1.3. Financial Sector Structure, Financial Statements and Indicators

FI – Euro Area

- Most FI in the Euro Area are Credit Institutions (CI), mostly banks, even though the number of the latter roughly halved since 2009.
- CI - allowed to receive deposits or other repayable funds from the public and to grant loans for their own account (CRR) 575/2013, article 4).

	Euro area (changing composition)	European Central Bank (ECB)
1. Total number of MFIs	4,664	1
1.1. National Central Bank	22	1
1.2. Total number of Credit Institutions	3,994	0
1.3. Total number of MMFs	398	0
1.4. Total number of other deposit taking corporations	250	0

Source: ECB supervision website – data for 2023

FI - Portugal

- FI in Portugal are split between CI and Investment Companies, being CI:

1. Banks

- In line with most EU financial systems, the Portuguese banking system is based on the **principle of universal banking**, which has been adopted worldwide.
- In Portugal, this principle was adopted in 1992, when the **Banking Act** (RGICSF, DL No.298/92, 31st Dec.) adopted the recommendation of the White Book on the Portuguese Financial System.

2. Specialized Credit Institutions

(i) Credit Financial Firms - e.g. consumer finance+leasing (Decree-Law 100/2015, 2 Jun.);

(ii) Mortgage Credit Institutions (Decree-Law No 357-A/2007, 31 Oct.);

FI - Portugal

- Investment Companies:

(i) Brokerage in Capital Markets

- Dealers – may grant loans to their customers to buy securities;
- Brokers – can only buy and sell securities for their customers;

(ii) Asset Management

- Portfolio management companies – related to wealth management, private banking;

(iii) Money and FX brokerage

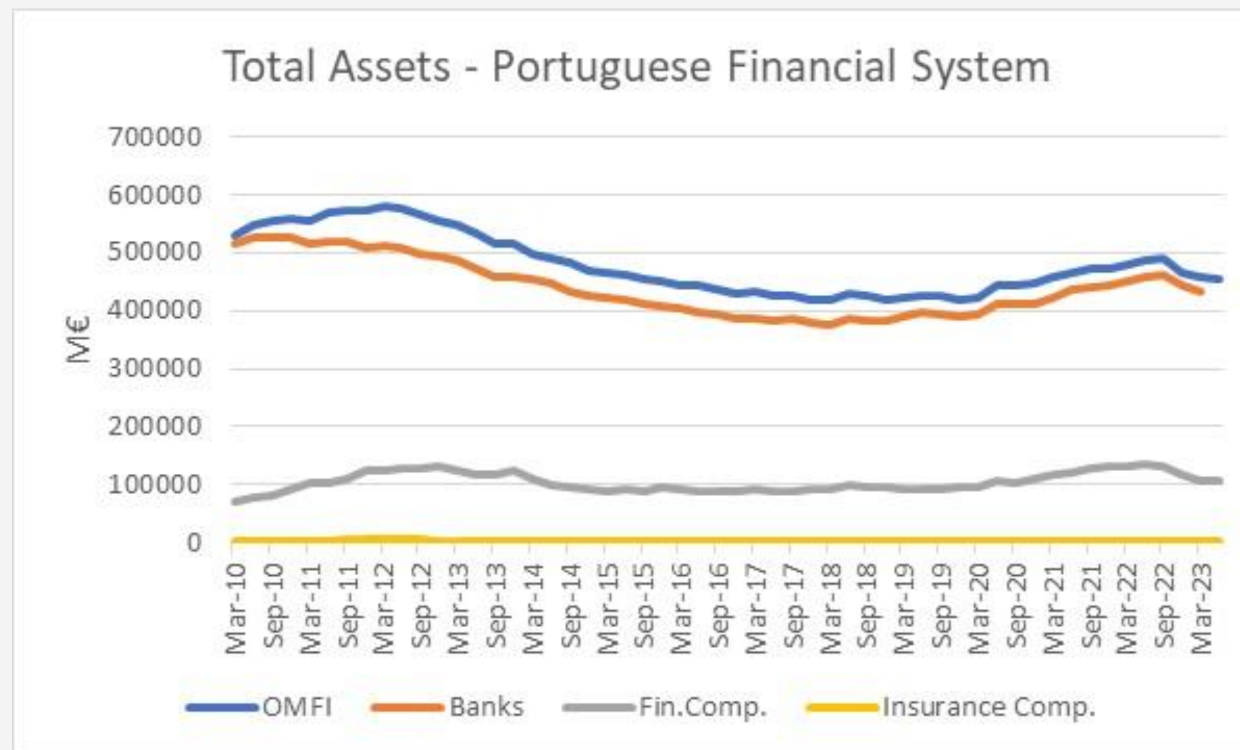
- Money and currency market brokers – wholesale and retail;

(iv) Investment Consulting Companies

(v) Multilateral Trading Systems Management Companies

FI - Portugal

- Banks are also the most relevant type of Fis in Portugal, due to their size and role in the financial system, being usually the top entities of financial groups.



Agregate Balance Sheet of Euro Area MFI

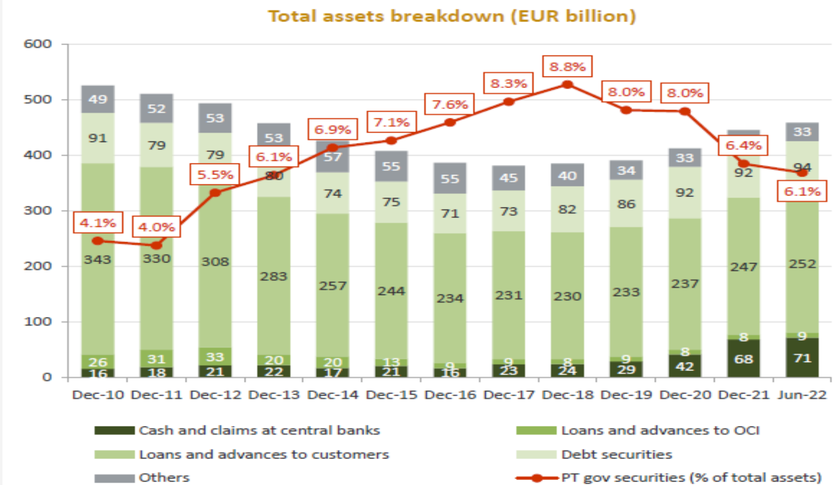
- The aggregate balance sheet of Monetary Financial Institutions (central banks + other MFIs, namely credit institutions and money market funds) in the Euro Area represents close to 11T€, almost 80% of the GDP (around 14T€).
- The most relevant assets are Debt securities (namely Government Debt, including bonds hold by the ECB) and Loans.
- Deposits represent around 70% of the total liabilities.

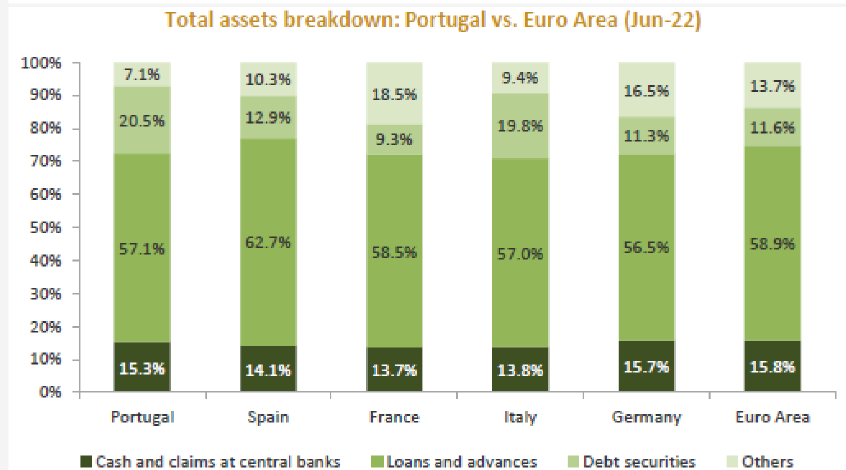
	Euro area (changing composition)
Assets	
Total assets	10,747.16
Loans to euro area residents	3,778.55
Total holdings of debt securities issued by euro area residents	4,610.03
Money market fund shares[2]	0.25
Equity and non-MMF investment fund shares[2]	64.74
External assets	1,505.43
Fixed assets	8.11
Remaining assets	780.05
Liabilities	
Total liabilities	10,747.16
Currency in circulation	1,605.31
Deposits of euro area residents	7,221.46
Debt securities issued	0.00
Capital and reserves	586.74
External liabilities	569.27
Remaining liabilities	764.38

Source: ECB – data for July 2023

Portuguese Banking System's Balance Sheet

- **Main Assets:**
  - loans to customers – decreased by 27% since 2010.
  - debt securities (e.g.Gov.Debt) – increased around 32% since 2016, being the weight in the balance sheet much higher in Portugal than in the average and the main economies of the Euro Area (20,5% vs 11,6% in the EA).
  - other assets (mostly real estate) – decreased 42% since 2014.
  - liquidity at the central bank – increased by more than 4x between 2014 and jun-2022, to a weight similar to the EA.





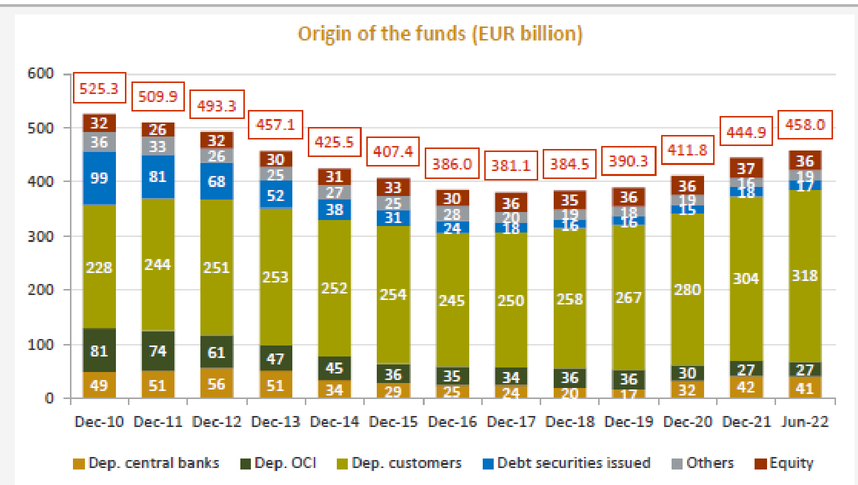
Source: Portuguese Banking Association (2022), "Portuguese Banking Sector Overview – June 2022", Dec.

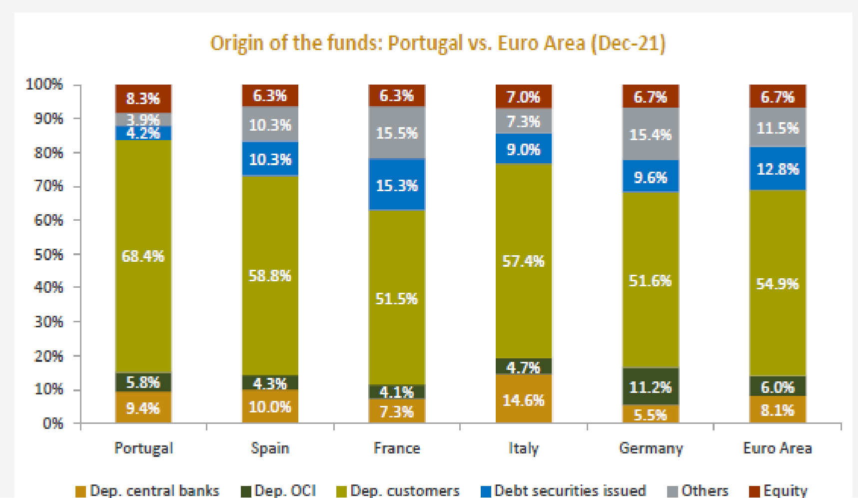
Portuguese Banking System's Balance Sheet

Main funding sources:

- deposits from customers – increased by 40% since 2010 (around 100B€, half of this since the pandemic), reaching a much higher weight in Portugal than in the average and the main economies of the EA (68% vs EA average of 55%).
- equity – increased by 6B€ since 2016.
- resources from central banks – increased by 70% between 2017 and jun-22 (from 24 to 41 B€).
- bonds issued - decreased by 83% since 2010, reaching a weight of 4,2%, much below the EA average of around 13%.

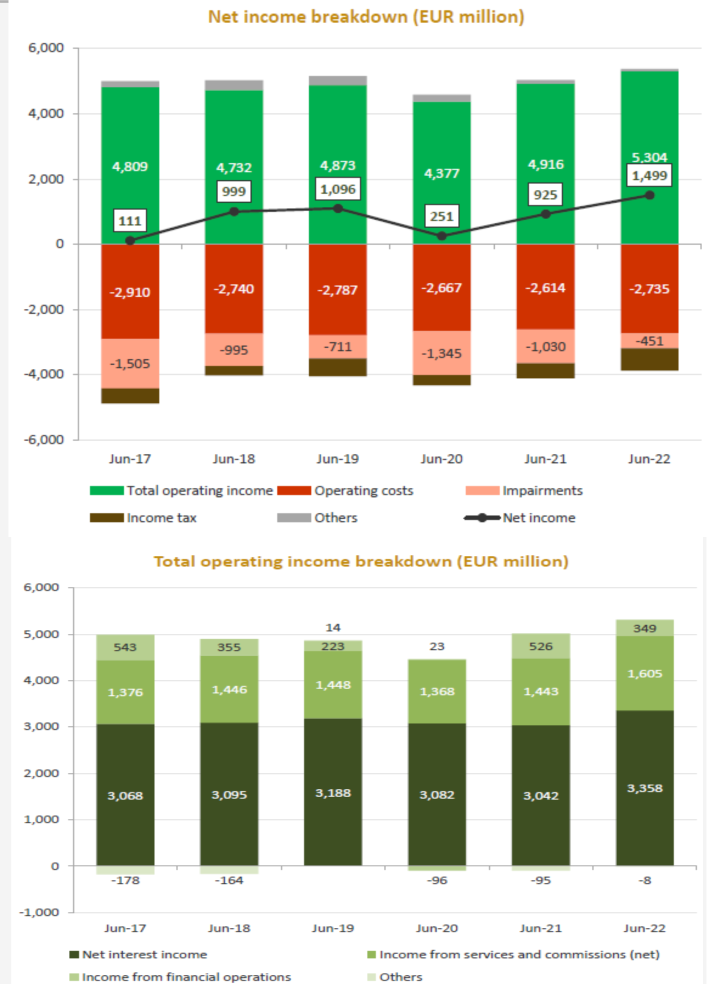
Source: Portuguese Banking Association (2022), "Portuguese Banking Sector Overview – June 2022", Dec.





Portuguese Banking System’s Balance Sheet

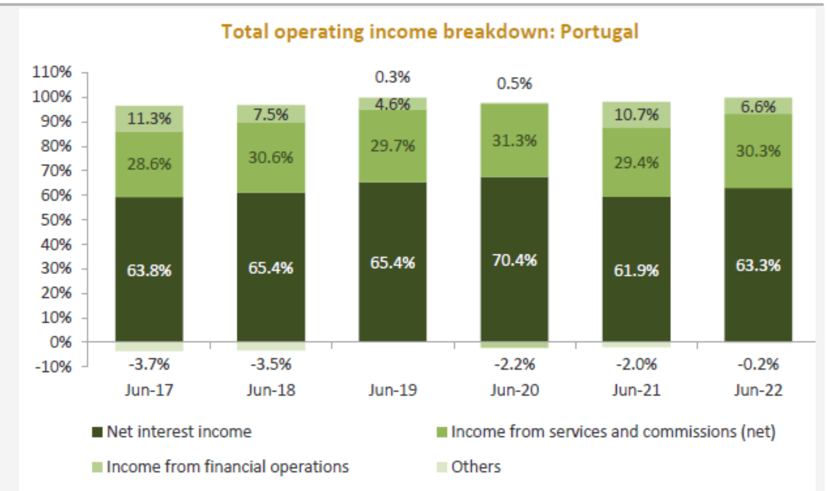
- **Net Income (NI) = Gross or Total Operating Income – (Main Costs + Taxes)**
- **Gross or Total Operating Income (+):**
  - **Net Interest Income (NII) = Interest charged – paid**: increased around 10% (300 M€) in jun-2022 (6% of the gross income in mid-2021), due to the increase in short-term reference rates, representing almost two thirds (63%) of the Gross Income (vs 56% in the EA).
  - **Fees/Commissions:** increased 17% between 2017 and jun-2022 (around 230M€), with its weight in Gross Income growing from 28,6% to 30,3% (30,6% in the Euro Area).
  - **Results from Financial Operations:** 7% of the Gross Income.

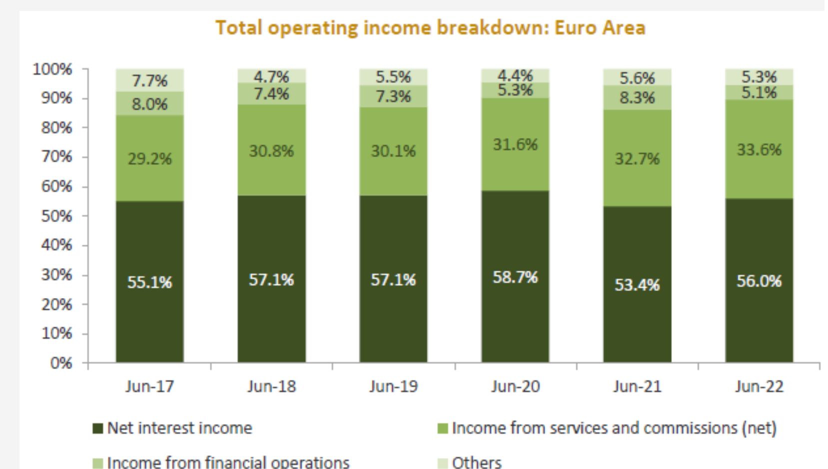


Source: Portuguese Banking Association (2022), “Portuguese Banking Sector Overview – June 2022”, Dec.

Portuguese Banking System's Balance Sheet

- Main costs:
  - Operating costs: decrease of 175M€ (6%) between 2017 and jun-2022.
  - Provisions for Impairments - decreased around 1B€ (70%) between 2017 and jun-2022.





Source: Portuguese Banking Association (2022), "Portuguese Banking Sector Overview – June 2022", Dec.

Provisions for Impairments

- **Definition -** conceptually correspond to expected losses in loans and other assets not at fair value (valued according to market prices), e.g. real estate properties, bonds in held-to-maturity portfolios or financial participations.

- **Purpose -** Anticipate the recognition of losses as promptly as possible, smoothing the impact of negative events along time.

- **Loans -** Different methodologies depending on the exposure size:

(i) Individual – exposures above a given threshold set by the bank, with impairments calculated by credit analysts, based on an individual assessment of expected cash-flows.

(ii) Collective – exposures below a given threshold set by the bank, with impairments calculated by using internal estimates of PDs and LGDs (**EL = PD x LGD x EAD).**

PD-Probability of Default; LGD-Loss Given Default; EAD - Exposure at Default; EL-Expected Loss.

Impairments

- **Rules:** IFRS 9 (replaced IFRS39 since 1.1.2018; IFRS: International Financial Reporting Standards), introducing the Expected Credit Loss (ECL) framework.

- **Recognition of Loan Impairments – 3 stages:**

(i) **Stage 1 -** when a loan is originated or purchased => 1y ECL

(ii) **Stage 2 -** significant increase in credit risk (SICR) => Lifetime ECL

(iii) **Stage 3 -** the loan's credit risk increases to the point where it is considered credit-impaired => Lifetime ECL (with PD = 100% in the case of default)

Loan Impairments

- **Rules:** IFRS 9 (replaced IFRS39 since 1.1.2018; IFRS: International Financial Reporting Standards), introducing the Expected Credit Loss (ECL) framework.
- **Recognition of Loan Impairments – 3 stages:**

(i) **Stage 1 -** when a loan is originated or purchased => 1y Expected Credit Loss (ECL)

(ii) **Stage 2 -** significant increase in credit risk (SICR) => Lifetime PD and ECL

(iii) **Stage 3 -** the loan's credit risk increases to the point where it is considered credit-impaired. e.g a non-performing loan (NPL) for >90 days, including forborne loans => PD = 100%.

- **Forbearance** – a loan is considered as forborne or in forbearance when the debtor is in financial difficulties and:

  (a) a modified contract is classified as NPE or would be classified as non-performing in the absence of modification/restructuring;

  (b) the modification made to a contract involves a total/partial cancellation by write-offs of the debt.

Impairments

- **SICR -** banks have to make a forward looking analysis, with different scenarios, to identify relevant factors pointing to a significant increase in credit risk (impairment signs), based on 3 elements:

(i) quantitative;
(ii) qualitative;
(iii) 30 days past due.

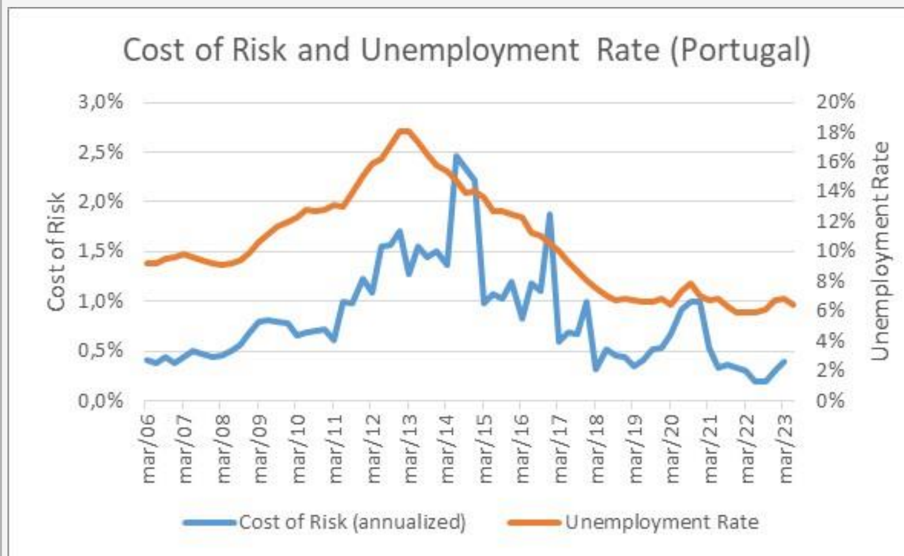
- **Quantitative factors -** PD increase (i.e. internal rating downgrade) above an internal threshold.

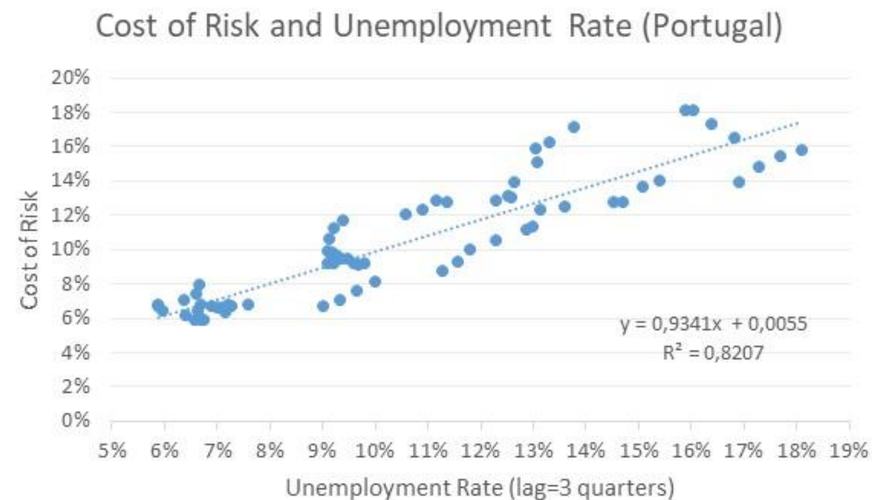
- **Qualitative factors (according to IFRS9):**

- General economic and/or market conditions
- Operating performance of the borrower
- Significant change in collateral value which is expected to increase PD
- Changes to contractual terms e.g. interest waivers / forbearance
- Cash flow or liquidity issues, e.g. delay in servicing of trade creditors
- Significant increase in credit spread or Credit rating downgrade.
- Payment delays and past due information, including previous arrears in the last 12 months.

Impairments

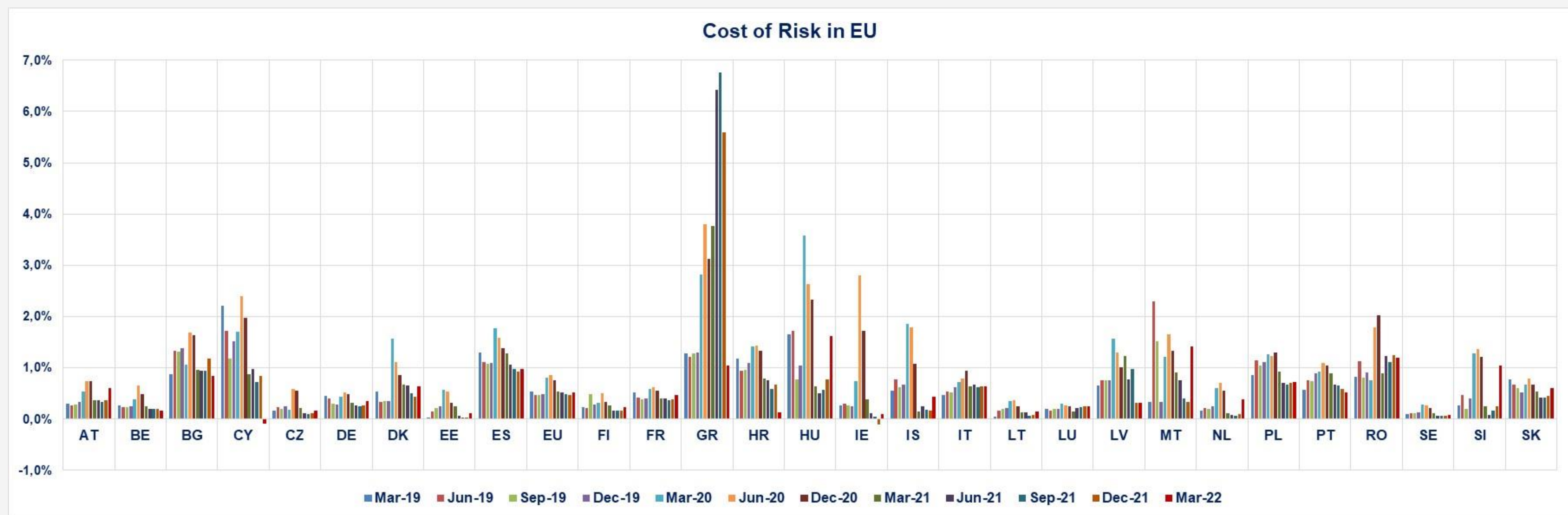
- **The impact of credit risk on loan impairments is usually illustrated by the cost of risk:** Cost of Risk = Impairments Flow/Total Loans.
- The cost of risk is usually highly correlated with unemployment (in Portugal with a lag of 3 quarters).





Impairments

- **Most countries tend to exhibit maximum levels for the cost of risk of 2%.**
- **In years of economic growth, the cost of risk tends to be not above 0,5%** and in some cases may even be negative (if impairment reversions exceed new impairments).



Key Indicators

1) Profitability

2) Efficiency

3) Credit Risk

Key Indicators

1) Profitability

- Return on Equity: ROE= Net Income/Total Capital
- Return on Assets: ROA = Net Income/Total Assets
- RAROC: Risk-Adjusted Return on Capital
- EVA: Economic Value Added
- Net Interest Margin: Net Interest Income/Total Assets

also provides a perspective on assets profitability, but only considering NII

Key Indicators

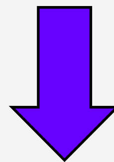
- ROE may also be seen as the product between ROA and leverage:

$$ROE = ROA \cdot Assets / Capital$$

- ROE can be decomposed even further:

$$RoE = \frac{Total\ assets}{Tier\ 1\ capital} \ X \ \frac{Tier\ 1\ capital}{Common\ equity} \ x \ \frac{Net\ income}{RWAs} \ x \ \frac{RWAs}{Total\ assets}$$

$$RoE = Financial\ leverage \ X \ Common\ equity\ margin \ x \ RoRWAs \ x \ Unit\text{-}risk$$



- Profitability may be determined by the profitability of assets, or just by the increase in leverage.

Key Indicators

- As impairments are expected to reflect expected losses, ROE and ROA may already be considered as forward-looking measures of profitability.
- However, if a bank adopts a riskier strategy than in the past, this past behavior of the bank will not be adequate to estimate its expected losses (EL) => impairments will be higher than anticipated.
- **A bank may opt for having different EL estimates for different purposes:**

- IFRS 9 – point-in-time (PIT)
- Pricing and risk-adjusted returns – PIT for short term loans and through-the-cycle (TTC) for longer maturities
- Capital requirements (IRB approach) – TTC

Key Indicators

- **Risk-adjusted profitability of loans is usually measured by the RAROC – Risk-Adjusted Return on Capital:**

$$RAROC = \frac{s - Ca - Cf - EL}{K}$$

s = minimum spread (e.g. over the Euribor)

Ca = administrative costs (% total credit)

K = capital requirement for the loan

Cf = funding cost (spread over the Euribor)

EL = Expected Loss (PD x LGD x EAD)

EAD - For fixed-credit facilities (term loans), EAD is simply the amount outstanding. For revolving facilities (e.g. lines of credit, liquidity facilities and overdrafts), EAD is the drawn amount plus an estimate of the amount of the remainder limit likely to be drawn at the time of default. These estimates are often referred to as the Credit Conversion Factor or Loan Equivalent.

- **Minimum spread to be charged in a loan:**

$$s = Ca + ROE \cdot K + Cf + EL$$

with ROE = return on equity (long-term goal)

Key Indicators

2) Efficiency

- Cost-to-Income = Operating Expenses (e.g. personnel and other administrative expenses) / Gross Income

  → NII + Fees + Results from Financial Operations

3) Credit Risk

- 2 different dimensions:

(I) level of problem loans – asset quality indicators

(II) level of coverage of problem loans by provisions

Key Indicators

(I) level of problem loans

- Definition of credit risk indicators has faced harmonization and transparency problems in EU and worldwide => 3 major issues:

(a) Installments past-due vs EAD

(b) Default definition – past-due time to be considered? 30 days? 60? 90?

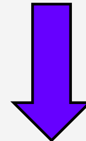
(c) Restructured loans

- Following EBA decisions, for capital requirements, exposures are either performing or non-performing (NPE).

- Restructured loans demand higher provisions/impairments and may impact on capital requirements and NPL ratios, if they are considered as NPE.

Key Indicators

- In the past, simpler measures only considered installments past-due, excluding the remaining EAD and the restructured loans:



- 30/60/90 days past due (DPD) capital and interest (as % of total credit) =>
  - ⇒ 30 days past-due was the credit risk ratio commonly used in Portugal.
  - ⇒ Some countries even opted for less strict ratios – 60 or 90 DPD.

- Until EBA harmonization efforts took effect in 2014, several definitions were used in Portugal and other EU countries, sometimes simultaneously and even being contradictory.

Key Indicators

- 1st measure in Portugal including restructured loans: Credit at Risk (Instruction No.16/2004, 16 Oct., changed by Instruction No.23/2012, 16 Aug. and by Instruction 6/2018, 12 Mar.) => Banks had to **disclose this indicator in public information on credit risk**, that included:
  - Past due loans over 90 DPD;
  - Restructured credit, when restructuring occurred after 90 DPD and didn't involve neither the payment of any past due capital or interest, nor additional guarantees.
- Instruction No. 22/2011, 17 Out. (revoked by Instruction No. 4/2018, 12 Mar.) – prudential report on credit at risk, detailing the several components of the ratio.

Key Indicators

- Instruction No. 18/2012, 15 May (replaced by Instruction No. 32/2013, 15.01.2014 and revoked by Instruction No. 4/2018) - rules on identification of restructured loans.

- EBA released a common definition for NPLs in EU, distinguishing between restructured/forborne loans that must be considered performing or NPE:

Final Draft Implementing Technical Standards on Supervisory Reporting on Forbearance and Non-Performing Exposures under Article 99(4) of Regulation (EU) No 575/2013, 24 Jul.2014.

Key Indicators

- **NPE** (Art. 178 of CRR, Reg. 575/2013 and EBA/GL/2016/07, 28/09/2016):

(i) > 90 DPD (national authorities may replace for 180 days when exposures are guaranteed by residential mortgages and, in loans to SMEs, by commercial mortgages, as well as Public sector entities).

(ii) the debtor is considered as unlikely to be able to redeem the loan, with no recourse to additional bank decisions, e.g.:

(a) suspension of interest payments;

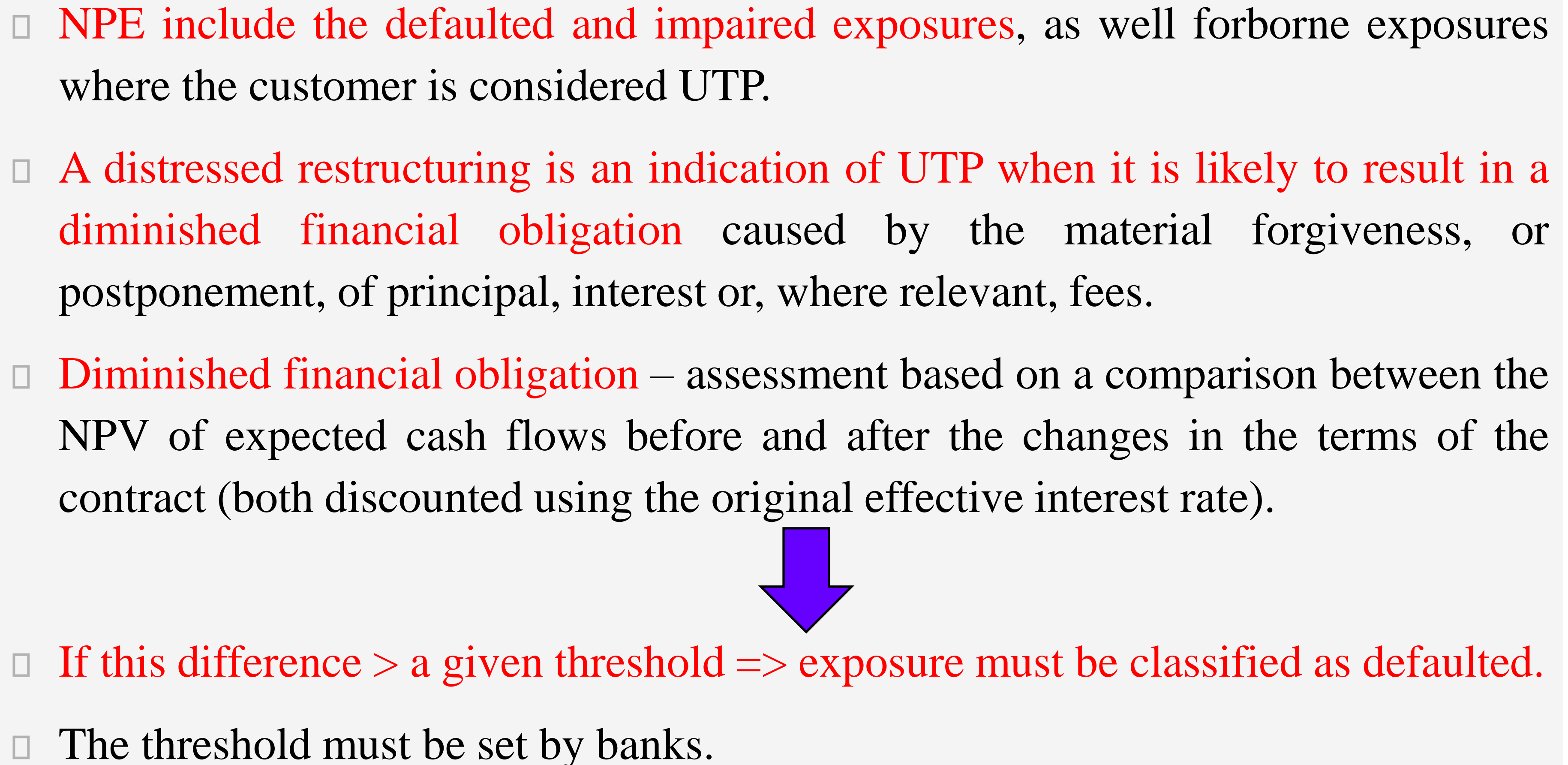
(b) loan restructuring, including the forgiveness or the postponement of capital redemption or the payment of interest or fees;

(c) request the debtor insolvency.

Key Indicators

- "Unlikely to pay" (UTP) definition gives some leeway for interpretation => banks are required to have clearly defined internal criteria to identify UTP indicators/events, implemented homogeneously in all parts of the group.
- **Cross-default**
  - for reporting purposes: NPLs > 20% of the exposure to the customer, except for retail loans.
  - For UTP assessment: banks are expected to set a threshold
- **Economic Groups** – when a debtor belongs to a given group, the need to consider exposures to other group entities also as non-performing must be assessed.
- **Cure Period** – at least 3 months

Key Indicators



Key Indicators

- Banks still have to assess exposures for possible other indications of UTP => if there are reasonable doubts regarding the likeliness of repayment of the obligation according to the new arrangement in full in a timely manner, the obligor should be considered defaulted.

- Indicators to be used:

(i) large balloon payments

(ii) a significant grace period

(ii) the exposure has been restructured multiple times

Key Indicators

- Forborne exposures can be either in performing or non-performing portfolios.

Performing

Fully perfoming

Loans and debt securities that are not past-due and without risk of non-repayment and performing off-balance sheet items

Performing assets past due below 90 days

Loans and debt securities between 1-30 days past due

Loans and debt securities between 31-60 days past due

Loans and debt securities between 61-90 days past due

Performing assets that have been renegotiated

Loans and debt securities which renegotiation or refinancing did not qualify as forbearance

Non-performing

Generic criteria: past due more than 90 days and / or unlikely to pay

All other non-defaulted and non-impaired loans and debt securities and off-balance sheet exposures meeting the generic criteria

Forbearance

Forborne loans and debt securities (and eligible off-balance sheet commitments)

performing or non-performing

Refinancing

Modifications of terms and conditions

Other

Defaulted

Fair value option

Impaired

Fair value through other comprehensive income

Amortised cost

off-balance sheet items:

Loan commitments given

Financial guarantees given (except derivatives)

Other commitments given

Source: EBA (2014), "Final draft Implementing Technical Standards on Supervisory reporting on forbearance and non-performing exposures under Article 99(4) of Regulation (EU) No 575/2013", 24 July.

Key Indicators

- **Cure period** - The forbearance classification shall be discontinued when all the following conditions are met (to be assessed at least on a quarterly basis):

(a) the contract is considered as performing;

(b) a minimum 2 year probation period has passed from the date the forborne exposure was considered as performing;

(c) regular payments of more than an insignificant aggregate amount of principal or interest have been made during at least half of the probation period;

(d) none of the exposures to the debtor is more than 30 days past-due at the end of the probation period.

Key Indicators

(II) level of coverage of problem loans by provisions

- Coverage ratio of Past Due Loans = Provisions (Impairments)/Past Due Loans

- Texas ratio = NPLs/(tangible equity + loan loss reserves): compares problem loans with the financial resources a bank has to absorb further losses from its troubled assets.

Lower Texas ratio ⇔ more robust position