates applicable during the special periods; (ii) the removal, from March 2020, of the 10 per cent constraint of eligible loans as a bid limit; (iii) the increase in the borrowing allowance from 30 per cent to 50 per cent of the reference aggregate (as of March 2020) and thereafter to 55 per cent (March 2021).

[19] See ECB (2020b).

Figure 2 – Participation in TLTRO III in relation to the borrowing allowance



a) Borrowing allowance utilization *(billions of euros and percentages)*

***b)* Borrowing allowance at 50 and 55 per cent** *(billions of euros)*

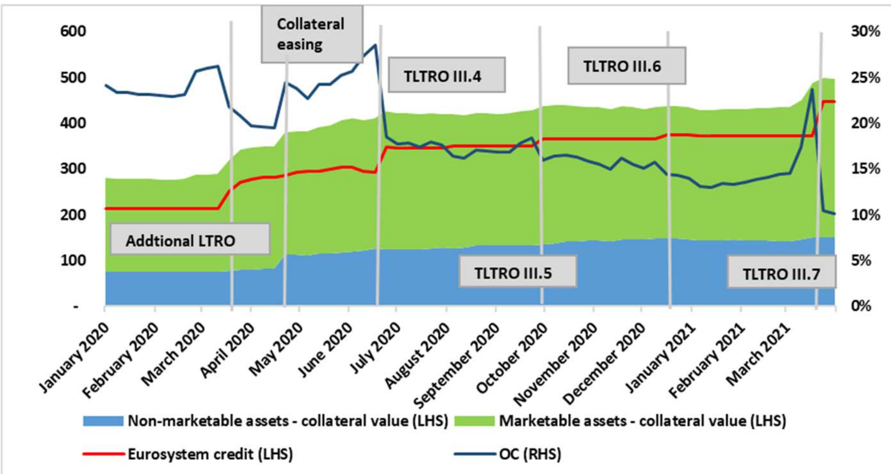
Note: the vertical blue lines refer to changes to the parameters of TLTRO III operations (pricing and increase in the borrowing allowance).

4. Developments in the assets pledged as collateral for credit operations

To meet growing liquidity needs,[20] Italian counterparties increased the assets in the pool and took advantage of their credit line, i.e. the value of unencumbered assets. Figure 3 shows the increase in the net value of Italian banks' collateral pool and the reduction, on aggregate, in over-collateralization (O/C) [21] during the aforementioned TLTROs in June 2020 and March 2021.

Figure 3 – Use of collateral and outstanding credit

(billions of euros and percentages; weekly data)



The increase in the collateral pool was driven by several factors:

i. additional pledging of marketable and non-marketable assets;

[20] Debt exposures to the Eurosystem increased from €214 billion (March 2020) to €447 billion (March 2021).

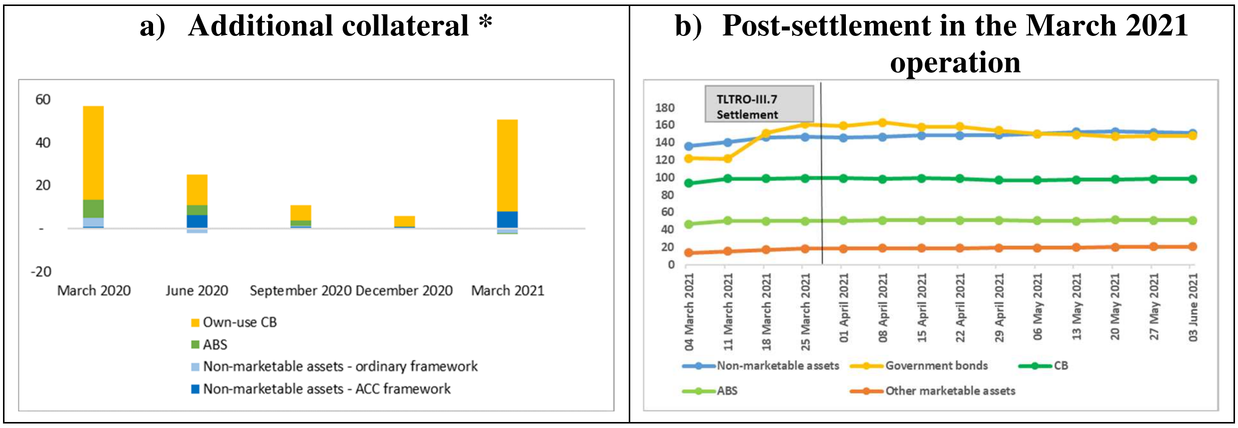
[21] Over-collateralization is a percentage indicator calculated as the ratio of credit lines to collateral pools. The credit line is calculated as the difference between the collateral value and the Eurosystem credit.

ii. the collateral easing measures introduced between April and June 2020[22] (see paragraph 6).

While in March 2020, Italian counterparties increased the pool mainly through the transfer of readily available marketable assets, in particular government bonds, since June 2020 there has been an increased interest in the use of ACC (Figure 4a), and a reduction in covered bank bonds (CB) and asset-backed securities (ABS). The role of government bonds has remained important, as readily available collateral in the event of increased liquidity demand in the weeks immediately preceding the settlement; in the post-settlement period, however, it has been possible to observe a gradual – and slower – rebalancing of the pool through a reduction in government bonds and an increase in the use of loans as collateral[23] (Figure 4b).

Figure 4 – Additional collateral used by Italian banks for monetary policy operations

(billions of euros)



**We consider the collateral pledged in the two weeks prior to the settlement of each TLTRO operation. We show the values for the counterparties participating in the respective TLTRO operation.*

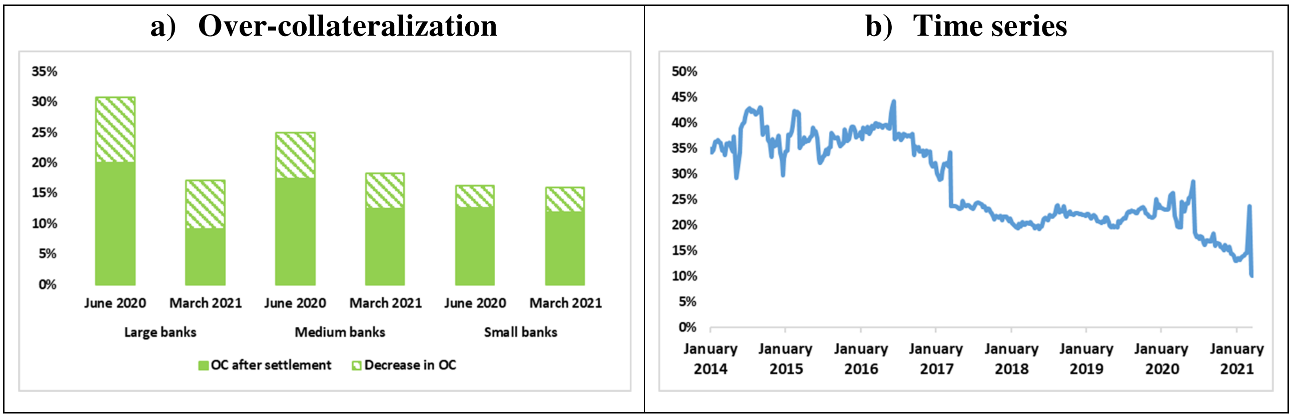
In general, the collateral pledged in the weeks preceding the settlement of tenders did not fully guarantee the liquidity offered by the Eurosystem. O/C proved essential to ensure access to Eurosystem refinancing in the context of high-participation tenders (Figure 5a) for larger counterparties. The latter saw a reduction in O/C from 20 per cent after the June 2020 operation to 9 per cent in March 2021. For small banks, O/C, which was already at lower levels, remained broadly stable at 12 per cent.

Overall, in March 2021 O/C fell to 11 per cent, a historical low (Figure 5b). While low O/C does not necessarily signal stress conditions, as it could be related to an active collateral management to minimize unused margins in the pool, it could still signal a potential shortage of collateral if accompanied by limited holdings of unencumbered eligible assets on the balance sheet.

[22] See ECB (2020a). This measure produced an immediate increase – and without extra costs for banks – in the value of collateral of around €36 billion, 80 per cent as a result of the reduction in haircuts on bank loans.

[23] Government bonds are particularly liquid and allow for a number of alternative uses. It may therefore be attractive for banks to replace them with less liquid and profitable assets (e.g. loans) in order to optimize their treasury management.

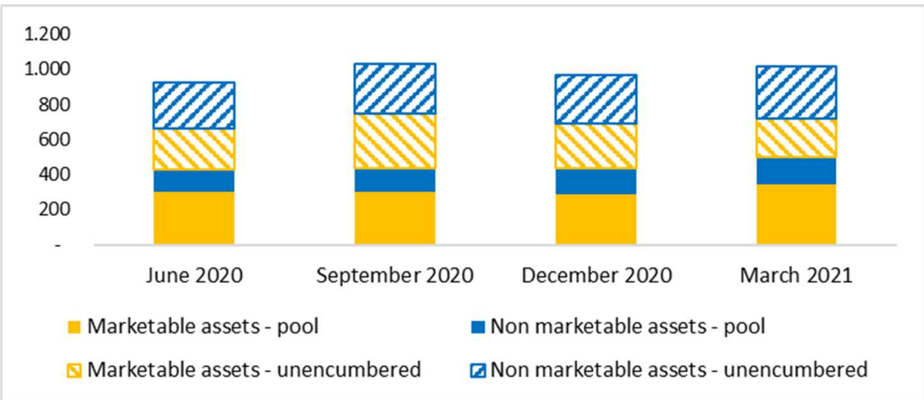
Figure 5 – Overcollateralization in Italy
(percentages)



5. *Access to TLTROs and availability of additional collateral*

The availability of eligible and unencumbered assets on the balance sheets of the Italian banking system as a whole appears adequate to ensure access to central bank liquidity in the event of need in the very near future. Therefore, it can be assumed that the collateral does not constitute a strict limit on the amount of liquidity that can be obtained from the Eurosystem. Overall, Italian banks maintained a high value of unencumbered eligible assets on their balance sheets, amounting to €516 billion in March 2021 (around 105 per cent of the pool; Figure 6), almost equally distributed between marketable and non-marketable assets.[24]

Figure 6 – Availability of eligible assets in Italy
(collateral value; billions of euros)



Although no particular concerns arise for the banking system as a whole, it is nevertheless important to analyze individual positions; the aim is to identify any counterparties that would have been unable to fully participate in TLTRO operation owing to temporary or structural collateral

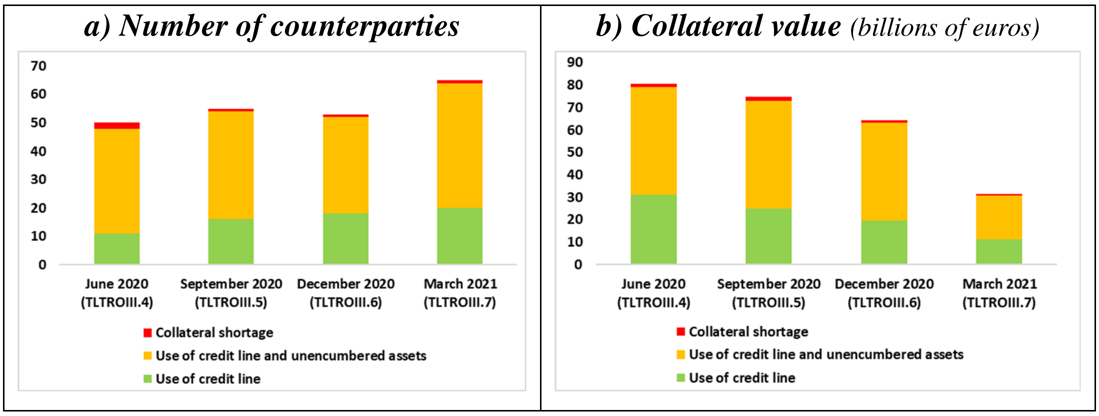
[24] €221 billion and €295 billion respectively. Of these, around €16 billion of loans are recorded on the balance sheet of the 34 counterparties that have not yet been authorized to pledge credit claims; thus, for these banks, which are mostly small and have an overall exposure of around €13 billion, pledging loans may be useful but may require additional costs and time. Pledging loans as collateral requires procedural and technical adjustments by the banks, which, in addition to being monetary policy counterparties, must be authorized to use the procedure set up by the Bank of Italy (Attivi BAncari COllateralizzati, ABACO) and adapt their internal procedures to manage the information flow related to each loan.

shortages, resulting in limited opportunities in taking advantage of the measures introduced by the Eurosystem over the past year. We analyzed the share of borrowing allowance not requested in each tender and then we analyzed whether and how each bank could have 'collateralized' this share.

Since June 2020, on average, 30 per cent of the counterparties that participated in each TLTRO III operation without having exhausted their borrowing allowance, had a sufficient credit line to increase their demand for liquidity vis-à-vis the Eurosystem; it is also estimated that almost all the other banks (i.e. the remaining 70 per cent) had sufficient unencumbered assets on balance sheets to be pledged in the collateral pool (Figure 7a). We estimate that 38 per cent of the borrowing allowance not used in TLTRO III.4 of June 2020 (€80 billion) could have been collateralized by assets already pledged in the pool at the settlement date (credit line), while another 60 per cent could have been collateralized by other unencumbered eligible assets available on the balance sheet (Figure 7b). The share that could potentially have been collateralized by the credit line was slightly lower in subsequent tenders, while that of unencumbered assets on the balance sheet that could be used to ensure full access to TLTRO III has remained high.

In order to take full advantage of the borrowing allowance over the past year, only two counterparties would have experienced a collateral shortage.[25] In particular, we estimate an amount of missing collateral of €1 billion in March 2021 (down from €1.4 billion in June 2020), after the full use of the credit line and the unencumbered eligible assets on the balance sheet.

Figure 7 – Coverage of the unutilized borrowing allowance by Italian banks



Note: we take into account the borrowing allowance not used by Italian counterparties and the proportion of banks that could 'collateralize' this share. For the sake of simplification, it is assumed that banks exhaust their credit line and pledge unencumbered assets on the balance sheet only at a second stage.

6. *Collateral easing measures*

In response to the economic crisis caused by the COVID-19 pandemic, the European Central Bank and the Bank of Italy adopted extraordinary measures to expand the value of assets eligible as collateral with the Eurosystem.[26] These measures, which have been adopted on several occasions since April 2020, aimed to facilitate banks' access to central bank funding and thereby ward off any

[25] The number of counterparties with an 'active' collateral pool in the same review period was 137.
[26] See de Guindos and Schnabel (2020).

pro-cyclical effects of a credit crunch or tensions associated with deteriorating market liquidity conditions. The actions taken comprised:

i. an easing of risk control measures, in particular through lower valuation haircuts,[27] in order to increase the value of collateral in a timely manner;
ii. an extension of the scope of eligible assets[28] by expanding the eligibility criteria for loans under national ACC frameworks; in particular, the Bank of Italy exploited the new criteria by extending the ACC scheme to include, *inter alia*: (a) loans backed by government guarantees issued by SACE and the SME Guarantee Fund[29]; (b) loans to households for consumer credit; and (iii) loans to smaller enterprises, by extending the methods used to assess borrowers' creditworthiness;
iii. a 'freezing' of the securities' eligibility in April 2020, in the case of downgrades of up to 2 notches.

6.1 The impact of the collateral easing measures on the pool

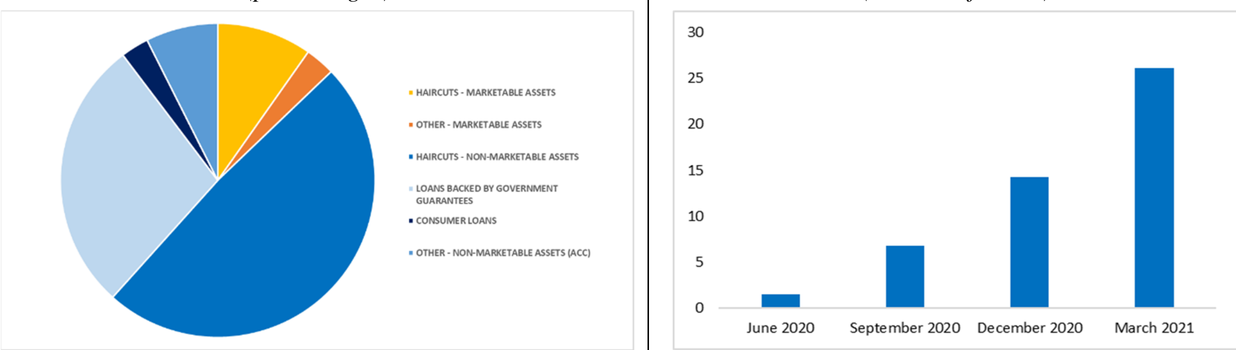
The collateral easing measures had a significant impact on the value and type of collateral pledged by Italian banks.[30] In particular, at the end of March 2021, the increase in the net value of collateral due to the collateral easing measures was €68 billion, i.e. 14 per cent of the value pledged in the Bank of Italy.

The effect of the enhanced collateral measures was mainly concentrated on bank loans (Figure 8a). The reduction in haircuts, which, *ceteris paribus*, ensures an increase in the net value of collateral, accounted for 62 per cent of the total collateral easing measures, and was mostly concentrated on bank loans. The share of ACC-based credit claims pledged according to the new eligibility criteria was also significant, accounting for 38 per cent of the total. Among these, loans backed by the public guarantees of SACE and the SME Guarantee Fund were particularly important.

Figure 8 – The effect of collateral easing measures on the collateral pool

a) Contribution of individual collateral easing measures
(percentages)

b) Loans eligible under the 'new' ACC framework
(billions of euros)



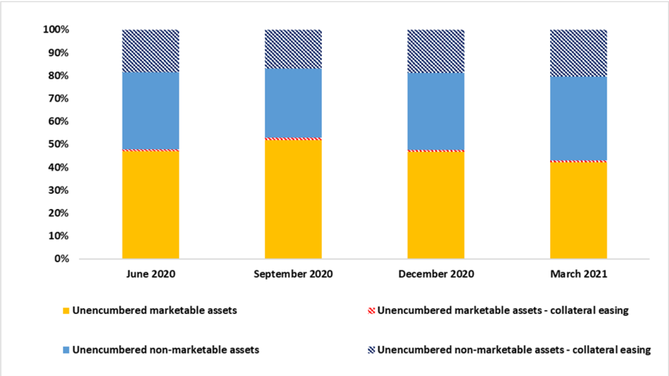
[27] See Antilici et al. (2020).
[28] See Bank of Italy (2020a, 2020b), ECB (2020a).
[29] Fondo di Garanzia per le PMI.
[30] See Antilici et al. (2021).

The reduction in haircuts had an immediate effect, while banks took more time to adapt their frameworks to the expansion of their ACC eligibility criteria. The provision of newly eligible loans was more gradual and it became apparent especially from the second half of 2020, reaching €26 billion in March 2021 (Figure 8b).

The collateral easing measures also increased the value of eligible and unencumbered assets on the balance sheet of Italian counterparties by around 20 per cent. Their importance in ensuring an increase in the volume of collateral that can potentially be pledged into central banks' pools is particularly evident for loans (Figure 9), which benefited from a widening of eligibility criteria and a larger reduction in haircuts than for other assets.

Figure 9 – The effect of collateral easing measures on unencumbered assets on the balance sheet

(percentages)



6.2 Contribution of collateral easing measures to ensure full participation in TLTROs

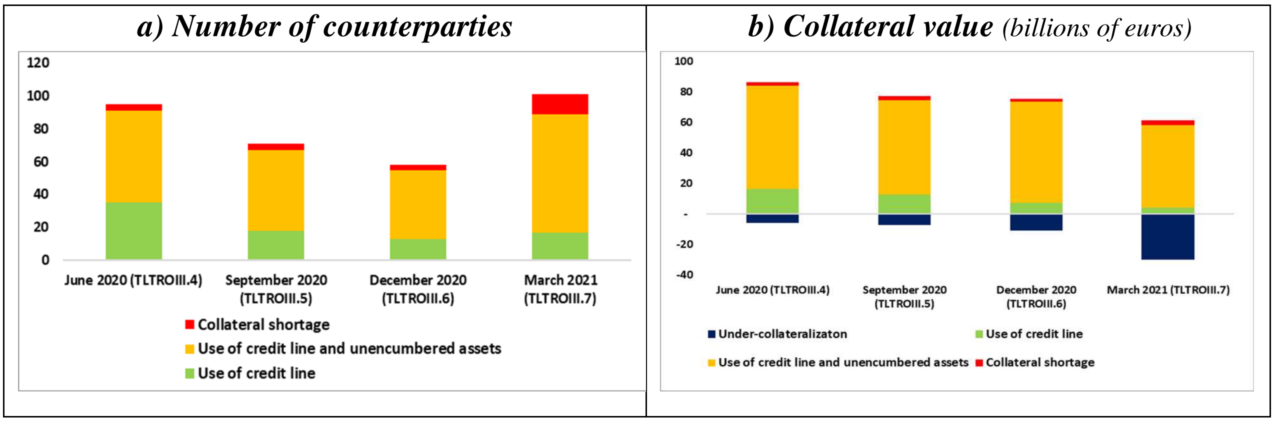
The collateral easing measures helped to ensure that counterparties increased their eligible collateral availability. However, this in itself does not allow their actual contribution to ensuring full access to Eurosystem credit to be assessed. To do this, it is necessary to analyze whether counterparties could have ensured full access to the liquidity provided with TLTROs even in the absence of a broadening of eligibility criteria and a reduction in haircuts.[31]

Many counterparties would have had to use a substantial share of currently unencumbered assets on the balance sheet to take full advantage of participation in TLTROs. If we apply the eligibility criteria and haircuts in force in the pre-pandemic period, it is estimated that, in March 2021 (TLTRO III.7), just 17 of the 101 counterparties with an unutilized borrowing allowance could have requested the maximum amount of liquidity obtainable by using only their own credit line (Figure 10a). Another 72 banks would have had to pledge unencumbered assets on their balance sheets, for a total value of €54 billion (Figure 10b). This value also includes the additions to the pool required to cover the (theoretical) under-collateralization, which would have reached €6 billion in June 2020 and €30 billion in March 2021, due to the loss of eligibility of some loans and the lower collateral value of all assets in the scenario without collateral easing measures.

[31]This exercise is purely theoretical and does not consider any treasury management decisions of individual banks.

Therefore, without the collateral easing measures, the remaining 12 counterparties, mostly of small size, would have been constrained by collateral availability in their TLTRO participation decisions for a total value of €3 billion. Without the measures adopted by the ECB and the Bank of Italy in 2020, these banks would not have had sufficient collateral to take full advantage of their borrowing allowance. While the value of unencumbered assets on the balance sheet remains high and the absence of collateral easing measures would not have led to a systematic collateral shortage, potential tensions could have occurred for an increasing number of counterparties from March 2020 to March 2021.

Figure 10 – Collateralization of the borrowing allowance in the absence of collateral easing measures in Italy



Note: estimate of the value of the assets eligible as collateral by applying pre-pandemic regulations; we take into account the borrowing allowance not used by Italian counterparties and the proportion of banks that could 'collateralize' this share. For the sake of simplification, it is assumed that banks exhaust their credit line and pledge unencumbered assets on the balance sheet only at a second stage.

6.3 The benefits of collateral easing measures

The measures taken by the Eurosystem since April 2020 have therefore been essential to ensure the full access of a limited number of banks to Eurosystem refinancing at particularly favourable conditions. However, the entire Italian banking system has benefited from the introduction of collateral easing measures. The introduction of the measures was important for the banking system, not only from a signalling perspective, but also with a view to optimizing treasury and collateral management.

The pandemic measures allowed banks to free up liquid assets, which would otherwise have been pledged to collateralize their exposure vis-à-vis the Eurosystem. Thanks to the post-pandemic measures, in fact, on the one hand the provision of illiquid assets (i.e. loans) as collateral was favoured, and on the other hand, through the reduction in haircuts, banks were given the opportunity to satisfy their central bank funding needs with an overall use of collateral that was lower than in previous years.

The ECB's interventions also helped to ensure the proper functioning of markets which, also owing to the substantial increase in the pace of purchases by the Eurosystem, could have been affected by possible shortages of securities. At the same time, counterparties were able to maintain sufficient holdings of securities, thereby avoiding liquidity stress in repo markets. In the latter, banks with excess liquidity offer money to other banks against collateral; highly liquid assets, in particular government bonds, play a crucial role in ensuring trading between market participants, which are less willing to accept, albeit with high haircuts, liquidity risks arising from loans or ABSs.

The incentive to pledge loans as collateral with the Eurosystem allowed banks to refinance assets that would otherwise have limited alternative uses and made compliance with certain regulatory requirements less costly. Loans are difficult to use for market transactions and are typically used as underlying assets in securitization transactions.[32] However, especially for smaller banks, this is more complex owing to the high costs and volumes of such operations. The benefits of optimizing treasury management are also reflected in regulatory requirements; indeed, European banks are obliged to maintain an adequate level of the liquidity coverage ratio (LCR)[33] by holding a sufficient share of unencumbered high-quality liquid assets (HQLA). Thus, through monetary policy operations, counterparties can obtain central bank reserves, which are considered HQLA, in exchange for bank loans (non-HQLA).[34]

7. *Monetary policy and bank lending*

The aim of collateral easing measures, as said above, is to ensure that banks maintain adequate amounts of eligible assets for refinancing operations, which in turn aim to improve liquidity conditions and stimulate lending to the economy (in particular the TLTROs). Therefore, collateral easing measures, together with more favourable conditions applicable to TLTROs, help to stimulate the provision of credit, which is one of the main channels for the transmission of monetary policy to the economy. The broadening of eligibility criteria and the reduction of the opportunity cost of granting loans (by obtaining central bank reserves in exchange) provides an incentive to counterparties to increase the supply of potentially eligible credit. At the same time, in order to take advantage of the more favourable terms envisaged by the TLTRO III programme, banks find it beneficial to increase the supply of loans, which in turn increases the availability of collateral to participate in monetary policy operations.

In the last year, since the outbreak of the pandemic crisis, there has indeed been an increase in the provision of credit to the real economy, which has been particularly evident for non-financial corporations (Figure 11a). In the previous recessions following the 2008 crisis, by contrast, there had been a credit crunch in the post-crisis period,[35] resulting from the interplay of a variety of factors on both the demand and supply side.[36] As evidenced by the Bank Lending Survey (BLS), credit standards for loans to non-financial corporations have remained broadly stable over the past year, with a slight improvement in the third quarter of 2020. By contrast, banks had reported a supply restriction in the period of the 2008 financial crisis and the subsequent recession. At the same time, firms' demand for credit peaked in the second half of 2020, following the 2019 downturn (Figure 11b).

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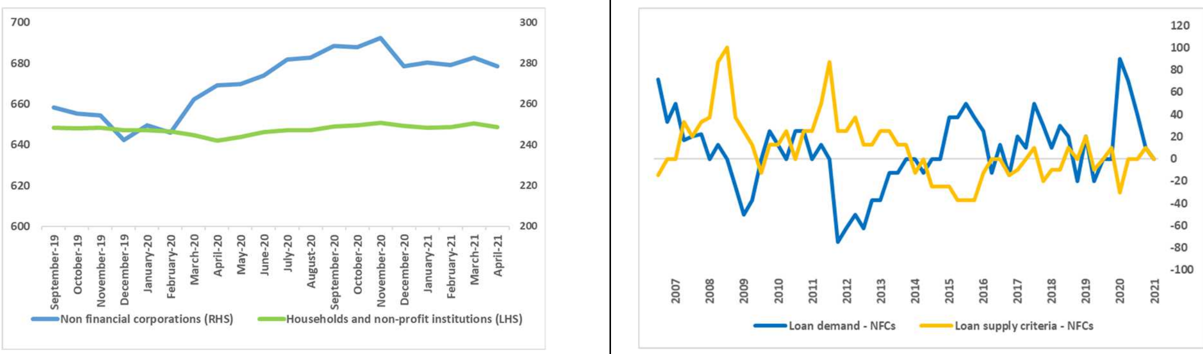
[32] Securitizations are financial transactions through which banks issue structured securities (ABSs) which are backed by a pool of underlying assets, usually a portfolio of credit claims. Thus, through these operations, banks transform illiquid assets (loans) into securities that can be traded in the markets (ABSs).
[33] Basel Committee on Banking Supervision (2013).
[34] Grandia et al. (2019).
[35] See Bank of Italy (2021a).
[36] See Panetta and Signorini (2010).

Figure 11 – Credit developments in Italy

a) The supply of credit to households and non-financial corporations *(billions of euros)*	**b) Credit supply standards and credit demand developments in Italy** *(net percentages)**



Source: ECB (Balance Sheet Items)	Source: ECB (Bank Lending Survey)

** The net percentage is defined as the difference between the percentage of respondents indicating a restriction of supply (increase in demand) and the percentage reporting an increase in supply (restriction of demand). Positive values indicate a restriction of supply or an increase in demand compared with the previous quarter.*

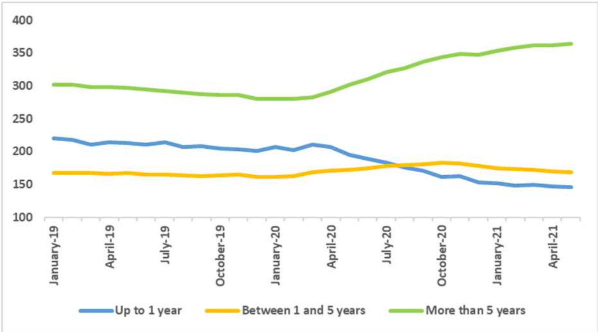
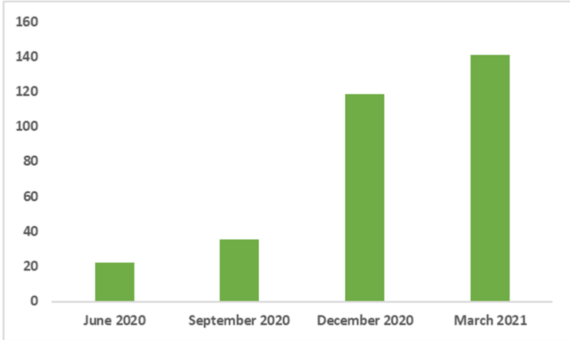
The credit expansion was particularly evident for long-term loans, while short-term loans declined (Figure 12a). In a period of high economic uncertainty, this development reflects the decision by firms to favour stabler sources of finance. Banks have been active in supporting the provision of longer-term credit, sustained by both accommodative monetary policy and fiscal measures. Long-term loans are those usually backed by government guarantees; therefore, the change in the maturity profile also provides a partial indication of the success of this scheme.

The credit crunch scenario was avoided during the pandemic crisis, thanks to the interaction between i) the fiscal policy measures introduced by the government, which contributed to the expansion of financing provided[37] through support measures for the economy,[38] ii) the ECB's expansionary policy, which supported the decline in interest rates, and iii) the specific actions taken by the ECB in 2020. The introduction of payment holidays and guarantees issued by SACE and the SME Guarantee Fund facilitated small and medium-sized enterprises by ensuring their full access to bank credit at a low cost. In Italy, the increase in demand for loans was significantly related to exposures backed by a government guarantee.[39] According to Bank of Italy estimates, the supply of guaranteed loans was especially pronounced in the second half of the year (Figure 12b); loans backed by government guarantees reached around €140 billion in March 2021.[40]

[37] See De Vincenzo (2021).
[38] See the Italian Chamber of Deputies (2021).
[39] See Bank of Italy (2021b).
[40] Survey on a sample of banks carried out by the Bank of Italy.

Figure 12 – The maturity profile of the loans and the government guarantee scheme

(billions of euros)

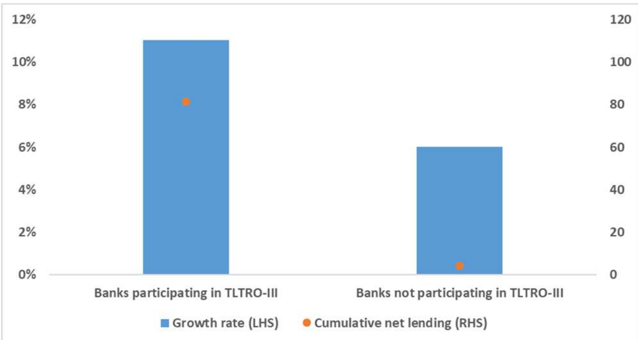
a) The maturity of loans to NFCs	**b) Loans backed by public guarantees***
	
Source: ECB (Balance Sheet Items).	Source: Bank of Italy, bank sample survey.

** Data refer to a weekly survey of banks that lend slightly less than 90 per cent of the overall value of loans to non-financial corporations. The figures shown are provisional estimates of the overall amounts and have been rescaled relative to total loans to enterprises from banks and financial corporations.*

Another factor that has encouraged the expansion of credit by the banks participating in TLTRO III tenders is the premium mechanism envisaged by the programme. The analysis of TLTRO III eligible loans, i.e. loans granted to euro area non-financial corporations and households, excluding loans for house purchases, shows that from April 2020 to March 2021 the growth rate of loans (net lending) granted by Italian banks participating in the programme was almost twice that of non-participating banks (Figure 13).

Figure 13 - Cumulative net lending and growth rate between April 2020 and March 2021

(*percentages, billions of euros*)



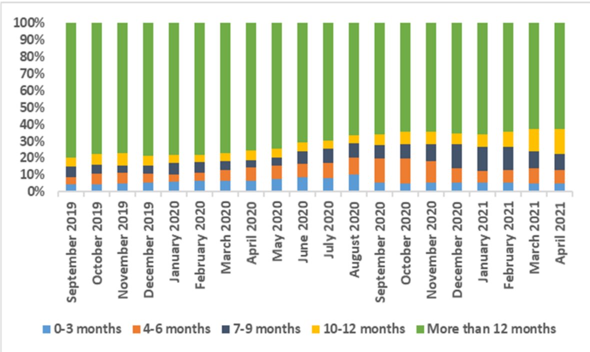
Source: ECB (Balance Sheet Items) and Bank of Italy calculations.

The increased credit granted to households and firms by Italian banks, in turn, facilitated their access to the liquidity provided by the Eurosystem. Over the past year, in order to access Eurosystem funding, banks have increased their reliance on loans granted in the previous 12 months; these loans, which accounted on average for 20 per cent of pledged loans in 2019, have tended to grow as a result of the pandemic crisis, accounting for around 40 per cent of the total in April 2021 (Figure 14a). At the same time, loans in the pool of monetary policy guarantees provided by banks during the pandemic crisis reached around €70 billion (Figure 14b).

Figure 14 - Loans used as collateral for refinancing operations: from granting to pledging as collateral

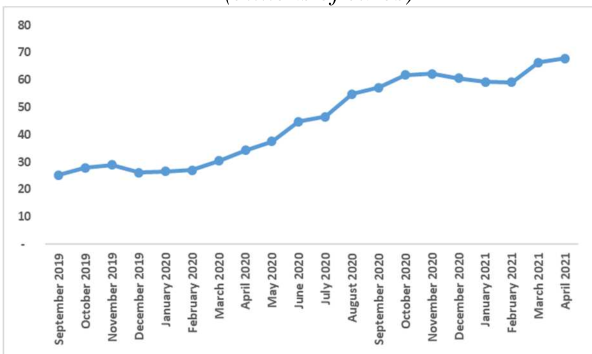
a) By origination date

(percentages)



b) Loans granted during the 12 months preceding the provision as collateral

(billions of euros)



Note: mortgages are excluded from this analysis because they are not relevant for the purposes of calculating TLTRO eligible loans.

8. *Conclusions*

The availability of collateral in the Italian banking system is adequate to ensure broad access to central bank funding and to exploit the more favourable conditions introduced for TLTRO III. Even considering the ECB's latest interventions, which since the March 2021 TLTRO operation increased the borrowing allowance from 50 per cent to 55 per cent of the reference aggregate, there are no widespread signs of collateral scarcity that could have prevented the full use of the TLTRO funding channel.

Thanks to credit support and collateral easing measures, banks have shown a greater propensity to pledge collateral under the ACC framework since June 2020, although the share of securities remains significant. In addition to the signalling effect of the Eurosystem's willingness to support the real economy, these measures have allowed counterparties to increase their use of bank loans as collateral, which have limited alternative uses in financial markets.

Even without collateral easing measures, most of the Italian banking system would not have encountered limits to fully accessing TLTRO III operations; in March 2021, only 12 per cent of counterparties, mostly small ones, would have not had sufficient collateral to claim the maximum amount that can be obtained under the programme. However, the Italian banking system as a whole benefited from those measures; in particular, they have allowed banks to have a substantial volume of unencumbered eligible assets on their balance sheets.

Since the outbreak of the pandemic crisis, lending by banks to households and non-financial corporations has increased. This increase was supported by the fiscal and monetary policy measures taken in euro area countries. The evidence presented suggests that, in addition to the important role played by state guarantees for corporate loans, the incentive mechanism provided by TLTRO III operations also helped to sustain loan supply.

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Glossary

Additional credit claims (ACC): bank loans eligible as collateral for Eurosystem credit operations. Loans eligible under the ACC framework do not fulfil the Eurosystem-wide eligibility criteria but fulfil broader criteria specified by individual national central banks subject to minimum standards agreed by the Governing Council of the ECB.

Additional LTROs: longer-term refinancing operations introduced by the Governing Council of the ECB to provide immediate liquidity support to the banking system and safeguard money market conditions in response to the outbreak of the COVID-19 pandemic. They were additional operations which were conducted on a weekly basis as of 16 March 2020 and expired in parallel with the settlement date of the fourth TLTRO III operation (24 June 2020).

Bid limit: maximum amount that may be borrowed by a participant in an operation of a TLTRO programme.

Borrowing allowance: maximum amount that may be borrowed by a participant in a given TLTRO programme.

Collateral easing: a set of measures, adopted in the course of 2020 by the ECB in response to the pandemic crisis, aimed at broadening the value and type of assets that can be used as collateral in Eurosystem refinancing operations.

Collateral pool: the pool of assets used as collateral in Eurosystem credit operations.

Collateral value (or net value) of collateral: the value of the assets transferred to the collateral pool, less the valuation haircuts applied.

Credit line: difference between the collateral value of the pool and the encumbered collateral value, equal to the outstanding credit vis-à-vis the Eurosystem.

European System of Central Banks: a system composed of the European Central Bank and the national central banks of all 27 Member States of the European Union.

Eurosystem: the central banking system of the euro area responsible for the implementation of the single monetary policy. It comprises the European Central Bank (ECB) and the national central banks (NCBs) of those EU countries that have adopted the euro.

Euro area: the area encompassing those Member States of the European Union which have adopted the euro as their official currency.

Eligible and unencumbered assets on balance sheets: securities and loans on the balance sheet of monetary policy counterparties that can potentially be used as collateral for Eurosystem credit operations. The data submitted are estimates that take into account the current eligibility criteria and valuation haircuts.

The Governing Council of the ECB: the decision-making body of the ECB. It is composed of the governors of the EUR 19 area central banks and the six members of the ECB's Executive Board.

High-quality liquid assets (HQLA): assets that, according to the Basel Committee classification, can be converted into cash easily and immediately with little or no loss of value.

Lending performance: developments in eligible loans granted by banks participating in TLTRO III operations during the programme reference periods. It is used to determine which is the interest rate to be applied to Eurosystem funding via TLTROs.

Liquidity coverage ratio, LCR: liquidity indicator introduced by the Basel Committee with the aim of increasing banks' short-term resilience to liquidity risks. It requires banks to hold an adequate level of liquid assets that can easily be converted into cash in order to meet liquidity needs within a 30-day period of a stress scenario.

Monetary policy counterparties: credit institutions eligible for monetary policy operations, subject to verification of compliance with the general eligibility criteria set out in Eurosystem regulations and technical/operational requirements.

Notch: valuation unit of rating agencies' scale. For example, a rating downgrade from BBB+ to BBB- is equal to 2 notches (BBB+, BBB, BBB-).

Open market operations: operations conducted on the ECB's own initiative with the aim of steering interest rates, signalling the monetary policy stance and managing the liquidity situation in the euro area banking system. Open market operations include: (i) main refinancing operations; (ii) longer-term refinancing operations; (iii) fine - tuning operations; (iv) structural operations.

Over-collateralisation (O/C): percentage indicator of the share of unencumbered assets held in the collateral pool and available to sustain an increase in credit with the central bank. It is calculated as the ratio between the credit line and the collateral value pool.

PELTRO: longer-term refinancing operations introduced by the Governing Council of the ECB during the COVID-19 pandemic to support the liquidity conditions in the euro area financial system and contribute to preserving the smooth functioning of money markets by providing an effective liquidity backstop after the maturity of the additional LTROs. In addition to the first seven operations conducted in 2020 with maturities between July and September 2021, the Governing Council decided to conduct four additional operations, each with a tenor of one year, in 2021.

Repo market: market in which short-term liquidity is traded against collateral.

Securitisation: a transaction consisting of the transfer of loans (and related credit risk) from a bank (originator) to a special purpose vehicle (SPV). The SPV finances the purchase of the assets by issuing and subsequently placing securities on the market. The cash flows generated by the acquired assets backing the securities are primarily intended to meet investors' rights (payment of principal and interest). The issue is divided into tranches characterised by different levels of risk, yield and rating.

Standing facilities: operations conducted on the initiative of the Eurosystem's monetary policy counterparties. Counterparties can either make overnight deposits or receive overnight credit against adequate collateral (i.e. the marginal lending facility). Standing facility rates are pre-specified by the ECB and represent the corridor within which overnight market interest rates move.

TLTRO III: third series of targeted longer-term refinancing operations, conducted as of September 2019. Like the first two series, the TLTRO III programme provides long-term funds to euro area credit institutions and aims to strengthen the transmission of monetary policy, thereby supporting the provision of bank lending to the real economy. The maximum amount that may be borrowed by a participant (borrowing allowance) is linked to the volume of loans granted to households and non-financial corporations (excluding mortgages). The interest rate applied to each participant is linked to banks' lending to households and non-financial corporations during the reference periods.

Valuation haircuts: prudential reductions, expressed as percentages, applied to the value of assets used as collateral in Eurosystem credit operations.

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