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EUROSISTEMA

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by Donato Ceci, Alessandro Montino, Sara Pinoli and Andrea Silvestrini

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# GROSS BOND ISSUANCE BY ITALIAN BANKS: KEY TRENDS IN TIMES OF CRISIS AND UNCONVENTIONAL MONETARY POLICY

by Donato Ceci\*, Alessandro Montino\*, Sara Pinoli† and Andrea Silvestrini\*

## Abstract

This paper examines the issuance of bonds by Italian banks from the onset of the global financial crisis in 2007-08 to the end of 2022, in light of the macroeconomic environment and the unconventional monetary policy measures adopted in the euro area. The sovereign debt crisis was followed by a progressive reduction in the gross issuance of bank bonds, together with an increase in retail deposits and refinancing operations with the Eurosystem. Disaggregated data show that Italian banks have partially replaced bond issues with alternative sources of funding. This has mitigated the transmission of financial shocks to the cost of funding but, on the other hand, has increased the reliance of the banking system on quantitative measures of monetary policy. In the ongoing phase of monetary policy normalization, banks may once again have to increase bond financing to replace their maturing funds. This could lead to a significant tightening of funding conditions for the private sector in a context of slowing economic activity. The overall cost of bank funding should be constantly monitored in order to prevent unexpected shocks arising within the banking system.

**JEL Classification:** G12, G21, G32.

**Keywords:** bank bonds, bond issuance, crisis, unconventional monetary policy, cost of funding.

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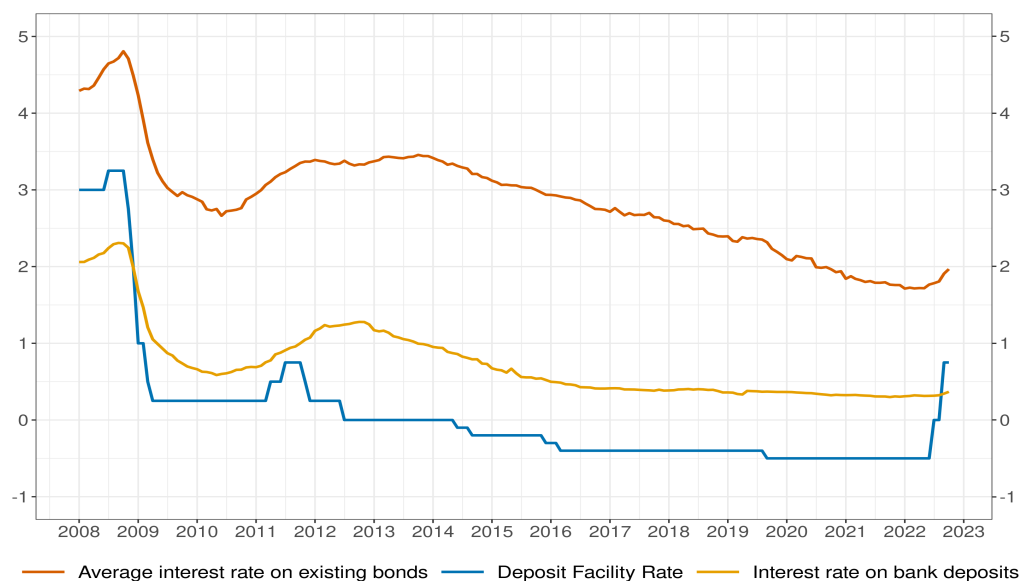


# 1 Introduction and stylized facts<sup>1</sup>

Bond issuance represents a relevant source of funding for banks, together with traditional customer deposits, mostly from households, wholesale funding through the interbank market and other short-term debt, notably repurchase agreements and commercial paper. In addition to deposits and wholesale funding, banks can access central bank liquidity and raise capital through equity (Van Rixtel and Gasperini, 2013). Therefore, the use of bonds as a form of external financing mainly depends on its relative cost compared with that of alternative sources of financing (Figure 1).

Figure 1: Interest rates on bank funding instruments in Italy and ECB deposit facility rate

(per cent)



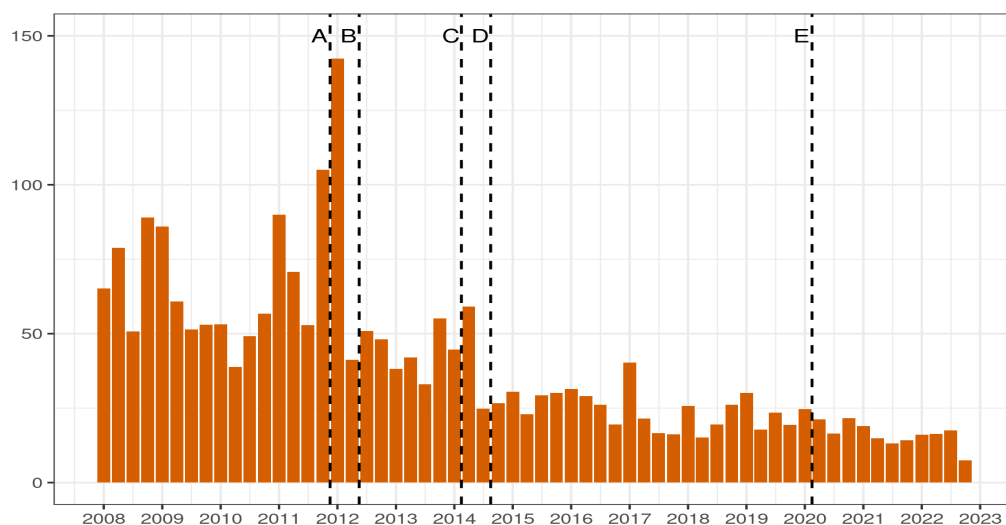
Monthly data, Jan. 2008 - Oct. 2022. Source: Based on Bank of Italy data.

<sup>1</sup>The views expressed herein are those of the authors and do not necessarily reflect those of the Bank of Italy or the Eurosystem. The authors thank Taneli Mäkinen, Stefano Neri, Marcello Pericoli, Paola Rossi, and Luigi Federico Signorini for very useful comments and suggestions on an earlier draft.

In the period between the onset of the global financial crisis and the monetary policy normalisation process that is under way, the gross issuance of bonds by Italian banks has also been influenced by the macroeconomic environment as well as fiscal and monetary policy measures put in place, as emerges from Figure 2.

Figure 2: Gross bond issuance by banks

*(billions of euro)*

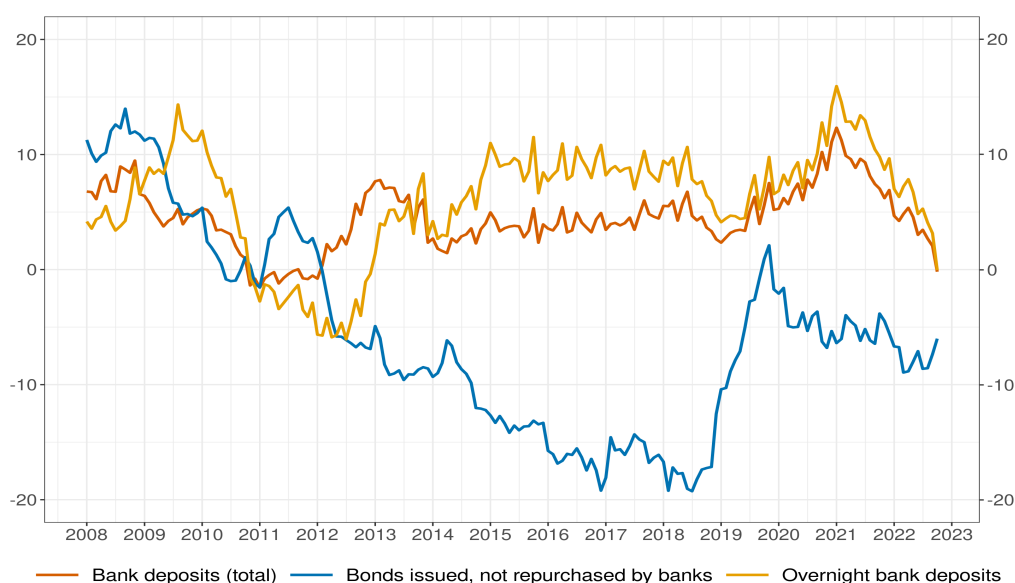


Quarterly data, 2008Q1 - 2022Q4. Source: Based on Bank of Italy data (securities registry database).  
*Notes:* The dashed black vertical lines indicate: (A) “Salva Italia” Decree (Monti) (December 22, 2011); (B) “Whatever it takes” speech by Mario Draghi, given at the Global Investment Conference in London (July 26, 2012); (C) Directive no. 2014/59/EU, so-called Banking Recovery and Resolution Directive, BRRD (May 15, 2014); (D) Extension of the range of loans that banks can use to guarantee financing operations with the Eurosystem (8 September 2014); (E) Announcement of new collateral eligibility criteria (April 22, 2020).

Bond issuance as a share of total bank funding decreased considerably from 25% to 7%. Over the last decade, more specifically, gross bond issuance by banks fell from over €300 billion in 2011 to just €61 billion in 2021 (€56 billion in the first ten months of 2022; Figure 2, Table 1). This trend can be partly explained by the progressive replacement of

bonds with longer-term refinancing operations, which the Eurosystem granted to banks on very advantageous conditions (Bank of Italy, Annual Report on 2021). At the same time, the reduction in gross bond issuance was partially offset by the increase in bank deposits, which have recorded positive annual growth rates over the past 15 years (Figure 3).

Figure 3: Bank deposits with residents and bonds issued  
(12-month percentage changes)



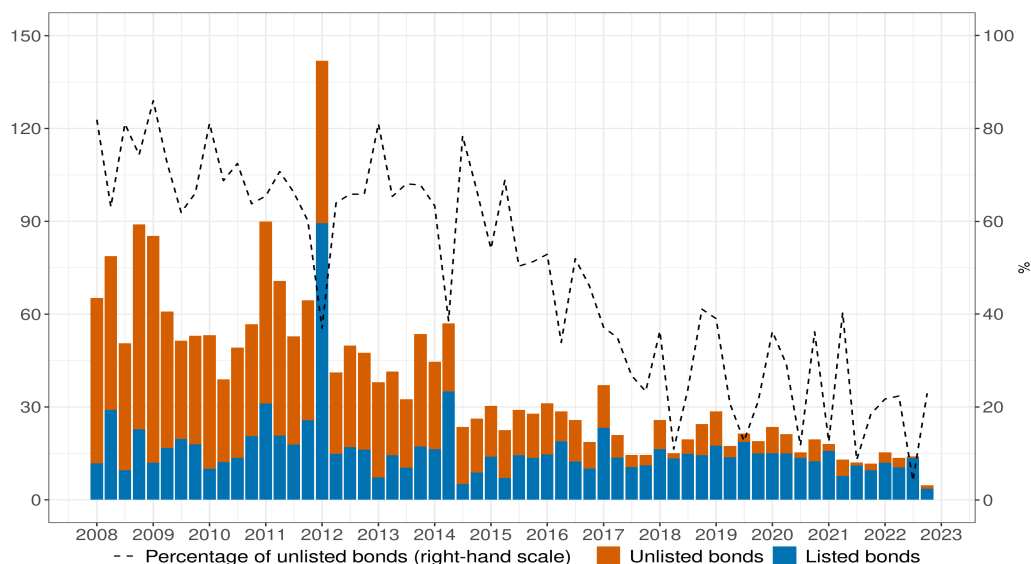
Monthly data, Jan. 2008 – Oct. 2022. Source: Based on Bank of Italy data.

*Notes:* Percentage changes are adjusted to take account of the effects of securitisations, reclassifications, write-downs, exchange rate adjustments and other changes not due to transactions.

The type of securities issued and placed with the investors changed considerably in the period under review. Up until the sovereign debt crisis, banks mostly issued unlisted ordinary bonds, which were offered directly to retail investors in order to raise funds, while listed bonds accounted for around a quarter of total issuance and were mainly traded on the Euromarket. Since 2011, the issuance of unlisted bonds declined steadily, while the issuance of listed bonds remained relatively stable (Figure 4).

Figure 4: Gross bond issuance by banks with maturity at issuance longer than 1 year:  
disaggregation by listing

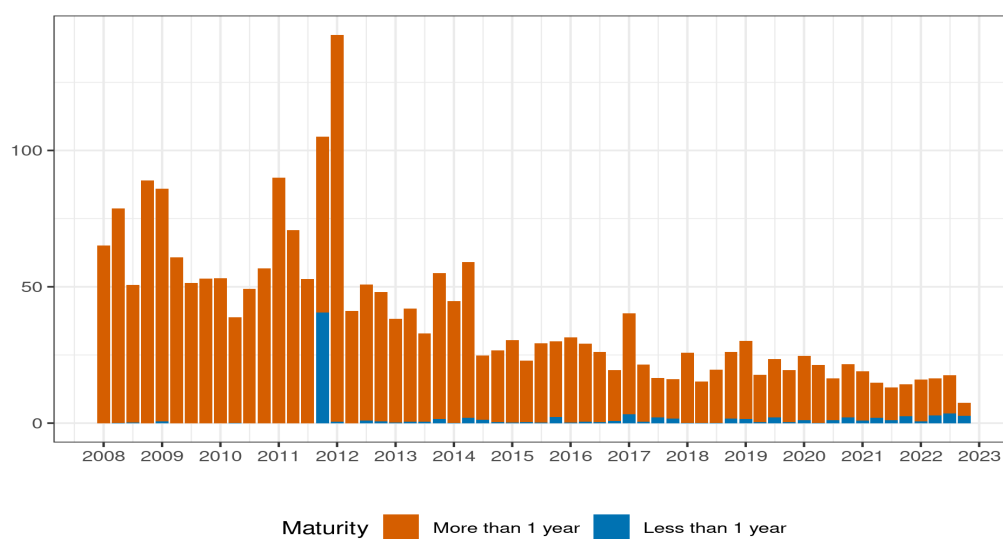
(billions of euro)



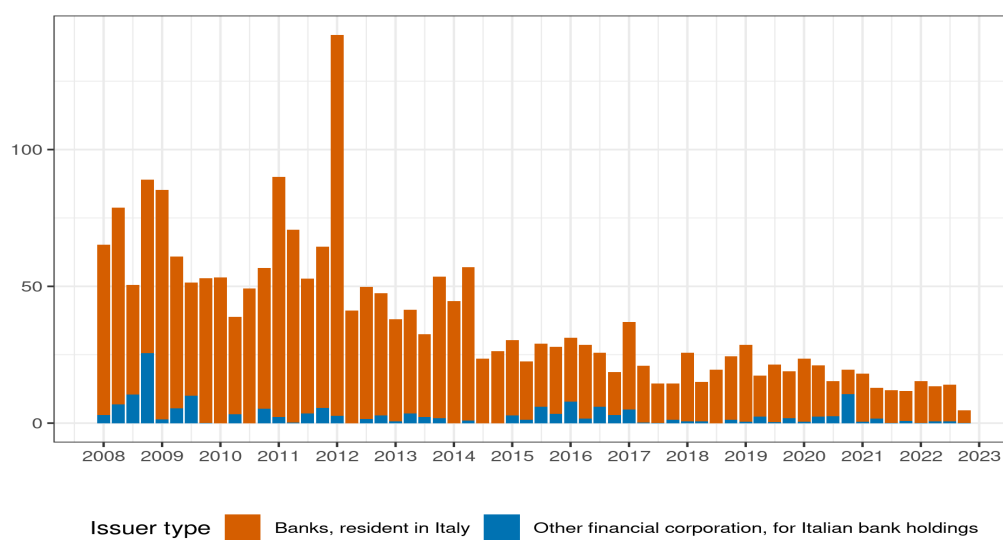
Quarterly data, 2008Q1 - 2022Q4. Source: Based on Bank of Italy data (securities registry database).

As regards the maturity structure, the average maturity of bank bond issues has also changed. The share of securities with an initial maturity of up to one year (mainly commercial paper) exceeded 10% in the last four years, partly due to market turbulence following the outbreak of Covid-19 and, more recently, interest rate hikes reflecting the normalisation of monetary policy aimed at preventing the de-anchoring of longer-term inflation expectations. By contrast, before 2019 the share of short-term securities was very low, with the exception of 2011, when there was a temporary peak following the introduction of a new regulation (“Salva Italia” Decree, Legislative Decree No. 201/2011, Figure 5, panel (a), and Table 1).

Figure 5: Gross bond issuance by banks: disaggregation by maturity and issuer type  
(billions of euro)



(a) disaggregation by maturity



(b) disaggregation by issuer type

Quarterly data, 2008Q1 - 2022Q4. Source: Based on Bank of Italy data (securities registry database).

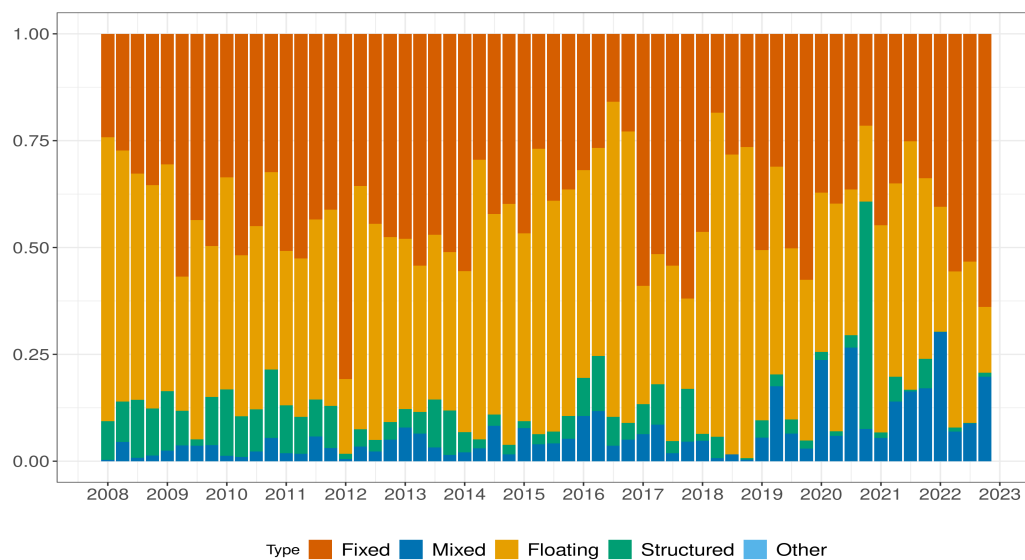
Most of the bonds with an initial maturity of more than one year were issued directly by banks, while a minor share was issued by financial companies on behalf of Italian banks (Figure 5, panel (b)). To account for the ability of individual banks to finance themselves by issuing securities through financial institutions that are part of the same banking group, the data used in this paper includes both direct issuance by individual banks and indirect issuance by banking groups mainly through securitisation transactions.

Bonds with indexed coupons accounted for the largest component on average, although the data shows high variability in indexation over time, likely related to significant volatility in market conditions (Figure 6, panel (a)). The share of fixed-coupon bonds followed an increasing trend as of 2016-2017, driven by the gradual reduction in monetary policy interest rates. The vast majority of securities issued in the period under study were denominated in euro (Figure 6, panel (b)).

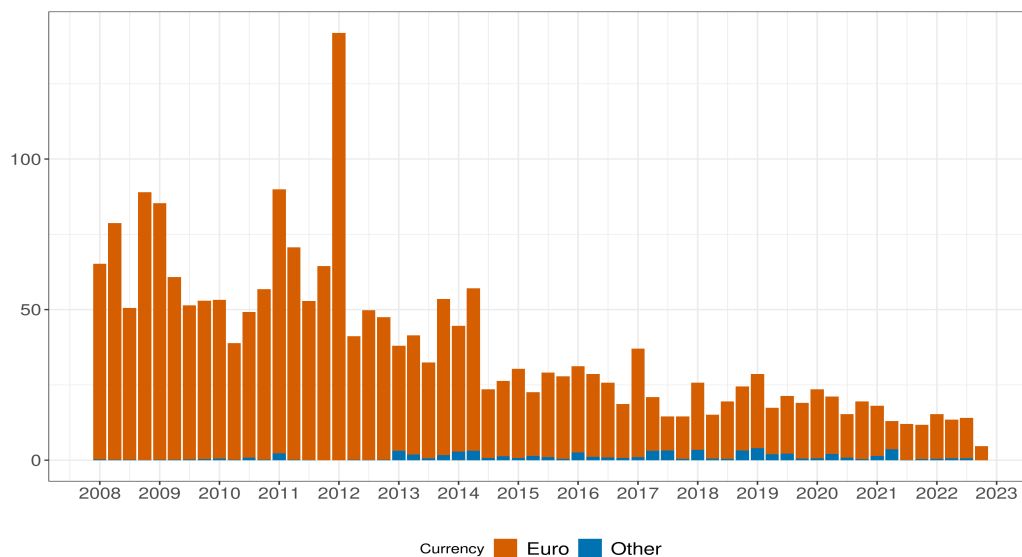
It is interesting to note that a significant portion of the securities issued were not used as a direct source of funding, as a large share of them was repurchased by the same banks immediately or a few months after the issuance in order to be used as collateral in Eurosystem credit operations. Our analysis of the disaggregated data on bond issues shows indeed that more than half of the bonds issued in the years immediately following the sovereign debt crisis were not placed among investors but rather repurchased by issuing banks to be used as collateral in longer-term refinancing operations with the Eurosystem. The issuance and repurchase of bonds after listing was particularly high in the 2011-2012 period, and then decreased when the economic recovery resumed in 2014, but remained on average higher than one-third of the total. Furthermore, the share of funds raised by banks through longer-term refinancing operations backed by loans rather than bonds increased, especially after the expansion of the scope of loans eligible for Eurosystem credit operations in September 2014.

Figure 6: Gross bond issuance by banks with maturity at issuance longer than 1 year:  
disaggregation by type of rate and currency of denomination

*(percentage points; billions of euro)*



(a) disaggregation by type of rate



(b) disaggregation by currency of denomination

Quarterly data, 2008Q1 - 2022Q4. Source: Based on Bank of Italy data (securities registry database).

The remainder of this paper proceeds as follows. Section 2 examines the impact of ECB unconventional monetary policy on the bond issuance activity of Italian banks. Section 3 focuses on securities sold to investors, excluding bonds used by banks as collateral in credit operations with the Eurosystem. Section 4 discusses future prospects and draws conclusions.

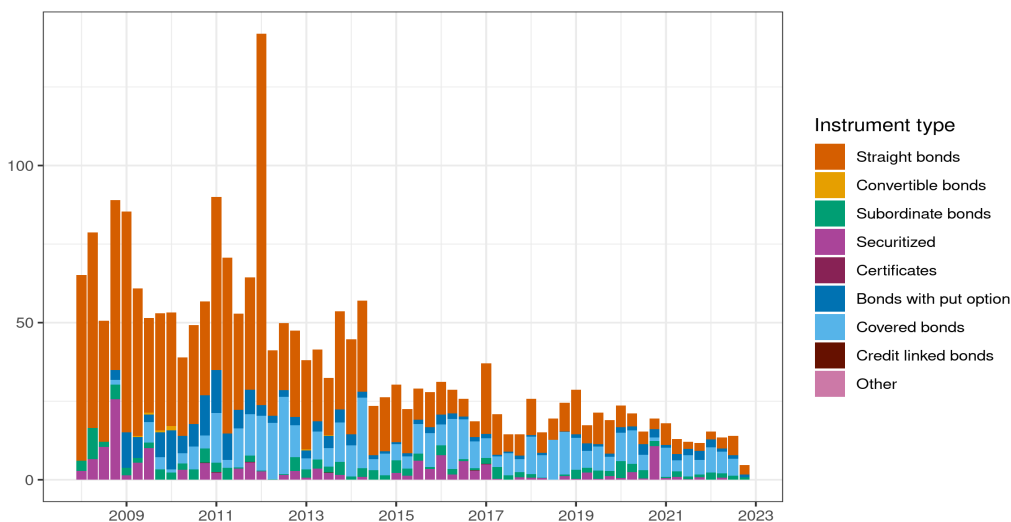
## **2 Monetary policy measures and bond issuance activity by Italian banks**

Since the onset of the global financial crisis, Italian banks changed the composition of their debt securities by increasing the share of covered bonds (covered bonds and securities backed by public guarantees) and decreasing that of ordinary bonds (Figure 7).

The share of securitisation in the total number of bonds issued, which stood at around 5% in the period 2008-2022, increased sharply at the end of 2008, in 2015-16 and at the end of 2020, following several legislative measures passed by Italian and European political authorities. The main measures that promoted the securitisation process were (i) the introduction of fixed-rate tender procedure with full allotment in October 2008 and the expansion of the range of eligible collateral for the main refinancing operations (Bank of Italy, Annual Report on 2008); (ii) the establishment of an investment fund by the Italian Ministry of Economy and Finance in February 2016 to provide public guarantees for the securitisation of non-performing loans (so-called GACS; Bank of Italy, Financial Stability Report, 1, 2021); (iii) the easing of collateral criteria for assets eligible for refinancing operations in April 2020 (Bank of Italy, Financial Stability Report, 2, 2020).

Figure 7: Gross bond issuance by banks with maturity at issuance longer than 1 year:  
disaggregation by instrument type

*(billions of euro)*



Quarterly data, 2008Q1 - 2022Q4. Source: Based on Bank of Italy data (securities registry database).

Unconventional monetary policy measures fostered the securitisation of own assets (self-securitisation) and the issuance of ad hoc bank bonds intended for repurchase and used as collateral in refinancing operations, such as “Monti bonds” and covered bonds. Unlike traditional securitisations, in self-securitisations the securities issued by the vehicle company, backed by the loans originated by the bank, are not sold in the market but are fully purchased by the issuing bank itself. They therefore involve neither a transfer of the credit risk, which remains entirely with the bank that carried out the transaction, nor do they represent a direct source of funding.

The “Monti bonds” were introduced on December 6, 2011, with the “Salva Italia” Decree (Legislative Decree 201/2011), which granted a state guarantee for bonds and bank loans with original maturities from three months up to five years (up to seven years for covered bonds) for issues subsequent to the decree and up to June 2012. Most of the “Monti bonds” were repurchased by banks and deposited as collateral in a special account (the so-called “collateral pool”) at the Bank of Italy (Bank of Italy, Financial Stability Report, 3, 2012).

Covered bonds, secured by a share of the bank’s assets in the cover pool, were introduced in March 2005 (Competitive Decree, Legislative Decree No. 35/2005). Their diffusion was facilitated by the first two Eurosystem covered bond purchase programmes (CBPP; ECB Decisions No. 16 of July 2, 2009, and No. 17 of November 3, 2011) and by their inclusion in the list of assets that can be pledged as collateral at a lower haircut than securitisations. Most of the covered bonds issued were repurchased by the issuing banks and then deposited in the collateral pool.

In the most acute phase of the sovereign debt crisis in 2011-12, the share of non-marketable securities used for Eurosystem credit operations was high, reaching more than half of the amount issued (Figure 8). On the one hand, uncertainty in financial markets has made it more difficult to issue bonds on the wholesale market, while on the other hand the introduction of unconventional monetary policy measures has given banks the opportunity to obtain funding at lower cost and to use the bonds themselves as collateral in refinancing operations with the Eurosystem.

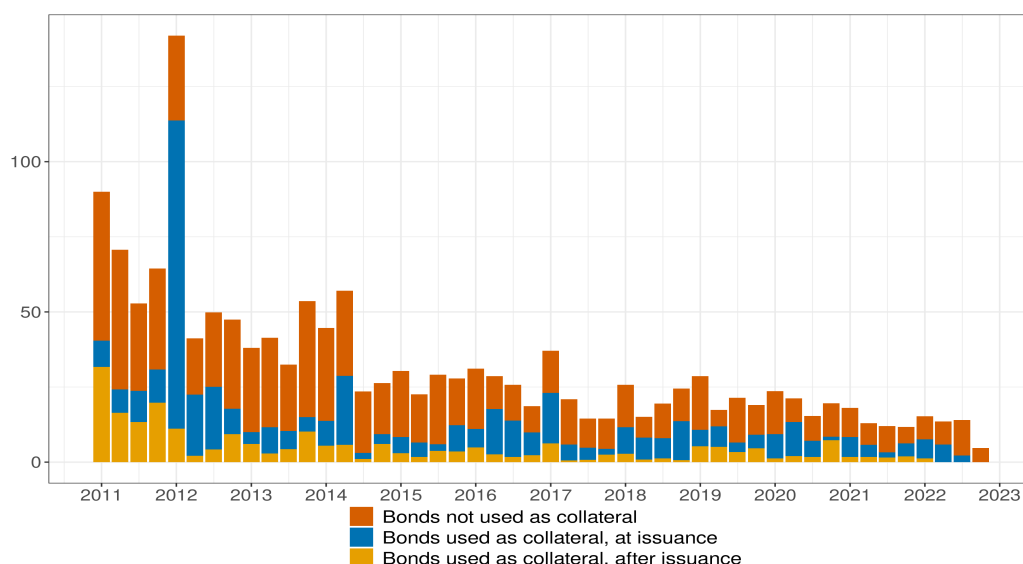
Subsequently, the use of bank bonds as collateral decreased, although Italian banks continued to access refinancing operations with the Eurosystem.<sup>2</sup> This tendency can be due to the rules established by the Governing Council of the ECB for the Eurosystem’s ordinary collateral framework (Additional Credit Claims, ACC), which allowed national central banks to temporarily extend the range of bank loans eligible as collateral for Eurosystem refinancing operations (Bank of Italy, Financial Stability Report, 2, 2014).

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<sup>2</sup>In December 2012, refinancing operations amounted to 275 billion euro. In subsequent years, deposits with the Eurosystem declined, but still reached levels above 200 billion euro, and then increased again with measures taken in response to the Covid-19 pandemic.

Figure 8: Gross bond issuance by banks with maturity at issuance longer than 1 year:  
use as collateral in refinancing operations with the Eurosystem

(billions of euro)



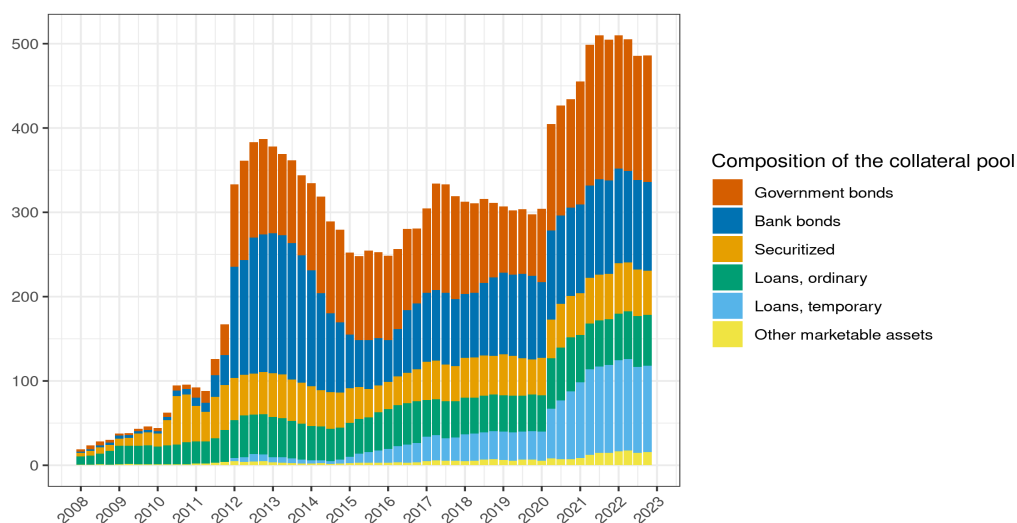
Quarterly data, 2008Q1 - 2022Q4. Source: Based on Bank of Italy data (supervisory statistical reports and securities registry database).

In February 2012, the Bank of Italy decided to expand the range of eligible assets, a measure subsequently broadened in September 2014. Overall, these interventions led to a change in the type of assets included in the collateral pool, resulting in a progressive replacement of bank bonds – whose share almost halved from 35 to 22 per cent between 2014 and 2021 – with bank loans – whose share rose from 14 to 31 per cent (Figure 9). In July 2022, the extensions to the eligibility criteria for assets pledged as collateral were partially removed, leading to a reduction of €10 billion in the Bank of Italy’s collateral pool.

A full restoration of the criteria established before the outbreak of the Covid-19 pandemic would result in the exclusion of an additional €50 billion of financial instruments from the collateral pool. At the moment, these measures do not require banks to change their funding decisions, as there are still more than €200 billion in assets available to be

used as collateral in October 2022. According to Bank of Italy estimates, the value of securities transferable as collateral would remain high even in the event of a 100 basis-point increase in interest rates (Bank of Italy, Financial Stability Report, 2, 2022).

Figure 9: Composition of the Eurosystem collateral pool  
(billions of euro)



Quarterly data, 2008Q1 - 2022Q4. Sources: Based on Eurosystem and Bank of Italy data (supervisory statistical reports and securities registry database).

Notes: End-of-period data referring to the Bank of Italy's monetary policy counterparties. The collateral pool is valued at the prices reported by the Common Eurosystem Pricing Hub (CEPH), net of haircuts.

### 3 Bank bonds placed among investors

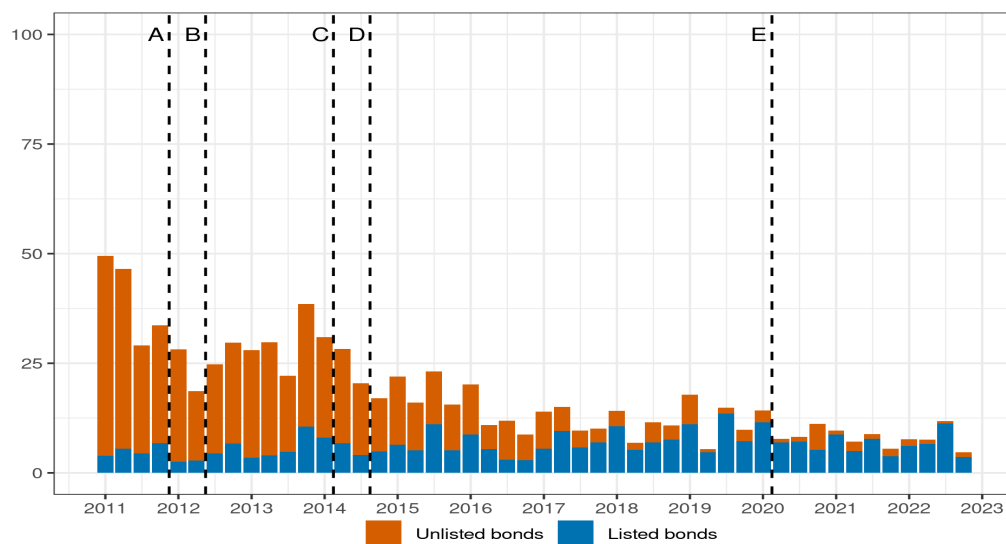
Gross bond issuance, net of that used by banks as collateral in refinancing operations with the Eurosystem, gradually decreased in the period under review (Figure 8). Between 2011 and 2016, bond placements fell by around 15% per year and stabilized below €50 billion. This was due to the decline in the issuance of unlisted bonds, which dropped by an average of 20% annually between 2011 and 2021, while the issuance of listed bonds

was much more stable (Figure 10).

The information available in the statistical reports of the Bank of Italy allows an analysis of the composition of bank bonds – excluding repurchases and bonds pledged as collateral – by type of borrowers (Figure 11).<sup>3</sup>

Figure 10: Gross bond issuance by banks with maturity at issuance longer than 1 year and not used as collateral in refinancing operations with the Eurosystem: disaggregation by listing

*(billions of euro)*



Quarterly data, 2008Q4 - 2022Q4. Sources: Based on Bank of Italy data (supervisory statistical reports and securities registry database).

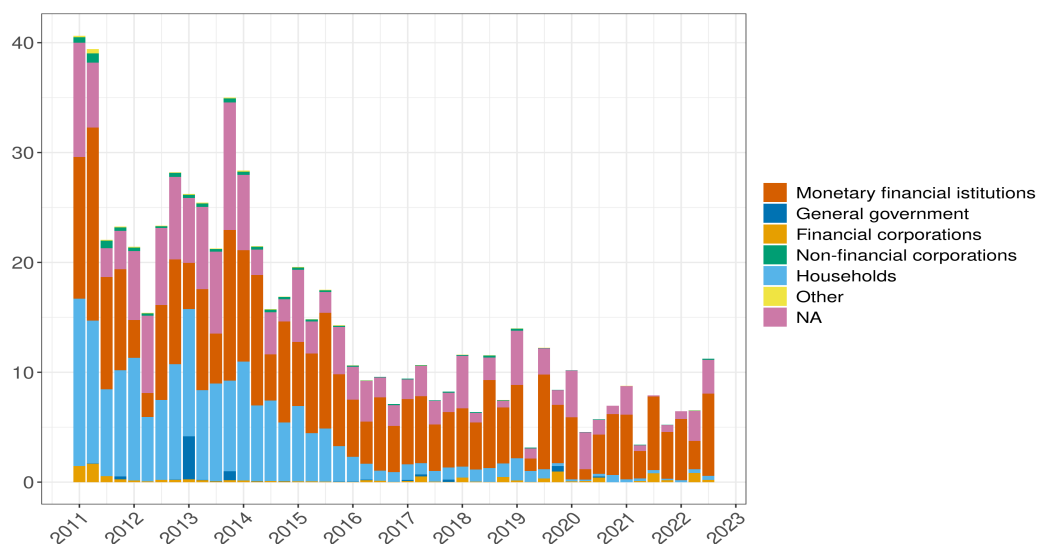
*Notes:* The dashed black vertical lines indicate: (A) “Salva Italia” Decree (Monti) (December 22, 2011); (B) “Whatever it takes” speech by Mario Draghi, given at the Global Investment Conference in London (July 26, 2012); (C) Directive no. 2014/59/EU, so-called Banking Recovery and Resolution Directive, BRRD (May 15, 2014); (D) Extension of the range of loans that banks can use to guarantee financing operations with the Eurosystem (8 September 2014); (E) Announcement of new collateral eligibility criteria (April 22, 2020).

<sup>3</sup>Bank of Italy’s supervisory statistical reports provide, on a monthly basis, the nominal value of securities issued by each bank. Unlike the data from the Bank of Italy’s securities registry database, the supervisory statistical reports refer only to direct issues by banks and exclude securities repurchased by the bank itself.

As can be seen in Figure 11, bank bonds held by wholesale investors (namely monetary financial institutions) account for a roughly constant share of all bank bond issuance and they do not contribute to the aggregate decline over the past decade. Bonds held by monetary financial institutions decreased exclusively in the years following the sovereign debt crisis (from summer 2011 to mid 2012), due to the downgrade of Italian sovereign debt by credit agencies and the ensuing difficulties for Italian banks in accessing international financial markets.

Figure 11: Marketed gross bond issuance by banks with maturity at issuance longer than 1 year: disaggregation by borrower type

*(billions of euro)*

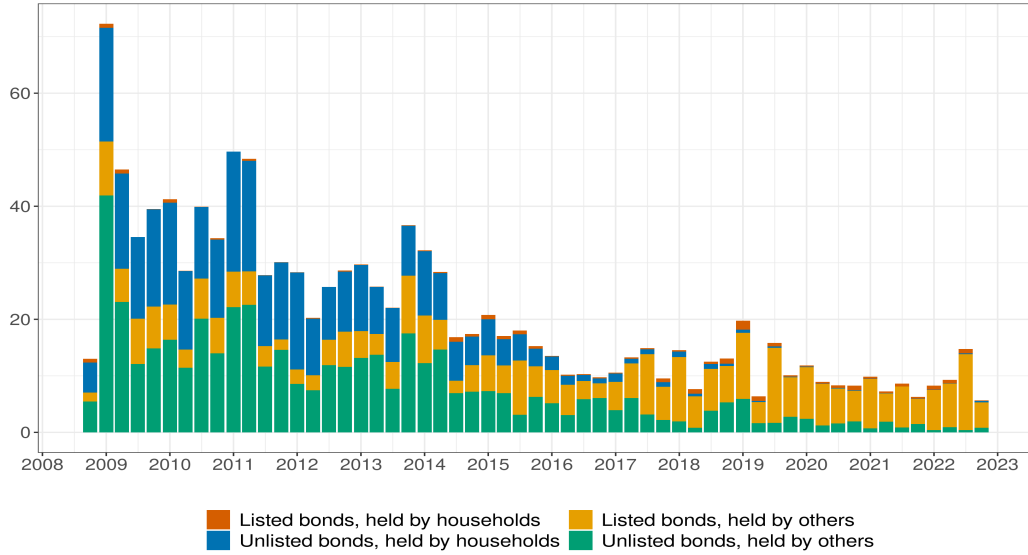


Quarterly data, 2011Q1 – 2022Q3. Sources: Based on Bank of Italy data (supervisory statistical reports and securities registry database).

On the other hand, Figure 12 shows a significant decline in gross issuance of unlisted bonds placed with retail customers (particularly households), which fell from nearly €70 billion in 2011, about one-half of unlisted placements, to €5 billion in 2016, roughly one-fifth of unlisted placements.

Figure 12: Marketed gross bond issuance by banks with maturity at issuance longer than 1 year: disaggregation by borrower type (households, other borrowers)

(billions of euro)



Quarterly data, 2008Q4 – 2022Q4. Sources: Based on Bank of Italy data (supervisory statistical reports and securities registry database).

Several factors have contributed to this decline. On the supply side, the introduction of unconventional monetary policy measures allowed banks to borrow from the Eurosystem at a lower cost, thus slowing down the issuance of bank bonds. On the demand side, the interest received from bondholders decreased due to the lower remuneration for new issues, owing to the progressive reduction in global interest rates. In addition, the tax rate on bank bond coupons in Italy was increased from 12.5% to 20% as of January 2012 (“Reform of taxation on financial income” first announced in August 2011 and then approved in September 2011) and to 26% in July 2014 (Legislative Decree No. 66/2014). Therefore, the resulting change in tax treatment affected investor demand for bonds. Specifically, the evidence suggests that the 2011 reform induced a positive shock on bank deposits and a negative shock on bond financing (Carletti et al., 2021).

Another factor that may have influenced banks' propensity to issue bonds has been the transposition of the European Directive 2014/59 (Banking Recovery and Resolution Directive, BRRD), which in 2014 introduced the general principle of "bail-in": According to this new legislation, the costs of the crisis must be first of all absorbed by the categories of shareholders and creditors of the banks, in line with the bankruptcy hierarchy. Specifically, in the event of resolution the costs arising from the need to cover losses and recapitalize the intermediary are absorbed first by the shareholders, then by bondholders (subordinated and otherwise), and finally by depositors holding funds for the part exceeding €100,000 (Visco, 2018). The application of the "bail-in" principle may have also discouraged savers from investing in bank bonds,<sup>4</sup> which are no longer perceived as risk-free, also in consideration of the banking crises that have occurred in the past decade.<sup>5</sup>

In addition, banks have changed their funding strategies, favouring the sale of insurance products, pension funds, and investment funds over retail bond funding in order to increase their fee and commission income (Bank of Italy, Financial Stability Report, 1, 2014).

This evidence is in line with the econometric estimates based on data from the Bank of Italy securities registry, which suggest that unlisted bond issues placed with investors depends negatively on the amount of longer-term refinancing operations (LTROs) and of overnight deposits. These results can be obtained by formulating the following autoregressive distributed lag (ARDL) model, in which the flow of unlisted bonds placed with investors ( $y_t$ ) is a function of the amount of longer-term refinancing operations and of

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<sup>4</sup>Analyzing a dataset of bonds issued before and after the introduction of the bail-in principle, Crespi, Giacomini, and Mascia (2019) found evidence of an increase in the spread on the issuance of bonds subject to bail-in relative to bonds not subject to bail-in. Similar results were presented and discussed by Giuliana (2022). Gai, Ielasi, and Mainini (2020) also documented an increase in the risk premium for unsecured bonds relative to secured bonds.

<sup>5</sup>The increasing alienation of households from bank bonds, which are being replaced by other forms of financial investment, is also documented by Coletta and Santioni (2016).

overnight deposits:

$$\phi_p(L) \ln(y_t) = c + d_t + \sum_{j=1}^k \beta_j(L) \ln(x_{j,t}) + \varepsilon_t, \quad \varepsilon_t \sim iid(0, \sigma_\varepsilon^2), \quad (1)$$

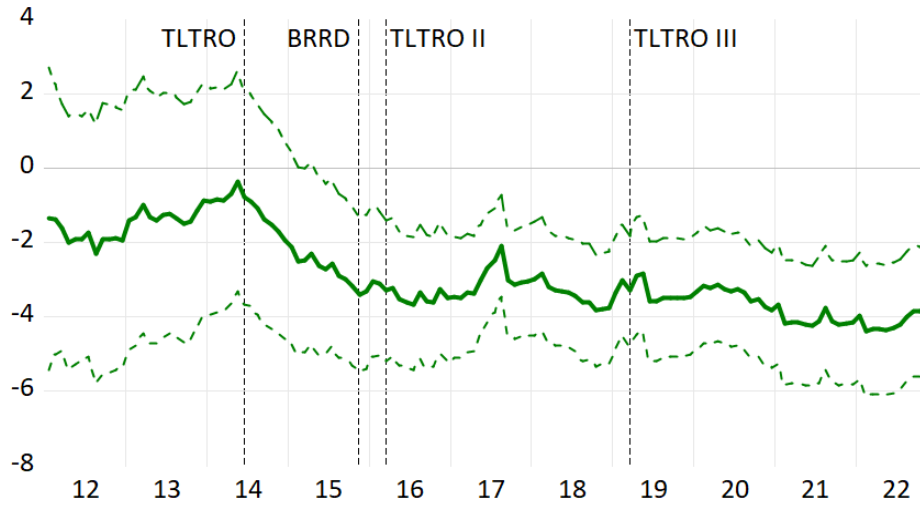
where  $\beta_j(L) = 1 + \sum_{l_j=1}^{s_j} \beta_{j,l_j} L^{l_j}$ ,  $x_{j,t}$  denotes LTROs and overnight deposits, while  $c$  and  $d_t$  represent a constant and a linear time trend. The logarithmic transformation was applied to the dependent variable and to the regressors.

Recursive estimates of the ARDL model in (1) over the period from January 2009 to October 2022 show that the coefficient on the stock of longer-term refinancing operations is negative and statistically significant throughout the period considered, while the coefficient on overnight deposits becomes negative starting from the second half of 2014, immediately after the introduction of the first series of TLTROs (Figure 13).

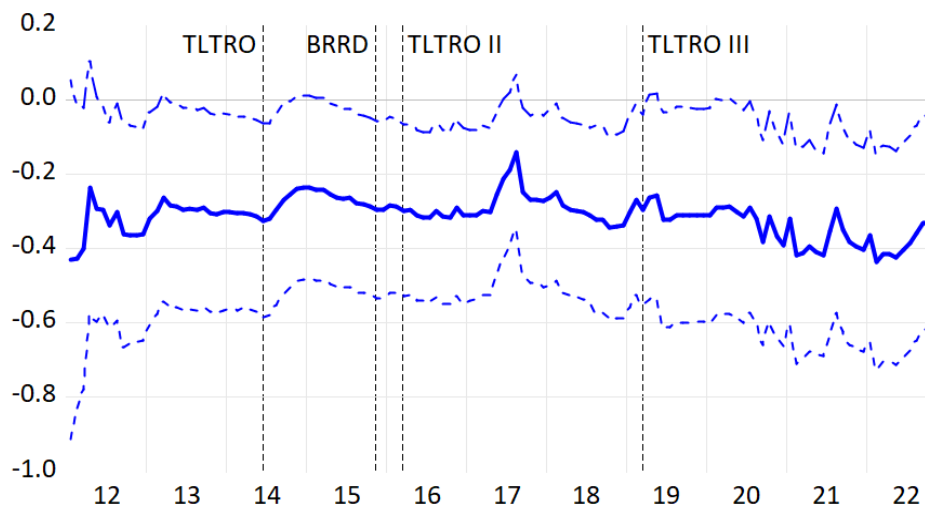
These results provide evidence of a negative and statistically significant relationship between unlisted bonds issues placed with investors and overnight deposits as well as credit operations with the Eurosystem, which represent the two main components of bank funding. However, this relationship does not hold when the flow of total bonds issued and the flow of listed bonds are used as the dependent variable. These results suggest that unlisted bonds placed with investors provide a kind of buffer in bank financing that banks can draw on when needed and that is not used if funds can be raised from lower-cost alternative sources.

Based on these findings, we argue that the observed replacement of bank bonds (particularly unlisted bonds) with alternative sources of funding – such as bank deposits and longer-term refinancing operations – has, on the one hand, weakened the transmission of financial shocks to borrowing costs via the financial markets but, on the other hand, has also made the banking system more dependent on unconventional monetary policy measures.

Figure 13: Relationship between the flow of unlisted bond issues and that of alternative sources of finance



(a) Estimate of the coefficient on the stock of main longer-term refinancing operations



(b) Estimate of the coefficient on overnight deposits

Source: Based on Bank of Italy data (supervisory statistical reports and securities registry database).

## 4 Future perspectives and concluding remarks

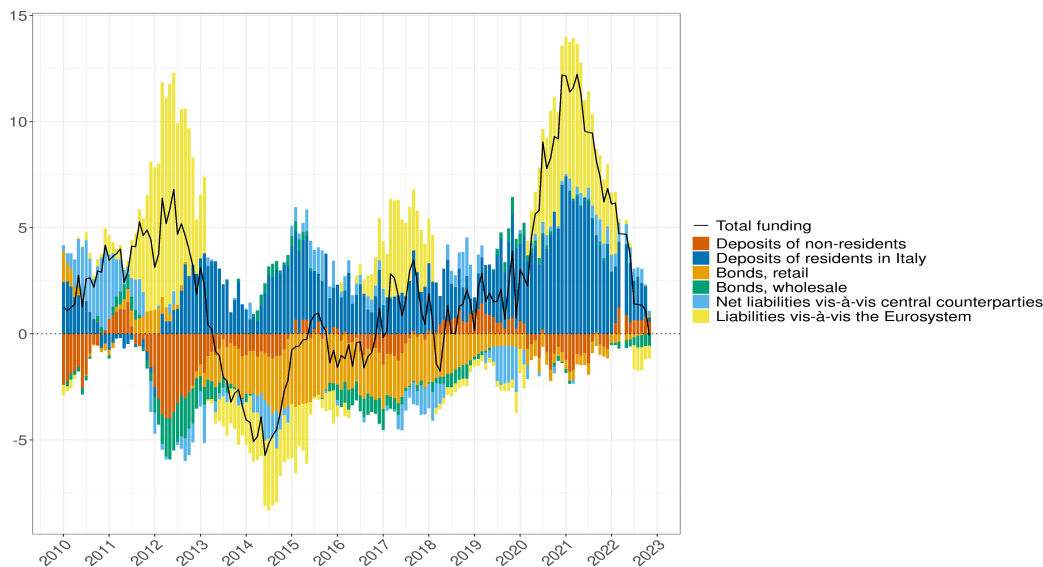
The normalisation of monetary policy in 2022 prompted banks to change their funding strategies, leading them to reduce their recourse to Eurosystem longer-term refinancing operations (TLTRO) and to prefer other funding sources, especially traditional customer deposits (Figure 14).

Although it is not foreseeable when TLTRO will end in the near term, the interest rate applied to the third series of such operations (TLTRO III) has started to rise in the current environment of monetary policy tightening. The TLTRO III funds represent an important source of funding for Italian banks, with the majority (around one half of the total) maturing in June 2023 and the remainder maturing by the end of 2024. Originally, the interest rate for TLTRO III was equal to the main refinancing operations rate increased by 10 basis points. Subsequently, this spread was reduced to -50 basis points, with even more favorable conditions for those financial intermediaries that had achieved performance targets on lending. With inflationary pressures mounting in the economy, the ECB announced in late October 2022 that the interest rate for all remaining TLTRO III operations would be indexed to the average of the prevailing ECB policy rates over the period, removing the preferential treatment that had been applied up to then.<sup>6</sup> The recalibration of existing TLTRO III operations to ensure consistency with the broader monetary policy normalisation process prompted banks to frontload their repayments and to begin a process of repayment and replacement of this funding source with other forms of funding.

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<sup>6</sup>See the press release “ECB recalibrates targeted lending operations to help restore price stability over the medium term” (27 October 2022), accessible at [https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr221027\\_1~c8005660b0.en.html](https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr221027_1~c8005660b0.en.html)

Figure 14: Growth in bank funding: contributions from the various components  
(12-month percentage changes)



Monthly data, Jan. 2010 – Oct. 2022. Source: Based on Bank of Italy data (supervisory statistical reports).

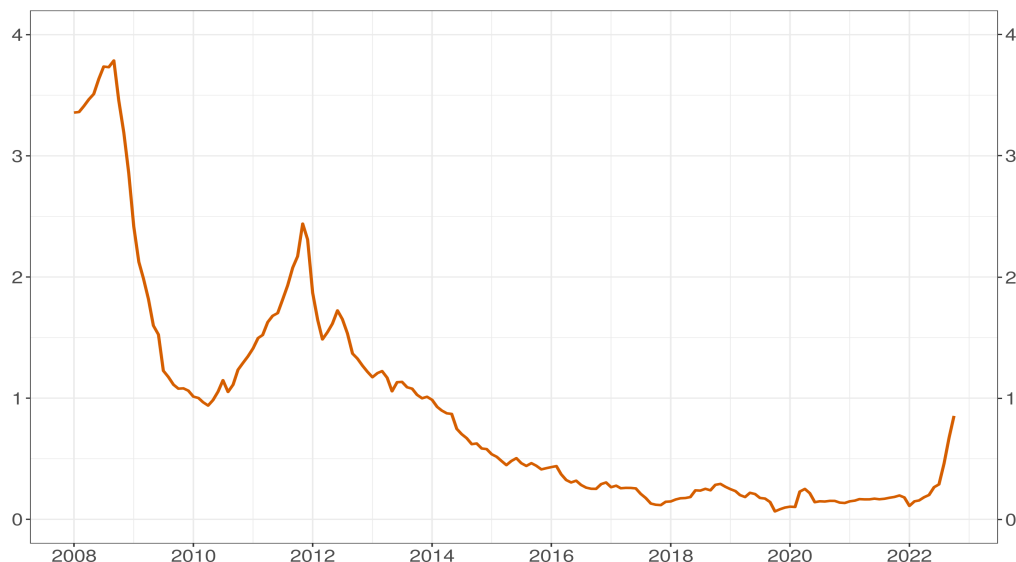
*Notes:* The growth rate of total funding is equal to the sum of the contributions of the individual components. Percentage changes are adjusted to take account of the effects of securitisations, reclassifications, write-downs, exchange rate adjustments and other changes not due to transactions. Net liabilities to central counterparties represent funding in repurchase agreements with non-residents carried out through them.

At the same time, an increase in bank funding costs was observed in 2022 (Figure 15), due both to the recomposition of funding sources and to the changes in the terms of the existing TLTRO III.<sup>7</sup>

<sup>7</sup>The methodology for constructing the marginal cost of bank funding in Italy is described in S. Auer, M. Bottero, G. Eramo, L. Esposito, M.J. Lombardi and F.M. Signoretti (2018), “Effects of tensions in the Italian financial markets on the cost of funding, on the trends and cost of credit, on the profitability and on the assets of intermediaries in Italy”, Note to the Directory no. 1480901, 14 December. The approach used is based on the work of A. Illes, M. J. Lombardi and P. Mizen (2019).

Figure 15: Marginal cost of bank funding

(per cent)



Monthly data, Jan. 2008 – Oct. 2022. Source: S. Auer, M. Bottero, G. Eramo, L. Esposito, M.J. Lombardi and F.M. Signoretti (2018).

*Notes:* The marginal cost of bank funding approximates the cost that banks would pay (at any instant of time) to increase their balance sheet by one unit by resorting to funding sources in proportion to the composition of their liabilities at that moment.

Another factor that could affect banks' funding strategies is the introduction of the MREL (Minimum Requirement for own funds and Eligible Liabilities) from January 1 2024 onward. The application of MREL will oblige financial intermediaries to structure their liabilities to ensure that a bank has at all times sufficient eligible instruments to facilitate the implementation of the preferred resolution strategy in the event of resolution. Under European regulations, equities, subordinated bonds, unsecured senior bonds and non-retail customer deposits with a maturity of more than one year can be used to fulfil the MREL. Although the Italian banking system has, on average, an adequate composition of funding, a few significant banks still have to place eligible instruments in order to comply with the MREL. Since these instruments must be absorbed by financial

markets, an abrupt increase in issuance could have a nonnegligible impact on funding conditions (Bank of Italy, Financial Stability Report, 2, 2022).

In this context, banks could resort to bond issuance again, even if the tightening of the ECB monetary policy leads to higher costs. The combination of outstanding debt service obligations and TLTRO III operations maturing in 2023 could further push bond financing and thus increase the required coupon rate. As long as the increase in the cost of bank funding can lead to a tightening of financing conditions for the private sector, it will be important to monitor its developments on a regular basis, especially in a context of slowing economic activity.

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Table 1: Bank bond issues and their disaggregation (1)  
(billions of euro)

|   | 2008 | 2009 | 2010  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Gross issues  | 284  | 251  | 198   | 319  | 282  | 168  | 155  | 113  | 106  | 95   | 87   | 91   | 84   | 61   | 56   |
| Redemptions   | 129  | 169  | 227   | 222  | 264  | 256  | 318  | 220  | 179  | 153  | 128  | 98   | 99   | 73   | 77   |
| Net issues  | 155  | 82   | -29   | 97   | 18   | -88  | -163 | -108 | -73  | -58  | -41  | -7   | -15  | -12  | -21  |
| Disaggregation of gross bond issues by banks              |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |
| <b>Maturity</b>   |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |
| less than 1 year  | 0.1  | 0.3  | 0.0   | 12.7 | 0.7  | 1.6  | 2.4  | 2.7  | 1.8  | 8.0  | 2.2  | 4.8  | 5.1  | 10.7 | 17.1 |
| more than 1 year  | 99.9 | 99.7 | 100.0 | 87.3 | 99.3 | 98.4 | 97.6 | 97.3 | 98.2 | 92.0 | 97.8 | 95.2 | 94.9 | 89.3 | 82.9 |
| <b>Listing</b>  |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |
| unlisted bonds  | 74.2 | 73.6 | 71.6  | 57.3 | 50.6 | 70.7 | 57.9 | 56.3 | 47.0 | 38.0 | 31.8 | 27.3 | 33.2 | 25.8 | 30.6 |
| listed bonds or about to be listed                        | 25.8 | 26.4 | 28.4  | 42.7 | 49.4 | 29.3 | 42.1 | 43.7 | 53.0 | 62.0 | 68.2 | 72.7 | 66.8 | 74.2 | 69.4 |
| <b>Type of bonds</b>                                      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |
| commercial paper and short-term notes                     | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.3  | 0.5  | 2.3  | 0.5  | 8.0  | 2.2  | 4.4  | 5.1  | 10.7 | 17.1 |
| straight bonds  | 75.4 | 73.4 | 61.8  | 55.7 | 67.0 | 61.1 | 61.2 | 47.6 | 28.1 | 50.6 | 39.1 | 44.8 | 22.1 | 26.7 | 26.1 |
| convertible bonds   | 1.1  | 11.4 | 19.1  | 11.2 | 3.7  | 8.3  | 4.8  | 4.4  | 6.8  | 3.7  | 1.7  | 6.2  | 10.6 | 12.9 | 9.0  |
| covered bonds   | 0.5  | 4.2  | 7.9   | 13.8 | 24.8 | 18.4 | 27.6 | 26.0 | 41.4 | 21.9 | 52.1 | 30.6 | 30.7 | 39.3 | 36.4 |
| subordinated bonds, certificates and credit-linked notes  | 6.9  | 3.5  | 6.2   | 3.0  | 1.8  | 6.9  | 5.4  | 8.1  | 5.9  | 9.4  | 2.0  | 9.5  | 14.7 | 6.6  | 10.0 |
| securitisations   | 16.0 | 6.7  | 4.2   | 3.6  | 2.5  | 4.7  | 0.6  | 11.5 | 17.3 | 6.4  | 2.8  | 4.4  | 16.7 | 3.8  | 1.5  |
| other   | 0.0  | 0.7  | 0.7   | 12.7 | 0.2  | 0.4  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| <b>Marketing (2)</b>                                      |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |
| marketed securities                                       | -    | -    | -     | 49.8 | 36.4 | 72.1 | 64.7 | 70.6 | 50.6 | 56.5 | 52.6 | 57.2 | 54.5 | 61.4 | 74.4 |
| repurchased bonds to be used as collateral                | -    | -    | -     | 50.2 | 63.6 | 27.9 | 35.3 | 29.4 | 49.4 | 43.5 | 47.4 | 42.8 | 45.5 | 38.6 | 25.6 |
| <b>Issuer</b>   |      |      |       |      |      |      |      |      |      |      |      |      |      |      |      |
| direct issue  | 83.8 | 93.2 | 95.7  | 96.4 | 97.5 | 95.2 | 99.4 | 87.9 | 82.7 | 93.0 | 97.2 | 94.6 | 80.9 | 94.8 | 97.6 |
| indirect issue by financial institution in the same group | 16.2 | 6.8  | 4.3   | 3.6  | 2.5  | 4.8  | 0.6  | 12.1 | 17.3 | 7.0  | 2.8  | 5.4  | 19.1 | 5.2  | 2.4  |

Notes: (1) Debt securities issued by credit institutions, Cassa Depositi e Prestiti, money market funds and by other financial institutions in the same banking group. - (2) Data available from 2011 onward. Based on Bank of Italy data (supervisory statistical reports and securities registry database)