

Notes on Financial Stability and Supervision

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Risk-weighted assets dynamics for Italian and SSM banks over the last three years

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Overview

Between 2020 and 2022, capital adequacy increased for both Italian and Single Supervisory Mechanism (SSM) banks, albeit to different degrees. Unlike what was observed for SSM banks, for Italian intermediaries the improvement depended solely on the decline in risk-weighted assets (RWAs). An analysis of the trend in RWAs for credit risk, which is the most significant component, shows that the reduction in the average weighting of portfolios for Italian banks more than offset the increase, albeit significant, in overall exposure, due exclusively to the performance of the sovereign government and central bank portfolio (net of this component, the overall prudential exposure would have decreased, especially to corporates). This portfolio reflects both the higher exposures to central bank and the effects of the prudential reclassification of those loans to the non-financial private sector that, as a result of the COVID-19 pandemic, benefited from government guarantees. The general improvement in the quality of credit assets also contributed to the decline in RWAs, due to the combined effect of more stringent lending and credit monitoring policies.

For SSM banks as a whole, whose capital improvement was fully due to the increase in CET1 capital, the increase in overall exposure was more significant than the decrease in average risk weighting, leading to growth in RWAs. Net of

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the effects of prudential 'reclassification' between portfolios, the stock of loans to non-financial corporations for SSM banks as a whole increased non-negligibly over the three-year period under consideration, while it remained essentially stable for Italian banks.

1. Introduction and main conclusions

Over the three-year period 2020-2022, the average common equity tier one (CET1) ratio of Italian banks increased significantly (+140 basis points, to 15.3 per cent); as for significant institutions (SIs) only, the average level of capitalization of Italian intermediaries exceeded that of Single Supervisory Mechanism (SSM) banks by around 40 basis points. In contrast to the average for SSM significant banks (for which the more modest increase in the CET1 ratio was explained by the increase in CET1 capital), for Italian banks the improvement is attributable solely to the reduction in RWAs, against a negative capital contribution.

In this note, we conduct an in-depth analysis of the developments in the risk-weighted assets of Italian and SSM banks starting from the end of 2019, with a specific focus on those for credit risk. The main findings of the analysis are listed below:

- for both significant and less significant Italian banks (LSIs), overall RWAs
 decreased by more than 10 per cent: those for credit and market risks fell by
 about 11 per cent and 24 per cent, respectively, while RWAs for operational
 risk showed an increase of more than 5 per cent;
- with regard to RWAs for credit risk, which account for 90 per cent of total RWAs, the decline is mainly attributable to the decrease in the average risk weight (risk density), as total exposure (exposure at default, EAD) increased by 10 per cent;
- the reduction in the average risk weight, in turn, is mainly due to the significant increase in portfolios of exposures to the sovereign government and central bank, which have an almost zero risk weight (net of these exposures, the overall EAD would actually have decreased by about 6 per cent, being particularly significant in absolute value for the small and medium-sized enterprises (SME) and non-SME portfolios). On the other hand, whereas exposure to the central bank increased substantially as a result of large Targeted Longer-Term Refinancing Operations (TLTROs) -related liquidity deposits, the increase in exposures towards central government was particularly affected by the 'prudential reclassification' of those loans to the non-financial private sector that, as a result of the COVID-19 pandemic, benefited from government guarantees;
- also contributing to the overall reduction in RWAs were a decline in some of the (more heavily weighted) loans granted by some of the largest Italian banks

- in recent quarters and a general improvement in the quality of loans, due to the combined effect of more stringent lending and credit monitoring policies;
- for SSM banks, the decline in risk density was smaller than for significant Italian banks in each of the three years considered. The exposure of credit portfolios increased by nearly 20 per cent over the three-year period, and the lower average risk weight only partly mitigated the impact on credit RWAs, which grew by 5 per cent. In fact, in addition to exposure to governments and central banks, the overall exposure (i.e. considering both the standard and internal-model approaches) to portfolios consisting of non-financial corporations, SMEs, and retail customers also increased;
- an analysis of the balance sheet data, which are not affected by the effects of prudential 'reclassification' between portfolios to factor in the government guarantees, shows that, for Italian SIs, the stock of loans to non-financial corporations remained essentially stable at the beginning and at the end of the three-year period under consideration (against a declining EAD), while it increased by a non-negligible amount (about 12 per cent) for SSM banks as a whole;
- looking ahead, Italian banks' room for manoeuvre to continue to reduce RWAs appears more limited than in the recent past, given the likely effects on risk density arising from loans backed by government guarantees gradually maturing and from the reduction of excess reserves with the central bank as a result of the gradual repayment of TLTROs as well as the tightening of prudential requirements following the adoption of Basel III standards (estimated at around 10 per cent). Intervening on the capital side through profitability, which is expected to remain at significant levels beyond the current year seems, therefore, to be the most appropriate tool for further capital strengthening, which is all the more appropriate in a still highly uncertain economic environment.

2. An overall picture

Compared with the end of 2019, before the outbreak of the pandemic, the average CET1 ratio of Italian banks had increased significantly as at December 2022, both for significant institutions (SIs; +170 basis points) and for less significant ones (+50 basis points; Table 1).¹ This improvement was due solely to the reduction in RWAs, while the contribution of capital was negative, particularly for LSIs. The decline in RWAs was attributable to the reduction in the average risk weight (i.e. risk density, defined as the ratio of RWAs to total assets), as total assets increased.

During the same period, the CET1 ratio also increased for Single Supervisory Mechanism (SSM) SIs, albeit to a much lesser extent than for Italian SIs (40 basis points; Table 2). However, the increase was driven by opposite factors: the positive

For the sake of comparability, Fineco and Mediolanum were considered as significant institutions in December 2019.

contribution of capital more than offset the increase in RWAs, which, despite a reduction in the average weighting, increased due to the growth in total assets.

Table 1 – Changes in CET1 ratio, by driver. Italian banks							
	Total banking system	SIs	LSIs				
dec-19	14.0%	14.0%	15.9%				
dec-22	15.3%	15.7%	16.4%				
Delta ratio	1.4%	1.7%	0.5%				
of which, for: CET1	-0.2%	-0.3%	-0.8%				
RWA	-1.5%	-1.9%	-1.3%				
of which, for: risk density	-2.7%	-2.9%	-2.9%				
total assets	V 1.1%	1.0%	V 1.5%				

Source: supervisory reports. Possible disalignments between the totals and "of which" are exclusively due to rounding. In red (green) we highlight a negative (positive) variation of each specific item, while the red (green) arrow points to its negative (positive) impact on CET1 ratio.

Table 2 – Changes in CET1 ratio, by driver. SSM banks					
	SSM SIs				
dec-19	14.9%				
dec-22	15.3%				
Delta ratio	0.4%				
of which, for: CET1	1.2%				
RWA	0.8%				
of which, for: risk density	-1.4%				
total assets	▼ 2.1%				

Source: supervisory reports. Possible disalignments between the totals and "of which" are exclusively due to rounding. In red (green) we highlight a negative (positive) variation of that specific item, while the red (green) arrow points to its negative (positive) impact on CET1 ratio.

3. The Italian banking system: SIs and LSIs

As regards the Italian banking system, over the three-year period total RWAs decreased by almost €140 billion (-10 per cent), of which over 90 per cent related to credit risk (Table 3 and Figure 1); the reduction affected both SIs and LSIs, albeit to a different extent (-8 per cent and -12 per cent, respectively).

Looking at the different business models, RWAs for credit risk decreased by 15 per cent for 'traditional' banks, both SIs (€133 billion) and LSIs (€14 billion), while they grew for specialized banks (both asset managers and specialist lenders), particularly for SIs operating in asset management (20 per cent).

Figure 2 shows, for the credit risk component and for the most significant portfolios, the evolution of exposures before (exposure at default, EAD)² and after (RWAs) risk

² EAD takes into account the effects of risk mitigation techniques (CRM) and conversion factors (CCFs) for off-balance sheet exposures.

Table 3 - RWA breakdown and variation between December 2019 and December 2022(millions of euros)

31/12/2019	9 Business model	RWA Credit risk	of which RWA STD	of which RWA IRB	of which: Other	RWA Market	RWA Operational	RWA Other	RWA Total
LSIs	TRADITIONAL BANKS	93,670	88,183	5,078	409	754	10,453	690	105,567
	SPECIALIZED - ASSET MANAGEMENT	8,366	8,355	-	11	483	2,773	25	11,646
	SPECIALIZED - CREDIT	19,917	' 18,352	-	1,565	169	2,163	73	22,323
LSIs Total		121,953	114,890	5,078	1,985	1,406	15,389	788	139,536
Sis	TRADITIONAL BANKS	897,545	420,431	465,996	11,117	34,584	93,395	17,516	1,043,040
	SPECIALIZED - ASSET MANAGEMENT	49,321	38,139	11,133	49	2,955	6,793	625	59,694
SIs Total		946,866	458,570	477,129	11,166	37,538	100,188	18,141	1,102,734
Overall total		1,198,967	665,239	520,342	13,386	39,178	127,943	19,783	1,385,871
Variation 2019-2022	Business model	RWA Credit risk	of which RWA STD	of which RWA IRB	of which: Other	RWA Market	RWA Operational	RWA Other	RWA Total
LSIs	TRADITIONAL BANKS	-13,585	-11,842	-2,308	565	-72	328	257	-13,072
	SPECIALIZED - ASSET MANAGEMENT	67	' 53	_	14	-261	-350	-1	-546
	SPECIALIZED - CREDIT	1,721	2,662	_	-941	-99	814	50	2,486
LSI Totale		-11,798	-9,128	-2,308	-362	-432	792	306	-11,132
SIs	TRADITIONAL BANKS	-132,805	-85,119	-57,577	9,891	-8,728	3,932	-6,640	-144,241
	SPECIALIZED - ASSET	0.000	7.005	0.000	40	455	005	000	10.005
OT . T 1	MANAGEMENT	9,890		•		-477		-223	
SIs Total			-77,483			-9,205			-134,215
Overall total		-129,099	-81,085	-57,958	9,944	-9,517	6,779	-6,148	-137,984

Source: supervisory reports. In the total banking system there are – in addition to SIs and LSIs – the subsidiaries of SSM groups too, whose total RWAs – over the three-year period – increased by around 7 billion. The item "RWA Other" is residual and entails mainly the large exposures of trading book (article 92, para. 3, letter b, and articles from 395 to 401 of CRR).

weighting. For SIs, EAD increased by about €230 billion (10 per cent); the increase is concentrated almost exclusively in exposures to governments and central banks. Net of the latter, EAD would have decreased by 6.4 per cent (€115 billion).

By contrast, RWAs related to credit risk declined by 13 per cent overall; the decline was mainly attributable to:

Figure 1 – RWA breakdown at December 2019 and December 2022 – SIs and LSIs (millions of euros)



Source: supervisory reports.

- the greater incidence of exposure to governments and central banks (which benefits from favourable weightings, at best zero);³
- the lower EAD of most portfolios, both standard (STD) and internal ratings-based (IRB), which is particularly significant in absolute value for corporate (SME and non-SME IRB, non-SME standard), retail and default (standard) portfolios;
- the lower average weighting⁴ of many of the most significant portfolios in absolute value, such as SME and non-SME, both IRB and standard, retail and standard central

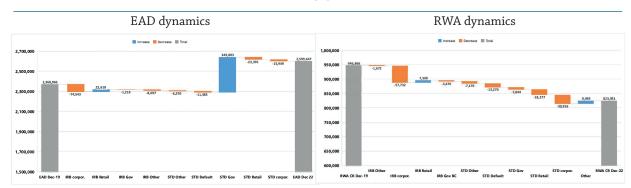
Balance sheet data show that the increase in this prudential portfolio is mainly attributable to the exposure to the central bank.

With reference to individual prudential portfolios, average weighting (risk density) is more correctly understood as the ratio of RWAs to the portfolio's EAD.

Figure 2 - RWA and EAD dynamics for regulatory portfolios (credit risk)

(millions of euros)

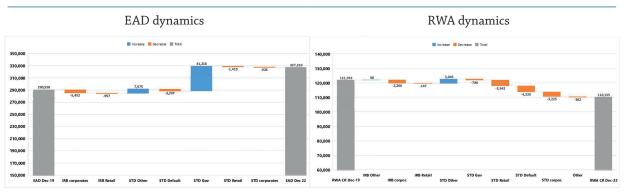




Average risk weight (Dec-19): 40 per cent

Average risk weight (Dec-22): 31 per cent

LSIs



Average risk weight (Dec-19): 41 per cent

Average risk weight (Dec-22): 33 per cent

Source: supervisory reports.

government portfolios. With regard to SME portfolios, the expansion of the perimeter of exposures to which a preferential risk weight should be applied (the SME supporting factor, which was supposed to come into force in 2021 and was brought forward to 2020 with the so-called CRR quick fix)⁵ is likely to have played a part;

 the general improvement in credit asset quality, as a result of banks' more stringent lending and credit monitoring policies, which contributed further to the reduction in the average risk weight.

The increase in the government and central bank portfolio and the concomitant decrease in the corporate portfolio are at least partly explained by the possibility, introduced in the wake of the pandemic, of disbursing loans (partly in substitution for existing loans) covered by public guarantees. This provision has in fact led to a 'prudential' shift of exposures to the government and central bank portfolio for the guaranteed portion.

To assess the actual change in the portfolio by looking at the original counterparty and ignoring the reclassification effects due to public guarantees, it is useful to refer

⁵ Regulation (EU) 2020/873.

to the 'accounting' perimeter (i.e. balance sheet aggregates), 6 which also makes it possible to distinguish between exposures to central banks and governments. Over the three-year period considered, the former increased significantly (\leq 183 billion, +150 per cent), while direct exposure to governments grew more modestly (\leq 30 billion, +8 per cent). Moreover, the stock of loans to businesses, unlike under the prudential regime, remained substantially unchanged (\leq 3 billion).

EAD also increased for LSIs (€36 billion, +12.6 per cent), again almost entirely as a result of the government and central bank portfolio (€41 billion). Overall, RWAs for credit risk for LSIs decreased less than they did for SIs (-10 per cent). The reduction was concentrated in the retail, defaulted exposures and non-SME corporate portfolios; only for the latter was the lower exposure not associated with a decrease in the average risk weight.

Finally, it should be noted that the average risk weighting of SIs and LSIs' credit risk exposures is broadly similar at both end-2019 and end-2022.8 However, the different importance of the portfolio towards governments and central banks (which is more significant for LSIs) results in a similar average risk density for portfolios that are in reality significantly different. Net of this exposure, in fact, at the end of 2022 this weighting would have risen to 45 per cent for SIs and 58 per cent for LSIs,9 resulting in a significantly higher average capital absorption from lending for the latter.

4. Comparison with SSM banks

As mentioned in the second paragraph, the modest growth in the CET1 ratio of SSM banks over the three-year period was supported by the increase in CET1capital, which more than offset the growth in risk-weighted assets. In turn, RWAs were affected by the increase in EAD, which was larger than the decline in the average asset weighting.

Figure 3 shows the contribution, broken down by year, of the individual components of the CET1 ratio (capital, risk density and total assets) for both Italian and SSM SIs. For SSM banks, the positive trend in capital contributed to the growth of the CET1 ratio for each of the three years considered, while for Italian intermediaries the decline in CET1 in 2021 and 2022 more than offset the increase recorded in 2020, which had benefited from the ECB recommendation on dividend distribution.¹⁰

⁶ In particular, portfolios measured at amortized cost and at fair value through comprehensive income were considered.

Compared with the EAD analysis, however, information is lost on off-balance sheet exposures, which – in the supervisory perimeter – are allocated to the different portfolios through the use of credit conversion factors.

⁸ Respectively, for SIs and LSIs, 40 and 41 per cent in 2019, 31 and 33 per cent in 2022.

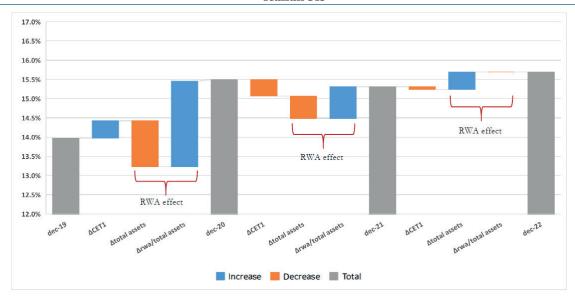
At the end of 2019, the average weighting net of the government and central bank portfolio was 49 per cent (SIs) and 63 per cent (LSIs).

¹⁰ See European Central Bank recommendation published 27 March 2020 and following extensions.

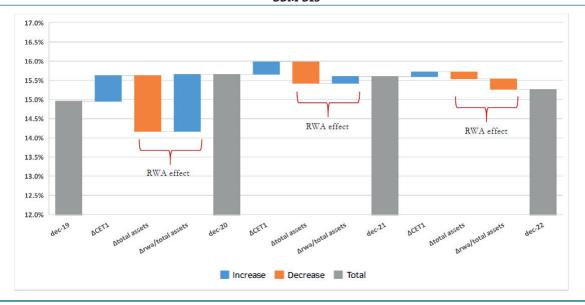
Figure 3 – Drivers of changes in CET1 ratios by year (valori percentuali)

atori percentual





SSM SIs



Source: supervisory reports. By increase (decrease) we mean the positive (negative) impact of that item on CET1 ratio

With regard to RWAs, for Italian SIs the most significant effect is the reduction in risk density in 2020. For SSM banks, the increase in assets and the concomitant reduction in the average risk weight immediately following the outbreak of the pandemic, whose opposite effects substantially offset each other, are notable; in the two-year period that followed, the increase in assets and average risk weight reduced the CET1 ratio.

For SSM banks, the broad-based increase in RWAs over the three-year period (+€438 billion, +5.4 per cent) is driven by the credit risk component (+€324 billion, +4.7 per

cent); the market risk component recorded the largest percentage change (+34 per cent) (Table 4).¹¹

Table 4 – RWA composition and variation between December 2019 and December 2022. SSM banks

(millions of euros)

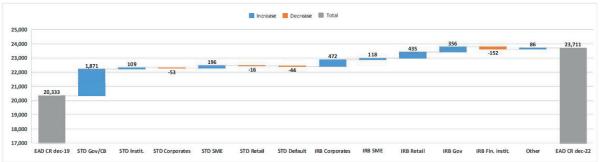
	RWA Credit risk	of which: STD	of which: IRB	RWA Market risk	RWA Operational risk	RWA Other	RWA Total
dec-19	6,923,693	2,878,570	4,038,467	251,131	843,772	170,903	8,189,500
dec-22	7,247,767	2,910,201	4,209,095	336,907	842,437	200,753	8,627,864
Absolute var.	324,073	31,631	170,628	85,776	-1,335	29,850	438,364
Percent var.	4.7%	1.1%	4.2%	34.2%	-0.2%	-33.3%	5.4%

Source: supervisory reports.

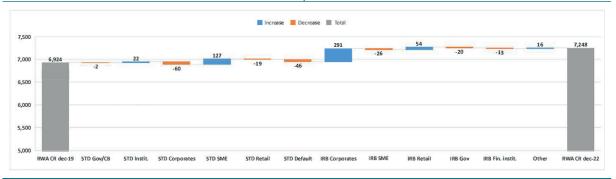
Figure 4 shows – for the credit risk component and for the largest portfolios – the evolution of exposures before (EAD) and after (RWAs) risk weighting, for all SSM banks. The increase in EAD amounted to 17 per cent (almost €3,400 billion), compared with 10 per cent for Italian banks. For SSM SIs, the growth in the standard

Figure 4 - RWA and EAD dynamics for regulatory portfolios (credit risk). SSM banks (billions of euros)









Source: supervisory reports.

The increase in RWAs for market risk, as confirmed by the EBA's Risk Assessment of the European Banking System, is due to the higher volatility observed in the markets during the reporting period as a result of the deteriorating macroeconomic environment, geopolitical uncertainty and the general rise in interest rates.

government and central bank portfolio was also by far the largest (about €1,900 billion, +76 per cent), but – unlike for domestic SIs, for which only one other portfolio showed growth – several other exposures increased. In particular, the most significant increases were recorded in the following portfolios:

- IRB corporate (€472 billion);
- IRB retail (€435 billion);
- IRB government (€356 billion);
- STD SME (€196 billion).

Combining prudential and accounting information, in line with what was done for Italian SIs, we find, inter alia, that: (i) over the three-year period, the increase in the balance of loans to central governments is limited (+4 per cent), confirming the fact that the increase in the prudential government and central bank portfolio was affected by the trend in exposure to central banks and by the effect of government guarantees; (ii) the stock of loans to non-financial corporations (+12 per cent) increased significantly more for SSM SIs than for Italian SIs.

The reduction in the average weighting of the loan portfolio, down over the three-year period from 34 per cent to 30.6 per cent, is significantly smaller than that observed for Italian banks and it only partially offset the increase in EAD. Risk density declined most significantly for the following portfolios:

- STD government and central bank portfolio (-3.9 p.p.), whose RWAs declined marginally despite the significant increase in EAD. Excluding this portfolio, the average risk density would have decreased much less over the three-year period, from 37.5 per cent to 36.3 per cent;
- STD and IRB SME portfolios (-9.6 and -4.5 p.p., respectively), which limited the effect of EAD growth on RWAs.

All in all, both for significant Italian groups and for the total of SSM banks over the three-year period considered, the average risk density decreased, while EAD increased; however, net of the standard government and central bank portfolio, EAD for Italian SIs would have decreased by €115 billion (-6.4 per cent), while for European SIs it would have increased by about €1,500 billion (+8.4 per cent). Although this reduction in the EAD of domestic SIs, net of the government and central bank component, is also affected by the 'prudential reclassification' of that portion of loans to companies receiving government support, accounting data show a marked increase in the stock of loans to non-financial companies for all SSM banks, compared with the general stability observed for Italian SIs.

Moreover, while for Italian banks the average risk density reduction was the major effect (leading to a RWA decrease by 13 per cent), for SSM banks the increase of EAD was more pronounced, which helped RWAs rise by 5 per cent.

5. A possible medium-term outlook

The ways in which Italian SIs and SSM banks as a whole strengthened their capitalization over the three-year period 2020-2022 were markedly different. Reducing weighted assets was particularly important for Italian SIs as opposed to SSM banks. Looking ahead, the margins for continued RWA containment efforts appear rather limited, also considering that:

- the average risk density of assets may increase due to the combined effect of:

 (i) the gradual repayment of loans backed by government guarantees;
 (ii) the reduction of excess reserves held by banks with the central bank, following the repayment of TLTROs. These circumstances will lead to an increase in RWAs in the event of even a partial replacement of these assets with other non-zero-weighted assets;
- the impacts of the revision of the capital framework will lead to a tightening
 of prudential requirements. According to the estimates made available by the
 EBA, based on data as at December 2021, the implementation of the European
 version of the Basel III standards (as outlined in the EU Commission's proposal)
 would lead to an increase in the minimum capital requirements for European
 banks of approximately 10 per cent.

In a highly uncertain economic environment, maintaining a satisfying capital adequacy has a strategic importance and, in light of the aforementioned RWA constraints, requires action on the numerator side of the CET1 ratio, i.e. capital. The significant profitability achieved by Italian intermediaries in recent quarters, which based on the latest market estimates should continue beyond the current year, may be the most appropriate tool to continue strengthening capital adequacy, even taking into due account shareholders' remuneration expectations.