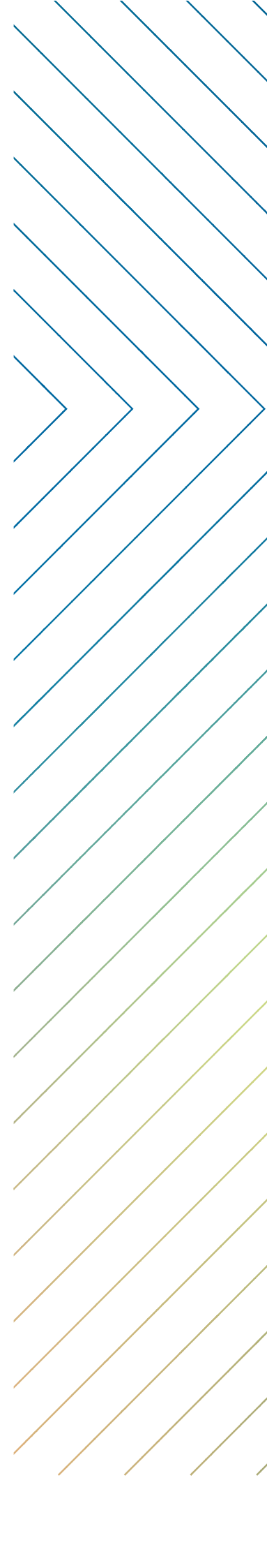




GBI EBF 2025 Cumulative Capital Demand Benchmarking Study

7th May 2025



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Introduction

GARP and the EBF led a data collection effort to assess the incremental impact of supervisory capital buffers, capital deductions and capital provisions relative to European banks' baseline Pillar 1 capital requirements envisioned under the Basel framework.

15 European banks¹ participated in this study and submitted data for year-end 2024, 2023, 2022 and 2021 using a bespoke template.² Using the EBA Transparency Registry³ as an industry proxy, these firms represent, on average, 66% of the industry on a notional basis and 56% on a risk-adjusted basis.⁴

	2021	2022	2023	2024
# of Banks (Industry)	113	122	121	124
# of Banks (Study Group)	15	15	15	15
Study Group (%)	13.3%	12.3%	12.4%	12.1%

€ BN	2021	2022	2023	2024
Total Assets (Industry)	26,182	27,002	27,310	27,934
Total Assets (Study Group)	17,362	17,446	17,910	18,545
Study Group	66.3%	64.6%	65.6%	66.4%

€ BN	2021	2022	2023	2024
Total RWA (Industry)	8,952	9,371	9,586	9,778
Total RWA (Study Group)	5,097.2	5,184.3	5,225.0	5,418.5
Study Group	56.9%	55.3%	54.5%	55.4%

The objective of the data collection was to understand the impact of supervisory capital demands on the sample of banks' Core Tier 1 (CET1) Capital and Total Capital requirements over a three-year period from 2021 to 2024, including any meaningful drivers.

Finally, the report examines how these impacts may feed through to the provisioning of finance and asset creation. Given there is a wide range of views on the appropriate methodology to use when assessing the impact of capital on financing, a range has been provided citing the relevant academic and industry research leveraged for this purpose.

The remainder of this report is structured as follows:

- **Data Requirements** - Provides and defines a list of all data requirements collected.
- **Study Findings** - Lays out the core findings of the data collection including year-on-year impacts of CET1 and Total Capital requirements, as well as the main drivers of any observed movement.
- **Impact on Financing** - Translates CET1 and Total Capital increases into potential impacts on bank financing.

¹ Headquartered in 7 countries

² See Appendix A

³ [EU Wide Transparency Exercise](#)

Data Requirements

Study participants submitted data covering a series of capital buffers, capital deductions, and capital provisions as per below.

Baseline

Minimum amount of required capital requirement contemplated under the Basel Framework.

Baseline	
Basel Minimum Requirement	The Basel framework requires banks to set aside Common Equity Tier1 (CET1) Capital equal to 4.5% of risk-weighted assets and Total Capital, defined as CET1 Capital plus Alternative Tier 1 Capital + Tier 2 Capital, equal to 8% of risk-weighted assets.
Capital Conservation Buffer (CCB)	Layer of additional capital included in the Basel framework "... designed to avoid breaches of minimum capital requirements" ⁵ by absorbing losses during periods of financial and economic stress.
GSIB Buffer	Layer of additional capital included in the Basel Framework and imposed upon large, complex financial institutions and designed to reduce the probability of failure and limit systemic risk to the financial system. ⁶

Supervisory Discretion

Supervisory discretion relates to any incremental capital requirements that firms are made to hold, based on discretions that are provided either by the Basel Committee at the supranational level or locally by National Competent Authorities. These fall into three groupings: capital buffers; capital deductions/provisions; and supervisory add-ons relating either to macroprudential floors or Pillar 1 deficiencies.

Supervisory Discretion	
Capital Buffers	
Pillar 2 Guidance (P2G)	Layer of additional capital determined by the ECB within the Supervisory Review Evaluation Process (SREP) intended to ensure a bank's resilience under adverse economic scenarios. P2G is non-binding and not disclosed under Pillar 3. ⁷
Pillar 2 Requirement (P2R)	Layer of additional capital determined by the ECB within the SREP intended to cover risks either not fully captured or not captured at all under the Pillar 1 capital requirement. ⁸
Other Systemically Important	Layer of macroprudential capital imposed upon banks deemed systemically important at the national level, but not necessarily globally, whose distress or

⁵ Basel Committee on Banking Supervision, RBC30, *Risk-Based Capital Requirements, Buffers Above the Regulatory Minimum*, RBC30.1, p. 1

⁶ Basel Committee on Banking Supervision, RBC40, *Risk-Based Capital Requirements, Buffers Above the Regulatory Minimum*

⁷ [European Central Bank | Banking Supervision](#)

⁸ [European Central Bank | Banking Supervision](#)

Institution Buffer (O-SII)	failure could cause disruption to the domestic financial system or economy. ⁹ The O-SII and GSIB Buffer do not stack, i.e., the higher of the two buffers applies if a bank is a GSIB.
Countercyclical Capital Buffer (CCyB)	Layer of additional capital included in the Basel Framework tied to a bank's credit risk profile intended to increase the level of capital during periods of excess credit growth in anticipation of an economic downturn. While explicitly recognized under the Basel framework, the level of CCyB assigned to a bank is up to the national supervisor. ¹⁰
EU Systemic Risk Buffer (SyRB)	Layer of macroprudential capital used in the European Union to mitigate long-term, structural risks that could impact the financial system.
Capital Deductions / Provisions	
Irrevocable Payment Commitments (IPC)	Unconditional, non-cancellable, and legally binding obligations to pay a specific amount at a future date for contributions to resolution funds and deposit insurance schemes. IPCs are usually collateralized, but a capital deduction is sometimes required as a supervisory expectation imposed by the ECB, under Article 104(1)(d) of CRD, as regards the unsecured portion.
Non-Performing Loans (NPL) Backstop	Minimum coverage requirement under Pillar 1 ensuring a bank deducts insufficiently provisioned exposures from CET1 capital over time. Supervisory requirements are incorporated into the analysis through the NPL Backstop mechanism and / or through the P2R.
Supervisory Add-ons	
Targeted Review of Internal Models (TRIM)	Add-ons relating to any deficiencies found when assessing firms existing advanced approach models when the ECB took up its Single Supervisory Mechanism (SSM) role.
IRB Repair	Add-ons relating to any deficiencies found as firms moved to implement and comply with the EBA's IRB Repair programme.
Internal Model Investigation (IMI)	Add-ons relating to any deficiencies found through an on-site supervisory examination of a model change.

⁹ European Banking Authority, EBA/GL/2014/10

¹⁰ Basel Committee on Banking Supervision, RBC30, Risk-Based Capital Requirements, Buffers Above the Regulatory Minimum, RBC30.6, p. 5

Study Findings

CET1 Capital Impact

For the 15 participating banks, the core 4.5% minimum required level of CET1 capital for 2024 was €243.8bn. The Basel requirement buffers increase the required CET1 capital by 66% to €405.7bn. The Supervisory Discretion adjustments further increase the required CET1 capital by another 67% above the revised baseline to €678.9bn.

Figure 1 shows aggregate incremental impact on required CET1 capital in 2024 for the 15 banks with the contribution of each item.

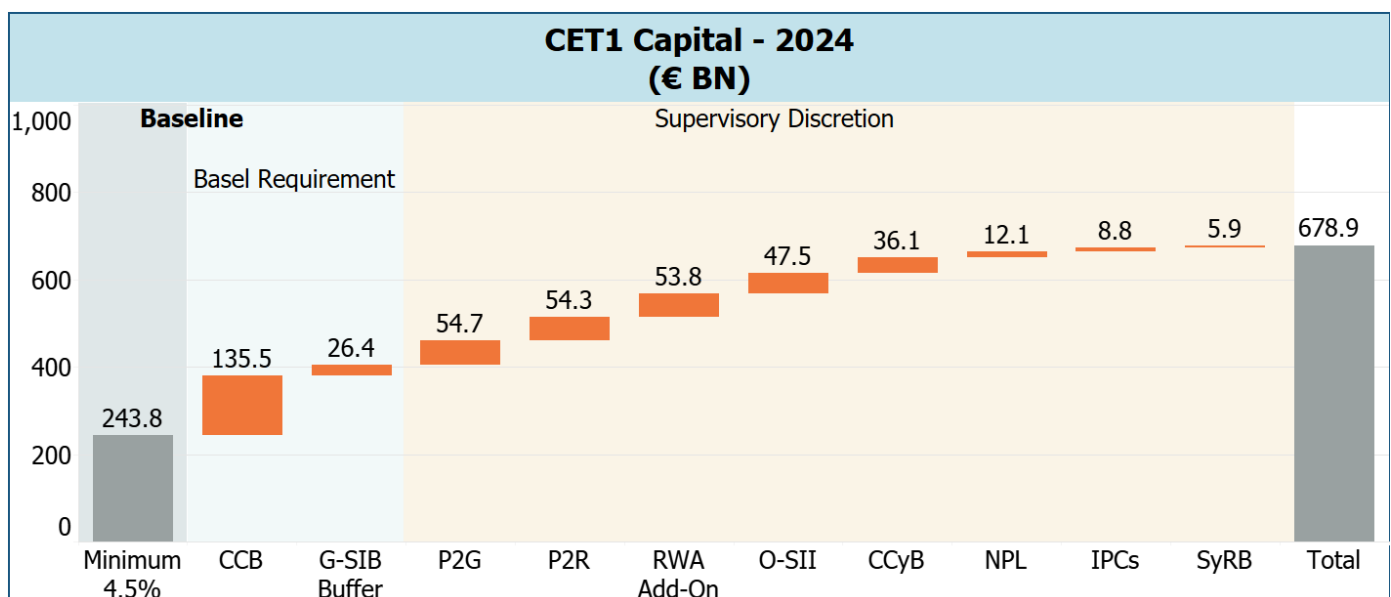


Figure 1. Incremental Impact on Required CET1 Capital from Basel and Supervisory Items for 2024

Figure 2 shows that, for the 15 participating banks, the Baseline CET1 requirement has remained relatively stable at around €400bn.

The increase due to Supervisory Discretion has grown from €171bn in 2021 to €273bn in 2024.

The impact of Supervisory discretion has been more pronounced, increasing required CET1 between 44 and 67% above the Baseline (4.5% + Basel buffers).

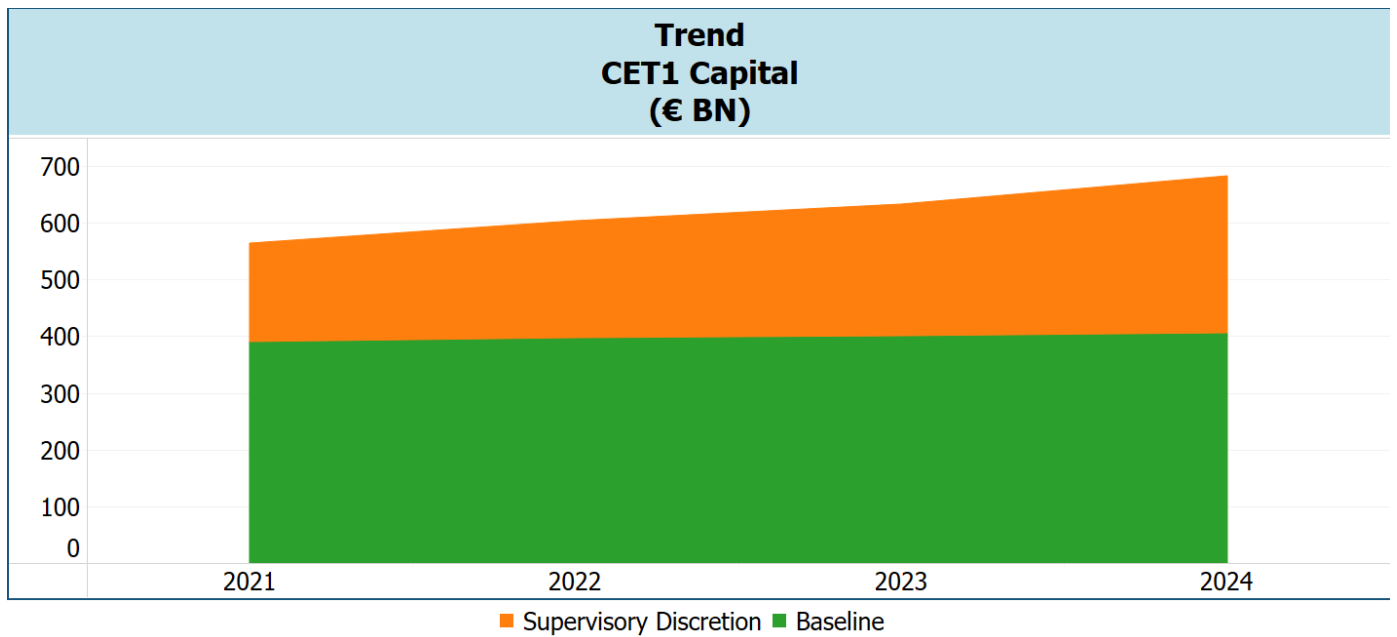


Figure 2. Impact on Required CET1 from Basel Buffers and Supervisory Discretion, 2021-2024

Figure 3 shows that the contribution to the increase in required CET1 from supervisory discretion grows from 31% in 2021 to 41% in 2024.

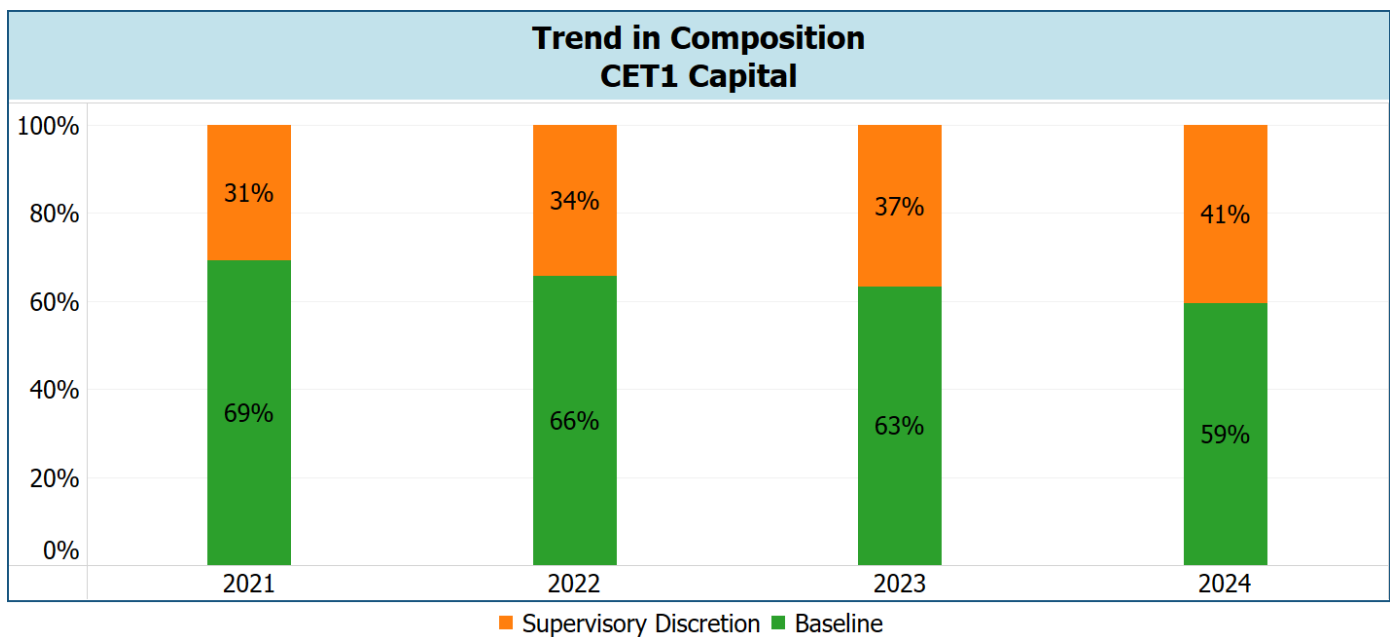


Figure 3. Contribution of Basel Buffers and Supervisory Discretion to Increased CET1 Requirement, 2021-2024

We observe that P2G, P2R and RWA Add-ons are the largest contributors over the three-year period assessed. P2G remains relatively flat, while we observe P2R increases from 2023-2024 as do RWA Add-ons.

- The increase for P2R was €5.2bn, a 10.6% increase.
- The increase for RWA Add-ons was €5.6bn, an 11.5% increase.

The next largest contributors are O-SII and CCyB both of which increase from 2023-2024. There is the most marked increase for CCyB over the three-year period.

- The increase for O-SII was €13.8bn, a 41% increase due to the interplay with the GSIB.
- The increase for CCyB was €11.9bn, a 49% increase.

NPL and IPC are generally smaller contributors, however, there is a consistent year-on-year increase for each of these over the three-year period.

- The increase for NPL was €7.6bn, an 168% increase.
- The increase for IPC was €6.3 bn, a 253% increase. Most of that increase occurred during 2022.

Figure 4 shows the impact of each Supervisory Discretion item from 2021 to 2024 while Figure 5 shows the proportion of each component of Supervisory Discretion and its overall contribution to CET1.

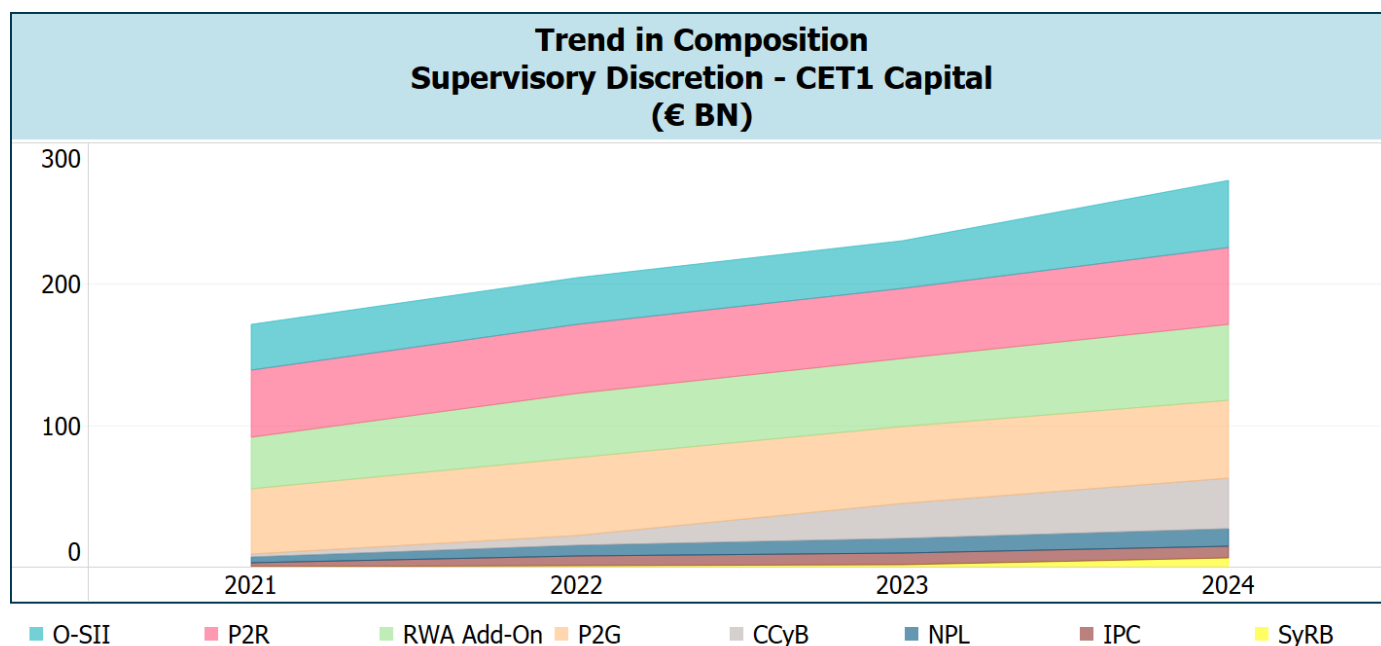


Figure 4. Impact on Required CET1 from each Supervisory Discretion Item, 2021-2024

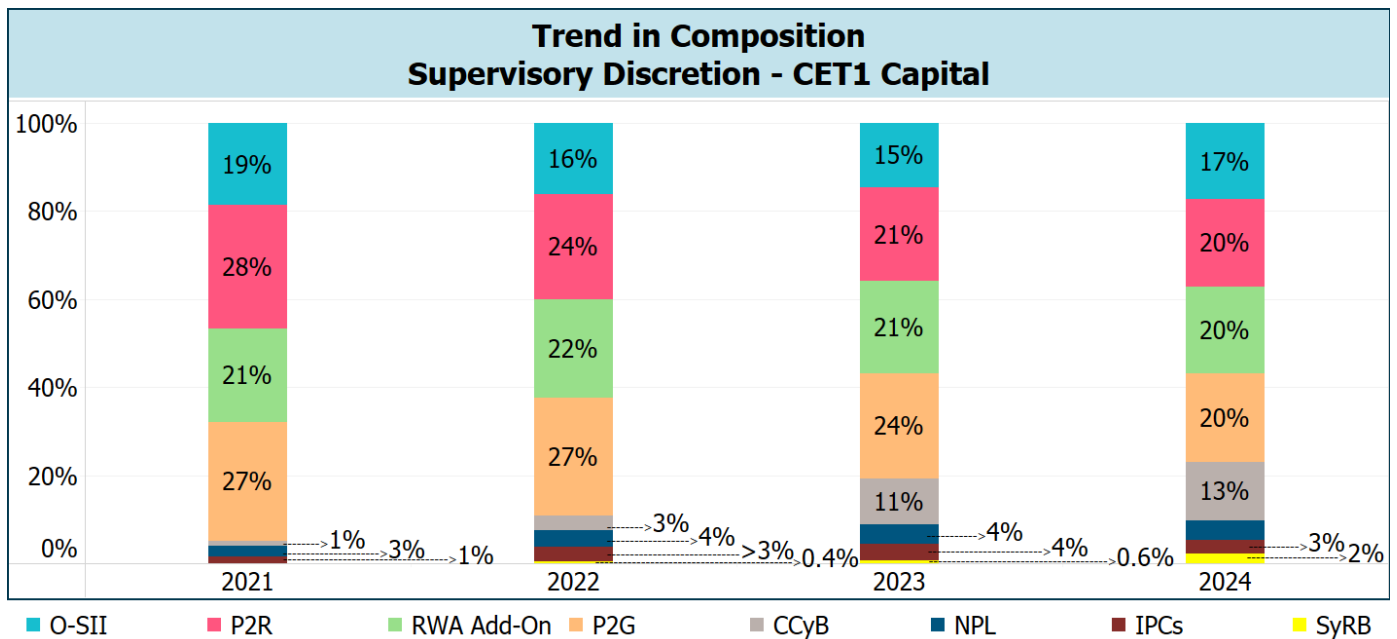


Figure 5. Contribution of Supervisory Discretion to Increased Total Capital Requirement, 2021-2024

The table below shows the progressive increase over the 4.5% minimum in capital demanded by the Basel Requirement and the Supervisory Discretion and their combined impact over the last 4 years.

The Basel buffers, CCB and GSIB, have consistently increased the required CET1 by around 70%. The slightly smaller increase in 2024 reflects the interplay between the GSIB and O-SII buffers.

	4.5% Minimum	Basel Buffers		Baseline	Supervisory Discretion		All-In CET1	
	(€ bn)	(€ bn)	% Increase	(€ bn)	(€ bn)	% Increase Over Baseline	(€ bn)	% Increase Over 4.5% Minimum
2021	229.4	161.1	70	390.4	171.3	44	561.8	144.9
2022	233.3	163.9	70	397.2	204.2	51	601.4	157.8
2023	235.1	164.8	70	399.9	230.2	58	630.2	168.0
2024	243.8	161.9	66	405.7	273.2	67	678.9	178.4

Total Capital Impact

For the 15 participating banks, the core 8% minimum required level of total capital for 2024 was €433.5bn. The Basel requirement buffers increase the required total capital 37% to €595.4bn. The Supervisory Discretion adjustments further increase the required total capital another 53% above the revised baseline to €912.0bn.

Figure 6 shows aggregate incremental impact on required total capital in 2024 for the 15 banks with the contribution of each item.

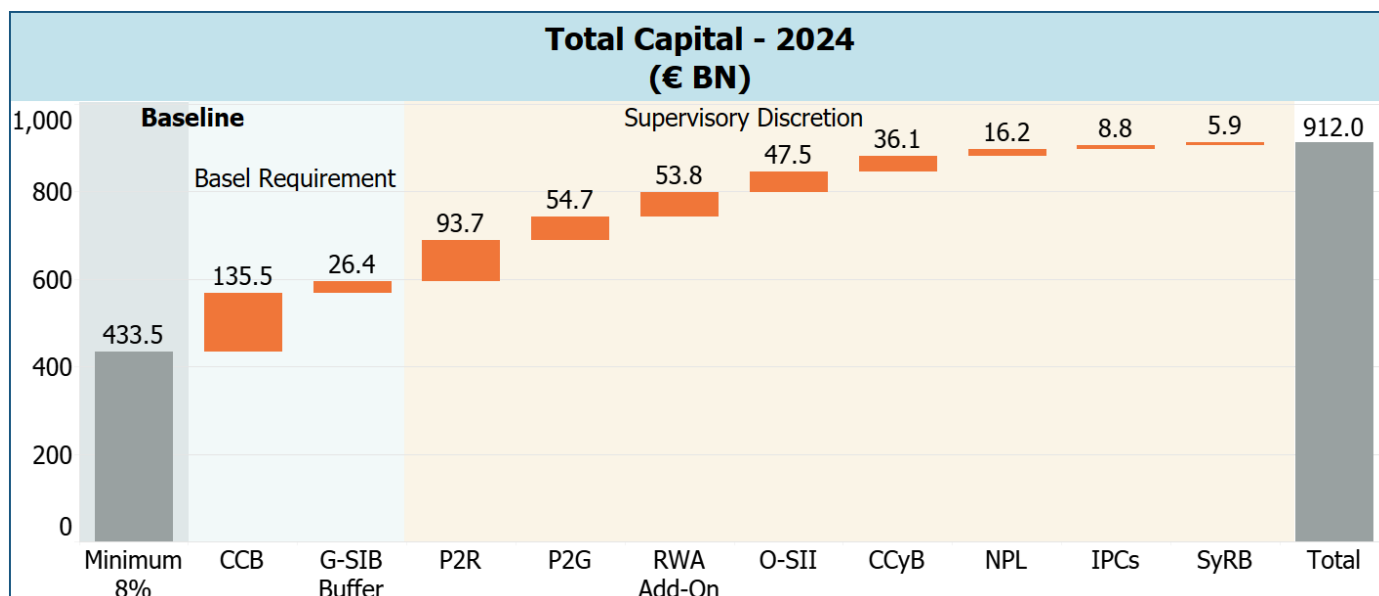


Figure 6. Incremental Impact on Required Total Capital from Basel and Supervisory Items for 2024

The Basel buffers, CCB and GSIB, have increased required Total Capital consistently by around 40%. The slightly smaller increase in 2024 reflects the interplay between the GSIB and O-SII buffers.

The impact of Supervisory discretion shows across Figures 7 and 8 has been more pronounced, increasing required Total Capital between 36 and 53% above the new baseline (4.5% + Basel buffers). The larger increase in 2024 reflects, in part, the interplay between the GSIB and O-SII buffers.

As can be expected, we observe the same trends at play for Total Capital as for CET1 across Supervisory discretion shown in Figures 9 and 10.

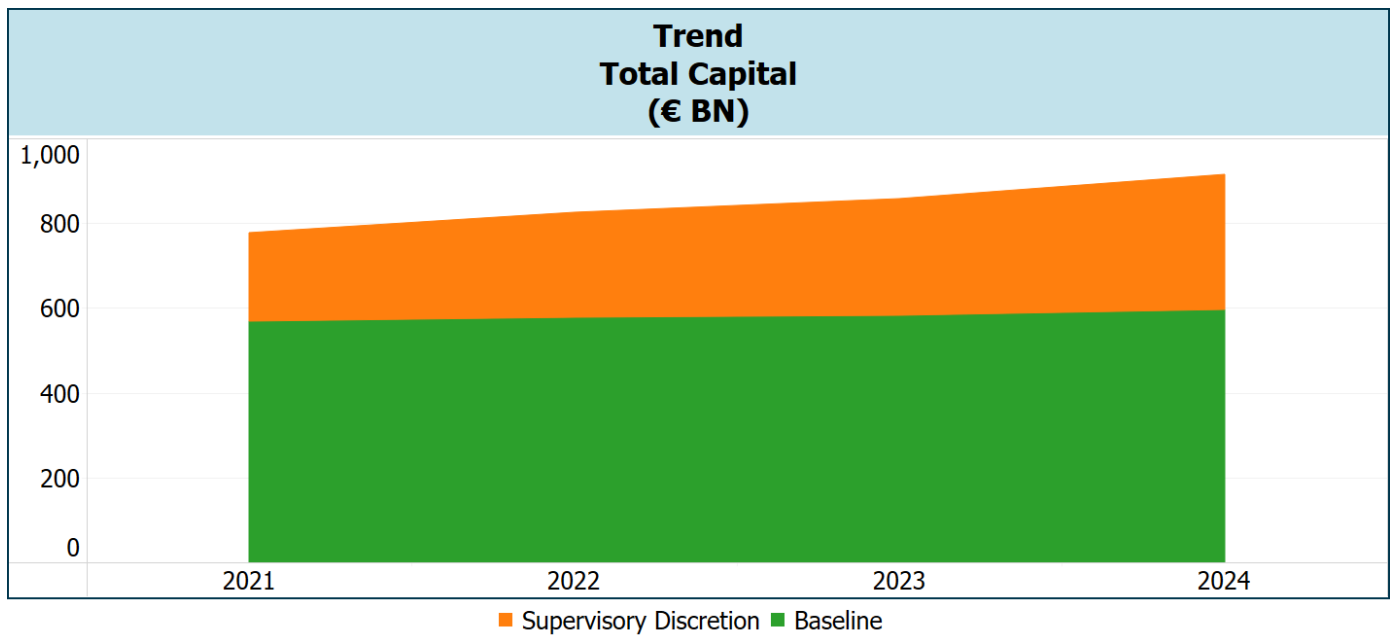


Figure 7. Impact on Required Total Capital from Basel Buffers and Supervisory Discretion, 2021-2024.

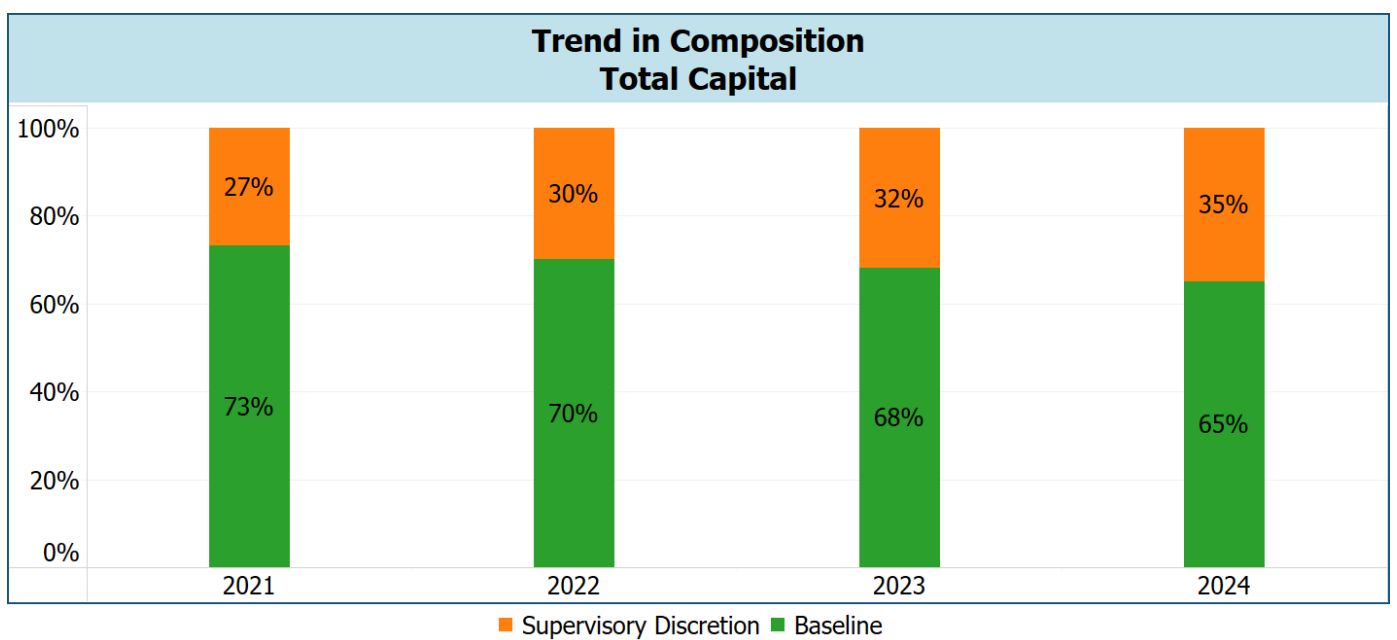


Figure 8. Contribution of Basel Buffers and Supervisory Discretion to Increased Total Capital Requirement, 2021-2024.

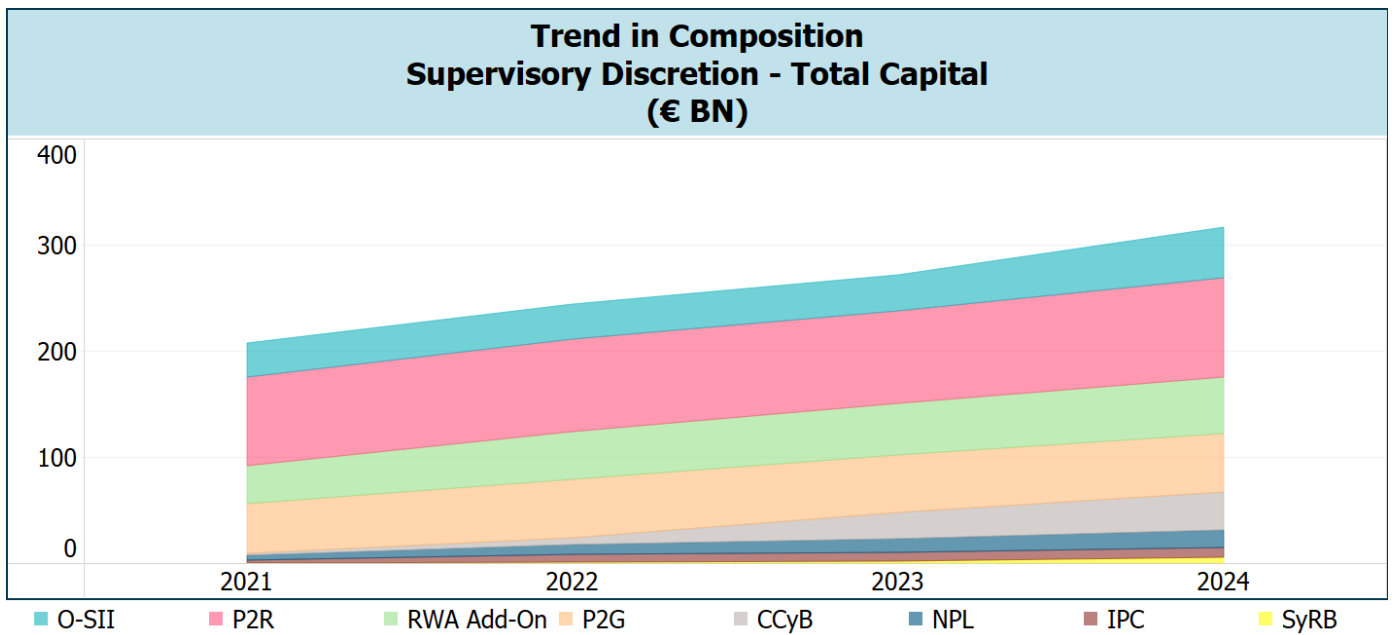


Figure 9. Impact on Required Total Capital from each Supervisory Discretion Item, 2021-2024.

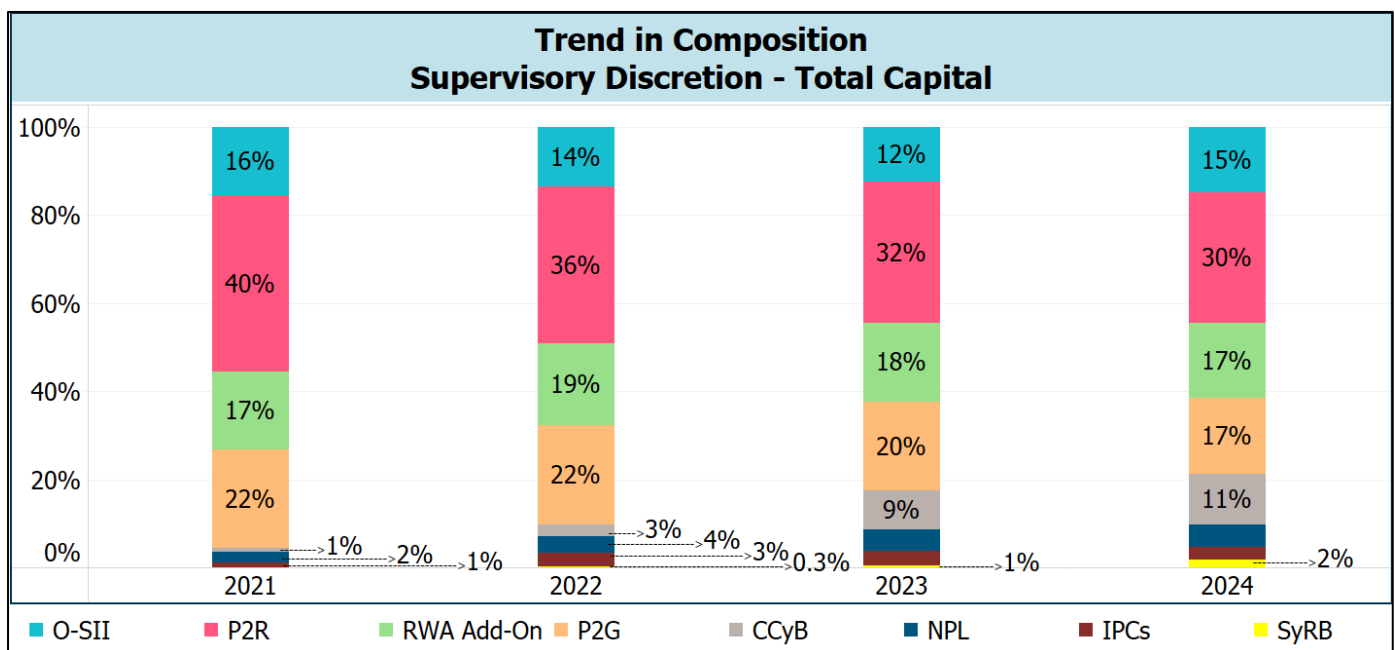


Figure 10. Contribution of Supervisory Discretion to Increased Total Capital Requirement, 2021-2024.

The table below shows the progressive increase in capital demanded by the Basel Requirement and the Supervisory Discretion and their combined impact.

	8% Minimum	Basel Buffers		Baseline	Supervisory Discretion		All-In Total	
	(€ bn)	(€ bn)	% Increase	(€ bn)	(€ bn)	% Increase Over Baseline	(€ bn)	% Increase Over 8% Minimum
2021	407.8	161.1	39	568.8	206.9	36	775.8	90.2
2022	414.7	163.9	40	578.7	244.0	42	822.6	98.3
2023	418.0	164.8	39	582.8	271.5	47	854.3	104.4
2024	433.5	161.9	37	595.4	316.6	53	912.0	110.4

Impact on Financing

Based on the CET1 impacts assessed in this exercise, an attempt was made to understand how this increase may feed through to the provision of finance.

There is no clear industry consensus on the appropriate methodology to use when assessing the impact of capital on financing capacity, therefore a range has been applied based on two different academic and public sector analyses which support the use of a 10 or 15X multiplier.^{11 12}

Using the results disclosed in this paper, the table below applies both multipliers to the CET1 Capital resulting from Supervisory Discretion. Based on the most recent year-end 2024 data, Supervisory discretions have resulted in an incremental CET1 capital requirement of €273.2bn which may impact financing capacity by between €2.7 and €4.1 trillion.

CET1 Capital in € bn

Multiplier = 15	2021	2022	2023	2024
Supervisory discretions	171.3	204.2	230.2	273.2
Reduction of financing capacity	2,570.0	3,062.2	3,453.0	4,097.4

Multiplier = 10	2021	2022	2023	2024
Supervisory discretions	171.3	204.2	230.2	273.2
Reduction of financing capacity	1,713.3	2,041.5	2,302.0	2,731.6

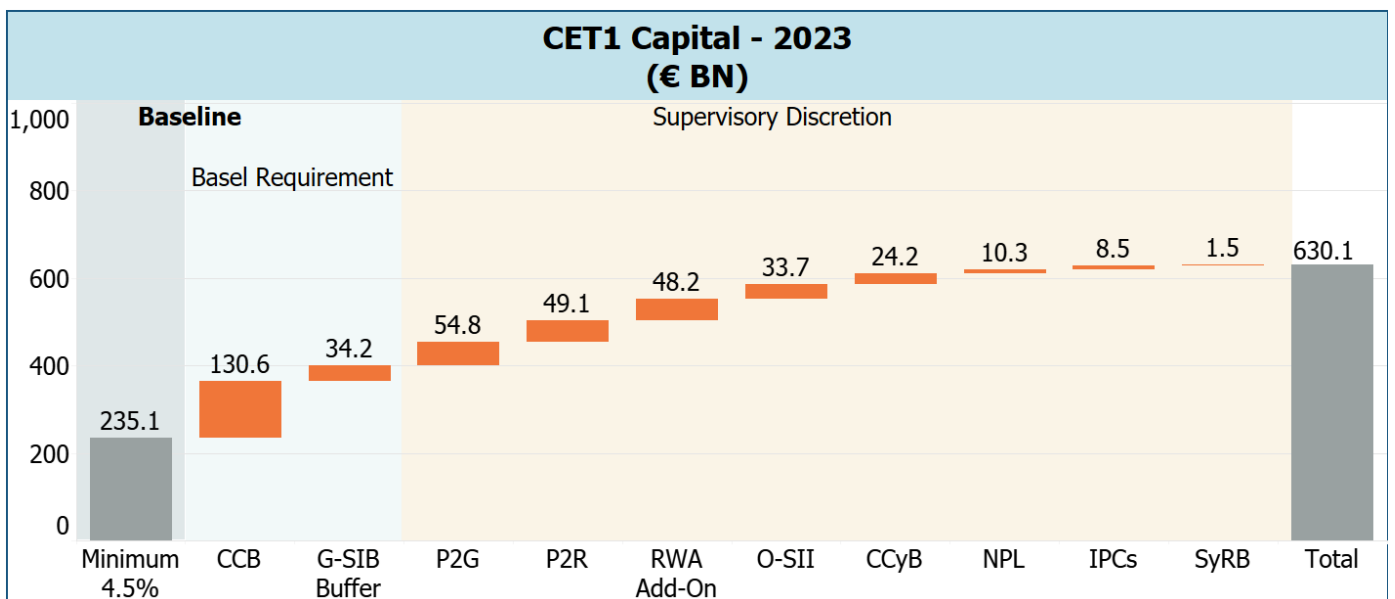
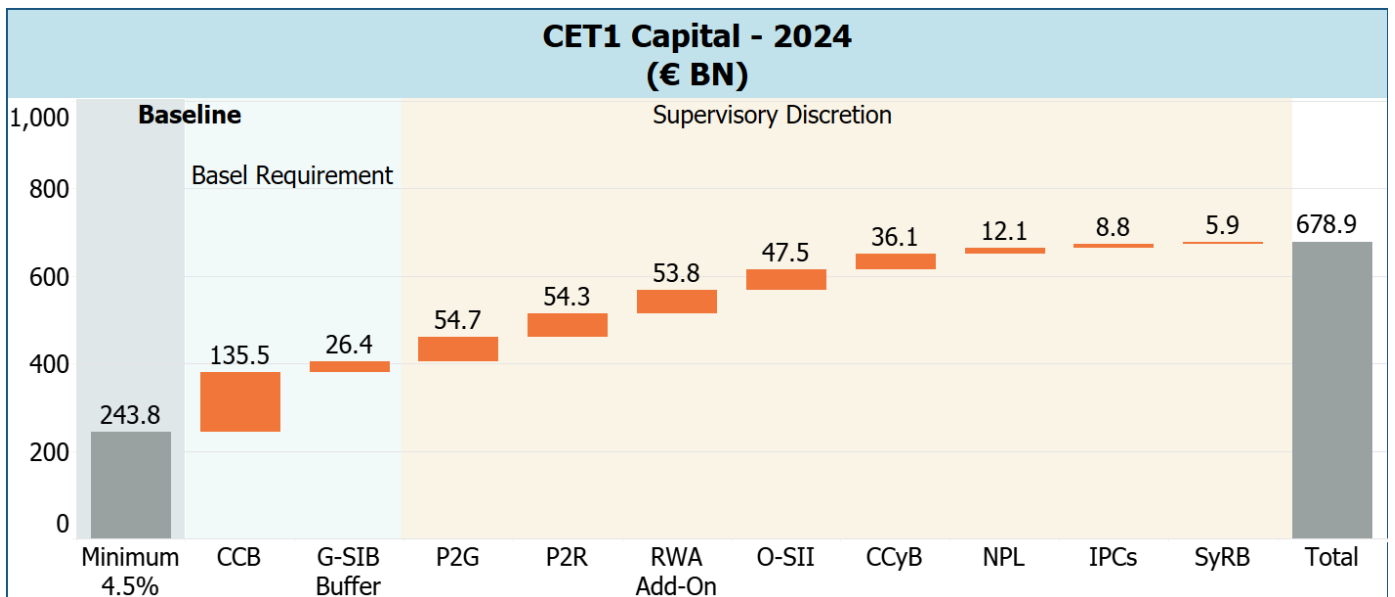
¹¹ The ECB, in a March 20, 2020 press release, estimated that capital relief translates into additional financing by a multiplier of about 15x. [ECB Press Release](#)

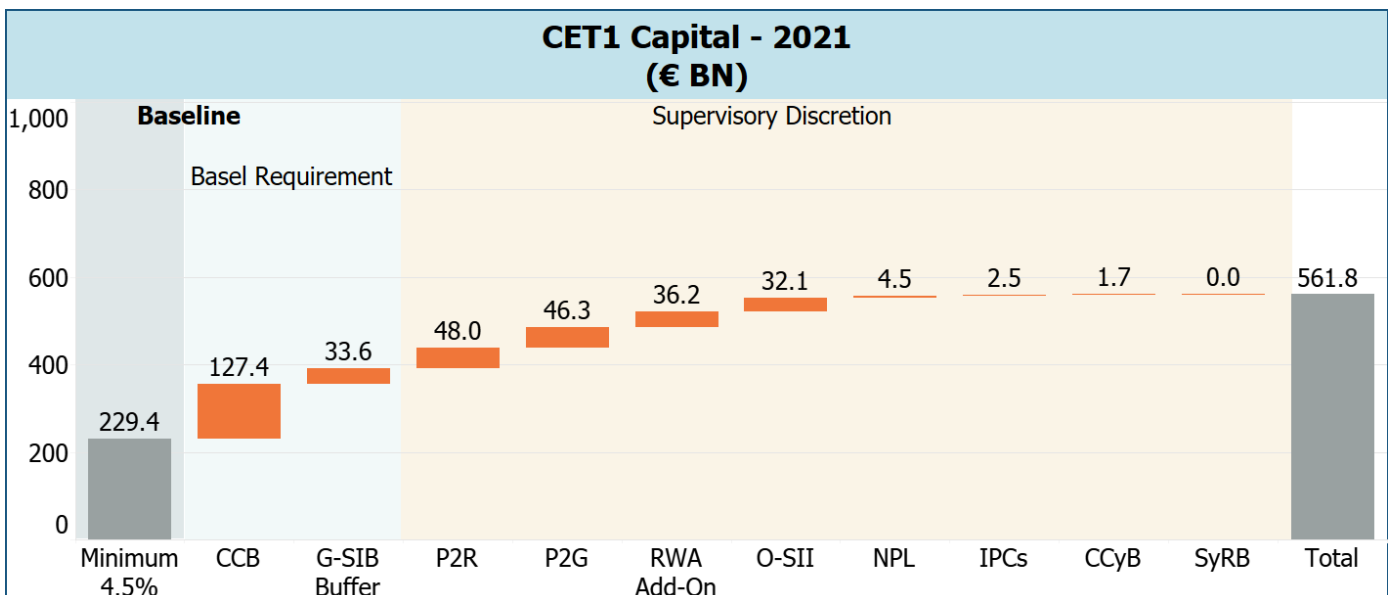
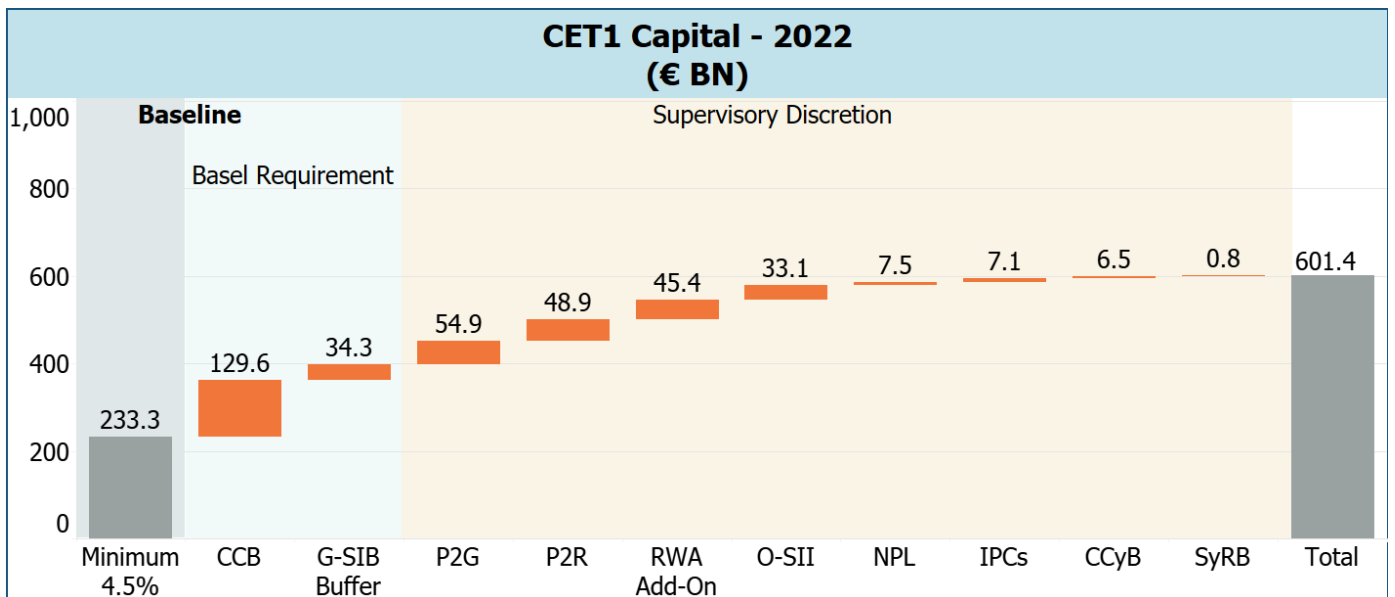
¹² Frédéric Gonand, Professeur d'économie à l'Université Paris Dauphine, in a March 2025 academic research paper, estimated that capital relief translates into additional financing by a multiplier of about 10x. [Exigences en fonds propres pour les banques européennes en 2025](#)

Appendix A – Study Template

							
Bank Name							
EUR							
1,000,000							
Items	2024		2023		2022		2021
	Value	YOY Change	Value	YOY Change	Value	YOY Change	Value
Impacts on Prudential Own Funds							
Common Equity Tier 1 (CET1)							
Pillar 2 Requirement (P2R) - CET1 Component							
<i>Additional P2R Tied to NPL - CET1 Component</i>							
Pillar 2 Guidance (P2G)							
Combined Buffer Requirement							
<i>Mandatory / Basel</i>							
Capital Conservation Buffer							
G-SIB Buffer							
<i>Macroprudential</i>							
O-SII Buffer							
Countercyclical Buffer							
EU Systemic Risk Buffer							
Prudential Deductions							
<i>Irrevocable Payment Commitments (IPC)</i>							
<i>Deposit Guarantee Scheme</i>							
<i>Single Resolution Fund</i>							
Provisions							
<i>NPL backstop, incl. Mandatory and Voluntary</i>							
<i>Other (captures all other incremental supervisory deductions above Pillar 1)</i>							
Subtotal CET1 Impacts							
Total Capital							
Pillar 2 Requirement (P2R) - Total P2R							
<i>Additional P2R Tied to NPL - Total P2R</i>							
Pillar 2 Guidance (P2G)							
Combined Buffer Requirement							
<i>Mandatory / Basel</i>							
Capital Conservation Buffer							
G-SIB Buffer							
<i>Macroprudential</i>							
O-SII Buffer							
Countercyclical Buffer							
EU Systemic Risk Buffer							
Prudential Deductions							
<i>Irrevocable Payment Commitments (IPC)</i>							
<i>Deposit Guarantee Scheme</i>							
<i>Single Resolution Fund</i>							
Provisions							
<i>NPL backstop</i>							
<i>Other (captures all other incremental supervisory deductions above Pillar 1)</i>							
Total General Impacts on Total Capital							
Additional Risk-Weighted Asset (RWA) Impacts							
<i>Macroprudential Floors</i>							
<i>Supervisory Additional RWA</i>							
<i>Model-Related Add-Ons from TRIM</i>							
<i>Model-Related Add-Ons from IRB Repair, incl. IMI Add-One from IRB Review</i>							
<i>Model-Related Add-Ons from IMI Review</i>							
<i>Other Add-Ons, e.g., Multipliers</i>							
Total RWA Impacts							
Total RWA Impacts Converted into CET1 Requirements							

Appendix B – CET1 Capital Waterfall Charts





Appendix C – Total Capital Waterfall Charts

