Bank Crisis Management

GSE Course in Money and Banking,
lecture by Chief Economist Hanna Westman

21 September 2023

RAHOITUSVAKAUSVIRASTO
VERKET FÖR FINANSIELL STABILITET
FINANCIAL STABILITY AUTHORITY

In Finland the same authority is responsible for bank resolution and the deposit guarantee system

- The Financial Stability Authority (Rahoitusvakausvirasto, RVV) was established as an independent authority under the Ministry of Finance in 2015 and has now 27 employees
- RVV is the national bank resolution and the deposit guarantee authority. As of 2022, RVV is also responsible for managing and developing the National Emergency Account System, which is one of the tools used to secure the continuity of daily payments in case of serious disruptions of society or emergency conditions.
- RVV cooperates closely with the Finnish banks and other authorities.
  - Domestically, the cooperation is close in particularly with the Financial Supervisory Authority (FIN-FSA), the Bank of Finland and the Ministry of Finance.
  - RVV is part of the Single Resolution Mechanism (SRM) and cooperates closely with the Single Resolution Board (SRB) and other national resolution authorities in the banking union as well as resolution authorities in the Nordic countries.
  - RVV is also involved in other international bodies tasked to discuss and develop the bank resolution and deposit insurance framework.
- More information about RVV as well as on questions related to bank resolution and deposit guarantee can be found on our home page [rvv.fi](rvv.fi).

Outline – questions addressed during the lecture

- Why are banks regulated and supervised?
- Why is bailout of banks not a good idea?
- What has been done to end “too big to fail”?
- What is the bank resolution regime?
- Are also banks paying for the cost of resolution?
- How are deposits protected in bankruptcy?

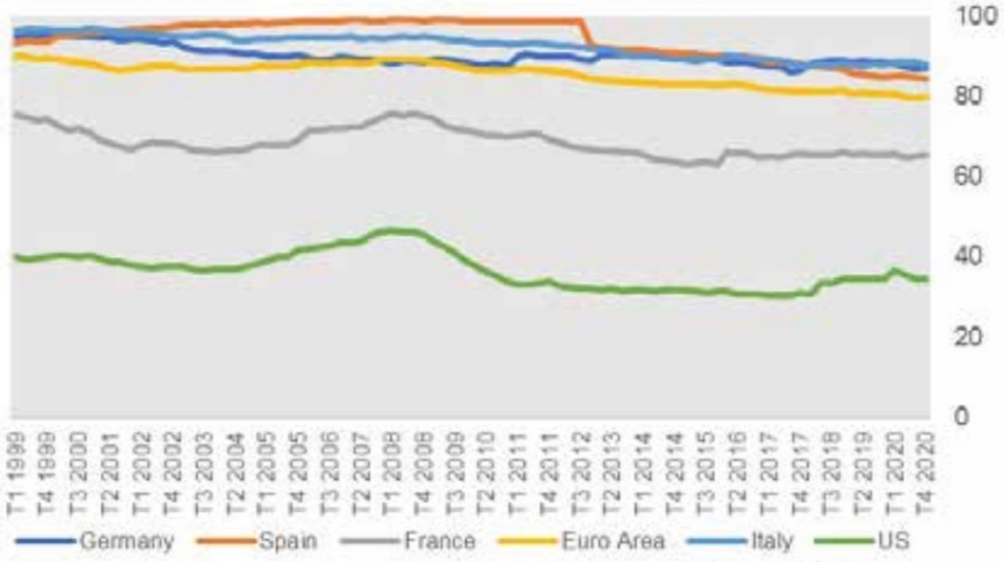
Why are banks regulated and supervised?

Banks have many important tasks in the society

- Banks provide customers with a safe mean to store value in terms of deposit.
- Banks grant loans to customers for consumption or value creating investments, which on the other hand supports economic growth.
- Banks create liquidity, i.e. money, in their role as financial intermediary.
- Banks provide customers with secure and efficient payments services – the plumbing of the economy.
- Banks have an important role in trading, risk management, wholesale funding and asset management services.

- Banks' role is particularly large in Europe, where for example corporates get funding from banks rather than financial markets.

Share of bank credit in total corporate debt



Source: EUROFI Regulatory Update, September 2021 (www.eurofi.net/wp-content/uploads/2021/09/regulatory-update_ljubljana_september-2021.pdf).

Deposit runs can be very rapid, even with deposit insurance

Examples of deposit outflows in crisis banks in Europe

Bank	Start of outflow	Duration	Size in billions (currency)	Run-off rate	Monthly run-off rate
Northern Rock	14 Sep 2007	Few weeks First 4 days	13 (GBP) 4.6 (GBP)	56% 20%	56% 100%
ING direct (internet bank)	Sep 2008	3 months	4.9 (EUR)	3.1%	1%
Landisbanki, Icesave in UK (internet bank)	April 2008	3-4 days	0.2 (GBP)	4.3%	32.1% - 42.8%
Dexia	End-Sep 2011	1 month	7 (EUR)	8.75%	8.75%
Cyprus Popular Bank	June 2012	9 months	10 (EUR)	40%	4.4%
Banco Popular	1 April 2017	2 months 3 days	18 (EUR) 6 (EUR)	24% 8%	12% 80%

The run off rates we saw during spring 2023 were even more dramatic.

Source: ECB *Liquidity in resolution: estimating possible liquidity gaps for specific banks in resolution and in a systemic crisis,* Occasional Paper Series, November 2020 (www.ecb.europa.eu/pub/pdf/scpops/ecb.op250~c7a2d3cc7e.en.pdf).

The failure of a bank can have severe consequences on the society and create costs that banks do not pay

- A failure of a bank, particularly if it has a central role in the financial system, has large-scale implications for households and companies as its services would no longer be available and it would no longer grant credit to its customers.
- Problems of one bank easily transmit to other banks directly through e.g. interbank markets or indirectly as trust in other banks might also deteriorate, resulting in banking sector wide problems.

There are externalities from banking.

- Application of a normal bankruptcy proceeding is not appropriate to solve a crisis situation in a large bank as the process is too slow given the need to ensure continuity of banking services and as the value of bank assets would deteriorate during the long process.
- Up until the great financial crisis that started in 2008, authorities did not really have any alternative, but to rescue i.e. bailout, failing banks and support them with taxpayers money.

Previously many banks were ”too big to fail”

Why is bailout of banks not a good idea?

Expectation of bailout by the government create incentives for rapid growth and excessive risk taking

Banks become even more systemically important for the financial system and must thus be rescued, or bailed out, by state in case of failure.

Banks became ”too big to fail”

”Heads, I win – tails, you loose”

The implicit safety net i.e. anticipation of government guarantee in terms of bailout with taxpayer money, reduces funding costs and monitoring by investors.

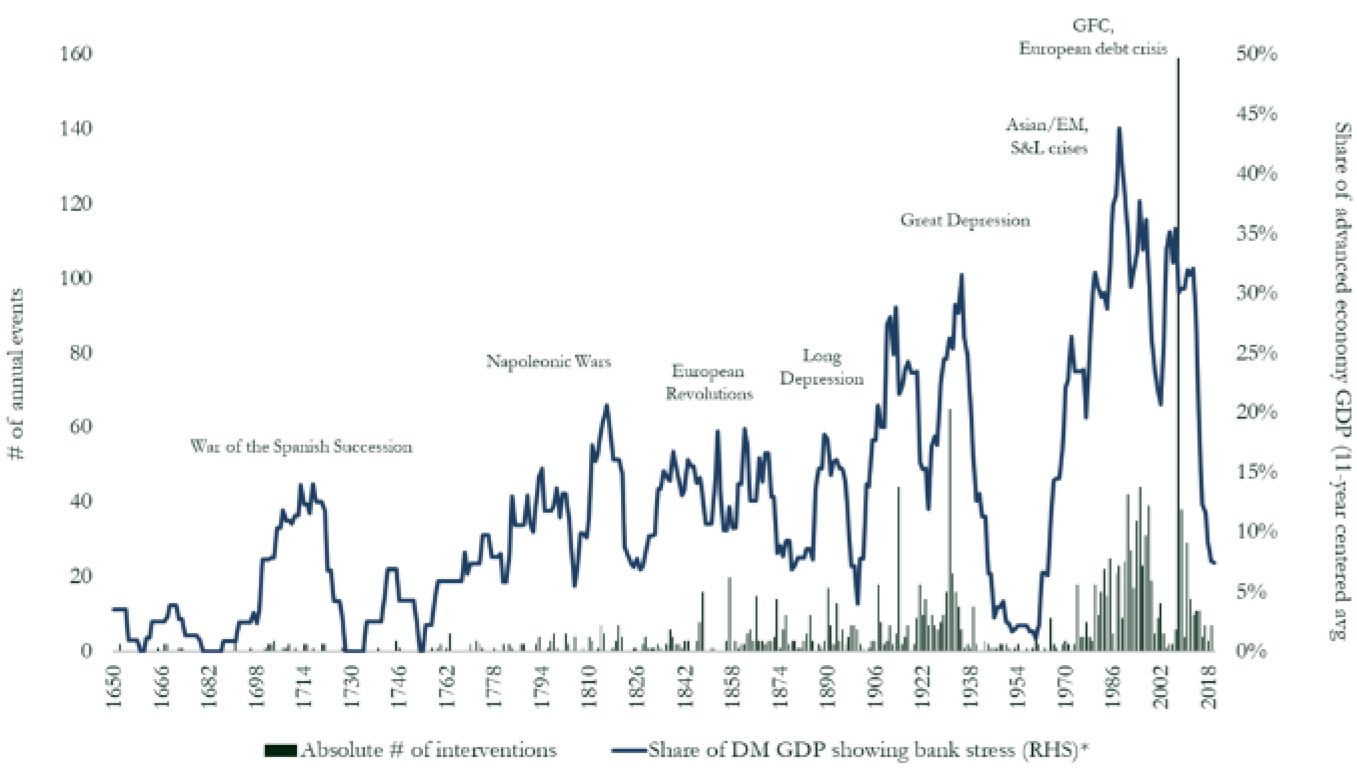
Rapid growth, excessive risk taking and indebtness induced by the implicit safety net increases likelihood of banking crisis.

Risk is not correctly priced.

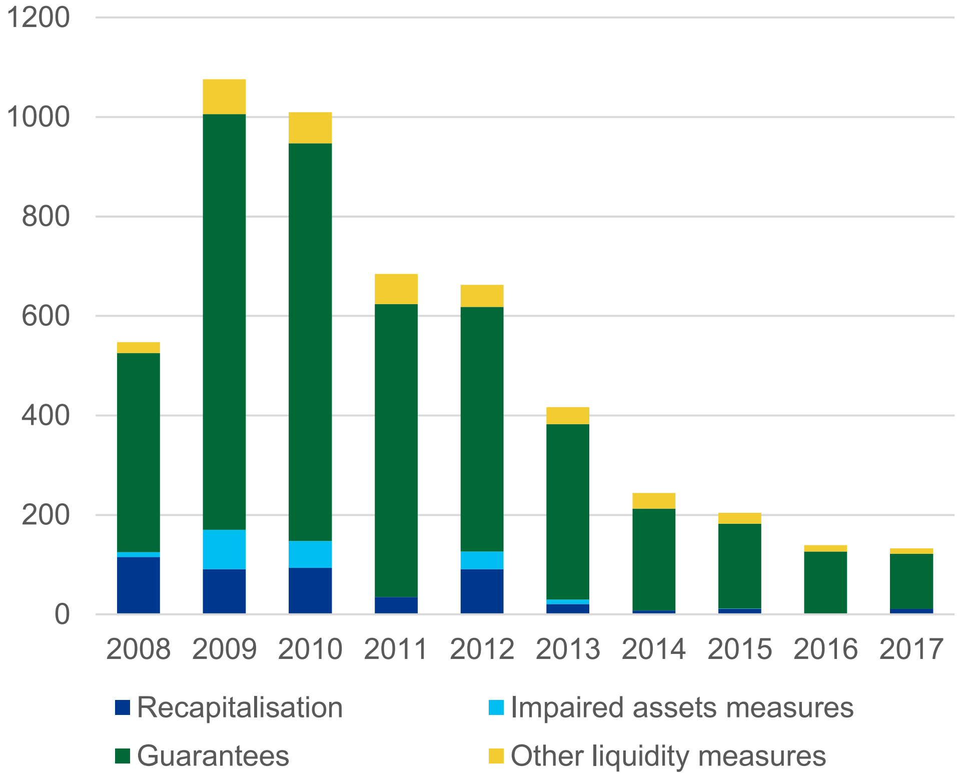
Source: Based on discussion in the Liikanen Report (2012) (https://ec.europa.eu/info/publications/liikanen-report_en).

It has become increasingly costly to save banks thus depriving use of public funds for other purposes

Figure 6: distribution of total interventions, by year, and share of advanced economy GDP exhibiting "bank stress", 1665-2019.



State aid used by banks in the EU (billion euro)



Source: Metrick and Schmelzing (2021) Banking-crisis interventions 1257-2019, NBER Working Paper 29281. The database created by the authors can be found here: https://data.nber.org/data-appendix/w29281/V___Appendix%20C_nber11.pdf. ECB, Liquidity in resolution: estimating possible liquidity gaps for specific banks in resolution and in a systemic crisis, Occasional Paper Series, November 2020.

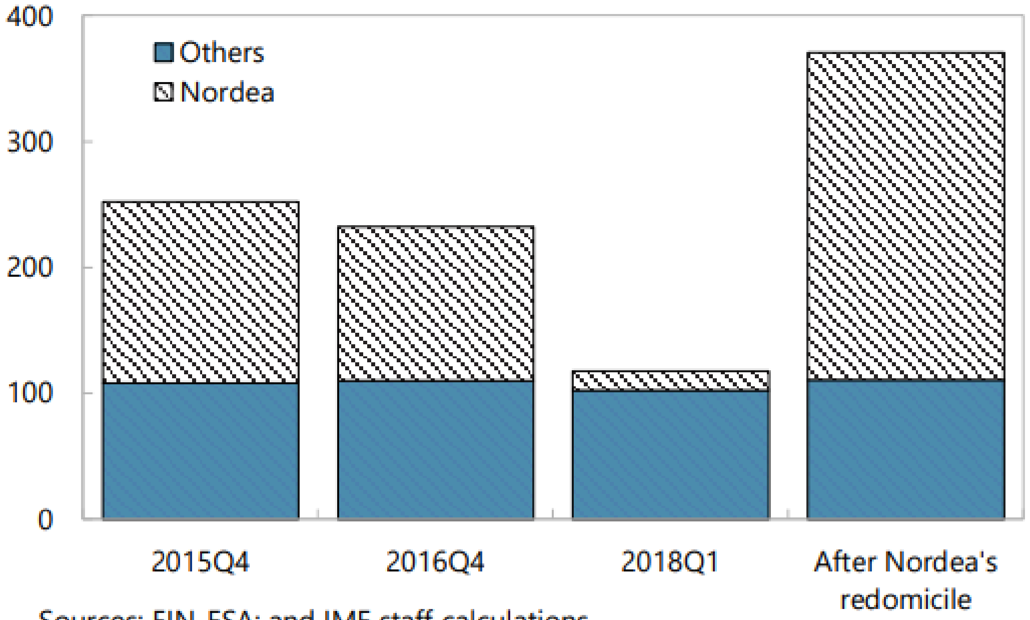
Some banks are even “too large to bailout” as they outsize their home country

Case Nordea

- In January 2017, Nordea merged its subsidiaries with banking operations to the Swedish parent only leaving relatively small subsidiaries in the four Nordic countries.
- In October 2018, Nordea’s headquarter was moved from Stockholm to Helsinki.
- The Finnish authorities are responsible for the banking operations in Finland, Sweden, Denmark and Norway as they are branches of the parent company headquartered in Helsinki.

In 2022 Nordea assets to Finland’s GDP was 200%.

Size of Finnish Financial Sector
(Percent of GDP)



Sources: FIN-FSA; and IMF staff calculations.
Note: Estimates of size after Nordea's redomicile based on 2017Q4 data.

Source: IMF, Finland 2018 Article IV consultation, Country Report No. 19/7, January 2019 (www.imf.org/en/Publications/CR/Issues/2019/01/15/Finland-2018-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-46518).

What has been done to end “too big to fail”?

Scope and intrusiveness of bank regulation and supervision have increased

Aim to reduce likelihood of bank failure

- Higher capital requirements and better quality capital
- New liquidity requirements
- Stricter requirement on governance and risk management
- Improved supervision and stress tests
- Macroprudential supervision and capital buffers based on systemic risk of banks and procyclicality of lending

Aim to reduce impact and cost to society in case of bank failure

- New recovery and resolution regime including funds to which banks contribute with ex-ante fees
- Harmonisation of deposit insurance and improvement of operational capability to manage pay-out

Single rulebook

- Capital requirement regulation and directive (CRR2/CRD5) — Update 2020
- Bank recovery and resolution directive (BRRD2) — Update 2020
- Deposit guarantee scheme directive (DGSD2) — Update 2015

Note: Regulation enforcing structural changes ex-ante has been implemented in US (Volker rule) and UK (based on the Vicker report). The EU initiative inspired by the Liikanen Report (2012) has been withdrawn. Resolution authorities have the mandate to require structural change to ensure resolvability. See also RVV blog "The Liikanen Report and the proposal for a resolution framework – 10 years on" (https://rvv.fi/en/-/blog-the-liikanen-report-and-the-proposal-for-a-resolution-framework-10-years-on). More information about CMDI can be found in the RVV blog "CMDI-ehdotus Rahoitusvakausviraston puntarissa" (https://rvv.fi/-/blogi-cmdi-ehdotus-rahoitusvakausviraston-puntarissa).

The banking union was created on top of the single rulebook to centralise supervision and resolution

2014

Single Supervisory Mechanism (SSM)

- ECB supervisor of significant institutions
- Close cooperation with the national supervisory authorities
- Common approach to supervision

2015

Single Resolution Mechanism (SRM)

- Single Resolution Board (SRB) resolution authority for significant institutions and cross boarder groups, with full resolutions powers as of 2016
- Close cooperation with national resolution authorities
- Common approach to resolution
- Single Resolution Fund (SRF) and backstop thereto

?

European Deposit Insurance Scheme (EDIS)

- Governed by the SRB?
- Role of national DGSs vs. European level authority?
- Size of national DGS funds vs. European Deposit Insurance Fund (DIF)?
- Level of mutualisation – temporary liquidity support vs. loss sharing from the DIF?

Single rulebook

- Capital requirement regulation and directive (CRR2/CRD5)

Update 2020

- Bank recovery and resolution directive (BRRD2)

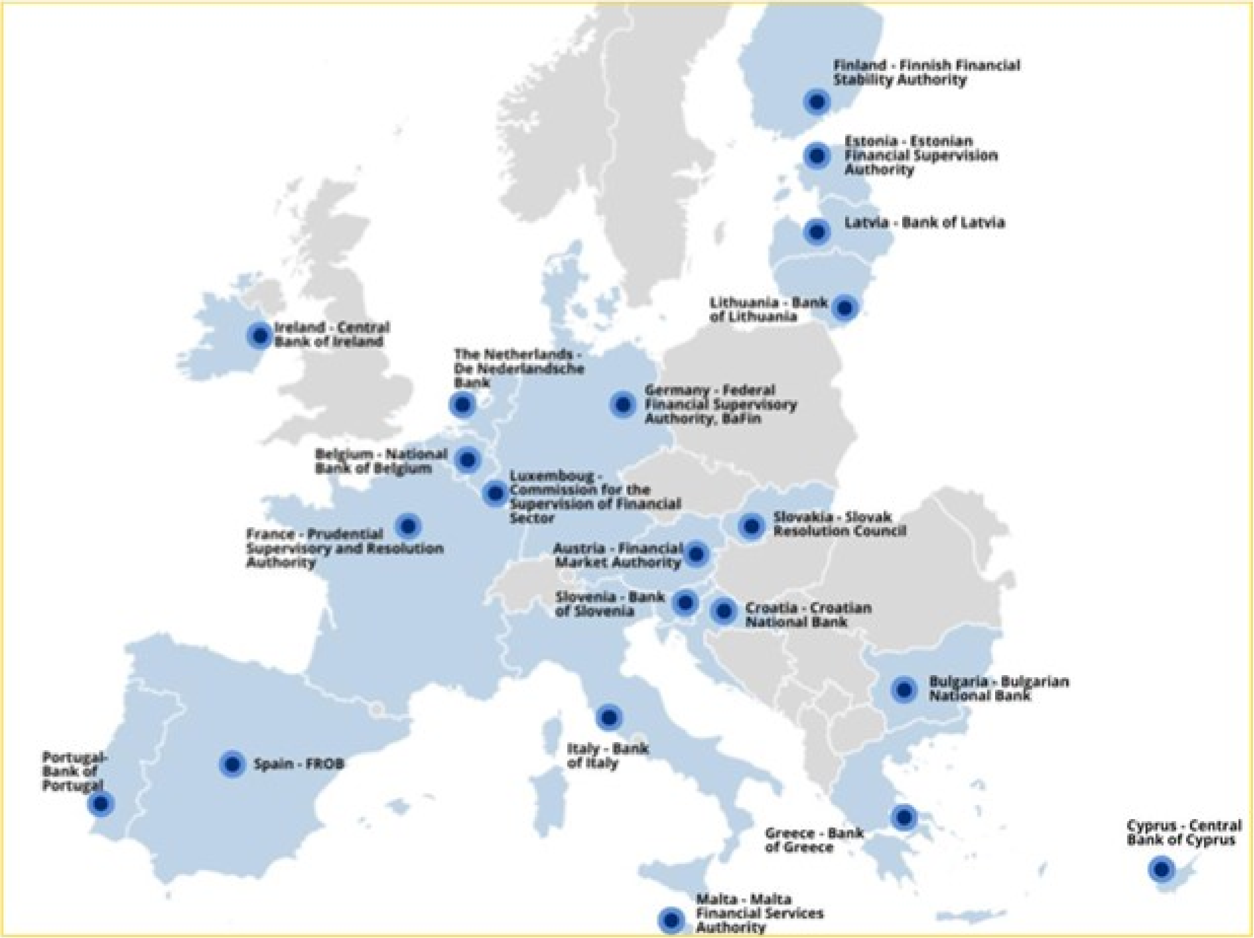
Update 2020

- Deposit guarantee scheme directive (DGSD2)

Update 2015

Note: More information about EDIS can be found in the RVV blog "Pankkiunionin yhteinen talletussuoja (EDIS) hakee yhä muotoaan" (https://rvv.fi/-/blogi-pankkiunionin-yhteinen-talletussuoja-edis-hakee-yha-muotoaan).

The banking union include the euro area countries and Bulgaria



Note: Banking union members in light blue. National resolution authority mentioned.

What is the bank resolution regime?

In the new regime systemically important banks will be resolved instead of put into bankruptcy

- Resolution is applied to a failing bank if any of the five resolution objectives would be breached in case the bank would be put to bankruptcy. This would happen if …
  - the bank has critical functions, e.g. a disruption in one or several functions would severely affect customers and substituting services are not available sufficiently rapidly from other banks or other financial services actors.
  - the disruption of the banks operations would endanger financial stability, e.g. the problems would spread widely to other banks or the real economy would be affected negatively.
  - the use of public funds would be greater in bankruptcy than in resolution.
  - the depositors and investors are not protected in a bankruptcy as outlined in the legislation.
  - the client funds and client assets in the bank are not protected as outlined in the legislation.
- Otherwise the bank is put to bankruptcy rather than resolution.
- In bankruptcy depositors receive the covered deposits from the deposit guarantee fund, while in resolution pay-out from the deposit guarantee fund is not needed as the banking operations continue without interruption.

Illustrative examples of the public interest assessment

Case Silicon Valley Bank

- Under the BRRD, resolution rather than pay-out of deposits or transfer of deposits to another bank funded by the DGS, might have been chosen.
- The bank was relatively large with total assets over 200 billion and would in the banking union have been regarded as a significant institution under the mandate of ECB and SRB.
- The impact on SMEs of a disruption in the deposit and payment functions was rather large (particularly on a regional level) and the customers would possibly not be able to find alternative providers sufficiently rapidly.
- The indirect contagion risk created by increasing risk of deposit runs in other banks with similar business model was high.

Case Veneto Banks

- In June 2017, SRB decided that resolution of two banks in Veneto was not in the public interest as the impact of the disruption was not seen to be significant on a national level, i.e. for Italy as a whole.
- In contrast, the Italian government found that bankruptcy had a large impact on a regional level and that there was a need for liquidation aid to support the local society.
- With the suggested changes to the BRRD as proposed in the CMDI, the impact on failure is to be assessed on regional level and possible liquidation aid, is to be accounted for in the public interest assessment → in the future, resolution rather than bankruptcy would possibly be applied in a similar situation.

In resolution, the authority can restructure the bank by applying different resolution tools

Sale of business

Part or all of the shares or other instruments of ownership or assets, rights and liabilities can be sold to a private purchaser.

Bridge institution

Part or all of the shares or other instruments of ownership or assets, right and liabilities can be transferred to a temporary entity.

Asset management vehicle*

Assets, rights and liabilities can be transferred to an asset management vehicle, totally or partially publicly owned, if liquidation of the assets could cause market disruption.

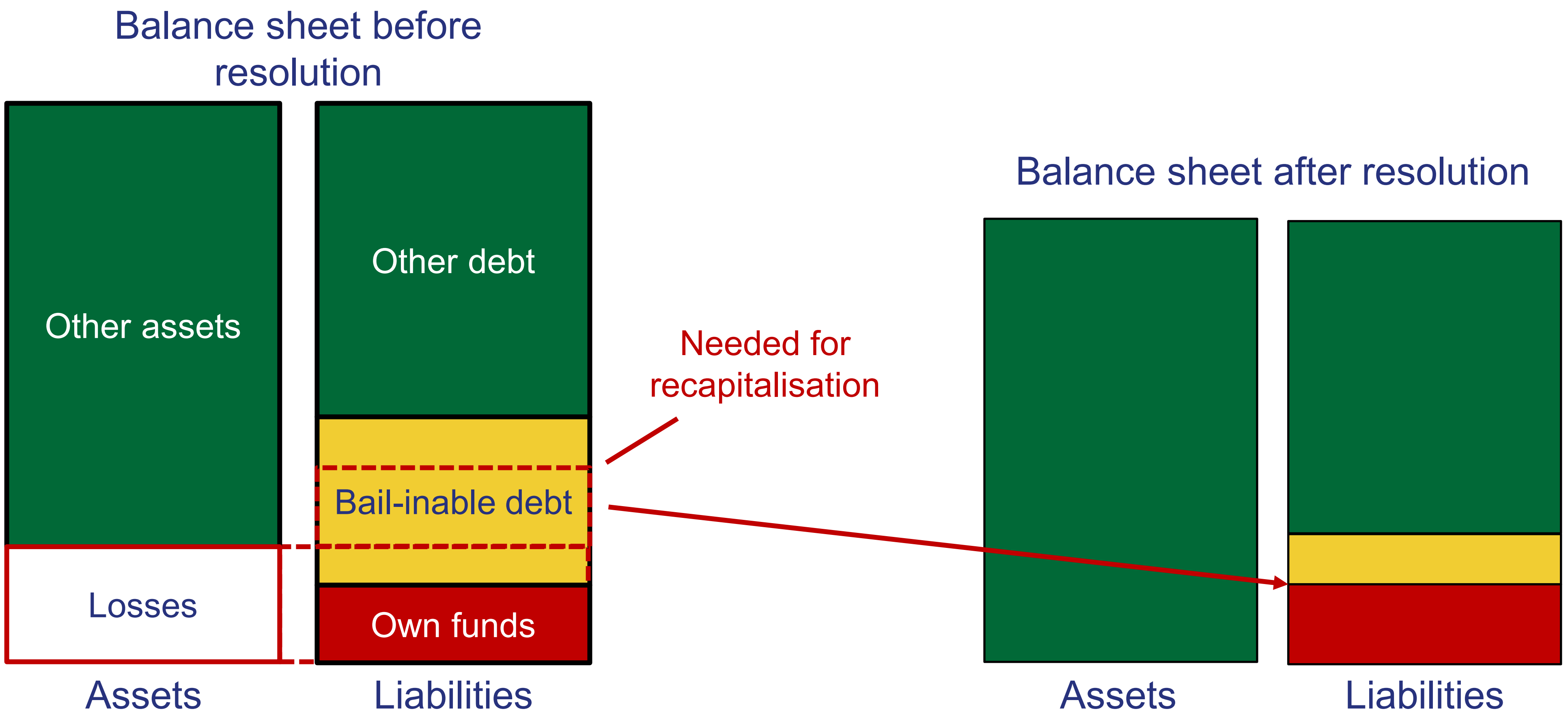
Write-down and conversion of liabilities (bail-in)

Equity and debt can be written down and converted placing the burden on shareholders and creditors of the bank rather than on the public.

The new and far-reaching mandate to implement the shift from bail-out by government to bail-in by investors.

Note: * The asset management vehicle can only be applied in connection with some other resolution tool.

Implementation of the bail-in tool entail changes to the balance sheet of the failing bank



It is important that the order of loss absorption used when applying the bail-in tool is known by investors

Order of loss absorption i.e. loss waterfall

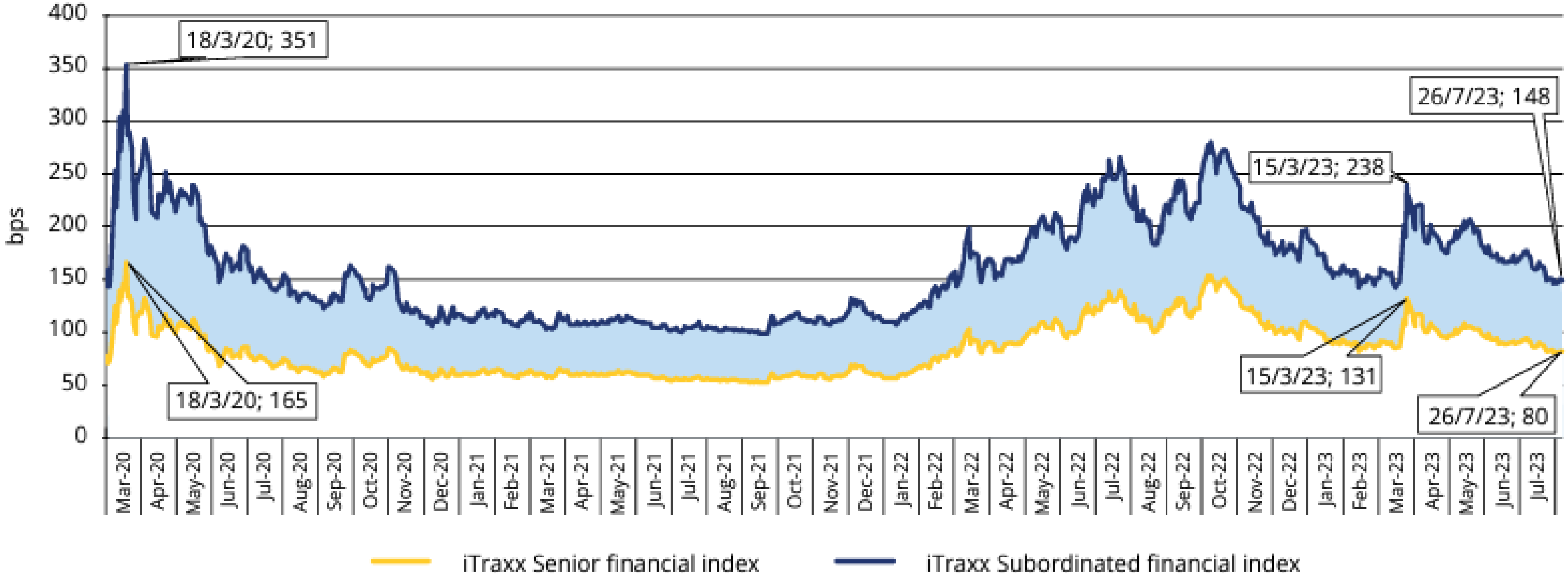
Common Equity Tier 1 capital	Shareholders’ equity and retained earnings
Additional Tier 1 capital	Preferred shares, perpetual term contingent convertible securities
Tier 2 capital	Deeply subordinated debt that is eligible as own funds
Senior non-preferred debt	Subordinated debt instruments senior to tier 2 capital, but junior to senior unsecured debt
Senior unsecured debt	Corporate (non-SME) and institution deposits, bonds and other instruments
Deposits not covered, but preferential	Retail and SME deposits in excess of 100 000 euro

Liabilities legally excluded from bail-in:

Covered deposits (≤ 100 000 euro)	Secured debt such as covered bonds and secured derivatives	Customer funds, salaries etc.

The risk of default of debt in different credit hierarchy classes is reflected in the cost of funding

Chart 23. Cost of funding (iTraxx Europe Financials)



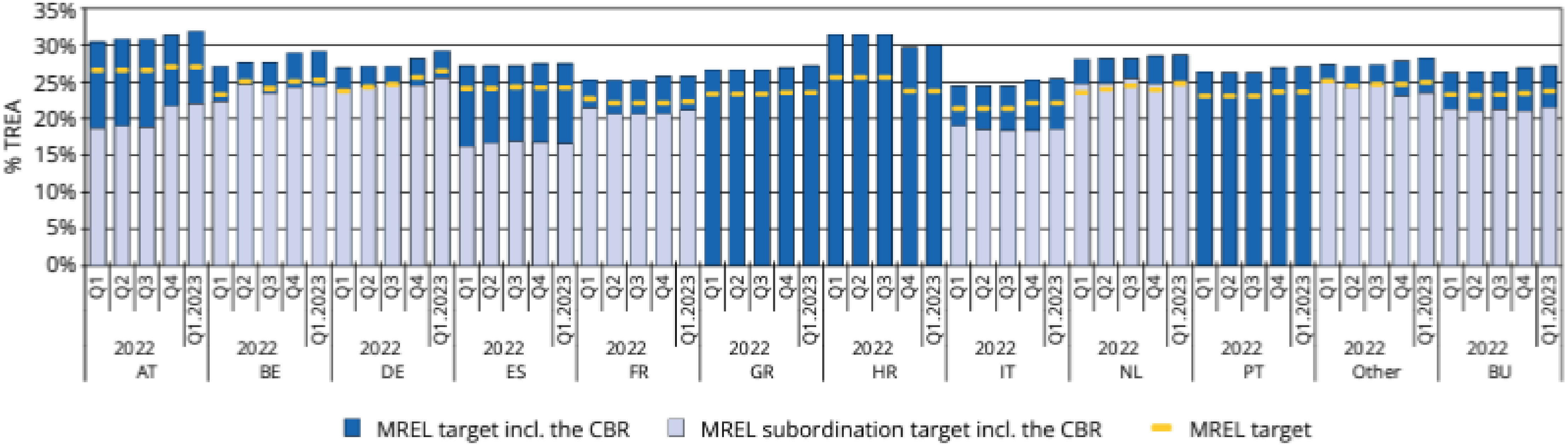
Source: Bloomberg Finance L.P., SRB computations

Source: SRB MREL dashboard Q1 2023 (https://www.srb.europa.eu/en/content/mrel-dashboard-0); See also ECB (2019) Has the new bail-in framework increased the yield spread between subordinated and senior bonds, Working Paper Series 2317 (https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2317~3a5259cba1.en.pdf).

Minimum requirements of own funds and eligible liabilities (MREL) enable recapitalisation trough bail-in

MREL targets are roughly double the capital requirements.

MREL final targets (of which subordination) for resolution entities by country, % TREA[8]



Source: SRB MREL dashboard Q1 2023 (https://www.srb.europa.eu/en/content/mrel-dashboard-0); See also Jokivuolle, Vihriälä, Virolainen and Westman (2020), Bail-in: EU rules and their application in the Nordic context, Nordic Economic Policy Review

Timely and efficient response to bank failure is possible if rigorous preparations are done beforehand

Bank is failing or likely to fail

Annual preparatory measures

Supervisory authority

- Recovery plan outlined by bank

Resolution authority

- Resolution plan
- Minimum requirement for own funds and eligible liabilities (MREL)
- Measures to ensure resolvability
- Contributions to resolution fund

Early intervention

Supervisory authority

- Implementation of measures in recovery plan
- Extended scope of reporting and disclosure
- Changes in strategy and legal structure of bank
- Change of management of bank
- Appointment of an authorised representative

Resolution

Resolution authority

- Public interest assessment
- Resolution strategy and selection of tools
- Use of resolution fund

Banks need to become resolvable beforehand, but still have some way to go

Banks should have …

Governance

… robust processes for:
- timely and accurate provision of information
- effective oversight
- efficient decision making

Liquidity and funding in resolution

… processes and capabilities to:
- estimate liquidity and funding needs
- measure and report liquidity
- identify and mobilise available collateral

Information systems and data requirements

… adequate Management Information Systems to:
- develop and maintain resolution plans
- execute a fair, prudent and realistic valuation
- effectively apply resolution actions

Separability and restructuring

… a structure that supports resolution strategy implementation

Loss absorption and recapitalisation capacity

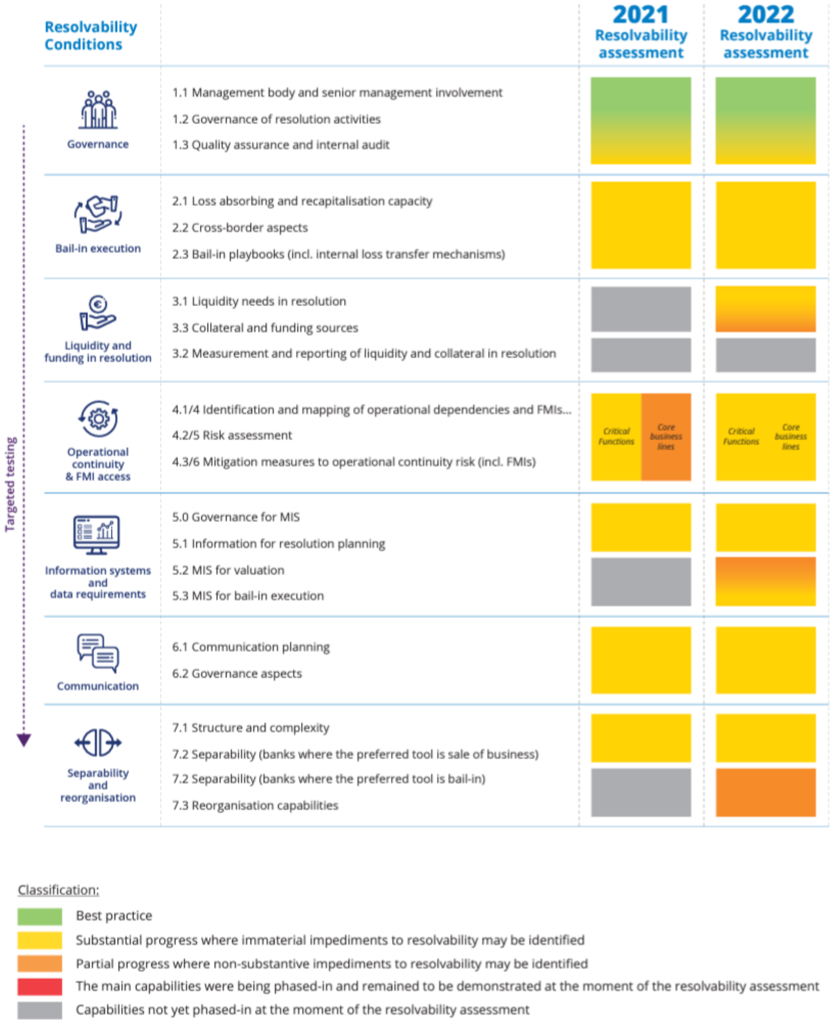
… enough loss absorption and recapitalisation capacity to absorb losses

Operational continuity and access to financial market infrastructure

… adequate operational arrangements to ensure continuity of services

Communication

… the ability to ensure timely, robust and consistent communication



Source: SRB press release 19.9.2023, SRB publishes second resolvability heat-map (https://www.srb.europa.eu/en/content/srb-publishes-second-resolvability-heat-map)

Are also banks paying for the cost of resolution?

Single Resolution Fund (SRF) common for all banking union countries

- The target level of SRF is 1% of covered deposits in the banking union countries, which is estimated to be about 77,6 billion euros and is to be reached by the end of 2023.
- Risk-based contributions has been collected form the banks annually.
- In the beginning of 2022 member states decided on a backstop to the SRF.
  - The credit line from the European Stability Mechanism (ESM) is to about double the funding available in resolution.
  - Not all member states has ratified the agreement.
- The SRF can be used for capital and liquidity support to ensure effective implementation of resolution tools.
- There are strict conditions in case SRF funds are used as the bail-in tool is implemented
  - The depth of bail-in need to be at least 8% of total liabilities and own funds (~ total assets) of the bank under resolution.
  - The SRF contribution cannot exceed 5% of total liabilities and own funds (~ total assets) of the bank under resolution.

Note.: More information regarding why contributions are collected from banks can be found in a RVV blog ”Varför betalar bankerna miljoner till krisfonder?” (see. https://rvv.fi/-/blogi-miksi-pankit-maksavat-miljoonia-kriisirahastoihin-?languageId=sv_SE for Swedish and Finnish version).

How are deposits protected in bankruptcy?

Covered deposits are payed out by RVV with funds from the deposit guarantee fund

Maximum of 100 000 euros of one depositor's deposits in one bank.

Covers all deposits by private persons and most deposits by companies, associations and foundations.

Banks pay risk based ex-ante deposit guarantee fees annually

- The deposit guarantee fund was established in 2015 as the operations of RVV started.
  - Previously the deposit guarantee was private and managed by the banking federation in Finland (Vanha Talletussuojarahasto, VTSR).
- The target amount of the deposit guarantee fund to be reached by July 2024 is 0.8% of covered deposits, which is about 1,2 billion euros.
- There is currently about 1,1 billion euros in the fund.
- The fund is privately funded through ex-ante fees, which are collected from the banks annually.
- The fees are risk-based to account for the probability of failure.

To finish

Was answers to the questions provided?

- Why are banks regulated and supervised? Bank failures creates externalities, i.e. significant costs for the society.
- Why is bailout of banks not a good idea? It is expensive, weakens public finances, results in suboptimal allocation of tax payer money and creates incentives for rapid growth and excessive risk taking by banks.
- What has been done to end “too big to fail”? Bank supervision has become more stringent, regulatory reforms has been implemented and new authorities has been established.
- What is the bank resolution regime? Mandate provided to authorities to restructure a bank’s balance sheet, legal structure and operations as it is failing and take all necessary actions beforehand to make such measures feasible.
- Are also banks paying for the cost of resolution? Yes, though the annually collected contributions to the Single Resolution Fund.
- How are deposits protected in bankruptcy? The national deposit guarantee authority pays covered deposits up until 100 000 euro within seven working days by using funds that banks have paid to the national deposit guarantee fund.

Thank you!

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