Analysis of the impact of the SyRB activation on Italian banks' share prices

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Overview

Last April, the Bank of Italy activated the systemic risk buffer (SyRB) for the first time, to strengthen the resilience of the banking system. The decision was taken in a context of favourable economic conditions for the banking sector, reducing the risk of pro-cyclical effects and maximising the expected net benefits associated with the decision. Nevertheless, in the short term, the increase in capital requirements may be a cost for banks, especially those with less capital in excess of regulatory requirements. This note provides evidence on the possible impact of the SyRB activation announcements on the share prices of Italian banks. To this end, it assesses: (i) whether there was a significant deterioration in the performance of Italian banks' shares in the days immediately following the announcements of the measure and (ii) whether or not this deterioration is related to the level of their excess capital. The results of the analysis suggest that the introduction of the SyRB did not have a negative impact on the share prices of banks, including those with less excess capital available.

1. Introduction and main conclusions

Last April, the Bank of Italy activated for the first time the systemic risk buffer (SyRB), to strengthen the resilience of the Italian banking system against adverse events, including those originating outside the financial system. This measure aims

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to enhance intermediaries' ability to absorb potential losses and continue to finance businesses and households.

The recent experience has shown that exogenous shocks such as pandemics, wars, climate disasters, and cyberattacks, may have a significant impact on the banking system. In the current context characterized by high geopolitical uncertainty linked to the ongoing conflicts in Ukraine and the Middle East and to the growing tensions in U.S.-China relations, it is essential to improve the capacity of the banking system to withstand possible external shocks. Some specific features of the Italian banking system, such as its size, concentration levels, and its key role in financing the real economy,[1] could amplify the negative impact on the entire economy in the event of a deterioration in bank balance sheets. For these reasons, even in the absence of elevated cyclical risks to financial stability,[2] it is necessary to ensure an adequate availability of releasable capital buffers. This enables banks to absorb possible losses and to continue providing financial services and credit flows to the economy even in unforeseen adverse conditions.

The decision was taken in a context characterised by relatively weak macro-financial conditions, yet still very favourable for the banking sector, both in terms of profitability and capitalisation. This second aspect made it possible to reduce the risk of pro-cyclical effects and to maximise the net benefits associated with the decision.[3]

The new buffer has been set at a level that, retrospectively, would have allowed banks to absorb the losses recorded during past stress episodes (2006-2022) and not attributable to risk factors already covered by other micro- and macroprudential requirements. In the event of a shock, banks would be able to use the capital set aside to meet the SyRB requirement, benefiting both the financial intermediaries and the broader economy: banks' default probability and, more generally, pressure to curtail credit supply would be reduced, thereby helping to mitigate the severity of the economic contraction associated with the shock.

However, in the short term, the increase in capital requirements may be a cost for banks, especially for those with less capital in excess of regulatory requirements (excess capital), which would then be under greater pressure to raise their capital ratios. The increase in capital requirements is associated in the literature (see BCBS 2019) with a rise in banks' funding cost due to the higher cost of equity relative to the cost of debt. To the extent that the higher cost of funding is passed on to the rates charged to customers (pass-through), this can lead to a contraction in lending and, consequently, a slowdown in economic activity.[4]

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[1] In Italy, the share of loans to households and businesses provided by domestic banks is among the highest in the European Union. This implies that a shock to the banking sector could be transmitted with greater intensity to the non-financial sector, and that a weakening of the real economy could have a more negative impact on bank balance sheets.

[2] The appropriate level of the countercyclical capital buffer rate in the current macrofinancial context is equal to zero per cent.

[3] For more information, see Catapano et al. (2024).

[4] See, for example, Cappelletti et al. (2024) and Fraisse et al. (2017).

The costs resulting from more stringent capital requirements can be mitigated by the so-called Modigliani-Miller offset: the increased availability of capital, by improving loss absorption capacity, lowers financing costs (through both debt and equity).[5] However, the presence of information asymmetries or other types of frictions may render the offset incomplete.[6] In this case, the increase in requirements would still be costly for banks, especially the less capitalised ones.[7]

An increase in the cost of funding, ceteris paribus, reduces the banks' expected profitability, which may have a negative impact on equity valuations. A similar effect could occur even in the absence of an increase in the cost of funding, i.e. if banks decide to meet the requirement by pursuing a pure derisking strategy to reduce risk-weighted assets.[8] Furthermore even if banks were to meet the new requirement solely by reducing excess capital, they could still face reputational costs imposed by the market.

Uncertainty about the real impact of the measure on banks' balance sheets could also play a negative role at the time of the announcement. The market's possible difficulty in assessing the medium-term benefits of increased capital availability in a time of crisis could contribute to the uncertainty.

The analysis described in this note therefore aims to provide evidence on the possible impact of the SyRB activation announcement on the share prices of Italian banks. To this end, three key dates relevant to the measure in question are considered:

- **10 February 2024 (Saturday) – ASSIOM FOREX**: In his speech, the Governor of the Bank of Italy emphasised the importance of building up macroprudential capital buffers, pointing out that the Bank of Italy had initiated a reflection on the macroprudential policy stance, the results of which would be communicated in the following weeks.[9]

- **8 March 2024 (Friday, after markets close) – Launch of public consultation**: The Bank of Italy launches a public consultation on its intention to activate the SyRB for all banks and banking groups authorised in Italy. On this date, the details that the Bank of Italy plans to set for this measure are announced: the reserve would be equal to 1.0 per cent of domestic credit and counterparty risk-weighted exposures and should

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[5] See, for example, Belkhir et al. (2021) and Toader (2015).

[6] Empirical estimates support the hypothesis that the offset is present but incomplete (see Almenberg et al. (2017)).

[7] Empirical evidence suggests that an increase in capital requirements affects banks with lower levels of excess capital more and that they respond by reducing credit more than institutions with more capital (see Malovaná and Ehrenbergerová (2022)).

[8] As the quality of the assets improves, it may result in lower yields.

[9] See Economic developments and monetary policy in the euro area – Genoa – 30th ASSIOM FOREX Congress: *"Aside from the microprudential perspective, macroprudential capital buffers are necessary to enable banks to support the economy in the event of external shocks to the financial system. These can be built up by financial intermediaries using capital in excess of minimum requirements, without raising new capital. With the pandemic emergency behind us, many foreign authorities have increased capital buffers that can be released if adverse events occur. The Basel Committee has welcomed the accumulation of macroprudential reserves, including when cyclical growth is not strong. The ECB has also supported the build-up of such buffers, banks' capital positions and profitability permitting. The Bank of Italy is examining the macroprudential policy stance in Italy. The results will be announced in the coming weeks"*.

be met gradually (0.5 per cent by 31 December 2024; the remaining 0.5 per cent by 30 June 2025).

- **26 April 2024 (Friday, after markets close) – Activation of the SyRB**: after the end of the public consultation, the Bank of Italy announced the activation of the new instrument. The communicated decision confirmed the details of the measure already provided at the time of the launch of the consultation,[10] thus providing no new information to the market (other than that the decision had become final).

In order to identify the presence of a possible negative impact of the measure on banks' stock prices, we assess (1) whether there was a significant deterioration in the banks' stock market performance on the days immediately following the three dates above, and (2) whether or not this deterioration is related to the level of banks' excess capital. Although the analysis does not allow us to establish a causal link between the introduction of the measure and the performance of bank shares, it should still be capable of detecting the presence of an impact if it is economically significant.

In summary, the results indicate that there is no statistically significant evidence of negative impacts on banks, even for those with less excess capital.

2. Methodology

The analysis considers 17 listed Italian intermediaries (both banks and banking groups).[11] For each bank (i) we estimate separately the daily excess returns ($er_{i,t}$) obtained as the residuals of a regression (Eq. 1) in which the predictable component based on the sectoral Datastream euro banks index (R_t^{dseb}) is filtered out from the daily stock returns ($R_{i,t}$).[12]

$$R_{i,t} = a_i + b_i R_t^{dseb} + er_{i,t} \qquad (1)$$

The excess returns thus calculated provide a measure of the unexpected deviations of the performance of Italian banks' shares relative to that of the entire banking sector in the euro area. Compared to simple daily returns, they allow for a more accurate

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[10] The public consultation closed on 29 March 2024.

[11] These are UniCredit, Intesa Sanpaolo, Banco BPM, BPER, MPS, MEDIOBANCA, Credem, Banca popolare di Sondrio, Mediolanum, Banca Fineco, Brianza Unione S.A.p.A. (Banco Desio), Banca Generali, Banca IFIS, BFF Bank, ILLIMITY, Banca Sistema, AREPO Banca Profilo.

[12] Given the size heterogeneity of the banks included in the sample, the Datastream euro banks index was deemed the most appropriate to use as it considers a large number of banks, including smaller ones. The results obtained with an alternative index (EURO STOXX® Banks), constructed using only the largest European banks, are qualitatively similar to those discussed in the note. Equation 1 was estimated using 1 year of daily data. The results do not change qualitatively if one changes the time window (3 years, 6 months) over which the excess returns are calculated or if one uses weekly data.

identification of the impact of a measure that directly affects Italian banks, but not those of other euro-area countries.

The excess returns are subsequently used as the dependent variable in a panel regression with bank fixed effects (Eq. 2) in which time dummies ($D_{j,t}$) are used as explanatory variables for each of the three identified dates (j). In addition to the baseline version, we also estimate an augmented regression that includes the interactions of each dummy with a measure of excess capital (EC_i) of the banks.[13]

$$er_{it} = \alpha_i + \beta_j D_{j,t} + \delta_j D_{j,t} EC_i + \epsilon_{it} \qquad (2)$$

The panel regression makes it possible to: *i)* verify whether the excess returns observed in the days immediately following the announcements are, on average, statistically significant; *ii)* assess the extent to which they depend on the level of banks' excess capital. Together, these results help to identify the possible presence of a negative impact of the SyRB announcement on the performance of Italian banks. In particular, this hypothesis would be supported by estimates with signs $\hat{\beta} < 0$ (in the baseline regression), corresponding to an empirical evidence that the SyRB announcements had an average negative impact on banks' equity performance, and $\hat{\delta} > 0$ (in the augmented version), which would indicate that this impact was stronger for banks with less excess capital.

3.   Results

Table 1 shows the results of the fixed-effect panel regression estimates.[14] In the baseline model, without interactions, the coefficients of the time dummies for the ASSIOM FOREX, the public consultation and the decision on the introduction of the SyRB are not significantly different from zero. In all three cases, the estimates suggest that in aggregate, the introduction of the SyRB did not have a negative impact on the share prices of Italian banks. The same results can be visually appreciated in Figure 1, which shows the average daily excess return of Italian banks over the period April 2023-April 2024.

In the second regression, the coefficients of the interactions between excess capital and the SyRB announcement dummies are not significantly different from zero. This supports the hypothesis that Italian banks have not been penalised by the introduction of the measure, irrespective of their capitalisation profile, which is in

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[13]   The measure of excess capital is obtained as the difference between CET1 and the most stringent of both micro- and macro-prudential regulatory requirements, measured as of Q3-2023 (the most recent official date available at the time of the SyRB announcement). In principle, this variable is a measure of banks' ability to meet new regulatory requirements without having to raise new capital. Precise information on excess capital is only available to the supervisory authority. However, the market could be able to form an expectation about the level of excess capital based on publicly available financial statements, for example by exploiting the high correlation between excess capital and the CET1 ratio. The results of the analysis do not change significantly by replacing the excess capital measure with the CET1 ratio.

[14]   The results shown in the table are confirmed when estimating a regression with random effects.

fact on average high and sufficient to absorb the introduction of the SyRB (see the consultation paper: Increasing macroprudential space in Italy by activating a systemic risk buffer).

Figure 1: Average excess returns of Italian ban
(percentage)

Source: LSEG and authors' elaborations.

Table 1 – Panel regression		
	Dependent variable: *Excess Return*	
	(1)	**(2)**
D_{forex}	0.295 (0.317)	-0.112 (0.492)
$D_{consultation}$	-0.097 (0.363)	0.195 (0.793)
$D_{decision}$	0.692 (0.480)	0.746 (1.215)
$D_{forex} * EC_i$		0.080 (0.053)
$D_{consultation} * EC_i$		-0.057 (0.092)
$D_{decision} * EC_i$		-0.011 (0.149)
Observations	4828	4828
Adjusted R^2	-0.003	-0.003
F Statistic	1.711 (df=3; 4808)	1.014 (df=6; 4805)

Note: individual fixed effects included; robust standard errors in brackets.

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Appendix

For robustness purposes, the coefficients of equation 2 were re-estimated using as dependent variable the excess returns against the Datastream Italy total market index (dsit) instead of the European banking sector index. This helps to detect whether the impact of certain events, as estimated in the note, may mask an abnormal performance of the Italian market as a whole and not only of the Italian banking sector, or an abnormal performance of the banking sectors of other European countries caused by simultaneous but independent events.

The results (Table A1) confirm the evidence commented on in the note. The main difference concerns the coefficient of the dummy related to the decision on the introduction of the SyRB, which goes from 0.69 to -0.064, while remaining statistically insignificant. This could be attributable to the fact that the decision coincided with the confirmation of Italy's BBB (high) rating by the DBRS agency, an event that may have had a positive impact on the Italian stock market as a whole, thus indirectly leading to a positive deviation in the market performance of Italian banks compared to the European banking sector.

Table A1: Panel regression		
	Dependent variable: *Excess Return* **Market index: DSIT**	
	(1)	**(2)**
D_{forex}	-0.088 (0.323)	-0.466 (0.497)
$D_{consultation}$	-0.014 (0.362)	0.273 (0.788)
$D_{decision}$	-0.064 (0.493)	0.089 (1.211)
$D_{forex} * EC_i$		0.074 (0.051)
$D_{consultation} * EC_i$		-0.056 (0.090)
$D_{decision} * EC_i$		-0.030 (0.146)
Observations	4828	4828
Adjusted R^2	-0.004	-0.004
F Statistic	0.036 (df = 3; 4808)	0.175 (df = 6; 4805)

Note: individual fixed effects included; robust standard errors in brackets.

The evidence commented on in the note is mostly confirmed when assessing the performance of banks in the equity options market (Figure A1) and in the credit default swap market (Figure A2). However, the two analyses are not superimposable due to the significant difference in the respective samples of banks (in the note we look at all listed banks while in the following two figures only the largest banks in the major European countries are considered).
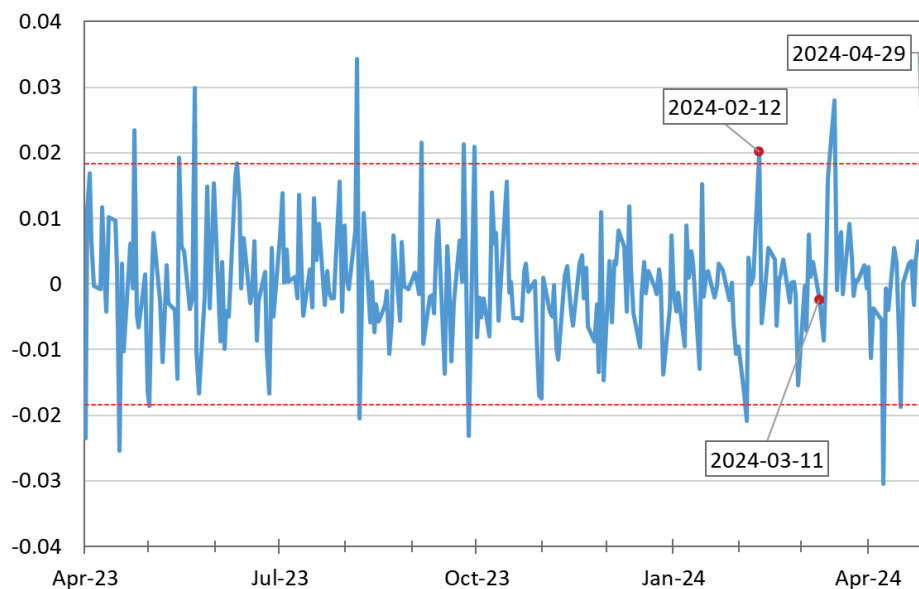
Figure A1: Daily change in the ratio of implied volatility of major Italian banks to that of major European banks
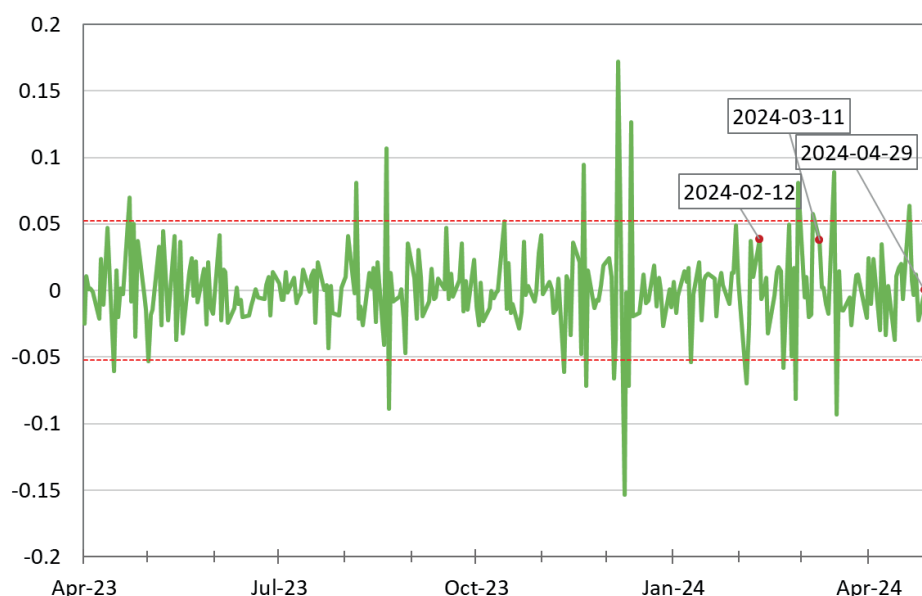
Note: the banks considered are Unicredit and Intesa Sanpaolo for Italy, BNP Paribas, Societé Generale and Credite Agricole for France, Deutsche Bank and Commerz Bank for Germany and Banco Santander and Banco Bilbao Vizcaya Argentaria for Spain. The numerator considers the simple average for the Italian banks, the denominator considers the simple average for all the banks mentioned. The horizontal lines in the graph correspond to ±1.64*σ, i.e. the extremes of the 90% confidence interval of the normal distribution.

Figure A2: Daily change in the ratio of the CDS spread of the largest Italian banks to that of the largest European banks

Note: the banks considered are Unicredit and Intesa Sanpaolo for Italy, BNP Paribas, Societé Generale and Credite Agricole for France, Deutsche Bank and Commerz Bank for Germany and Banco Santander and Banco Bilbao Vizcaya Argentaria for Spain. The numerator considers the simple average for the Italian banks, the denominator considers the simpleaverage for all the banks mentioned. The horizontal lines in the graph correspond to ±1.64*σ, i.e. the extremes of the 90% confidence interval of the normal distribution.