

Financial Stability Report

APPENDIX

Number 2 / 2023 November

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SYMBOLS AND CONVENTIONS

Unless otherwise specified, Bank of Italy calculations; for Bank of Italy data, the source is omitted.

In the tables:

- the phenomenon does not exist;
- the phenomenon exists but its value is not known;
- .. the value is nil or less than half of the final digit shown;
- :: not statistically significant;
- () provisional.

In the figures with different right- and left-hand scales, the right-hand scale is identified in the notes.

For the abbreviations of the names of countries used in this publication please refer to the EU's Interinstitutional Style Guide (https://publications.europa.eu/code/en/en-5000600.htm).

					nancial s cent of GDI		-					
	(an gro	P (1) nual wth te)	C	Character	istics of publ (2)	ic debt	Gen. govt. primary surplus (2)	S2 sustainability indicator (3)		Private sector financial debt (4)		al position stics (5)
			Le	evel	Average residual life of govt. securities (years)	Non- residents' share (% of public debt)	-		Hou- seholds	Non-fi- nancial firms	Current account balance	Net interna- tional in- vestment position
	2023	2024	2023	2024	2023	2022	2023	2022				
Italy	0.7	0.7	143.7	143.2	6.9	25.9	-1.1	0.7	39.6	65.7	-1.1	5.3
Germany	-0.5	0.9	65.9	64.0	6.6	38.7	-2.1	3.6	53.5	71.7	5.0	68.6
France	1.0	1.3	110.0	110.5	8.4	45.8	-3.3	0.9	64.8	152.7	-1.8	-29.9
Spain	2.5	1.7	107.3	104.7	7.9	39.9	-1.8	1.0	49.9	85.0	2.0	-56.6
Netherlands	0.6	1.1	49.5	48.6	9.0	39.4	-1.4	6.5	90.0	120.9	9.6	68.5
Belgium	1.0	0.9	106.0	106.8	10.4	51.3	-3.3	6.7	59.1	129.5	-1.7	59.1
Austria	0.1	0.8	74.8	74.0	12.1	59.3	-1.7	3.2	46.3	88.3	1.3	17.6
Finland	-0.1	1.0	73.6	76.5	7.4	46.4	-2.6	3.0	63.5	119.3	-1.2	3.1
Greece	2.5	2.0	168.0	160.2			1.0	-3.6	43.0	53.5	-7.9	-144.2
Portugal	2.3	1.5	108.3	104.0	7.3	45.2	2.0	-2.1	57.5	86.8	0.6	-76.9
Ireland	2.0	3.3	42.7	39.0	10.9	53.0	2.3	4.0	25.4	133.6	10.5	-108.8
Euro area	0.7	1.2	89.6	88.3			-1.9	2.7	55.1	96.9		
United Kingdom	0.5	0.6	104.1	105.9	14.1	25.8	-2.0		82.3	66.8	-3.7	-13.3
United States	2.1	1.5	123.3	126.9	5.9	26.6	-5.5		73.6	77.2	-3.0	-62.1
Japan	2.0	1.0	255.2	251.9	8.3	13.9	-5.5		68.1	117.1	3.3	78.0
Canada	1.3	1.6	106.4	103.3	5.9	19.6	-1.0		101.9	114.7	-1.0	38.2

Sources: IMF. ECB. BIS. European Commission.

(1) IMF. *World Economic Outlook*. October 2023. – (2) IMF. *Fiscal Monitor*. October 2023. – (3) European Commission. *Fiscal Sustainability Report 2021*. April 2022. S2 is a sustainability indicator defined as the immediate and permanent increase in the structural primary surplus that is necessary to meet the general government inter-temporal budget constraint. – (4) Loans and securities. Data for the euro area countries are from ECB. Statistical Data Warehouse and refer to the end of Q2 2023; data for the United Kingdom and non-European countries are from the Bank for International Settlements (BIS) statistics and refer to the end of Q1 2023. – (5) Data for the euro area countries are from IMF Data Warehouse and refer to the estimate for 2023 for the current account balance and to the end of Q2 2023 for the net international position as a percentage of the estimated GDP for 2023.

				(bill	ions of	euros a	and pe	er cent)							
		Sign	ificant b	anks		l	_ess si	gnificar	nt banks		Total (1)				
	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)	Gross exposures	Net exposures	Gross percentage share	Net percentage share	Coverage ratio (2)
							Jur	ne 2023	8 (3)						
Loans (4)	1,795	1,760	100.0	100.0	2,0	190	184	100.0	100.0	3.4	2,248	2,200	100.0	100.0	2.1
Performing	1,752	1,740	97.6	98.9	0.7	179	176	93.9	95.7	1.6	2,184	2,168	97.2	98.6	0.8
of which: stage 2 (5)	176	168	9.8	9.5	4.6	18	17	9.5	9.5	3.3	211	202	9.4	9.2	4.5
Non-performing	43	20	2.4	1.1	54.1	12	8	6.1	4.3	31.8	63	32	2.8	1.4	49.9
Bad loans	14	4	0.8	0.2	73.8	5	3	2.7	1.7	38.3	23	8	1.0	0.4	64.0
Unlikely-to-pay	27	14	1.5	0.8	46.1	5	4	2.7	2.0	30.5	36	20	1.6	0.9	43.9
Past-due	3	2	0.2	0.1	29.8	1	1	0.6	0.6	9.7	5	3	0.2	0.2	26.6
							Dec	ember	2022						
Loans (4)	1,873	1,836	100.0	100.0	2.0	189	184	100.0	100.0	2.8	2,328	2,280	100.0	100.0	2.1
Performing	1,827	1,814	97.6	98.8	0.7	178	176	94.1	95.9	1.0	2,262	2,247	97.2	98.6	0.7
of which: stage 2 (5)	192	184	10.3	10	4.6	18	18	9.7	9.7	3.3	227	217	9.8	9.5	4.5
Non-performing	46	21	2.4	1.2	53.5	11	8	5.9	4.1	32.5	66	33	2.8	1.5	49.7
Bad loans	14	4	0.8	0.2	72.7	5	3	2.7	1.7	38.7	24	9	1	0.4	63.3
Unlikely-to-pay	29	16	1.5	0.9	46.0	5	3	2.6	1.9	30.9	38	21	1.6	0.9	43.9
Past-due	3	2	0.1	0.1	30.4	1	1	0.5	0.5	9.1	4	3	0.2	0.1	27

Credit quality: amounts and shares of non-performing loans and coverage ratios (billions of euros and per cent)

Source: Supervisory reports, on a consolidated basis for banking groups and on an individual basis for the rest of the system. (1) The total includes subsidiaries of foreign banks that are classified as neither significant nor less significant Italian banks, which account for about 12 per cent of total gross customer loans. Excludes branches of foreign banks. – (2) The coverage ratio is measured as the ratio of loan loss provisions to the corresponding gross exposure. – (3) Provisional data. – (4) Includes loans to customers, credit intermediaries and central banks. – (5) Based on the IFRS 9 accounting standard, Stage 2 includes loans whose credit risk has increased substantially since initial recognition.

Italian banks' NPL rates and coverage ratios by business model

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(por	00110

	No	n-perforr	ning	l	Bad loar	IS	Unlikely-to-pay				Past-du	е
	Gross share	Net share	Coverage ratio	Gross share	Net share	Coverage ratio	Gross share	Net share	Coverage ratio	Gross share	Net share	Coverage ratio
						June 20)23 (1)					
Significant banks	2.4	1.1	54.1	0.8	0.2	73.8	1.5	0.8	46.1	0.2	0.1	29.8
Less significant banks	6.1	4.3	31.8	2.7	1.7	38.3	2.7	2.0	30.5	0.6	0.6	9.7
Traditional banks	4.5	2.4	49.0	1.7	0.6	67.3	2.5	1.5	40.9	0.3	0.3	16.6
Banks specialized in managing NPLs	21.2	22.7	6.8	12.5	13.4	7.0	7.8	8.3	6.7	0.9	1.0	5.6
Other specialized banks	5.3	4.2	21.3	2.2	1.5	32.8	1.5	1.2	21.8	1.6	1.5	5.4
Total banking system (2)	2.8	1.4	49.9	1.0	0.4	64.0	1.6	0.9	43.9	0.2	0.2	26.6
						Decemb	er 2022					
Significant banks	2.4	1.2	53.5	0.8	0.2	72.7	1.5	0.9	46.0	0.1	0.1	30.4
Less significant banks	5.9	4.1	32.5	2.7	1.7	38.7	2.6	1.9	30.9	0.5	0.5	9.1
Traditional banks	4.5	2.4	49.0	1.9	0.7	64.3	2.4	1.5	40.0	0.2	0.2	18.1
Banks specialized in managing NPLs	22.6	22.5	6.5	13.4	13.3	6.4	8.1	8.1	6.6	1.1	1.1	6.3
Other specialized banks	4.4	3.4	22.5	1.7	1.1	35.4	1.1	0.8	27.6	1.6	1.5	5.0
Total banking system (2)	2.8	1.5	49.7	1.0	0.4	63.3	1.6	0.9	43.9	0.2	0.1	27.0

Source: Harmonized FINREP reports, on a consolidated basis for banking groups and on an individual basis for the rest of the system. This includes all the system's banks. (1) Provisional data. – (2) The total includes Italian subsidiaries of foreign banks that are classified as neither significant nor less significant banks.

	(bi	llions of euros a	and per cen	t; June 2023)			
	Gross exposures	Share of total gross loans (2)	Net exposures	Share of total net loans (2)	Collateral (3)	Personal guarantees (3)	Coverage ratio for unsecured loans
				Firms (4)			
Non-performing loans to customers	34	5.2	15	2.5	13	5	52.8
of which: manufacturing	6	3.4	3	1.6	1	1	52.3
construction (5)	6	11.0	3	5.0	3	1	56.3
services	19	5.4	9	2.6	8	3	51.6
of which: bad loans	13	2.0	4	0.6	5	2	66.4
of which: manufacturing	2	1.3	1	0.4	1	0	66.8
construction (5)	3	4.7	1	1.5	1	0	69.3
services	7	2.0	2	0.7	3	1	65.0
			Cor	sumer househ	olds		
Non-performing loans to customers	13	2.4	7	1.2	7	0	60.8
of which: bad loans	5	0.9	2	0.3	2	0	68.2
				Total (6)			
Non-performing loans to customers	52	3.4	25	1.7	21	6	53.6
of which: bad loans	19	1.2	6	0.4	7	3	66.7

Italian banks' non-performing loans and guarantees by counterparty sector (1)

Source: Individual supervisory reports.

Source: Individual supervisory reports. (1) The data are from non-consolidated balance sheets that do not include loans granted by financial corporations belonging to a banking group or by foreign subsidiaries of Italian groups. Includes 'non-current assets and groups of assets held for sale', which in June 2023 came to about €1.9 billion for the total amount of non-performing loans gross of provisions. Provisional data. – (2) Calculated, gross and net of the relative loan loss provisions, as a percentage of the total corresponding gross and net exposures to the individual sector or sub-sector. – (3) The amounts correspond to the gross exposure that is collateralized or backed by personal guarantees. – (4) In addition to manufacturing, construction and services, the 'firms' sector also comprises agriculture, forestry, fishing and industrial activities other than manufacturing. – (5) Includes real estate activities. – (6) Includes general government, financial and insurance corporations, non-profit institutions serving households, and non-classifiable and unclassified entities.

Exposures of Italian banks and groups to foreign residents by counterparty sector (1)

(billions of euros; per cent; June 2023)

	Public sector	Banks	Financial corpora- tions	House- holds and firms	Total	Percentage change in the total compared with the end of the previous half of the year	Per cent of total exposures reported to the BIS (2)	Per cent of total exposures (3)
Euro area (excluding Italy)	201.3	61.5	65.3	215.7	543.7	5.9	8.3	20.4
Other industrialized countries	43.9	13.8	32.0	37.0	126.7	1.2	1.0	4.7
of which: United Kingdom	0.6	2.6	14.5	7.5	25.2	6.7	1.2	0.9
Emerging and developing countries	71.3	12.6	4.6	88.0	176.6	-1.0	2.7	6.6
Europe	56.3	5.7	3.9	79.1	145.0	1.2	14.1	5.4
of which: Russia	3.5	1.2	0.3	6.6	11.6	-13.2	22.4	0.4
Turkey	0.2	0.8	0.1	1.1	2.2	-44.8	1.9	0.1
Africa and the Middle East	11.5	2.6	0.2	4.9	19.1	-0.4	3.1	0.7
Asia and Pacific	2.5	3.8	0.4	2.2	8.9	-16.5	0.3	0.3
Central and South America	1.1	0.6	0.1	1.9	3.6	-33.0	0.3	0.1
of which: Argentina	-	-	_	0.0	0.0	_	0.0	_
Brazil	0.1	0.4	_	0.9	1.3	48.9	0.3	0.1
Mexico	0.2	0.1	0.1	0.5	0.9	36.4	0.2	0.0
Offshore financial centres	0.3	0.4	3.1	5.4	9.3	10.8	0.0	0.4
Total	316.9	88.3	105.0	346.1	856.2	3.5	163.4	32.1
Memorandum item:								
Energy-exporting emerging and developing countries (4)	10.1	3.3	0.5	9.1	23.0	4.9	0.4	0.9

Source: Consolidated supervisory reports for banking groups, individual supervisory reports for the rest of the system. (1) Exposures to 'ultimate borrowers', gross of loan loss provisions. Does not include BancoPosta and Cassa Depositi e Prestiti SpA. – (2) As a percentage of the total foreign exposures to each country reported to the Bank for International Settlements (BIS) by a large set of international banks. The numerator and denominator refer to 30 June 2023. – (3) Total exposures to residents and non-residents. The numerator and denominator refer to 30 June 2023. – (4) Includes: Algeria, Angola, Azerbaijan, Bahrain, Bolivia, Brunei, Chad, Colombia, Democratic Republic of Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kazakhstan, Kuwait, Libya, Nigeria, Oman, Qatar, Russia, Saudi Arabia, Sudan, Timor-Leste, Trinidad and Tobago, Turkmenistan, United Arab Emirates, Venezuela and Yemen.

			of euros and per	cent)		
		Italy (2)			Euro area	
	Stocks	Net purchases (1)	Share of total assets (3)	Stocks	Net purchases (1)	Share of total assets
2013	375,081	45,331	10.9	1,313,179	46,354	4.3
2014	383,645	-4,299	11.0	1,370,728	6,792	4.4
2015	364,361	-20,898	10.6	1,295,539	-67,495	4.2
2016	333,329	-26,646	9.8	1,205,130	-89,282	3.9
2017	283,742	-46,708	8.5	1,074,168	-119,982	3.5
2018	318,449	43,974	9.7	1,054,143	-8,157	3.4
2019	313,699	-17,420	9.4	1,030,973	-44,658	3.2
020	343,615	22,200	10.0	1,145,291	96,399	3.3
2021	342,011	2,267	9.6	1,092,366	-80,807	3.0
2022 – Jan.	351,964	10,512	9.8	1,098,247	8,467	2.9
Feb.	360,384	11,646	10.0	1,114,022	21,787	2.9
Mar.	355,220	-3,352	9.8	1,106,988	-4,578	2.9
Apr.	353,034	4,050	9.7	1,087,704	-8,701	2.8
May	352,253	4,125	9.6	1,111,852	32,964	2.8
June	347,613	-2,557	9.6	1,098,245	-8,956	2.8
July	350,445	1,569	9.7	1,100,952	-592	2.8
Aug.	340,867	-3,976	9.4	1,080,510	-11,326	2.7
Sept.	329,746	-5,034	9.1	1,065,580	-3,180	2.6
Oct.	336,962	4,745	9.3	1,069,283	-521	2.6
Nov.	334,947	-4,836	9.2	1,082,103	6,718	2.7
Dec.	319,442	-9,611	9.0	1,056,272	-16,481	2.7
023 – Jan.	323,328	712	9.1	1,073,774	6,157	2.7
Feb.	327,216	5,511	9.2	1,096,714	27,561	2.7
Mar.	324,517	-5,600	9.2	1,093,906	-7,765	2.8
Apr.	323,987	455	9.1	1,093,100	-441	2.8
Мау	315,657	-8,943	8.9	1,074,861	-19,132	2.7
June	310,280	-7,429	9.1	1,076,002	968	2.7
July	312,445	1,288	9.1	1,066,839	-9,784	2.7
Aug.	307,682	-4,879	9.1	1,077,373	10,446	2.7
Sept.	299,770	-3,549	8.8	1,072,197	2,637	2.7

Investment by Italian and euro-area banks in public sector

Sources: Individual supervisory reports and ECB. (1) The data on net purchases refer to the whole period; the data on stocks and share of total assets refer to the end of the period. Purchase amounts are shown net of variations in market prices; holdings are shown at market value. All public sector securities are counted, including those issued by local government authorities. – (2) Cassa Depositi e Prestiti SpA is excluded. – (3) The 'total assets' series does not include bond repurchases.

Italian banks' bonds by holder and maturity (1) (millions of euros; September 2023)

		M	aturity		Total
	by 2023	in 2024	between 2025 and 2029	2030 or beyond	
Households (2)	884	4,997	49,360	5,078	60,319
of which: senior non-preferred bonds	_	4	825	47	876
subordinated bonds	53	338	2,501	1,695	4,587
Banks in the ssuer's group (3)	37	2,296	18,172	1,758	22,264
of which: senior non-preferred bonds	_	_	3	_	3
subordinated bonds	_	17	212	666	895
Other Italian banks	526	4,813	20,336	2,964	28,639
of which: senior non-preferred bonds	19	102	2,297	294	2,712
subordinated bonds	10	33	590	526	1,159
Other investors	9,164	27,580	116,763	43,346	196,853
of which: senior non-preferred bonds	216	370	13,805	3,848	18,238
subordinated bonds	20	2,314	8,110	13,801	24,244
Total	10,611	39,686	204,632	53,146	308,075
of which: senior non-preferred bonds	235	475	16,930	4,189	21,829
subordinated bonds	83	2,701	11,413	16,688	30,885

Source: Individual supervisory reports. (1) Data are indicated at nominal value and refer to bonds entered on the liability side, net of buybacks by the issuer. Rounding may cause discrepancies in the totals. – (2) Consumer households, producer households and non-profit institutions serving households. Only resident customers. – (3) Resident banks belonging to the issuer's banking group.

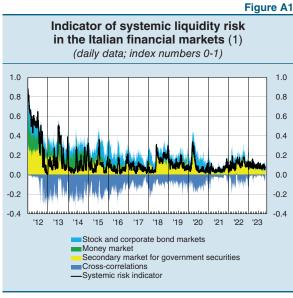
Composition of the assets deposited with the Bank of Italy as collateral for Eurosystem credit operations (collateral pool) (1) (billions of euros; end-of-period values)

	2015	2016	2017	2018	2019	2020	2021	2022	20)23
									March	October
Total	253.7	297.3	321.2	310.5	285.8	436.1	513.5	433.4	397.3	272.6
Government securities	97.6	88.8	105.8	78.0	68.1	129.4	156.9	87.7	71.4	35.5
Local and regional government securities	2.6	1.7	1.9	1.3	0.5	0.8	2.0	1.2	0.6	0.3
Uncovered bank bonds	5.8	5.3	5.4	5.0	3.3	5.4	7.4	5.2	5.0	4.3
Government-guaranteed bank bonds	0.4	0.3	1.3	2.5	1.0	0.6	0.6	0.5	0.4	0.2
Covered bonds	46.4	76.3	76.8	91.3	86.1	99.8	107.3	99.8	82.8	32.9
Non-bank bonds	2.5	3.0	3.0	4.3	3.7	4.9	10.0	8.1	6.5	5.8
Asset-backed securities	35.5	44.0	49.9	49.7	47.7	45.5	61.8	59.7	57.6	42.8
Other marketable assets	0.6	0.8	2.8	1.3	1.8	2.6	6.3	4.5	3.8	2.0
Non-negotiable assets (bank loans)	62.4	77.1	74.3	77.1	73.6	147.1	161.2	166.7	169.2	148.8

Source: based on Eurosystem data. (1) The collateral pool is valued at the prices taken from the Common Eurosystem Pricing Hub, net of haircuts.

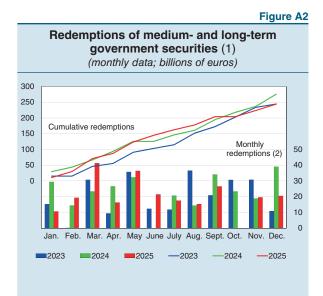
	Recent macroprudential policy decisions of	of the Bank of Italy	
DATE (1)	Decision	Capital requirement for this year <i>(per cent)</i>	Fully phased-in capital requirement <i>(per cent)</i> (2)
9.6.2023	Decision not to reciprocate three macroprudential measures adopted by Norway	-	-
23.6.2023	Setting of the CCyB rate for the third quarter of 2023	0.0	_
30.6.2023	Identification by Italy of material third countries	_	_
22.9.2023	Setting of the CCyB rate for the fourth quarter of 2023	0.0	_
29.9.2023	Decision not to reciprocate a macroprudential measure adopted by Sweden	-	-
	Identification for 2024 of other systemically important institutions authorized to operate in Italy		
	UniCredit	1.00	1.50 (2024)
	Intesa Sanpaolo	0.75	1.25 (2024)
24.11.2023	Banco BPM	0.25	0.50 (2024)
	BPER Banca	_	0.25 (2025)
	Mediobanca	_	0.25 (2025)
	ICCREA	_	0.25 (2025)
	Banca Nazionale del Lavoro	_	0.25 (2025)

(1) The dates given are those on which the decisions were published. For the full list, see the Bank of Italy's website: 'Macroprudential policy decisions of the Bank of Italy'. (2) In brackets, the year of full implementation.



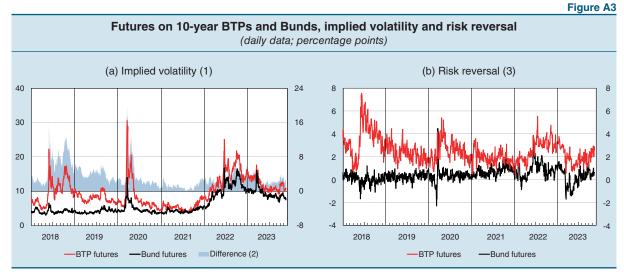
Sources: Based on data from Refinitiv, Bloomberg, Moody's Analytics, MTS SpA, and the Bank of Italy.

(1) The systemic risk indicator measures the combined risk in the money market, the secondary market for government securities, and the stock and corporate bond markets. The index range is from 0 (minimum risk) to 1 (maximum risk). The graph also shows the contributions to the systemic risk indicator of the individual markets and the correlations between them. For the methodology used in constructing the indicator, see *Financial Stability Report*, 1, 2014.



Sources: Based on data from the Ministry of Economy and Finance and the Bank of Italy. Data updated to 7 November 2023.

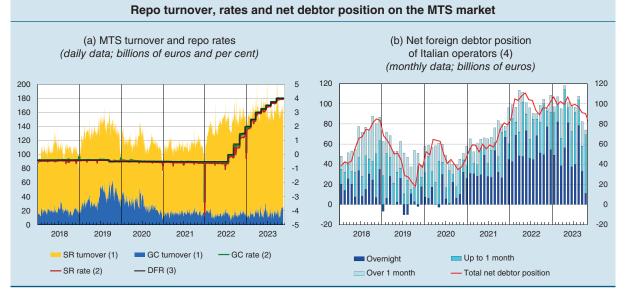
(1) Government securities (including those placed in the international markets) with maturity at issue of more than one year. Excludes the tranches issued by the Ministry of Economy and Finance to establish its own securities portfolio to be used exclusively for repos. Redemptions of indexed BTPs are not revalued for inflation. – (2) Right-hand scale.



Source: Based on Bloomberg data

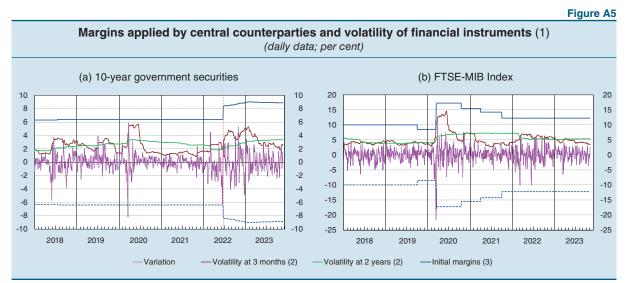
(1) Implied volatility in the prices of at-the-money options on 10-year BTP and Bund futures with maturity at 30 days. – (2) Right-hand scale. – (3) Difference between the implied volatility of put and call option prices on active 10-year BTP and Bund futures with the same relative change in the strike price in relation to the underlying price (moneyness) and with the same residual maturity (1 month).

Figure A4



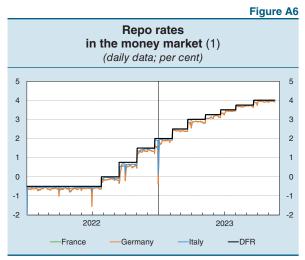
Source: Based on MTS data.

(1) Daily turnover in special repos (SR) and general collateral (GC) on the MTS market by contract settlement date. – (2) Calculated in reference to daily contracts for Italian government securities made on MTS Repo. Right-hand scale. – (3) Eurosystem deposit facility rate. – (4) Calculated on the basis of the cash value of the outstanding contracts on the MTS repo market. Monthly averages of daily data for total net position; for the breakdown by maturity, end-of-period data. Starting in May 2021, the indicator reflects repo trading conducted by the Ministry of Economy and Finance on the MTS Repo market.



Source: Based on Refinitiv data.

(1) 5-day variations in the price of the benchmark 10-year Italian government bond (BTP) and 3-day variations in the FTSE MIB Index value. – (2) The volatility indicators are based on the value-at-risk (VaR) methodology and calculated with reference to a period of 3 months and 2 years, with a confidence interval of 99 per cent. – (3) Unit value of the initial margins relative to securities maturing in 10 years. The dashed line, which is the mirror image of the continuous line, indicates the adequacy of the margin requirements to cope with the negative price fluctuations actually recorded in the market. Since 20 June 2022 (dashed vertical line in panel a) the unit value of the margins applied to the bond sector has been estimated based on the new methodology adopted by Euronext Clearing starting on that date. According to this new methodology, the requirements are determined based on a simulation of past profits and losses referring to the individual portfolios of the participants, by applying a measure of risk that estimates expected shortfalls in the most adverse scenarios. Following the change of methodology, the total of the margins applied to the sector has changed in line with expectations.



Source: Based on CME Group data. (1) 1-day euro-area government bond repo rates traded in the general collateral segment, on BrokerTec or MTS platforms.