

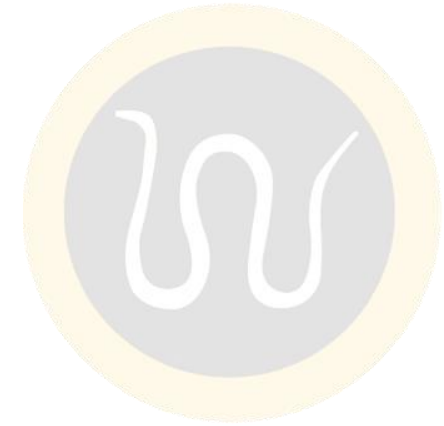
*Just in Time*

**EBA 2021 EU-wide  
Stress Test**

Sep 2021

# At a Glance

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# 01

## Key Aspects of the 2021 EU-wide Stress Test

Introduction & Scenarios

Stress Test Details

COVID-19 Support Measures in the 2021 EU-wide Stress  
Test

COVID-19 Impact on the Stress Test



# Key Aspects of the 2021 EU-wide Stress Test 1/4

## Introduction & Scenarios



The EU wide stress test is a **solvency stress test conducted at the highest level of consolidation to assess banks' resilience to a common adverse macroeconomic scenario and its impact on their capital position, over a three-year horizon.**



**50 banks composed the sample, from 15 EU and EEA countries:**

- 38 banks from Euro area countries
- 12 banks from Denmark, Hungary, Norway, Poland and Sweden

### Baseline

The baseline macro-financial scenario for EU countries is **based on the December 2020 projections from the national central banks.**

### Adverse

The adverse scenario sets out paths for key variables in **a hypothetical adverse situation triggered by the materialization of risks to which the EU banking system is exposed:** It assumes over a three-year horizon a prolonged COVID-19 state in a “lower for longer” interest rate environment.

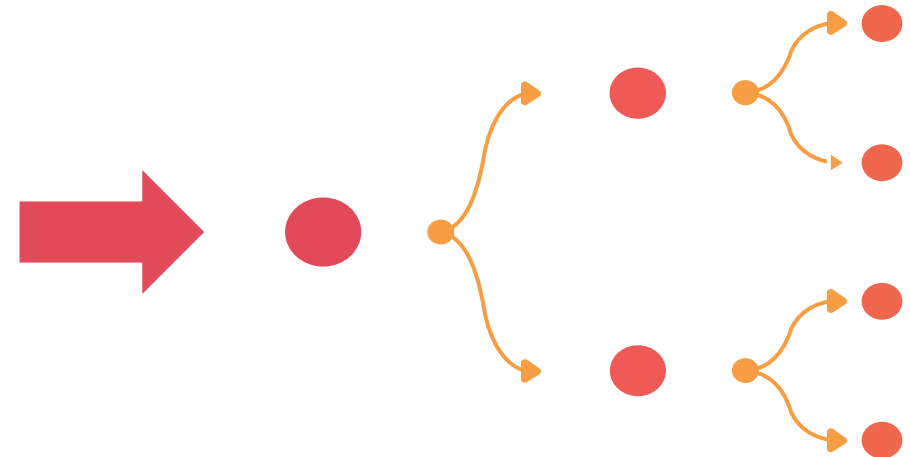
# Key Aspects of the 2021 EU-wide Stress Test 2/4

## Stress Test Details



The EU-wide stress test is a **constrained bottom-up exercise**. Hence, banks provide the data and apply their own models to project the results, under the assumption of a static balance sheet. However, banks are required to adjust their results based on the definitions, constraints, caps and floors defined in the methodology.

Dissemination of data is also part of the stress test exercise. The exercise fosters market discipline through the publication of **extensive and detailed bank-by-bank actual and projected data**, which is crucial particularly at times of increased uncertainty. In the 2021 EU-wide stress test the transparency templates provide information on **Pillar 2 Requirements (P2R)** for each bank at the starting point.



# Key Aspects of the 2021 EU-wide Stress Test 3/4

## COVID-19 Support Measures in the 2021 EU-wide Stress Test



In response to the challenges posed by the pandemic, **public authorities adopted extraordinary fiscal and monetary policies to support the real economy.**

Two support measures used by several EU countries are explicitly addressed in the stress test methodology:

### EBA-compliant moratoria

Given the short-term nature of EBA-compliant moratoria, **these measures should not be considered in the projection** to avoid prolonging the mitigating effect throughout the stress test horizon.

According to this methodological option, banks are asked to assume that all EBA-compliant moratoria are no longer in place from 1 January 2021 onwards.

### Public guarantee schemes

Public guarantees put in place to mitigate the impact of COVID-19 have typically a **longer duration than moratoria**. In line with the static balance sheet assumption, **banks are asked to replace guaranteed loans that mature during the stress test horizon by similar loans covered by the guarantee.**

# Key Aspects of the 2021 EU-wide Stress Test 4/4

## COVID-19 Impact on the Stress Test



At the end of 2020, the amount of exposures that have been subject to **EBA-compliant moratoria accounted for 4.2% of total exposures of the banks** in the sample, of which 1.4% was not expired. Given that PGS were granted mainly to newly originated loans, **the percentage of exposures under the PGS is much lower in aggregate (1.6% of total exposures).**

### Exposures under moratoria and under PGS: analysis per cluster (year 2020, % of exposures per cluster)

Metric	2020
<b>Exposures under moratoria:</b>	
Banks with high exposures towards the most affected sectors	7.1%
Other banks in terms of "most affected sectors"	3.5%
<b>Newly originated loans and advances subject to COVID-19 PGS – Exposures:</b>	
Banks with high exposures towards the most affected sectors	2.6%
Other banks in terms of "most affected sectors"	1.3%



# 02

## Impact of the Stress Test on Capital Ratios

Impact on CET1 Capital Ratios

Impact on Leverage Ratio





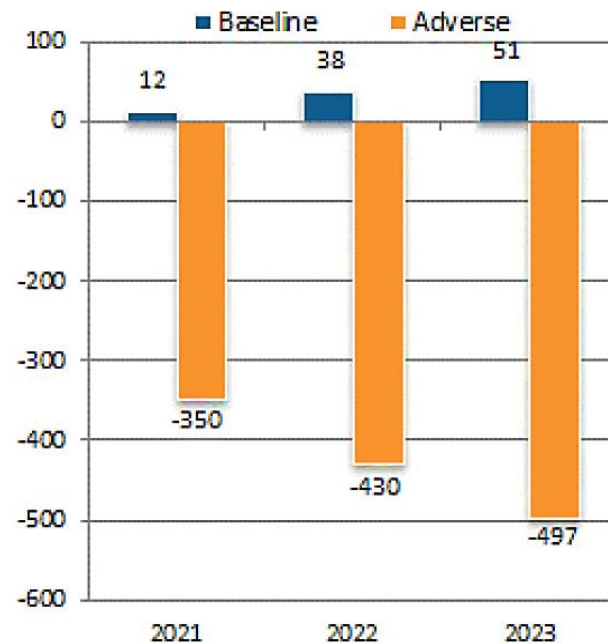
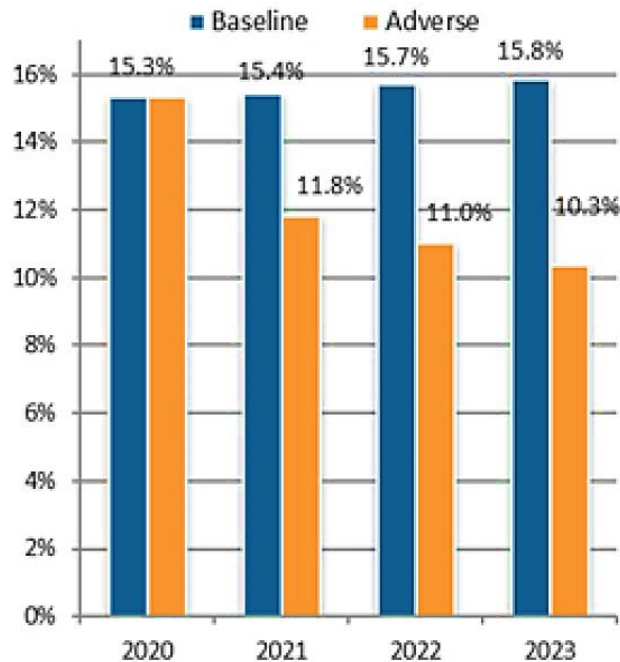
# Impact of the Stress Test on Capital Ratios 1/3

## Impact on CET1 Capital Ratios 1/2



The banks included in the 2021 stress test sample reported a 15.3% weighted average transitional CET1 capital ratio as of December 2020.

Evolution of transitional CET1 capital ratio (%) (1) and change from 2020 (bps) (2)



Over the stress test horizon, in the adverse scenario **the weighted average CET1 capital ratio moves from 15.3% transitional (15.0% fully loaded), to 10.3% (10.2% fully loaded) at the end of 2023.** Therefore, under the adverse scenario the aggregate transitional CET1 capital ratio decreases by 497 bps over the three-year period (485 bps on a fully loaded basis). As a deviation to the baseline scenario, the CET1 capital ratio in the adverse scenario is 548 bps lower (563 bps lower for fully loaded).

# Impact of the Stress Test on Capital Ratios 2/3

## Impact on CET1 Capital Ratios 2/2

The breakdown of the aggregate results by clusters of banks shows that **capital depletion is lower for banks with high NII and for banks less concentrated on domestic markets. The analysis based on a dimensional factor shows no relevant difference** between capital depletion of largest banks (fourth quartile in terms of total assets) and other banks.

At the end of the stress test horizon, under the baseline scenario, all banks have a CET1 capital ratio in excess to the relevant part of OCR. **Under the adverse scenario, in 2023 only two banks are below the TSCR.**



Impact on CET1 capital ratio (depletion) from 2020 to 2023 under the adverse scenario by cluster of banks (bps)



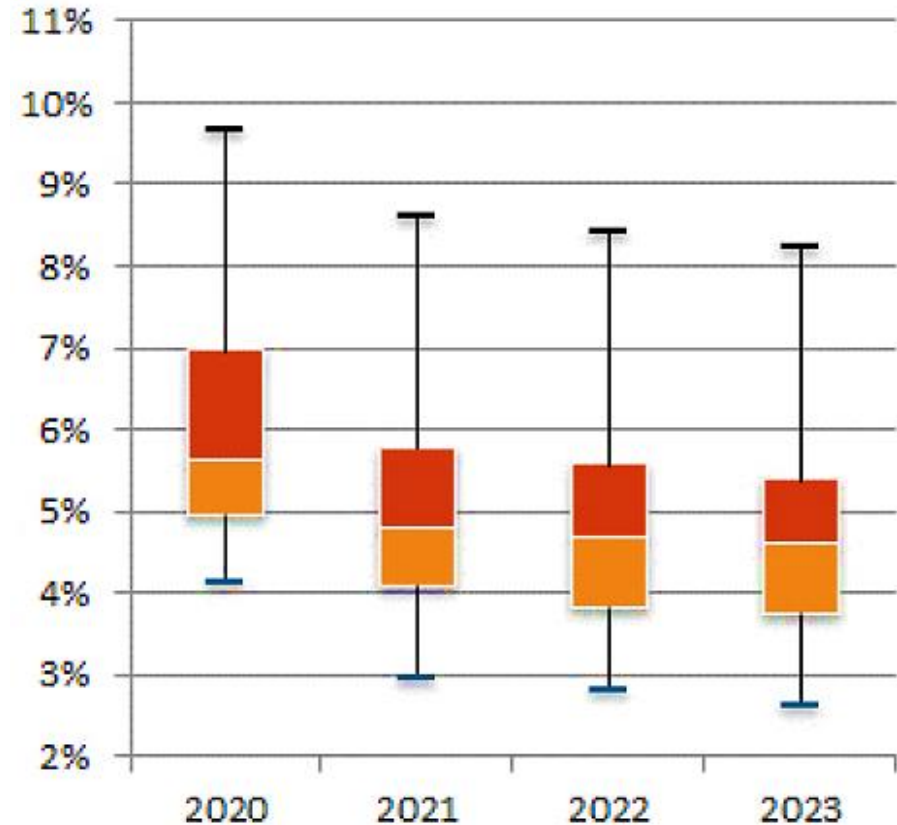
# Impact of the Stress Test on Capital Ratios 3/3

## Impact on Leverage Ratio

**The weighted average leverage ratio drops by 130 bps (124 bps fully loaded), from 5.7% (5.6% fully loaded) in 2020 to 4.4% (4.3% fully loaded) in 2023 under the adverse scenario.** The drop is solely explained by the decrease in Tier 1 capital as the leverage exposure (i.e. the denominator of the ratio) remains constant according to the methodological static balance sheet assumption. Under the adverse scenario, four banks report a ratio below 3% for every year of the stress test horizon .



Evolution of transitional aggregate leverage ratio (%) and its dispersion – 5th and 95th percentiles, interquartile range and median in 2020 and in the adverse scenario (%)

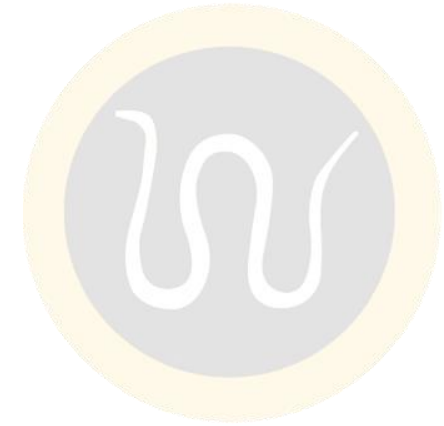


# 03

## Main Drivers of the Impact

Impact on Profitability

Impact on Risk Exposure Amount



# Main Drivers of the Impact 1/10



**Contribution of different profit and loss (P&L)** to the change in the aggregate CET1 capital ratio between 2020 and 2023 under the **adverse scenario**.



**Credit risk losses** are the main contributor to the stress impact and **detract 423 bps** from the CET1 capital ratio as of end 2023.



The impact of **market risk** on CET1 capital ratio is equal to **-102 bps** on a 3-year cumulative basis.



**Operational risk losses** drive banks' CET1 capital ratio further down by **68 bps**.



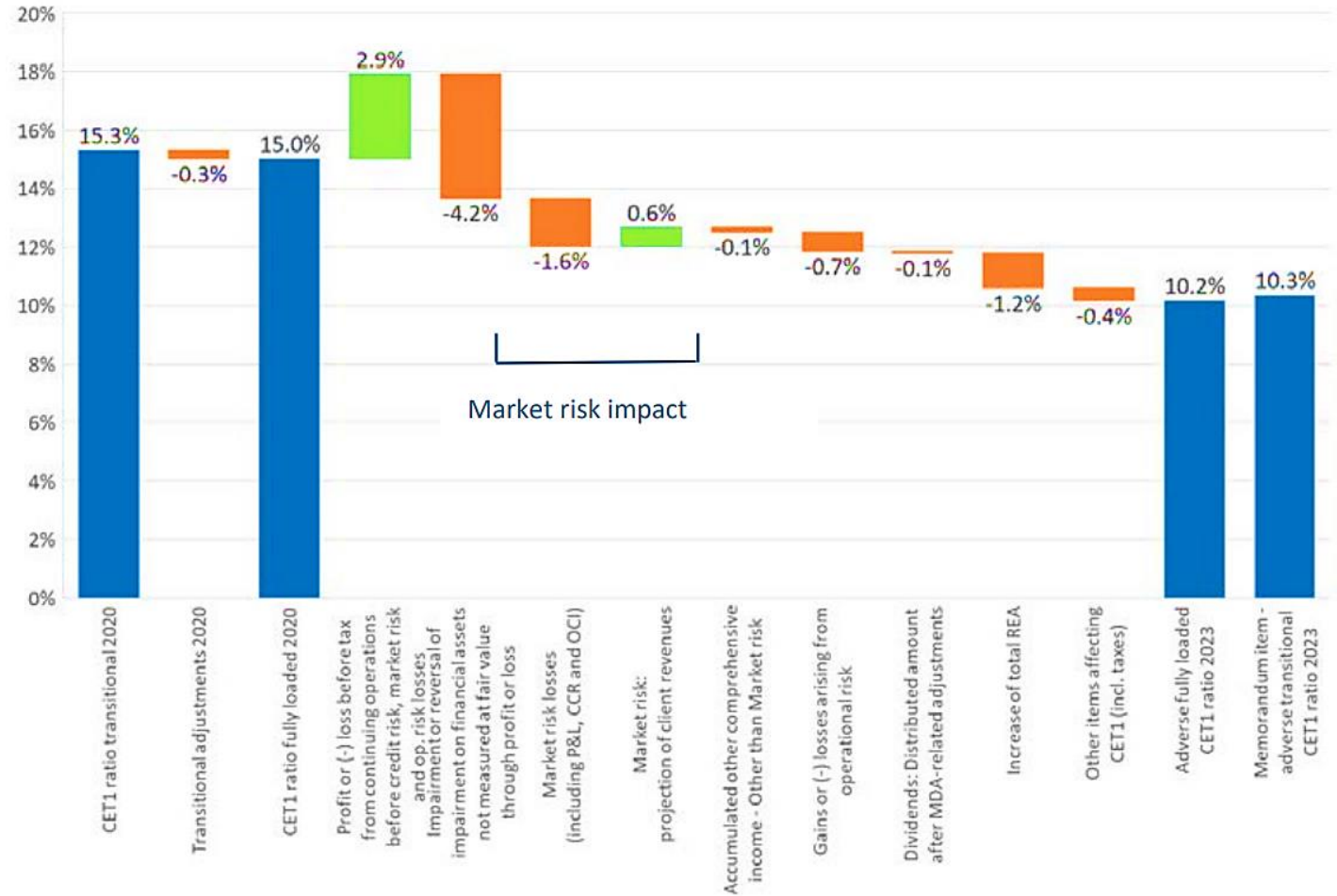
**The increase of the REA**, with an aggregate impact of **-121 bps** on CET1 capital ratio.



The breakdown of the aggregate results by clusters of banks shows that **capital depletion is lower for banks with high NII** and for **banks less concentrated on domestic markets**.

# Main Drivers of the Impact 2/10

**Contribution of main drivers to the change in CET1 capital ratio from 2020 to 2023 in the adverse scenario (waterfall)**



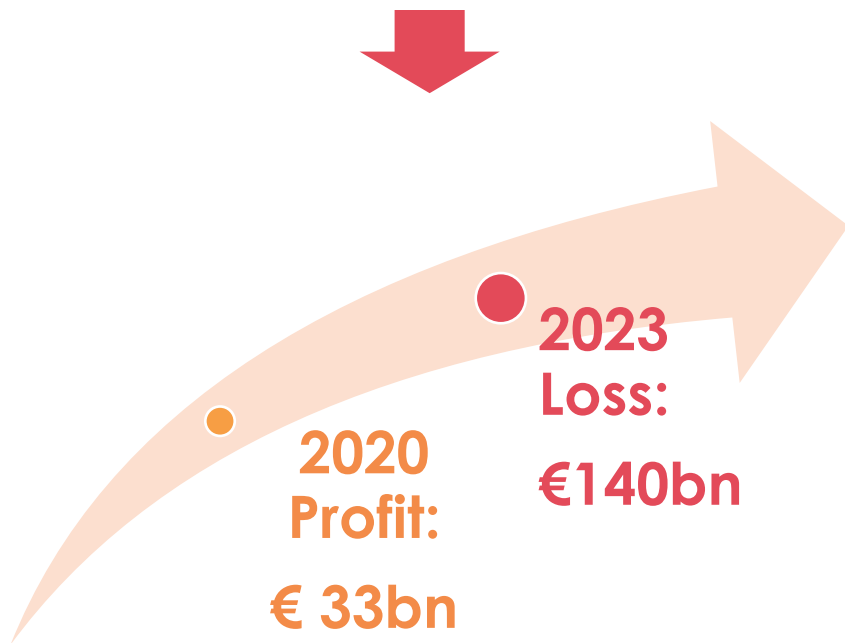
# Main Drivers of the Impact 3/10

## Impact on Profitability 1/7

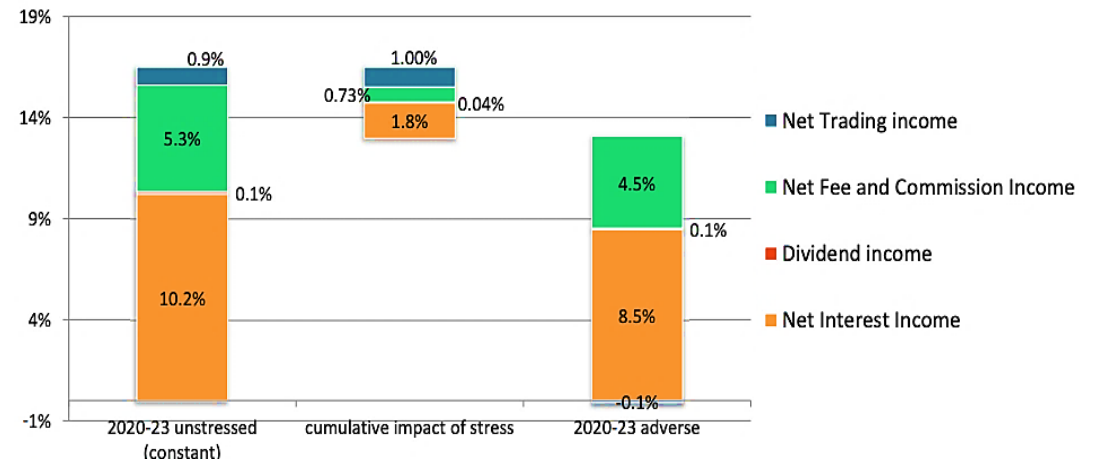
At the starting point, banks had a profit of 33bn EUR; at the end of the **adverse scenario**, the aggregate cumulative loss, net of taxes, reaches 140bn EUR.

**The main sources of income are NII and NFCI**, which under the adverse scenario decrease by 23% and 14%, respectively, as of end 2023.

Measured in terms of contribution to capital, if the **P&L** was assumed to be constant it would contribute **16.5pp**; however, due to the application of stress it **reduces by 3.5pp**. In particular: **-176bps from NII, -73bps from NFCI, and -100bps from NTI**.



Cumulative CET1 ratio impact of the main sources of income over 2020-23 adverse, compared to the hypothetical unstressed contribution (% of REA)





# Main Drivers of the Impact 4/10

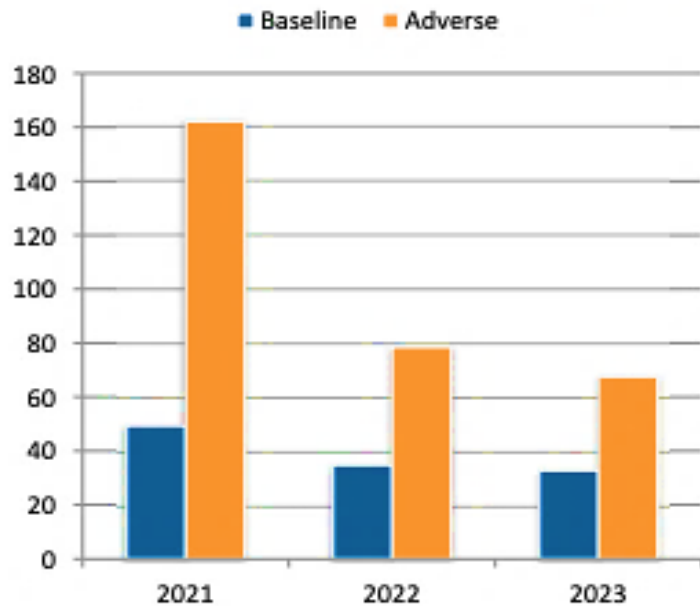
## Impact on Profitability 2/7

**Credit risk losses** over the three years of the adverse scenario **amount to 308bn EUR**. The largest impact is in the first year of the scenario.

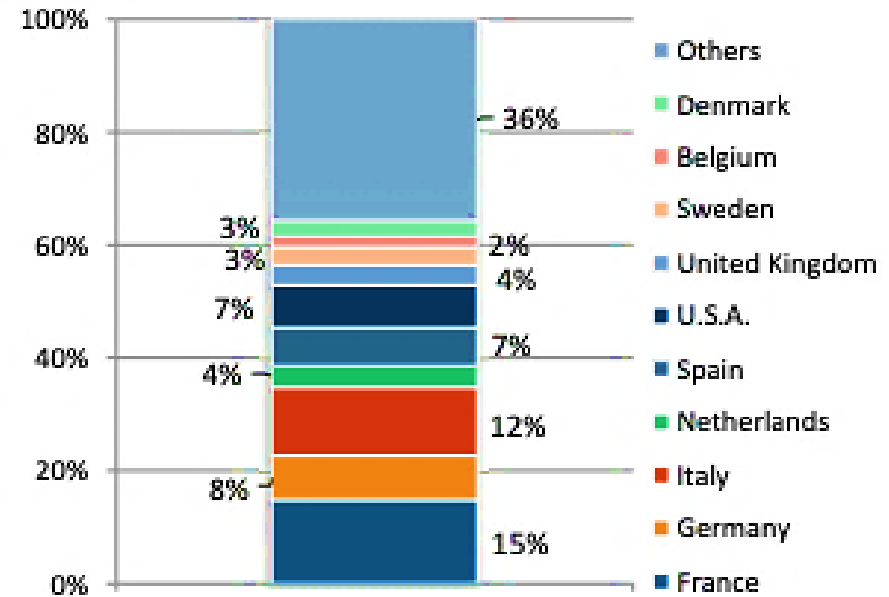
**Exposures** towards counterparties in **France, Italy, Germany, US, Spain and the Netherlands** are those **contributing the most to credit losses** in absolute terms.



Evolution of absolute credit losses (€ bn)



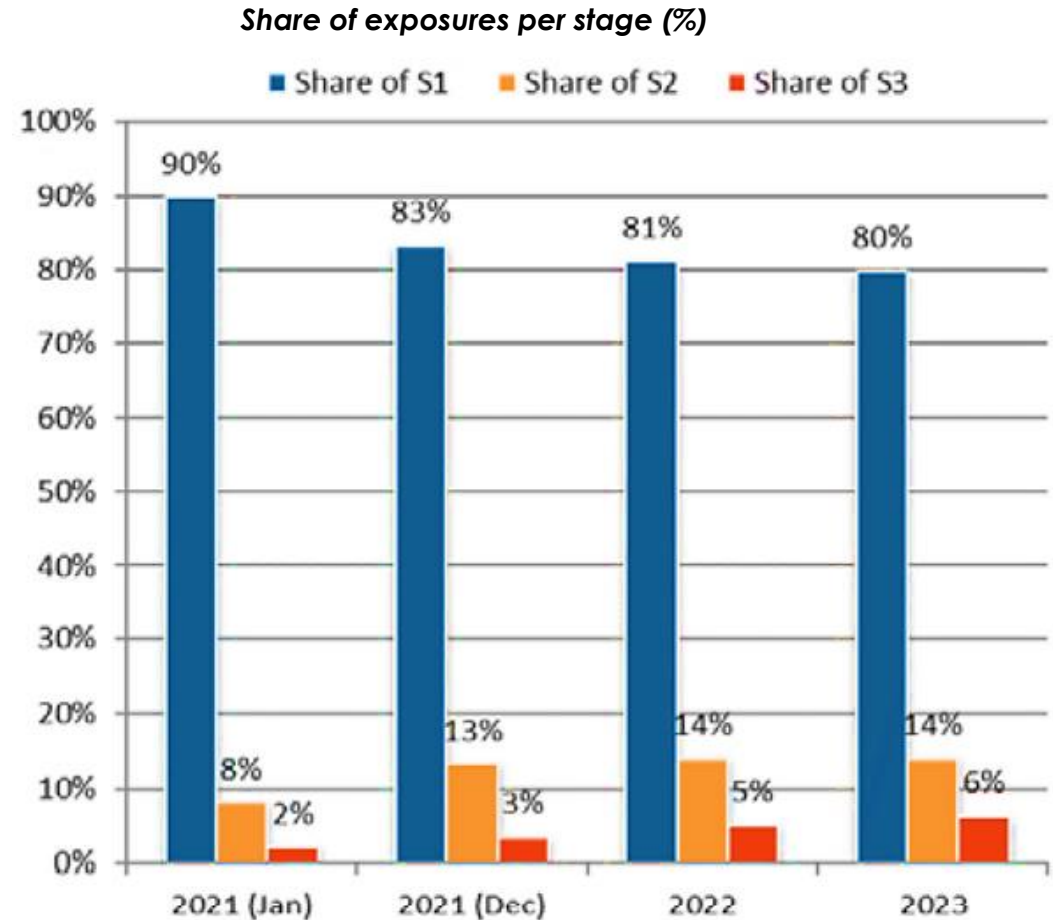
Distribution of impairments by country of the counterparty



# Main Drivers of the Impact 5/10

## Impact on Profitability 3/7

With reference to the breakdown of **total exposures per stages**, This initial restatement led to flows to riskier **IFRS 9 stages**, especially from stage 1 to stage 2. During the stress test horizon, the share of **stage 3 exposures increases from 2.1% to 6.3%**, while the share of **stage 2 exposures increases from 8.1% to 14.0%**. The subset of banks with a high amount of **exposures** towards the sectors most **affected by the pandemic show a higher credit risk with the stage 3 ratio increasing from 2.8% in 2020 to 9.1% in 2023**. The **coverage ratio for stage 3 exposures decreases** over the period for the full sample (from 45% at the beginning of 2021 to 39% at the end of 2023), due to the high increase in the share of stage 3 exposures along with the lower loss rates being applied to new defaults in comparison to the loss rates of the initial defaults. In the same period, the coverage ratios **for stage 1 and stage 2 exposures do not change substantially**.



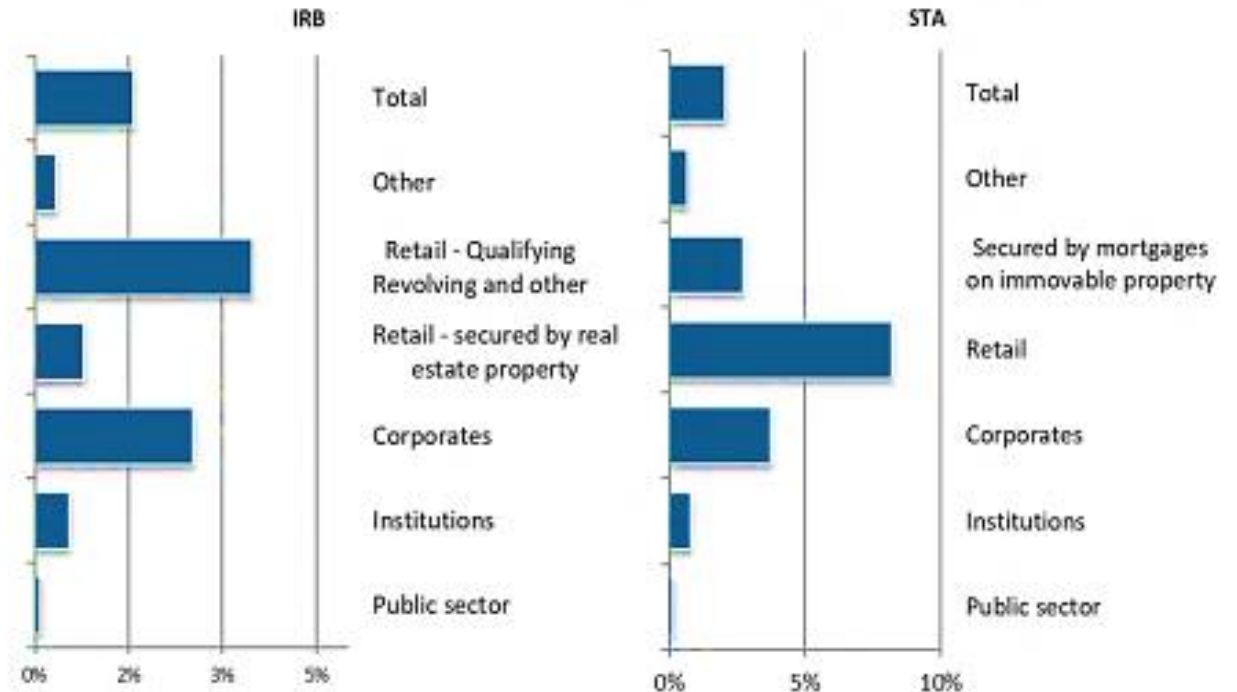
# Main Drivers of the Impact 6/10

## Impact on Profitability 4/7

**In absolute terms, corporate exposures contribute the most to total losses**, and therefore to capital depletion, with EUR 142bn (46% of total losses), **followed by retail exposures** (excluding secured by real estate property and secured by mortgages on immovable property) with more than EUR 103bn (34% of the total). **In relative terms**, as a percentage of total exposures at the starting point, the breakdown by asset class shows that, **retail exposures** non-secured by real estate assets **have the highest level of cumulative impairments under the adverse scenario compared to the volume of exposures.**



Credit losses as a percentage of 2020 exposure (%)



# Main Drivers of the Impact 7/10

## Impact on Profitability 5/7

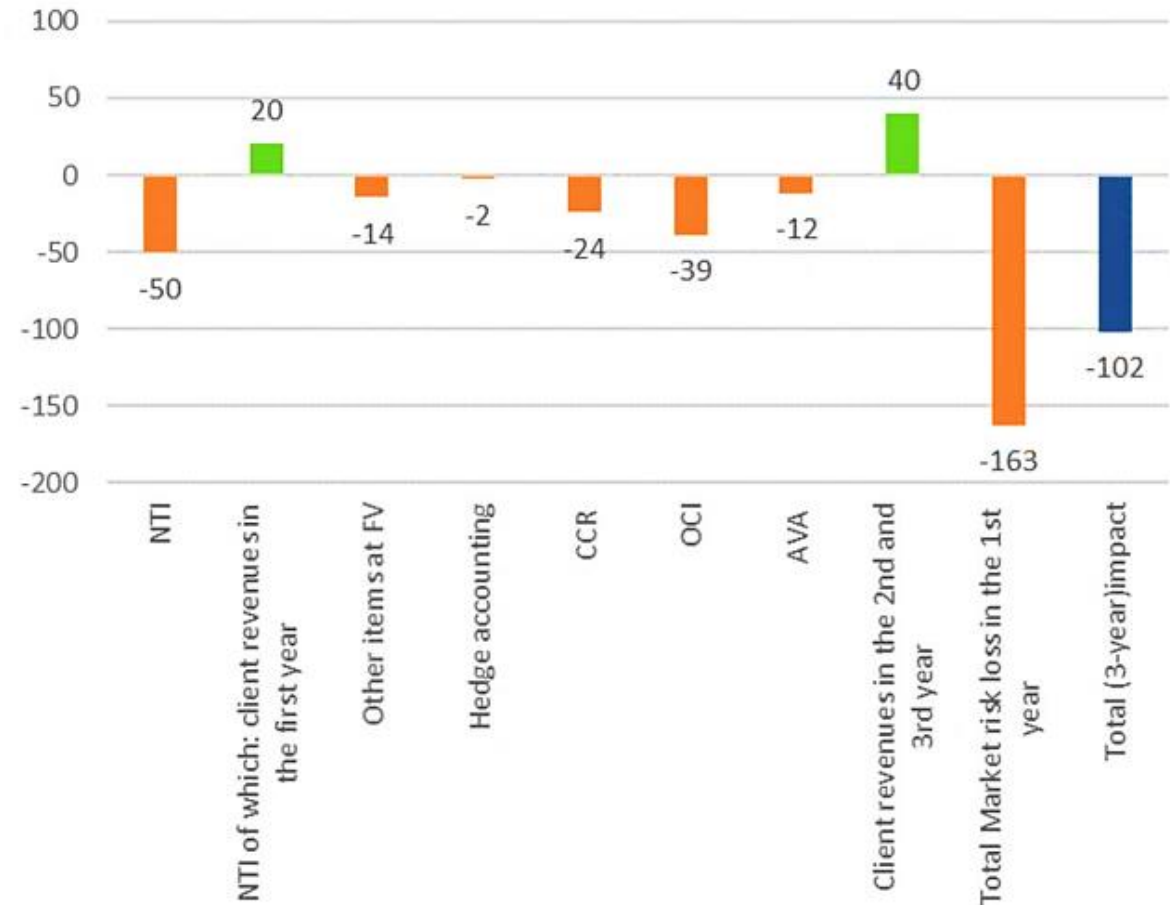


All drivers are stressed only **in the first year** of the adverse scenario with instantaneous shocks, as provided in the market risk scenario. **In the second and the third year** of the adverse scenario, the methodology allows for a reduced trading income which depends on the projection of client revenues and the historical NTI.



**Market risk losses in the first year of the adverse scenario amount to 118bn EUR** (163 bps), of which 37bn EUR (51 bps) is recognised in P&L. The cumulative net impact, considering also the income generated by client revenues projections over the 3 years of the adverse scenario, is 102 bps. **The main drivers of the market risk impact in 2021 are NTI, OCI and CCR** which represent 31%, 24% and 15% of total market losses respectively

Drivers of market risk losses in 2021



# Main Drivers of the Impact 8/10

## Impact on Profitability 6/7



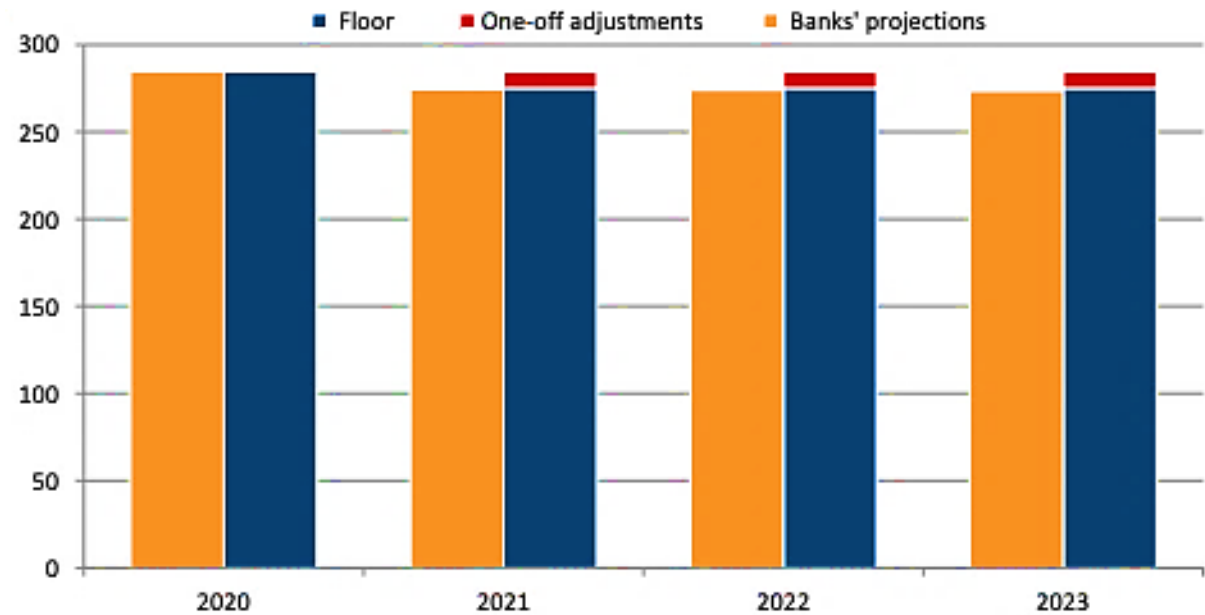
The methodology requires banks to project remaining other operating expenses, depreciation and other provisions or reversal of provisions floored at the starting level.



Projections can fall below the 2020 values in exceptional cases, namely when selected one-off costs incurred in 2020 are treated as one-off events that would not occur in 2021-2023.

In total, **23 banks adjusted their cost projections based on one-off events**. On a cumulative basis, **the reduction over the three years was EUR 27.9bn** with an **impact on the CET1 of the sample of 38 bps**. Banks in the sample reported an amount of expenses slightly below the floor once this was adjusted for the one-offs. This effect is mainly driven by the account for FX effect on remaining other administrative expenses.

Evolution of admin expenses, other operating expenses, other provisions and depreciation (EUR bn)



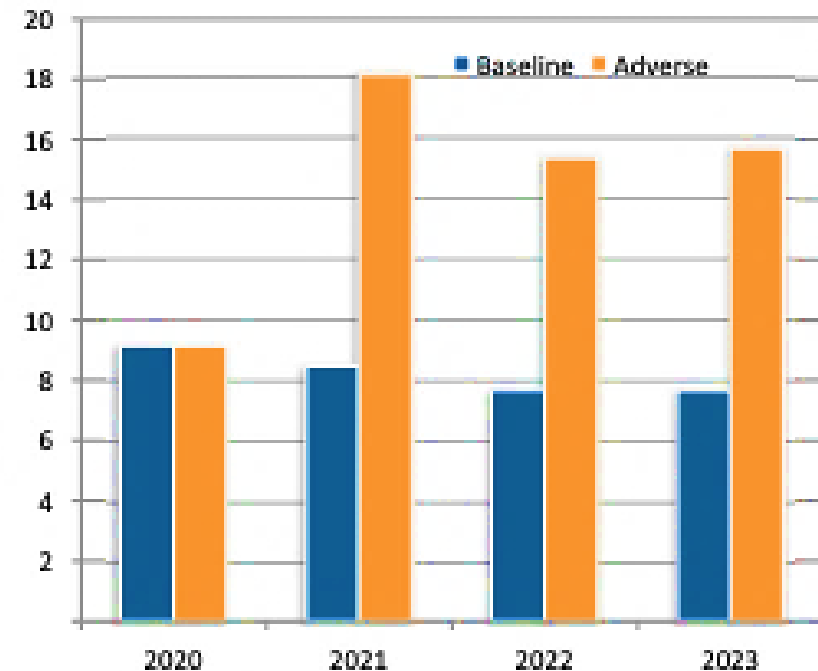
# Main Drivers of the Impact 9/10

## Impact on Profitability 7/7



Aggregate cumulative **operational risk losses** in the **adverse scenario** are **49bn EUR**, with a negative impact on capital of 68 bps. **Conduct risk losses account for 26.7bn EUR**, with a negative capital impact of 37 bps. **The remaining amount is composed** of projected losses classified **as other operational risk losses**. In total, **9 banks estimated a negative impact of conduct risk above 1bn EUR**. Banks projected the largest volumes of losses in 2021, when operational risk losses almost double from 9.2bn EUR in 2020 to 18.2bn EUR in 2021 in the adverse scenario. Within operational risk losses, conduct risk losses increase by 110%, from 4.8bn EUR in 2020 to 10bn EUR in 2021.

Operational risk losses (€ bn)



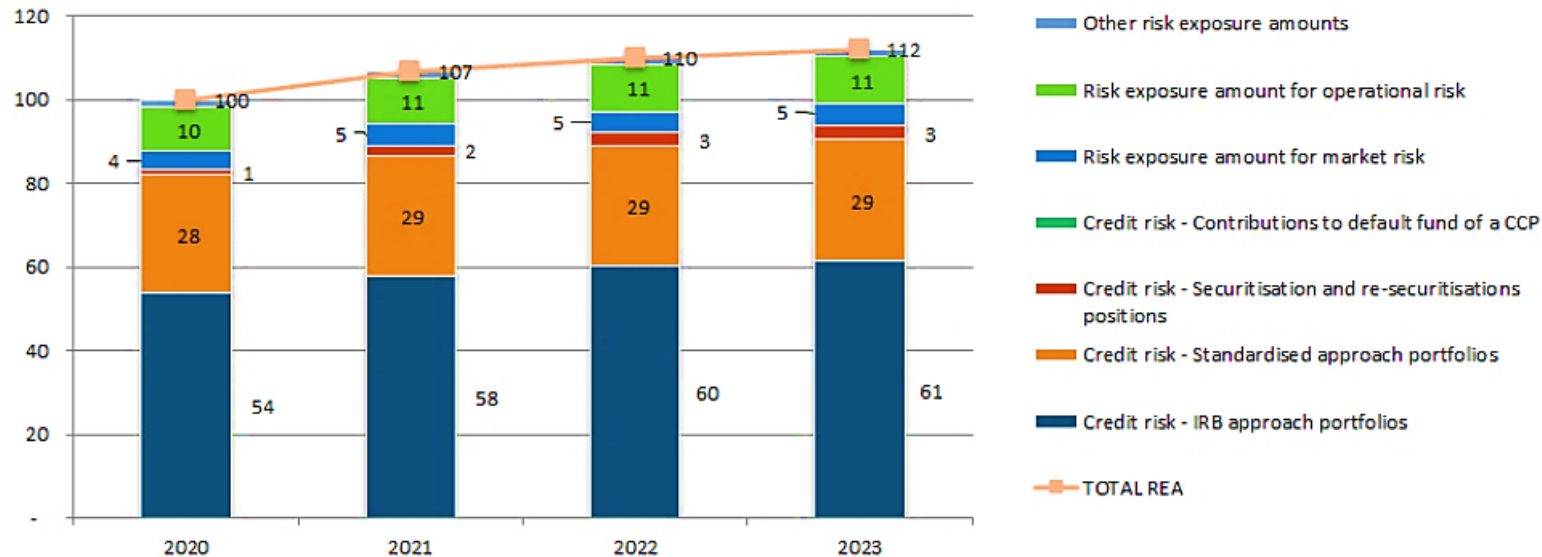
# Main Drivers of the Impact 10/10

## Impact on Risk Exposure Amount



At the starting point, the main components of the REA are related to credit risk (83% of total REA, in 2020). Under the adverse scenario, total REA (both transitional and fully loaded) increases by about 12% as of end 2023, driving an impact on CET1 capital ratio of -121 bps. This increase is mainly driven by the increase on the REA for credit risk and, in particular, by the IRB REA. The rest of the increase is mostly explained by the increase in REA for securitisation positions. In fact, the prescribed methodological shock to the REA for securitisations results in the starting value more than doubling, albeit, with a small absolute impact. Market and operational risks, although relevant in the analysis of total stock of REA, have a smaller increase over the period of the exercise.

Evolution of REA by risk type under the adverse scenario (2020 actual = 100)





# 04

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## Conclusion



# Conclusion

In conclusion, the stress test conducted by the EBA, **even assuming a particularly severe adverse scenario, provides a tangible measure of the quality of the CET1 capital of the banks** considered. In fact, even a loss of 497 bps on the CET1 capital ratio would maintain almost all EU banks above the required threshold.

<b>Adverse Scenario</b>	<ul style="list-style-type: none"><li>• Prolonged COVID-19 scenario</li></ul>	<ul style="list-style-type: none"><li>• Drop of real GDP in three years by 3.6% in the EU</li></ul>
<b>Stress Test Results</b>	<ul style="list-style-type: none"><li>• The impact of the stress test exercise on CET1 capital ratios on the EU banking system is equal to -497 bps</li></ul>	<ul style="list-style-type: none"><li>• Banks in the EU-wide stress test end up with an aggregate CET1 capital ratio above 10%, at the end of the stress test horizon</li></ul>

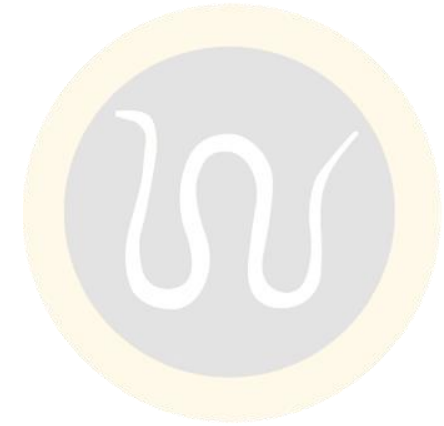
# Sources and Literature

[01] **European Banking Authority.** *[2021 Eu-wide Stress Test – Results](#)*. July 2021.

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\* All the tables showed in the presentation are taken from the original paper or built from Iason Consulting Ltd. with the same data.

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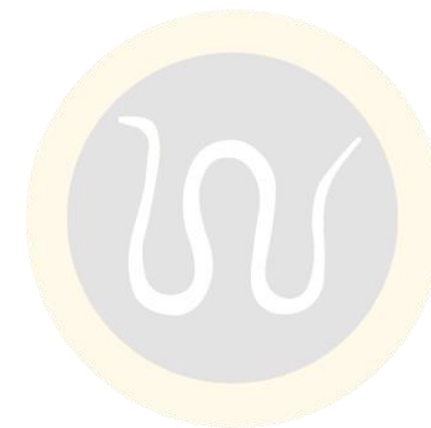
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