

#### High volatility across the board on financial markets



Eurostoxx and Dow Jones (general and banks) and Nasdaq (banks) 02-01-2023 = 100



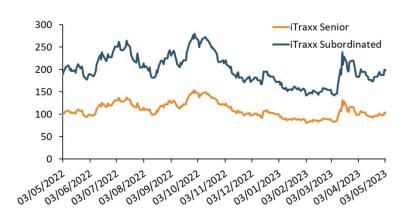
#### 10Y government yields



Source for all charts : Bloomberg and S&P Capital IQ

- The recent turmoil in banking caused a spike in financial market volatility, leading to a significant drop in banks' share prices, higher yields and wider credit spreads for banks.
- AT1 markets were negatively affected following the total write-down of CS AT1 holders. Sovereign yields decreased as investors moved towards safe haven assets.
- Although banks' share prices and credit spreads have partially recovered since mid-March volatility, markets remain volatile as confidence has not been fully restored and peaked up during this week again.

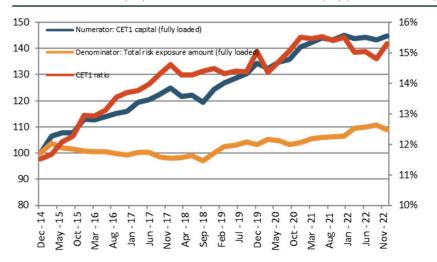
#### CDS Spread (iTraxx)



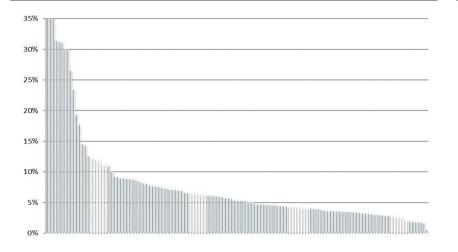
# Capital and profitability indicators provide a solid first line of defense



Trend in CET1 FL ratio (rhs), and numerator and denominator (lhs) (Dec-14 to Dec-22)



Capital buffer over OCR and P2G by bank (Dec-22)



Source for all charts : supervisory reporting

- Average CET1 (fully loaded) was at 15.3%, very close to the highest reported. Average capital buffer (above OCR and P2G) remained high at around 480bp.
- Return on Equity for the year 2022 edged higher to reach 8%.
- Increase in net interest income has been the main contributor of rising profitability, mainly helped by higher NIMs (1.39% in Dec-22, up by 10bps QoQ).

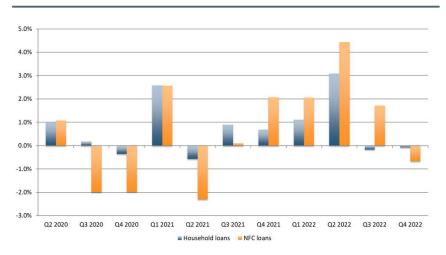
Trend in Return on equity (lhs) and net interest margins (rhs) (Dec-14 to Dec-22)



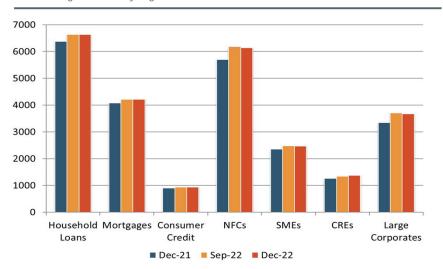
# Higher interest rates weigh on lending (demand and supply)



Growth in outstanding amounts of loans by segment, Q2-20 to Q4-22



Outstanding amounts by segment Dec-21 to Dec-22

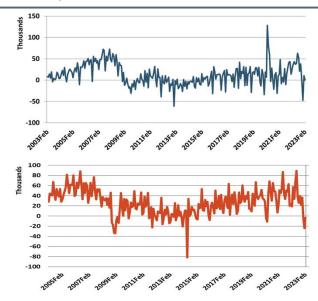


Source for charts: supervisory reporting data and ECB SDW

The EU banking sector – Navigating challenges

- Loan growth has stopped in the last quarter of the year.
   Banks reported lower outstanding volumes of loans in both household lending and non-financial corporates (albeit driven by loans to large corporates).
- Higher interest rates, lower consumer and business confidence and high energy prices, drove lower demand for loans (and banks' appetite to assume risks - tightening credit standards).
- The subdued loan growth seems to have continued in Q1, with loans towards households and NFCs roughly stable since the year-end based on ECB MFI data.

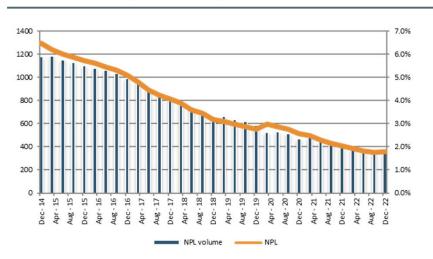
Flow of net lending for households (above) and NFCs (below) (Feb-03 to Feb-23)



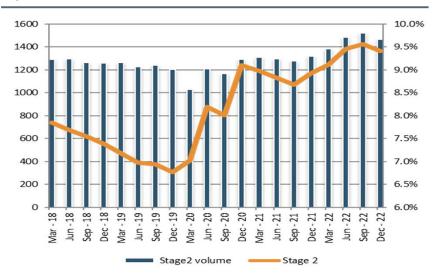
#### Pockets of risks have started surfacing in credit



NPL ratio and volumes (Dec-14 to Dec 22)



Stage 2 allocation volumes and ratio (Mar-18 to Dec-22)

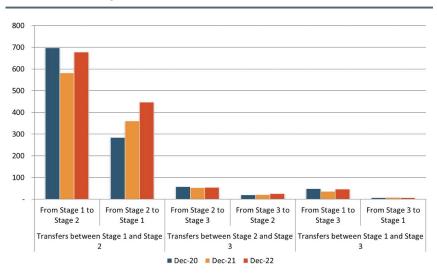


Source for charts: supervisory reporting data

The EU banking sector – Navigating challenges

- NPLs volumes remained stable while share of stage 2 loans was marginally lower compared to the previous quarter. It also remains elevated compared to pandemic levels, reaching 9.4% in Q4 2022 (down by 20bps QoQ, up by 50bpos YoY). Net flows from S1 to S2 during 2022 were more than EUR 200bn.
- Although cost of risk edged a bit higher, it remains at very low levels compared to previous quarters (46bp).
   Corporate insolvencies started picking up with some dispersion among countries\*.

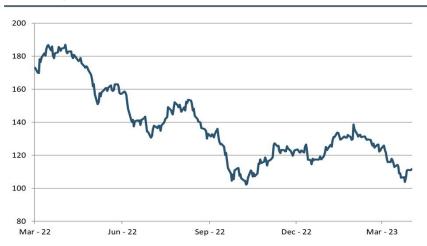
Flows between stages (Dec-20 to Dec-22)



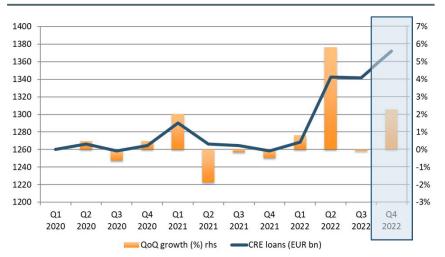
# Commercial real estate particularly vulnerable to higher interest rates



Stoxx Europe 600 Real Estate



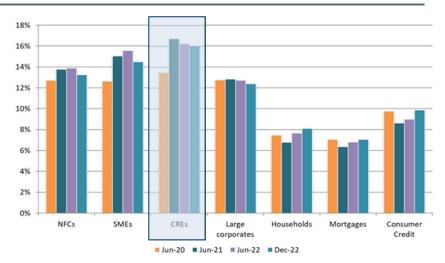
QoQ growth in outstanding loans towards CREs



Loans towards CREs further increased to EUR 1.37bn (+9% YoY). This is around 10% of total loans towards households and NECs.

- Average NPL ratio stood at 3.7% and Stage 2 allocation at 16%, somewhat improved comparatively to previous years.
   Average LTV lower than last year too (63% of total CRE loans with LTV ratio < 60%).</li>
- Reports suggest that access to capital markets for such firms is challenging to refinance their loans. Exposures are highly vulnerable to higher interest rates which not only affects the value of underlying collateral but as well as the borrowers' repayment capacity.

Share of stage 2 allocation by segment (Jun-20 to Dec-22)

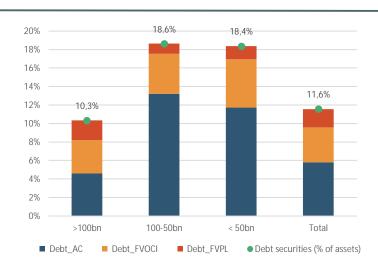


Source for charts: supervisory reporting data and Bloomberg

# The EBA deep dives in banks' positions of debt securities held at amortised cost

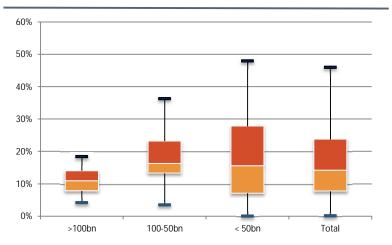


Debt securities in % of assets - Dec-22



- Debt securities in EU banks' balance sheet represent
   11.6% of total assets as of Dec-22
- Small and Medium size banks have a higher proportion of fixed income securities relative to total assets.
- EU banks' have made an increasing use of the amortised cost (AC) portfolio over time for classifying debt securities into their balance sheets.
- The EBA currently runs a data collection to assess unrealised losses on bond holdings by collecting information on bonds at AC and their related hedges

#### Distribution of debt securities in % of assets - Dec-22



1st quartile Median 3rd quartile 5th perc 95th perc Source: supervisory reporting. Above and right bottom chart based on a sample of 258 banks that cover 87% of EU banking sector assets. bottom left chart based on RDB sample.

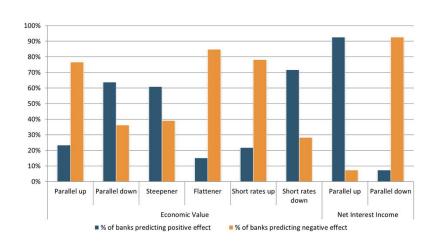
Accounting classification of debt securities, (Mar-19 to Dec-22)



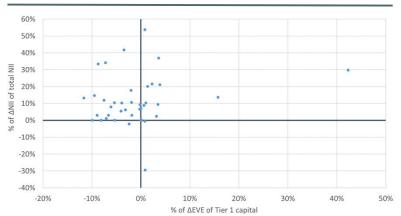
# IRRBB disclosures indicate presumably limited EVE impact from a parallel up move of rates



IRRBB shock scenario effects \*

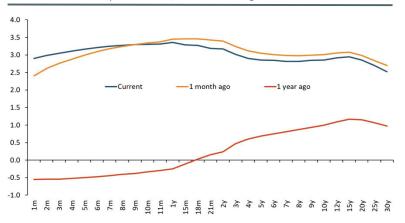


Effect on economic value of equity and NII in a 200bp "parallel up" shock scenario  $^{\star}$ 



- IRRBB disclosures show that a 200bps parallel up move of the yield curve has a negative impact on the economic value of equity (EVE) for nearly 80% of the banks analysed for this exercise.\*
- However, the EVE impact seems to be limited.
   This might indicate that banks have hedges or other measures in place to limit the impact on their EVE in case of rate moves.
- However, the parallel shift up in yield curve has been higher than the shock estimated in IRRBB disclosures.

Yield curve for European banks (in %, Bloomberg Valuation Services – BVAL)



Source: selected banks' Pillar 3 IRRBB disclosures; Bloomberg BVAL; EBA calculations.

<sup>\*</sup> A total of 47 banks from multiple jurisdictions based on the Risk Assessment Questionnaire sample was analysed for this exercise. Around half of these banks have disclosed data for YE2022, for the other half 2021 data has been used.

# EU banks liquidity position remains strong yet no room for complacency

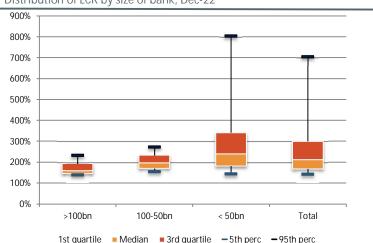


Net Deposit flows (inflows-outflows) from Euro Area non-MFIs - Dec-22



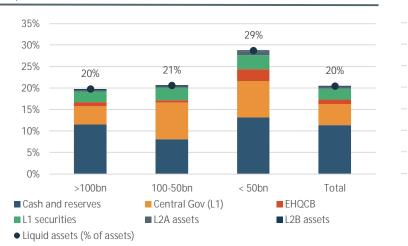
Source: ECB Data Warehouse and EBA calculations. Monthly data accumulated on an annual basis.

#### Distribution of LCR by size of bank, Dec-22



- LCR declined in Q4 2022 compared to Q4 2021, but still remains at high levels (166%), with even the 5<sup>th</sup> percentile well above the minimum requirements for the total EU and for the three groups of banks.
- However, net deposit flows are declining at a faster path since interest rates started to increase, which could undermine liquidity and stable funding ratios if risks materialise.
- Cash and reserves represent more than half of total liquid assets (11% of total assets), with medium-sized banks reporting a below average share.

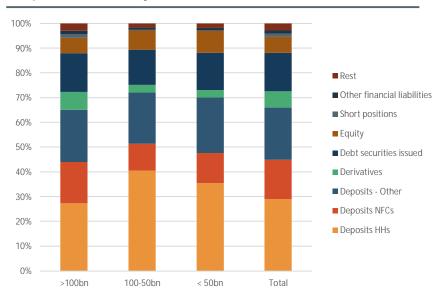
#### Liquid assets in % of assets, Dec-22



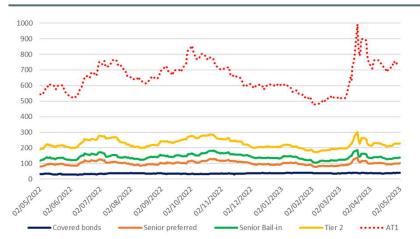
#### EU banks have a diversified mix of funding sources



Composition of liabilities by size of bank – Dec-22



#### Asset swap spreads for different instruments (iBoxx data, 2 May)



Source: supervisory reporting. Based on a sample of 258 banks that cover 87% of EU banking sector assets.

The EU banking sector – Navigating challenges

- The failure of Silicon Valley Bank was triggered after an extraordinary deposit flight of USD 42bn within a day (March 9), while banks' executives expected another USD 100bn deposits to be withdrawn the following day (totalling more than 80% of total banks' deposits).
- The unprecedented speed of deposit flight seen in recent bank failures in the US and CH has increased liquidity vulnerabilities and put in focus banks' funding mix.
- EU banks have a stable deposit base household deposits represent 30% of total liabilities and equity. Liability mix is well diversified between deposits, central bank funding and wholesale funding.
- Yet, the increase in rates will pose challenges on the cost of funding of banks, while smaller banks may be challenged with exclusion from capital markets while they seek to meet their regulatory requirements (MREL targets).
- Banks have been actively tapping capital markets since Q4 2022, front-loading their funding needs to some extent, yet recent market turmoil has caused temporary market closures.
- Heightened volatility could cause more market hick-ups and temporary closures, therefore banks should adjust their funding plans accordingly.

#### Cyber and Operational Risk also pose challenges to banks

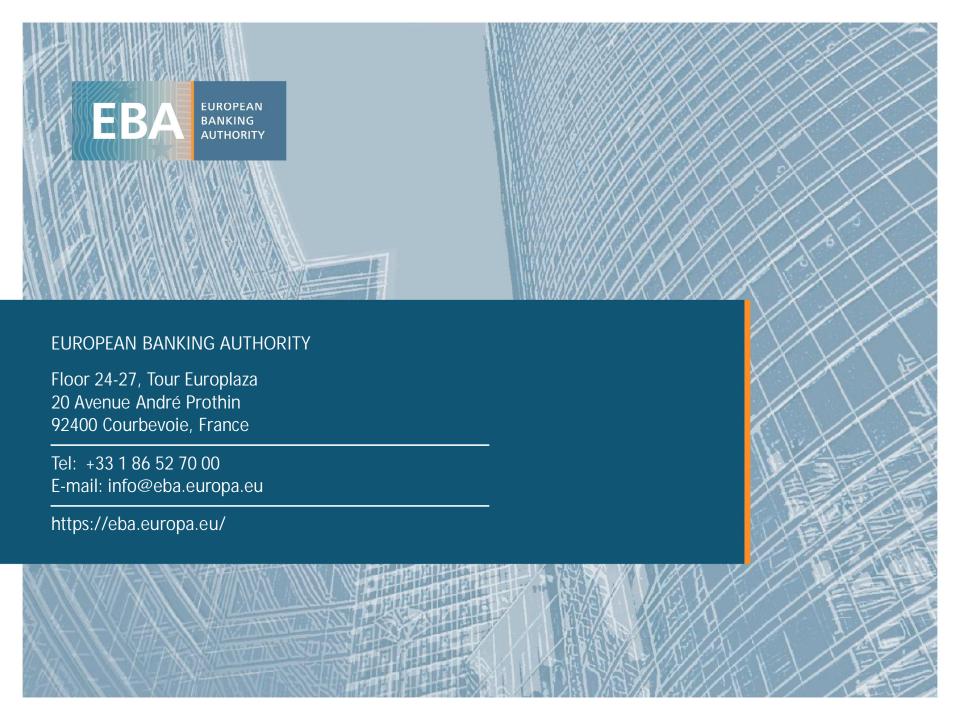


- Operational risk including IT and cyber risk widely considered a priority given the rising challenges for the banks in this area. Operational risk events may not only cause direct financial loss but might also impair banks' reputation.
- Operational risk as a key risk and includes areas such as fraud, anti-money laundering, sanctions compliance, increasing dependency from third party providers, and other legal and reputational risks that banks are increasingly exposed to.
- With the pandemic, digitalisation and the use of communication technology (ICT) at banks and their customers further accelerated, and became indispensable. Reliance of banks on digital and remote solutions to perform their daily operations, to deliver their services to customers, and to conduct business has resulted in an enhanced exposure and vulnerability to increasingly sophisticated cyberattacks. Banks are facing increased operational challenges since geopolitical tensions are playing an increasing role in the technological and digital space.
- Supervisors and banks use a range of tools to minimise operational risk and cyber risk. Selected cyber risk related tools include: incident reporting, on site inspections, simulations, framework for ethical hacking, horizontal analysis (to e.g. assess the level of digitalisation and DORA related considerations), coordinated campaigns (with others, such as banking associations) to make customers aware of cyber risk, etc.

#### **Conclusions**



- On average European banks have ample liquidity and capital buffers. Important role of prudential regulation to ensure financial stability and soundness of the banking sector. Recent events show that there is no room for complacency. Banks and supervisors should remain vigilant.
- The collapse of Silicon Valley Bank (SVB) and Signature Bank (SB) as well as the events leading to the merger of Credit Suisse (CS) with UBS led to a significant rise in uncertainty and have changed market perceptions of banks. The acquisition of First Republic by JP Morgan triggered again an increase in volatility and flight to safety.
- Appropriate and adequate risk management is essential. The abrupt increase in interest rates puts in focus interest
  rate risk as the current events had shown. In this regard, IRRBB should also help banks to test different scenarios of
  increases of interest rates.
- Diversified funding is also important as it shields banks from over-reliance to one funding source. Concentration of depositors in inter-related segments or economic activities could also be a source of vulnerabilities.
- EBA Stress test exercise is currently ongoing with end results expected to be published in July 2023. These will inform supervisors and stakeholders on the possible existence of idiosyncratic and systemic vulnerabilities in banks' balance sheets.
- The recent banking crisis has also shown the effect of digital era on banks' liquidity as information as well as deposits can move fast.
- It is also important to acknowledge the relevance of banks' business models. The sustainability of the banks business model in a environment of positive and higher interest rates should be carefully assessed.



### From the new normal to new abnormal world: Banks' risk profile shifts in the new socio-economic landscape

Georges Hübner, Ph.D. Professor of Finance, HEC Liège, ULiège

New profile of risks for banks and the financial sector Belgian Financial Forum Webinar, May 4, 2022







#### From the new normal to new abnormal world

## **Agenda**

- Bank's shifts in business models and priorities
- 2. Recent economic challenges
- 3. From risk to uncertainty management

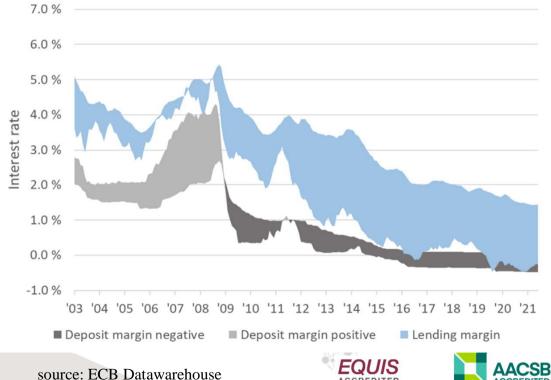






### Bank's shifts in business models and priorities

Where are we coming from? A zoom on banks' core business





### Bank's shifts in business models and priorities

- Net Interest Margin (NIM) under pressure in a "low-for-long" environment, mostly because of deposits (floored interest rate)
- Two important (non-mutually exclusive) risk-based reactions:
  - Less interest rate hedging in order to protect profitability of intermediation activities in case of permanently low levels
  - Increase off-balance sheet activities (payment/risk management) in order to diversify sources of income with lower capital intensity and a higher ROE

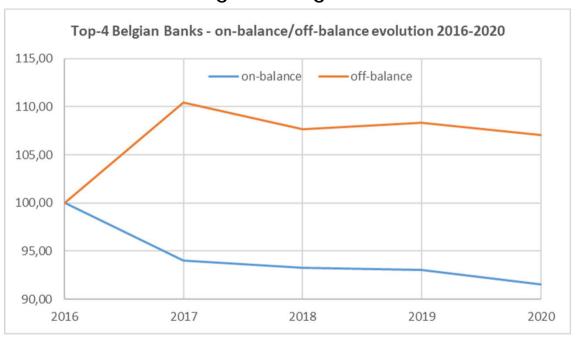






#### 1. Bank's shifts in business models and priorities

• Evidence for the four largest Belgian banks:



source: Annual Reports of BNPP-Fortis, KBC (for KBC Belgium), Belfius, ING Belgium





### Recent economic challenges

- Two consecutive "Deus ex machina"
  - 2020-03: Burst of the Covid-19 Pandemic
  - 2022-02: War in Ukraine
- Impact on the economy? Large but contained
  - Big increase in government expenditures
  - Temporary drop in GDP, although great resilience
- Impact on banks? Relatively small at inception
  - Challenge taken up by solid and closely supervised banks
  - Defaults much lower than expected







## Recent economic challenges

The game changer: The "Inflation-Environment" cocktail







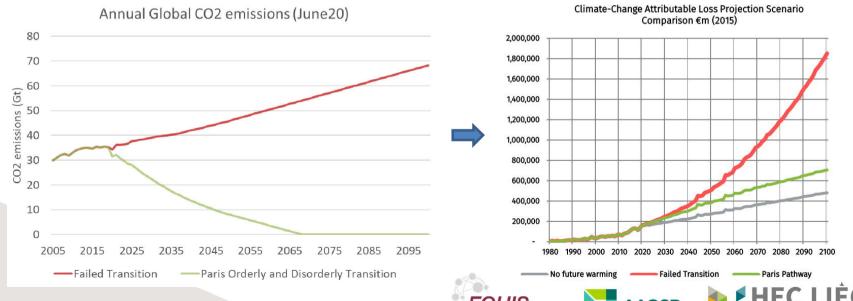
### 2. Recent economic challenges

- The game changer: The "Inflation-Environment" cocktail
  - Durable increase in inflation, leading to traditional monetary response on short term policy rates



### 2. Recent economic challenges

- The game changer: The "Inflation-Environment" cocktail
  - 2. Sense of urgency on environmental risk, leading to an <u>immediate</u> but dataless transition pathway



What does this entail? A shift in the way risk is (of should be) perceived

"Knowns knowns"

Risk Management

#### Risk

- variability of unexpected outcomes (value of assets, equity or earnings)
- the outcome is random, but the probability distribution is known or can be estimated or approximated

Uncertainty The probability distribution is itself unknown







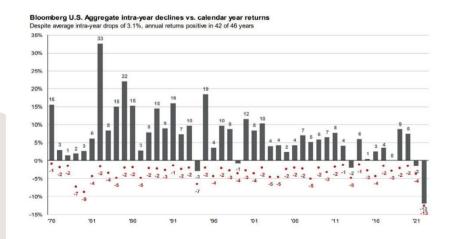
- The traditional way of tackling risk is through models. The whole Basel system (especially Pillar I) is built upon that
- But models must be fed with data (variables) and parameters
- Thanks to the model's outcome, the impact of risk can be measured and mitigating actions can be considered (avoid, transfer, mitigate, keep)
- Financial Risk Management (including ALM) in banks have reached a substantial degree of maturity... until recently
- Many things are questioned henceforth!

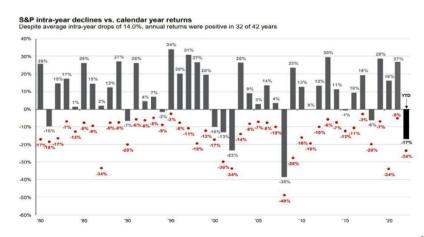






- Market risk Off-balance sheet
  - Unhedgeable stock market risk to due regulatory constraints (IFRS) and behavioral uncertainties
  - Diversification argument (negative correlation with banking book) does not necessary hold (e.g. stock bond correlation 2022 was >50%!)





- Market risk Liabilities
  - Interest pass-through on accounts: issue of supply-price elasticity
  - We lack behavioral data and experience!
  - This is key not only for profitability but also for liquidity

#### DIFFÉRENCE DE TAUX SUR LE LIVRET DES GRANDES BANQUES

	Compte d'épargne classique			Nouvelle formule			
	Taux de base	Prime de fidélité	Total	Taux de base	Prime de fidélité	Total	Différence
BNP PARIBAS FORTIS	0,15%	0,10%	0,25%	0,50%	0,75%	1,25%	1,00%
квс свс	0,35%	0,25%	0,60%	-	-	-	-
<b>■</b> Belfius	0,35%	0,15%	0,50%	0,15%	0,65%	0,80%	0,30%
ING 🌭	0,40%	0,10%	0,50%	0,35%	0,65%	1,00%	0,50%

source: trends.levif.be



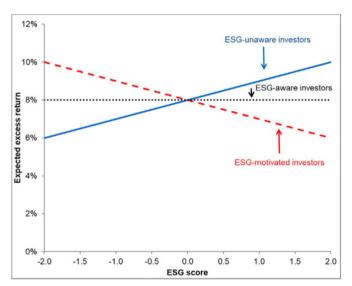




- Market risk Assets
  - Where will FSG lead us to?



source: Morningstar



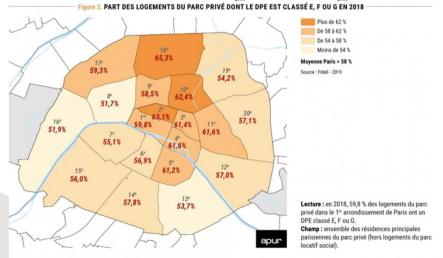
source: Pedersen, L.H., Fitzgibbons, S., Pomorski, L. (2021). Responsible investing: The ESG-efficient frontier. Journal of Financial Economics, 142, 572-597.







- Credit risk Assets
  - Default risk: After 8 years of lower-than-expected cost of risk, provisions become erratic  $\rightarrow$  we lack default data
  - Transition risk: huge challenge on RE prices and debt repayment capacity!







#### Conclusion

- The period 2009-2022 has considerably strengthened the European banking sector, enhancing their risk profile
- The recent economic shocks have shown that banks are part of the solution and no more the problem
- Yet, the "new normal" world, mixing old (inflation IR>0) and new (climate) challenges, lead to a paradigm shift
- Managing risk becomes more scenario-based, stress testing approaches and "think the unthinkable"
- Not to mention Non-Financial Risks and Insurance...







# Thank you





