ECB publishes 2022 Climate Stress Test Results

Quantitative Risk

ECB Thematic ST Results

2022 Climate Risk Stress Test

On July 8th, 2022, the European Central Bank (ECB) published the results of the Biennial Thematic Stress Test 2022 related to climate change. The exercise focused on climate-related risks, both transitional and physical. The aim was to make a comprehensive assessment relevant to the way banks incorporated climate risks into their strategy, governance, and risk management frameworks and processes. The objectives are summarised below:

- contribution to the Supervisory Review and Evaluation Process (SREP) in a qualitative way, without any direct capital implications through Pillar II,
- learning exercise for both supervisors and banks, increasing the availability of information on the assessment of climate risk, and
- leveraging the existing ECB Stress Testing approach and prepare banks for upcoming regulatory changes.

Lessons Learnt and Recommendations

The exercise was a learning opportunity for both Banks and the Supervisors. The main observations are outlined below:

For Banks

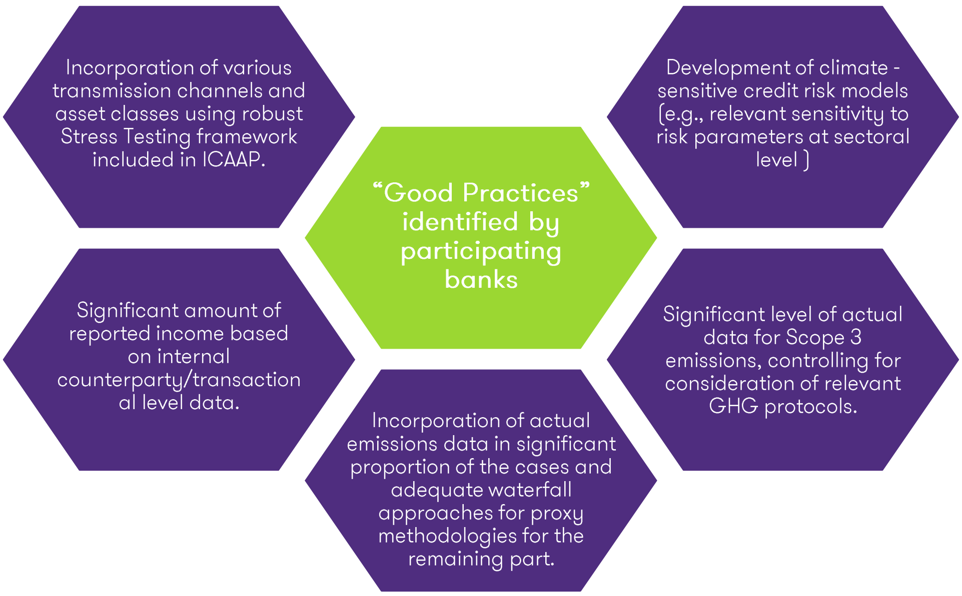
- **Banks provided pioneer information**, especially for the climate-risk stress testing parameters although, institutions still face significant issues in terms of data availability and modelling techniques
- **Low percentage** of banks have **integrated climate risk** into their Stress Testing Frameworks
- Banks show **sensitivity to credit losses** arising from transition and physical risks
- Banks are **currently not able to properly reflect transition paths** into their long-term strategy

For Supervisors

- Gained knowledge of valuable information about **data availability and proxies**, insights about **capabilities** and Stress Testing Framework of Banks, and identified **vulnerabilities in business models**.
- **Need for further development** of stress testing capabilities, enhance methodologies, support banks on data availability, and provide guidance for "Good practices".

Based on the above, the following recommendations are suggested for the Banking Sector:

ECB Recommendations to Banks	Integration of climate risk stress tests into ICAAP
	Enhancement of climate risk stress-testing frameworks to account for various transmission channels and asset classes covering both physical and transition risks
	Establishment of a robust governance structure for climate risk stress-testing frameworks and integrate climate risk stress test outputs into banking activities/planning
	Incorporation of climate risk scenarios into stress-testing models, reflecting both physical and transition risks, as well as long-and short-term horizons
	Enhancement of climate risk management, understanding of client transition plans and strengthening of strategic plans to exploit the opportunities of the green transition
	Investment in more in climate-relevant data collection by engaging with customers and improving proxy assumptions



Main Results

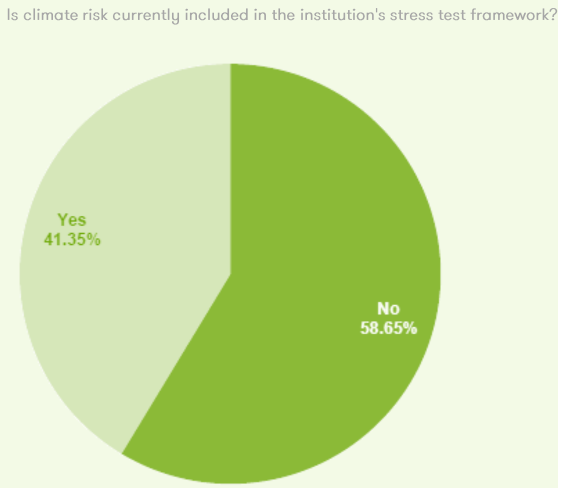
The results of the exercise, despite notable progress, revealed that most of the Banks showed considerable deficiencies in their Stress Testing Frameworks.

Participating banks reported **€70bn of aggregate losses under the 3 short-term exercises** (3-year disorderly transition and the two physical risk scenarios):

- €53bn losses reported under the short-term disorderly transition scenario
- €17bn losses reported under the short-term physical risk scenarios (drought & heat risk and flood risk)

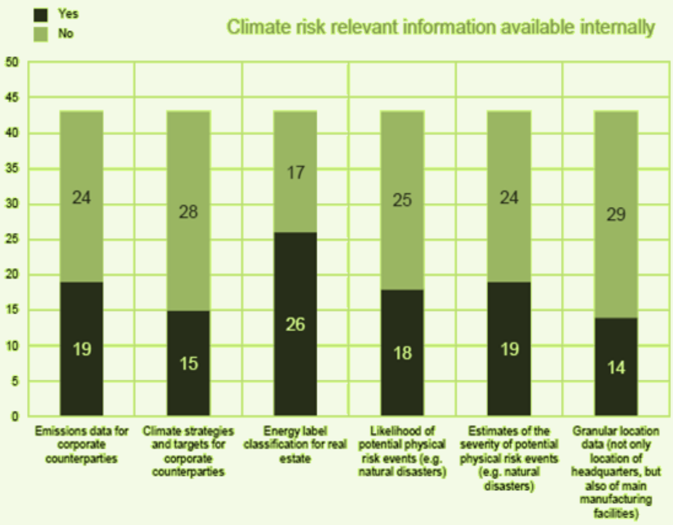
Note that only 41 banks were requested to provide projections.

- **59%** of the participating Banks have **not integrated climate risk** into their Stress Testing Framework



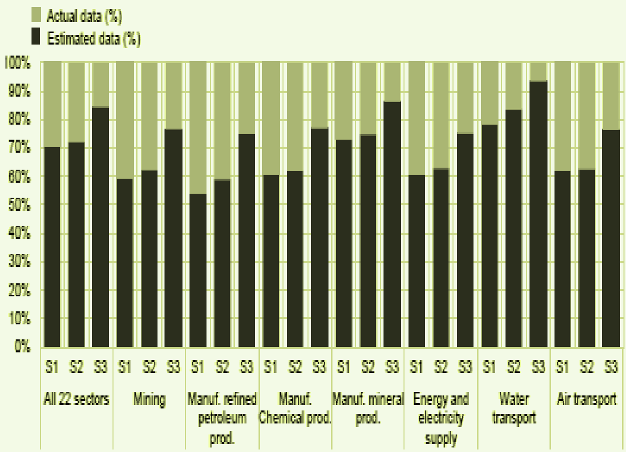
Source: 2022 climate risk stress test - Results – p.21

- For Banks that have climate risk Stress Testing Frameworks in place, availability of relevant climate data is limited



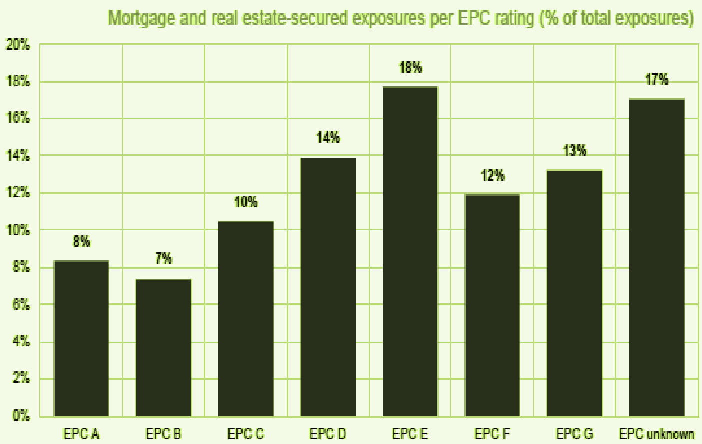
Source: 2022 climate risk stress test - Presentation – p.13

- Banks **strongly rely on the use of proxies** to report climate metrics such as Scope 1, 2, and 3 emissions.
- For this reason, the ECB Banking Supervision has to **analyse further the underlying assumptions for the use of proxies** (H2 2022) .



Source: 2022 climate risk stress test - Results – p.24

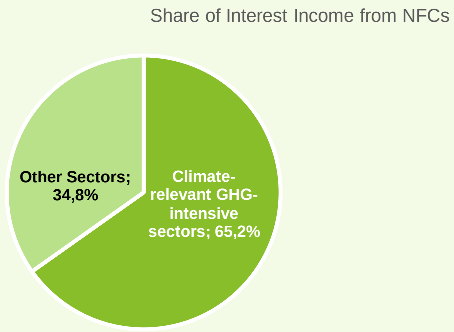
- While energy performance certificates (EPCs) are mandatory in the EU for real estate transactions, **banks were unable to allocate 17% of the reported collateral to an EPC bucket.**
- It is noted that around 65% of the banks predominantly rely on proxies.



Source: 2022 climate risk stress test - Results – p.25

Main Results (cont.)

- Banks generate **considerable share of their income from the 22 climate GHG intensive sectors**, amounting to 65.2% of the total interest income from NFCs.

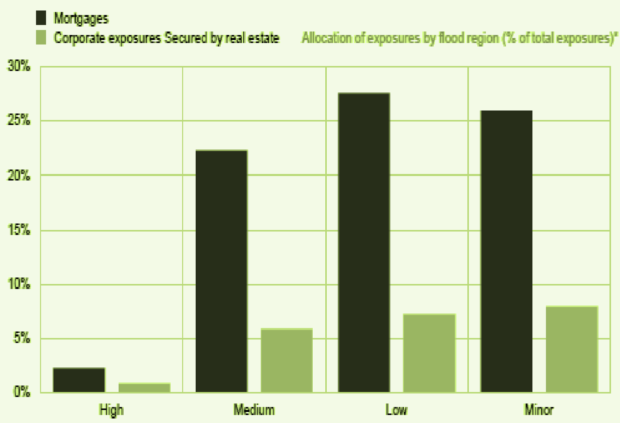


Source: 2022 climate risk stress test - Results – p.5

- Cumulative **impairments** under the **short-term disorderly transition** scenario are projected to be **more than 70 basis points higher** compared to the **baseline scenario.**

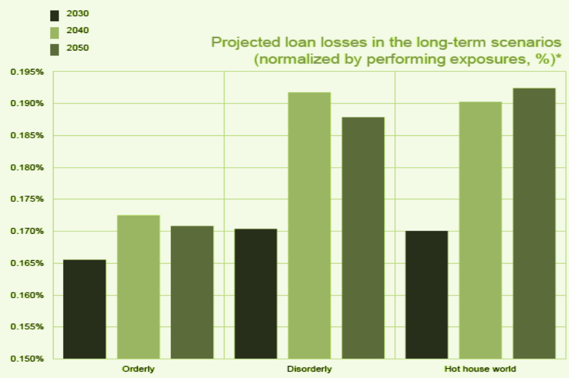
Source: 2022 climate risk stress test - Results – p.37

- Most banks report **low allocation of exposures to high flood-risk areas.**



Source: 2022 climate risk stress test - Results – p.44

- Results show that an **orderly green transition will lead to lower loan losses** compared to the *disorderly* or *no further policy actions* pathways.
- The combination of overall mild scenarios and banks' projected reductions in exposures to highest-polluting sectors lead to **relatively modest projected loan losses.**



Source: 2022 climate risk stress test - Results – p.33

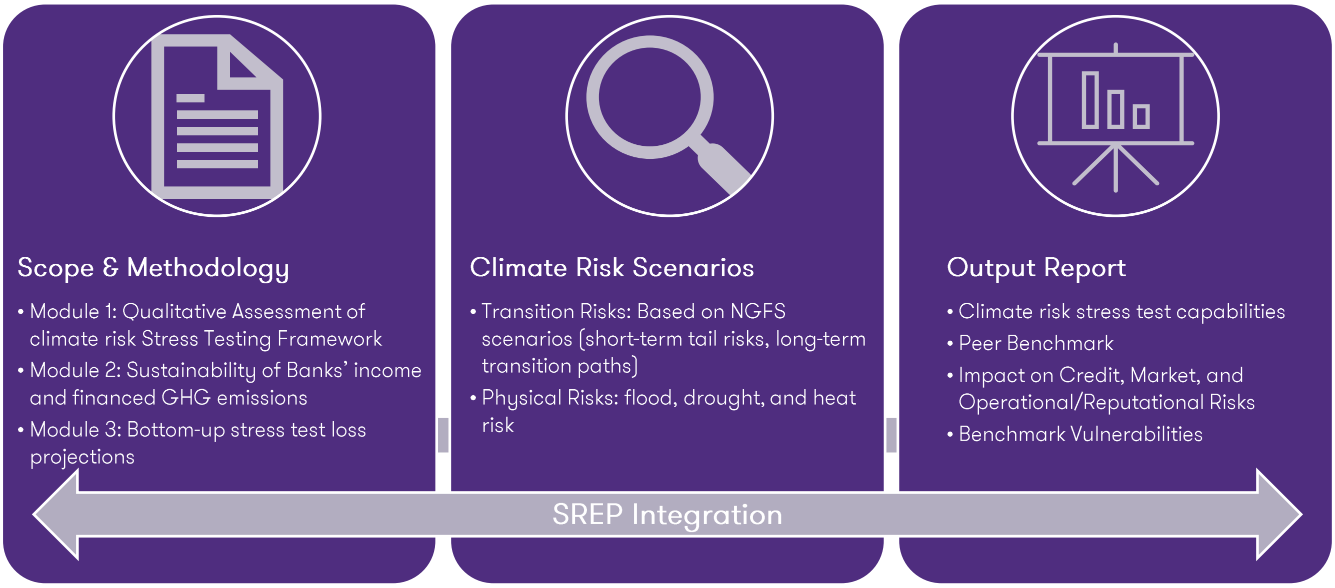
Additional observations

- Severe **drought and heat events lead to higher credit losses,** especially on exposures to **mining, construction, and agricultural activities,** particularly in **regions more vulnerable to high temperatures.**

The Methodology

The scenarios are largely based on the NGFS Phase II models, released in June 2021. The exercise consisted of:

- Questionnaire and Peer Benchmarks (Module 1 and 2) with a total of 104 participating banks, and
- Bottom-up Projections (Module 3) with a total of 41 significant institutions



The scenarios that the banks were stressed against in Module 3 of the exercise, are presented below:

	Exposures	Scenario	Projections	Horizon	Credit Risk	Market Risk	Operational Risk
Transition Risk	Global	Short-term	Baseline	3 years (2022-2024)	Corporate Loans + Mortgages	Bonds & Stocks issued by NFCs	Assessed via qualitative questionnaire
			Stress				
		Long Term	Orderly	30 years (2030, 2040, 2050)	Corporate Loans + Mortgages		
			Disorderly				
			Hot House				
Physical Risk	EU Countries	Drought & Heat	Baseline	1 year (2022)	Corporate Loans		
			Stress				
		Flood	Baseline	1 year (2022)	Mortgages + CRE Loans		
			Stress				

Conclusions

The Banks' long-term projections indicate that an **orderly transition generates lower amounts of losses compared to a *disorderly* or *no further policy actions* scenarios.** It is important to note that the Banks are currently unable **to differentiate their strategies between various long-term scenarios,** while they are mainly focusing on reducing exposures to emission-intensive sectors. **Direct and indirect transmission channels should be further considered** when incorporating climate change in the long-term strategic plans of the Banks.

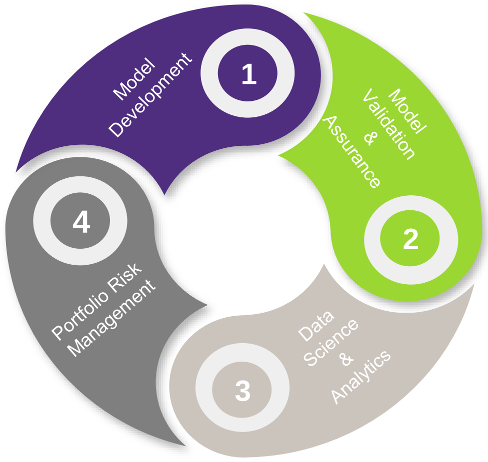
Furthermore, ECB notes that the **estimated impact**[1], **significantly understates the actual risk** as it reflects only a fraction of the actual impact, without any additional applied supervisory overlays. The **scenarios** considered in this exercise are **not adverse.** Specifically, there is **no economic downturn accompanying the negative climate effects.** Additionally, the **data scarcity and modelling underlying the banks' projections are still at a preliminary stage.**

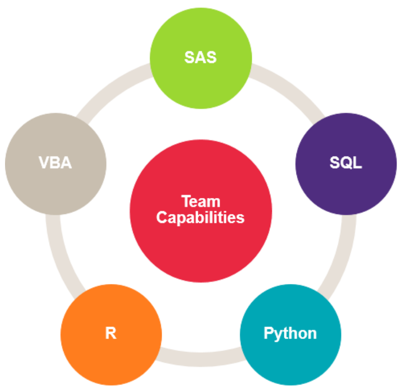
Finally, it is worth mentioning that the results of this stress test will **feed into the Supervisory Review and Evaluation Process** from a **qualitative point of view,** without any direct impact on capital. ECB provided individual feedback to banks, based on which they are expected to act in accordance with the **best practices that the ECB will publish in the final quarter of 2022.**

[1] *Approximately €70 billion for the 41 projection banks that provided projections. This considers only exposures within the scope of this exercise and only accounts for around one-third of total exposures of the 41 banks.*

Grant Thornton's Quantitative Risk offerings

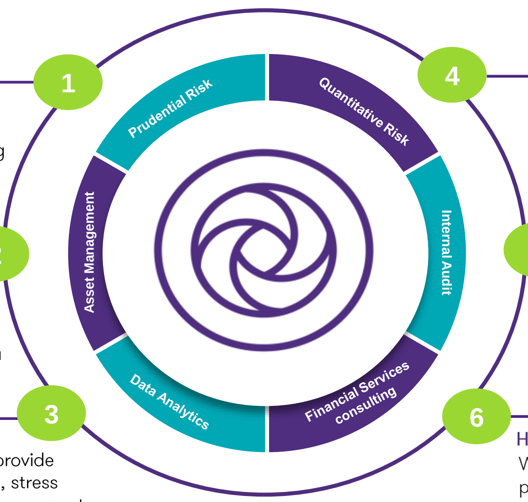
The Grant Thornton Quantitative Risk Advisory Team has a proven track record of success in meeting the most challenging of tasks for Institutions, local banks, and other Financial Services companies.





Grant Thornton's Sustainability offerings

The Grant Thornton dedicated Sustainability Team comprises a unique blend of professional services skills, industry experience and scientific expertise and is fully integrated within the wider Financial Services Advisory service line



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We can support you in navigating the complex regulatory landscape, translating regulatory expectations into business requirements and developing tailored actions plans to deliver compliance.

Risk Management
Our multidisciplinary team can help you integrate sustainability related risks into existing mapping and control tools, through materiality and maturity assessments, with a particular focus on climate related risks

Quantification
Our experienced quantitative risk team can provide support in climate change risk quantification, stress testing, and development of portfolio risk management frameworks

Strategy and Operations
Our experts can work with you to turn your sustainability ambitions into a defined strategy, enabling delivery through program management and resource augmentation.

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Our team can apply their experience to support development of sustainability related process and develop bespoke training for all levels of management

Horizon Scanning
We can apply our knowledge to help future proof your business by raising awareness of changing regulatory focus and strategic report development i.e., benchmarking, peer analysis and best practice.

Contact

Our team would be delighted to discuss your challenges and opportunities in any aspect of climate risk. Our services are flexible and efficient, designed to facilitate and support your business model. Contact us today to discuss.

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