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EU BANKING LANDSCAPE ANALYSIS

How Basel III affected capital consistency and stability

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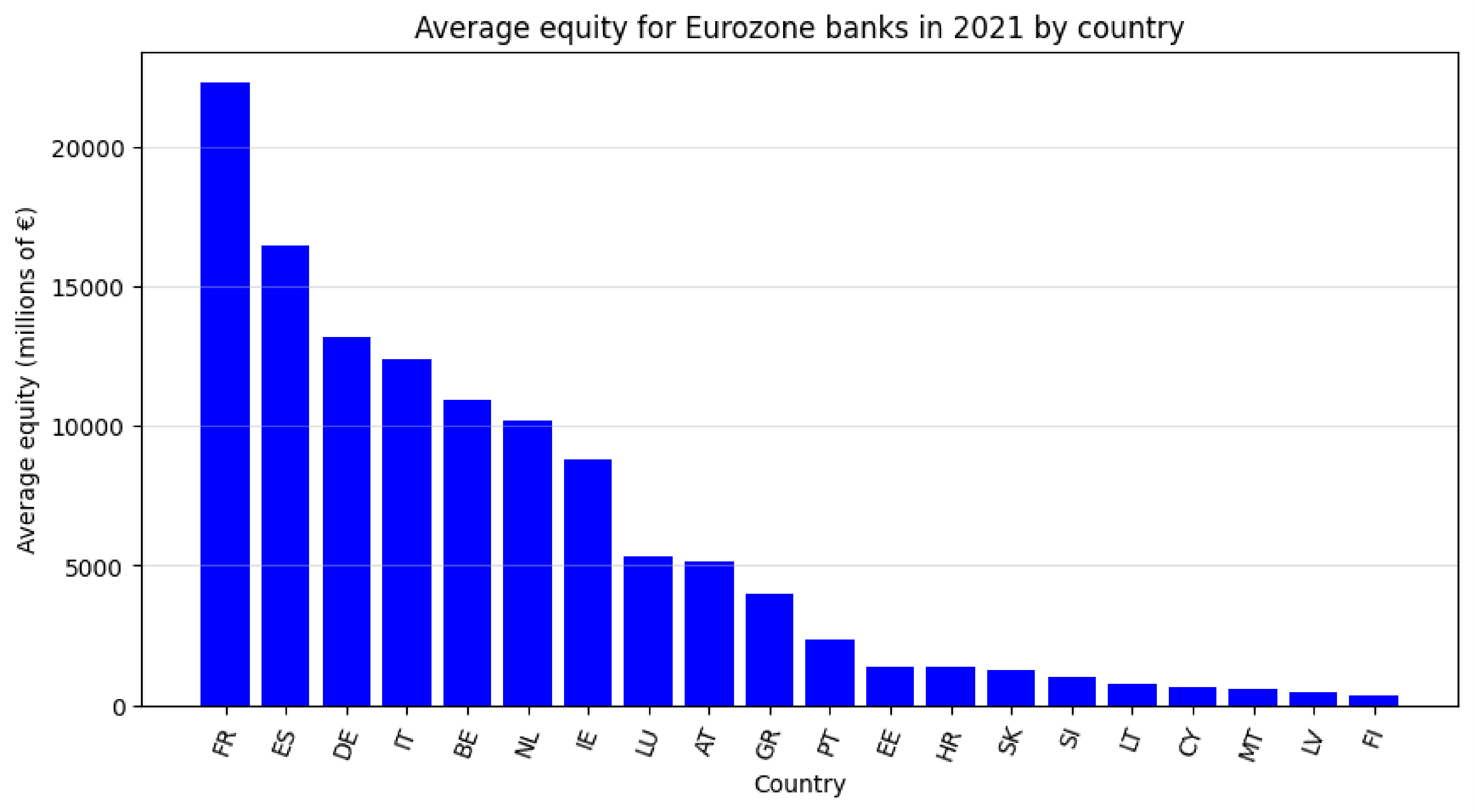
Introduction

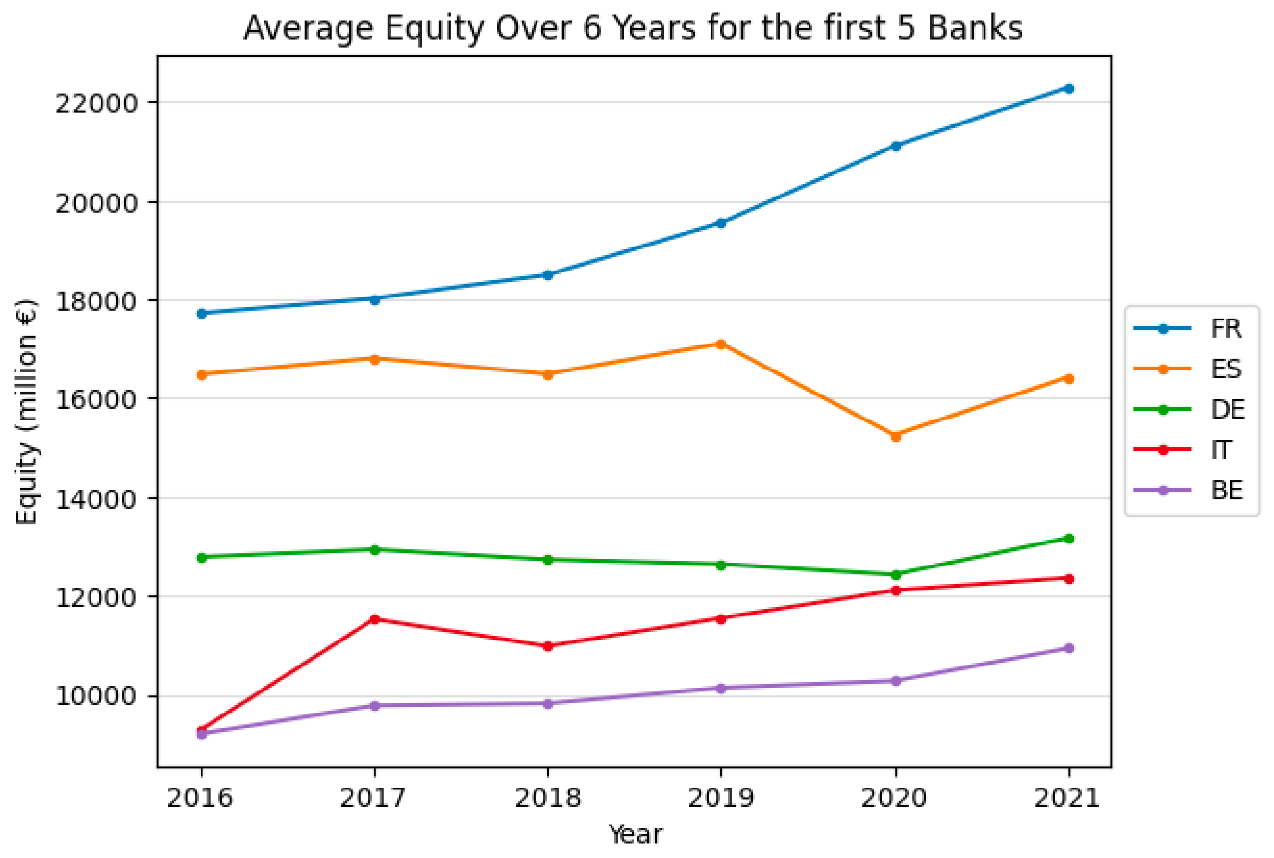
- The financial crisis of 2007 and 2008 was driven by financial institutions investing in subprime home mortgage loans that had a far higher risk of default than bank managers and regulators believed to be possible. When consumers started to default on their mortgages, many financial institutions lost large amounts of capital, and some became insolvent.

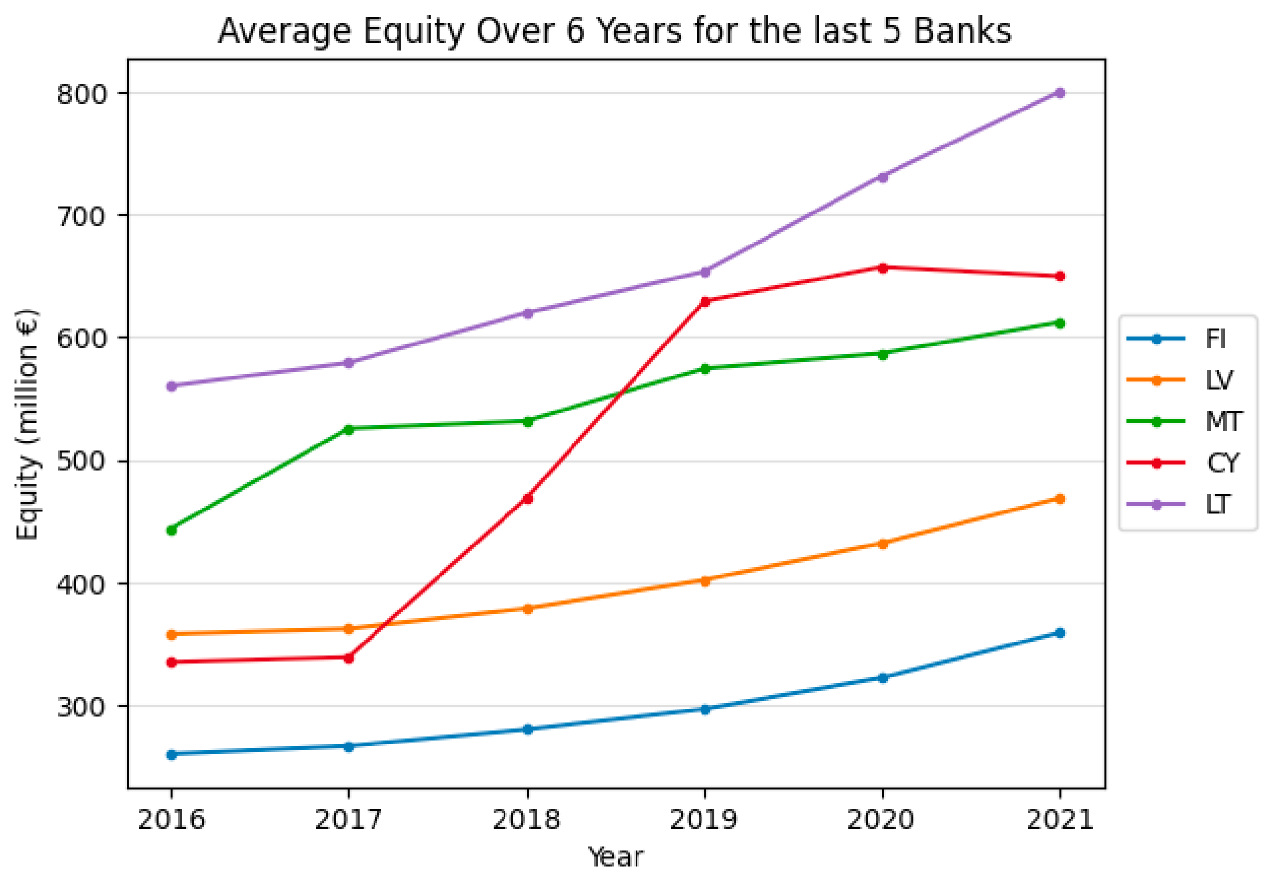
- Basel III set guidelines to avoid this problem moving forward. Regulators insisted that each bank must group its assets together by risk category so that the amount of required capital is matched with the risk level of each asset type. The goal was to prevent banks from losing large amounts of capital when a particular asset class declines sharply in value.

- Using Bankscope.com we downloaded data for Banks (consolidation code C2) domiliced in the Euro area for the period 2016-2021, in order to analyse the evolution of Banks' capital and ratios overtime, and verify the fullfilment of Basel III regulations' requirements.

Banks' Capital analysis







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Banks' Capital analysis

Tier 1

Tier 1 capital refers to the core capital held in a bank's reserves. The size of Tier 1 is used as a measure of the institution's financial strenght.

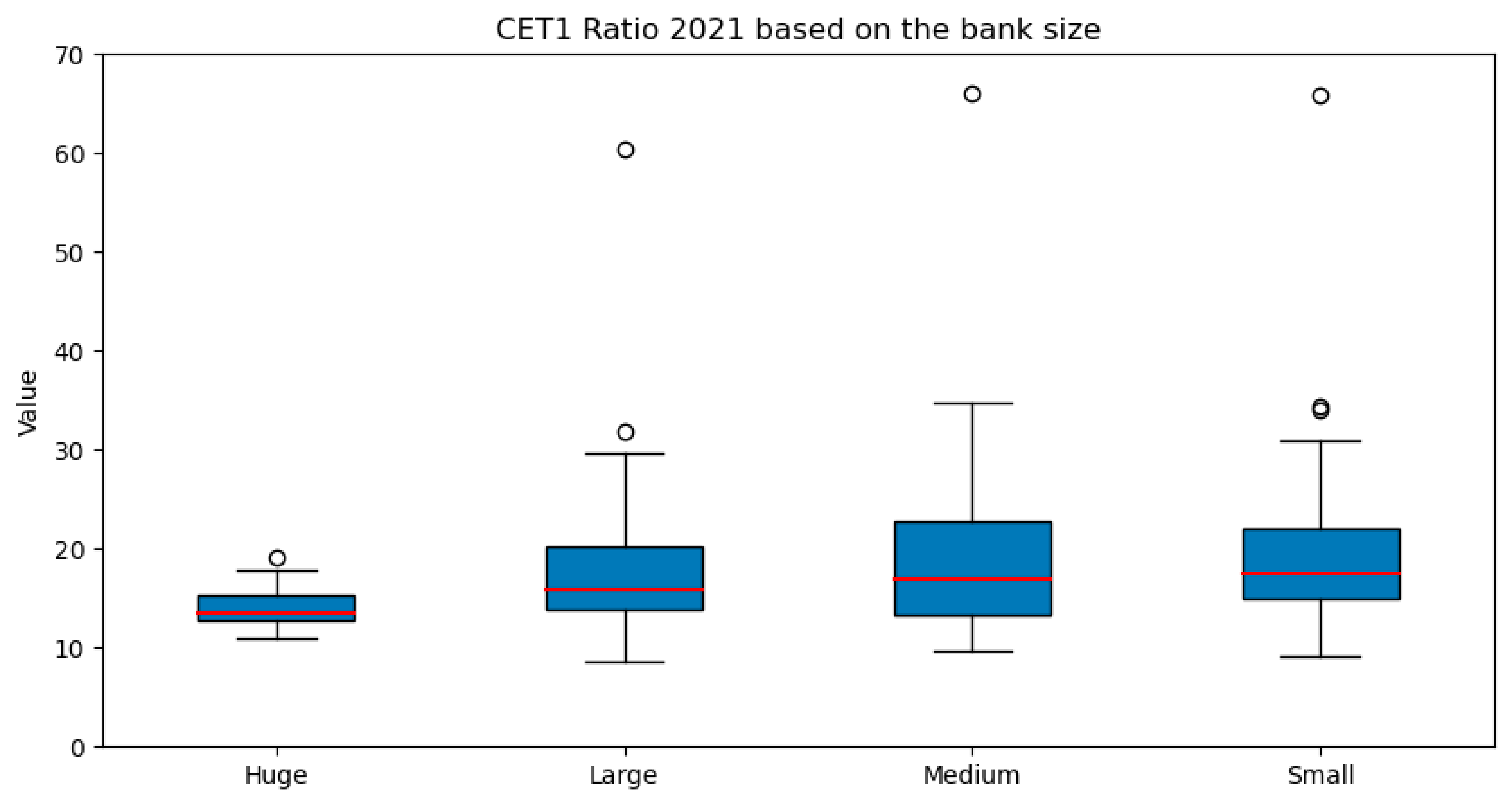
Common Equity Tier 1 (CET1)

Common Equity Tier 1 (CET1) is a component of Tier 1 capital that is primarily common stock held by a bank or other financial institution.

Basel III Requirements

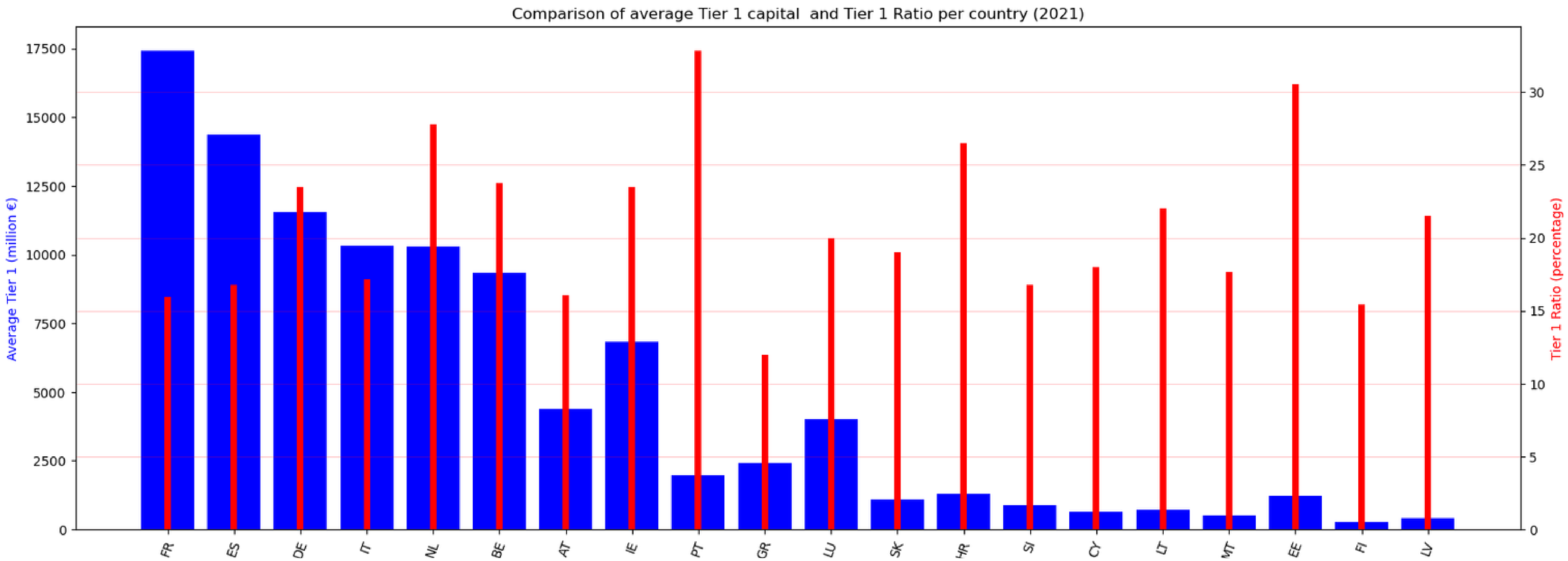
Tier 1 Ratio > 6%
CET1 Ratio > 4.5%
Leverage Ratio > 3%

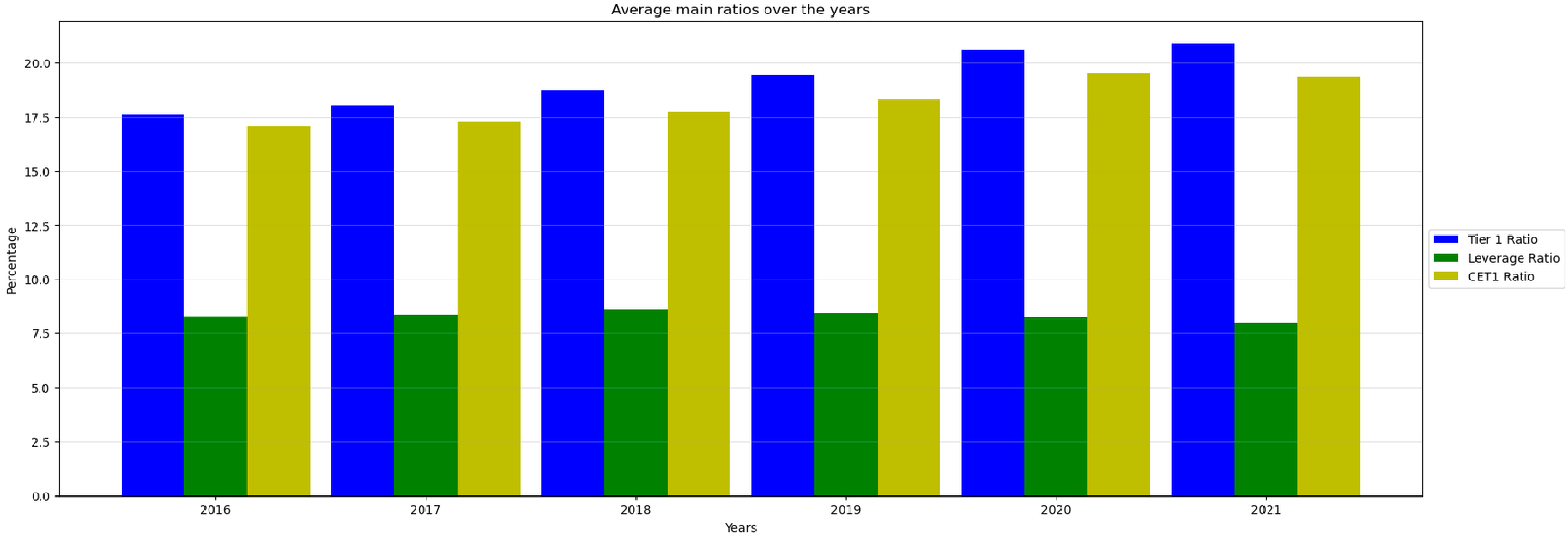
Banks' Capital analysis



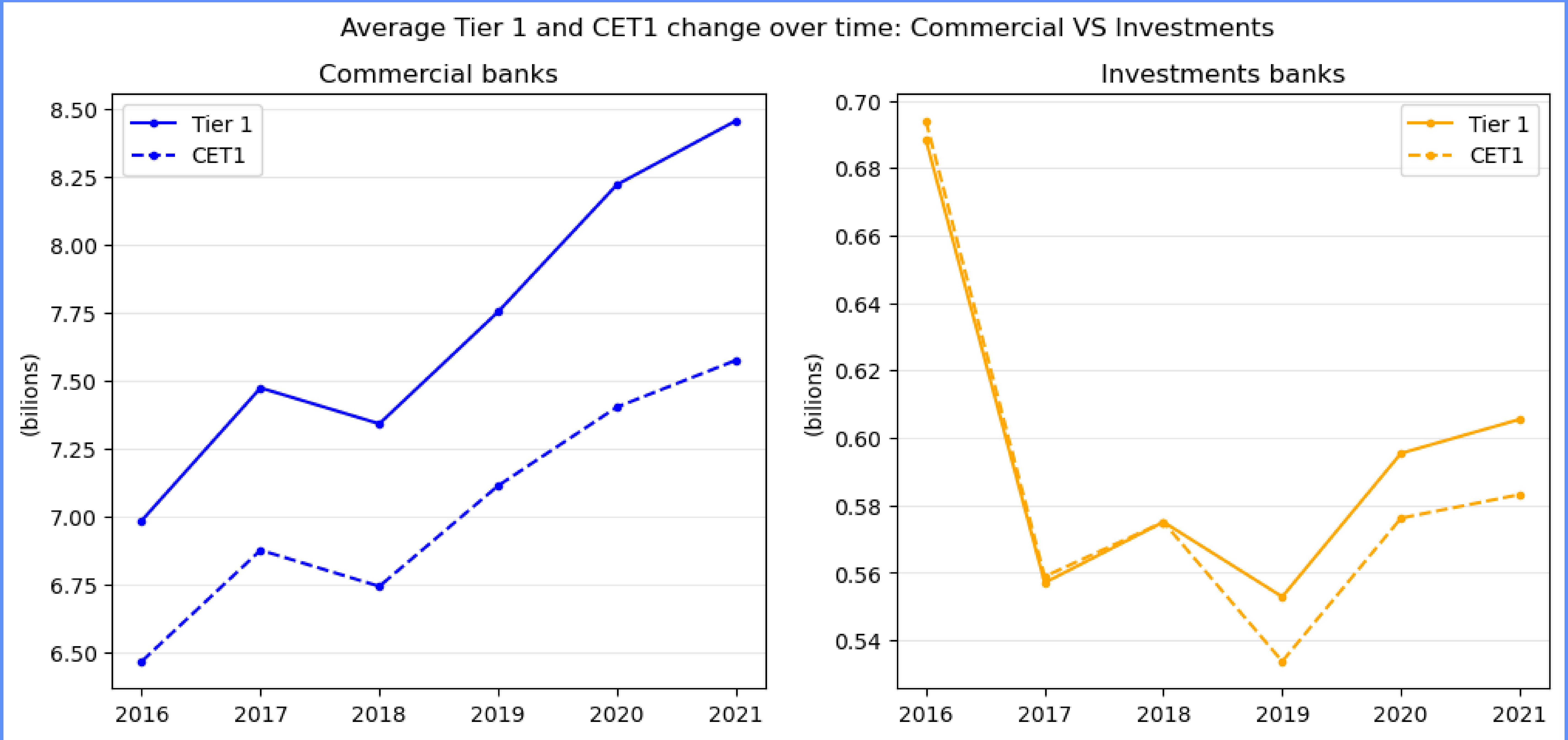
Banks have been divided into four groups based on the value of their Total Assets during 2021

Banks' Capital analysis





Banks' Capital analysis



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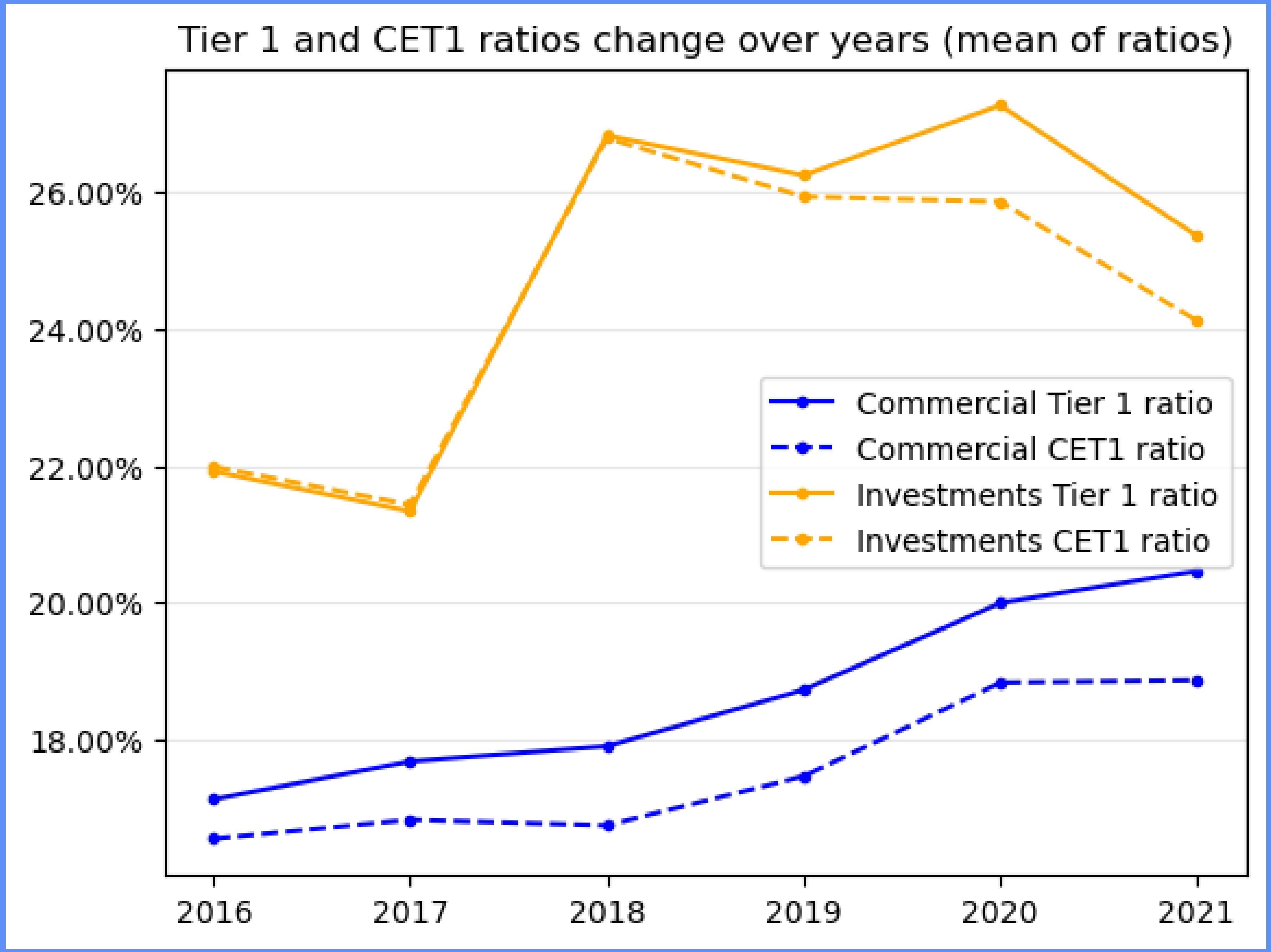
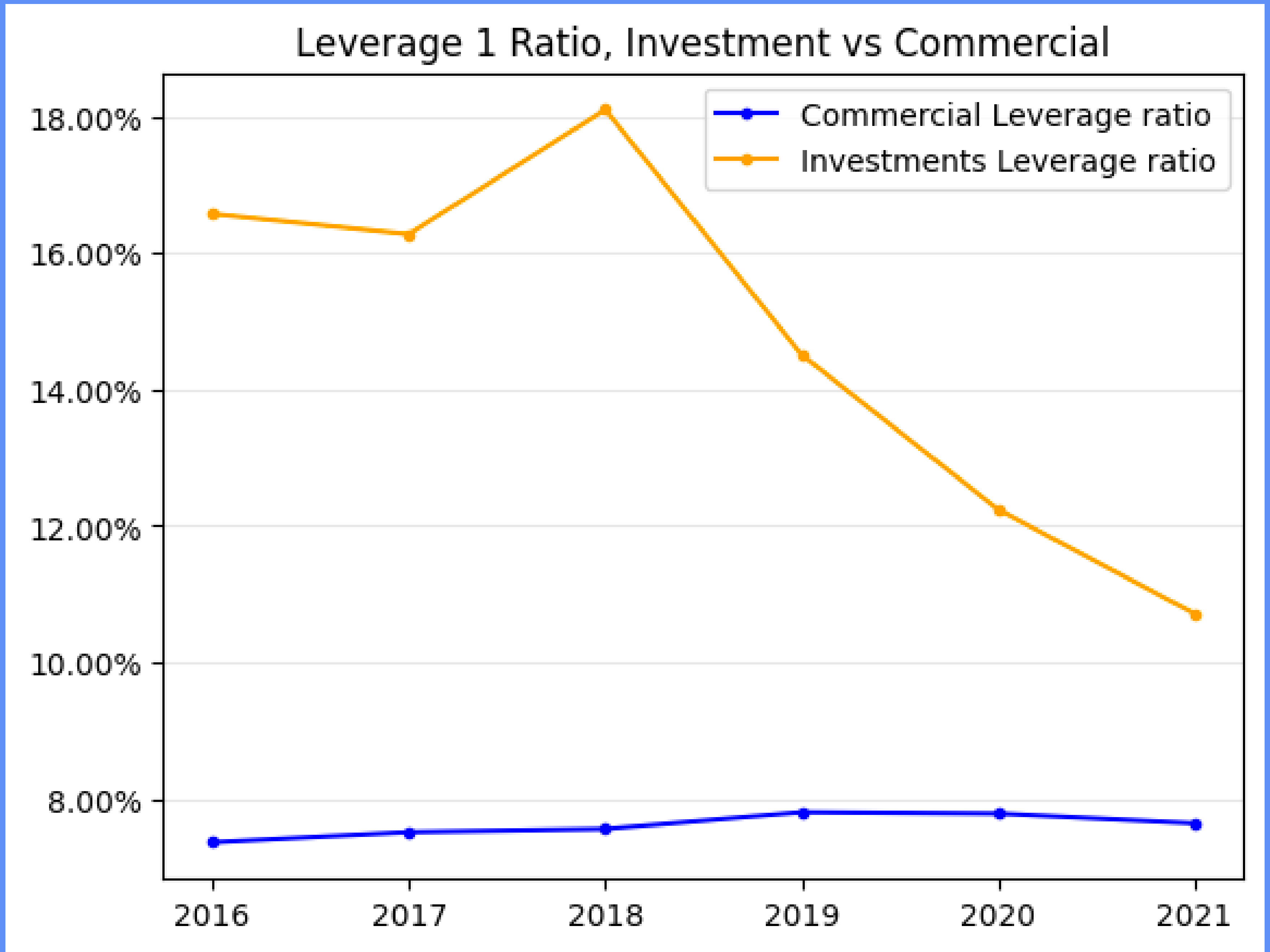
Banks' Capital analysis





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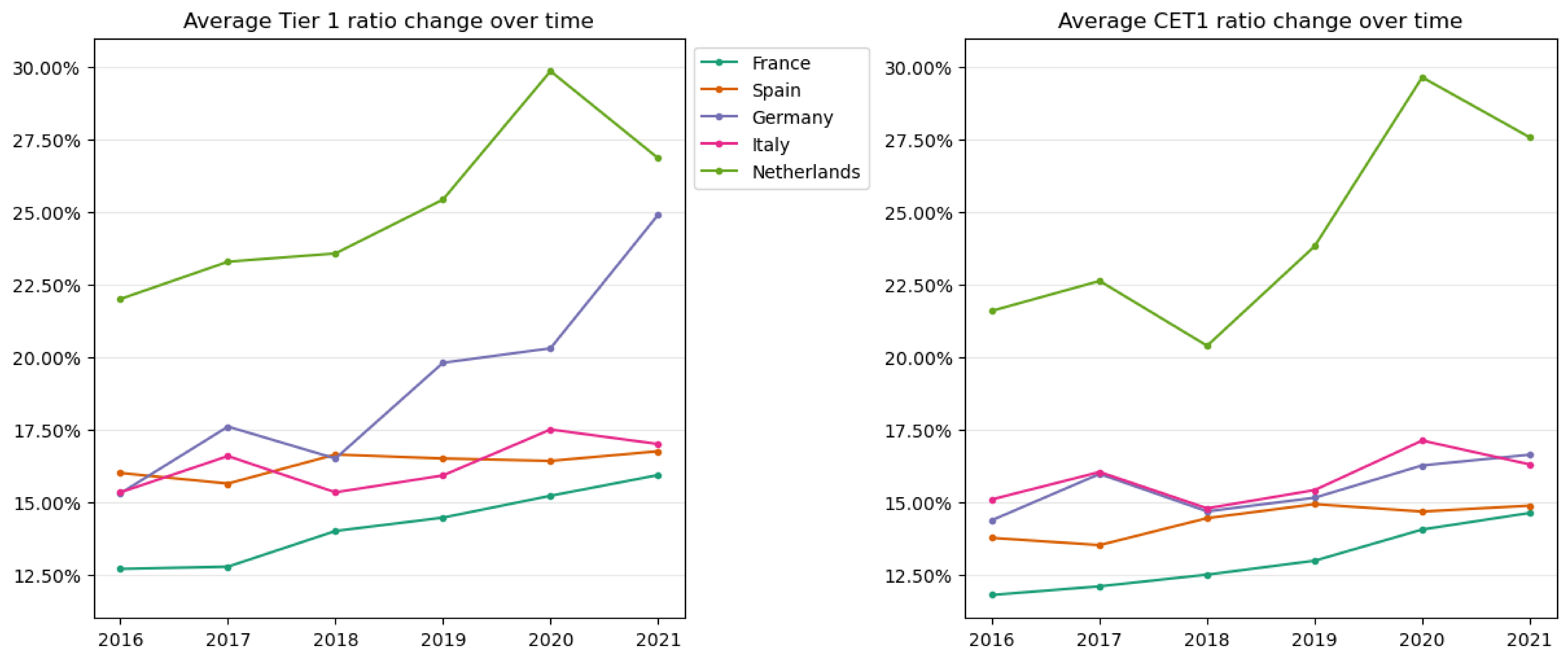
Banks' Capital analysis

Commercial Banks



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Capital adequacy ratio analysis

CAR

Also known as capital-to-risk weighted assets ratio (CRAR), is a measure of how much capital a bank has available, reported as a percentage of a bank's risk-weighted credit exposures. It is decided by central banks and bank regulators to prevent banks from taking excess leverage and becoming insolvent in the process.

$$CAR = \frac{TIER\ 1 + TIER\ 2}{Risk\ weighted\ assets}$$

Basel III Requirement

CAR > 8%

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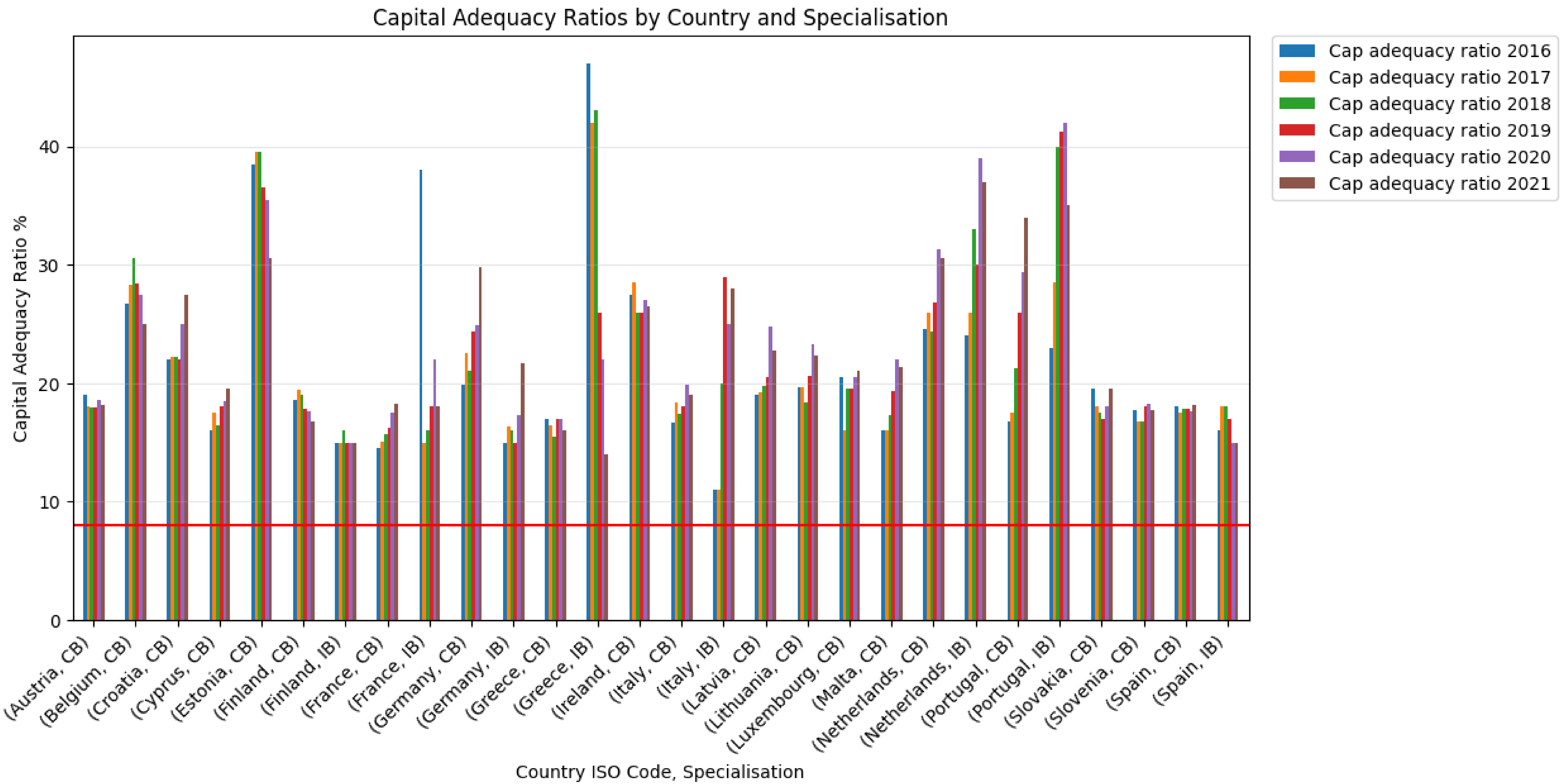
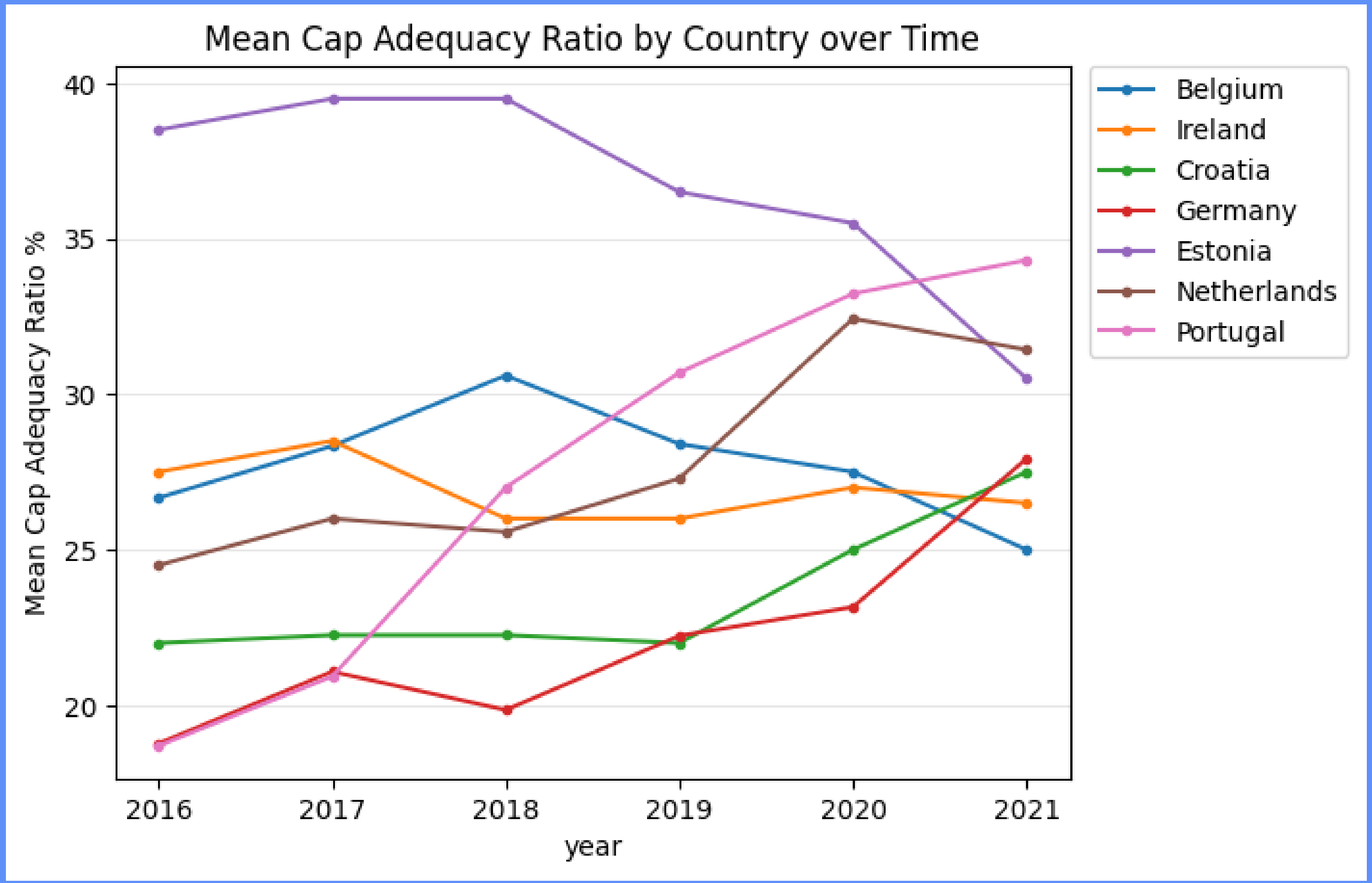
Capital adequacy ratio analysis

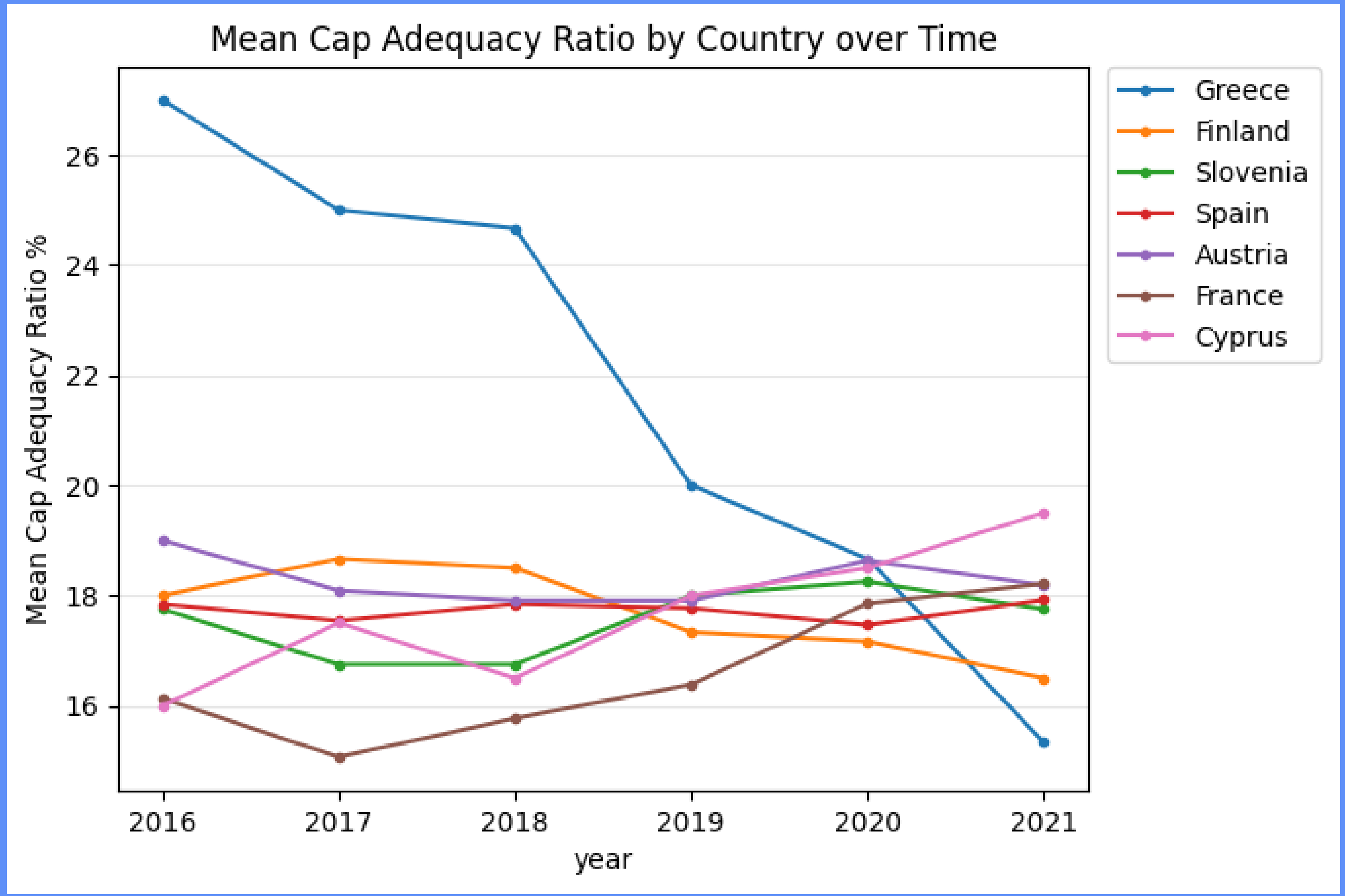


Capital adequacy ratio analysis



Countries with highest CAR

Countries with lowest CAR



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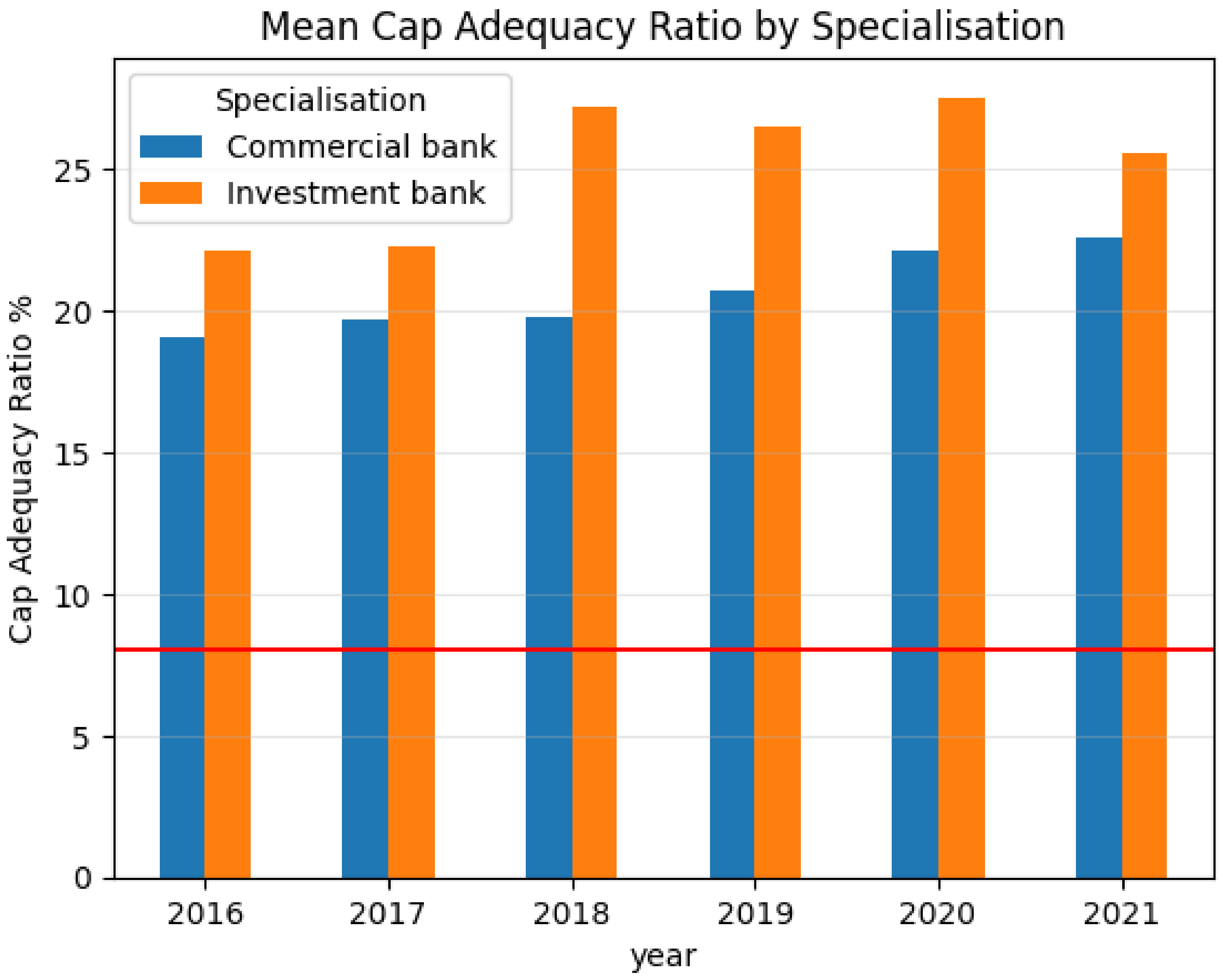
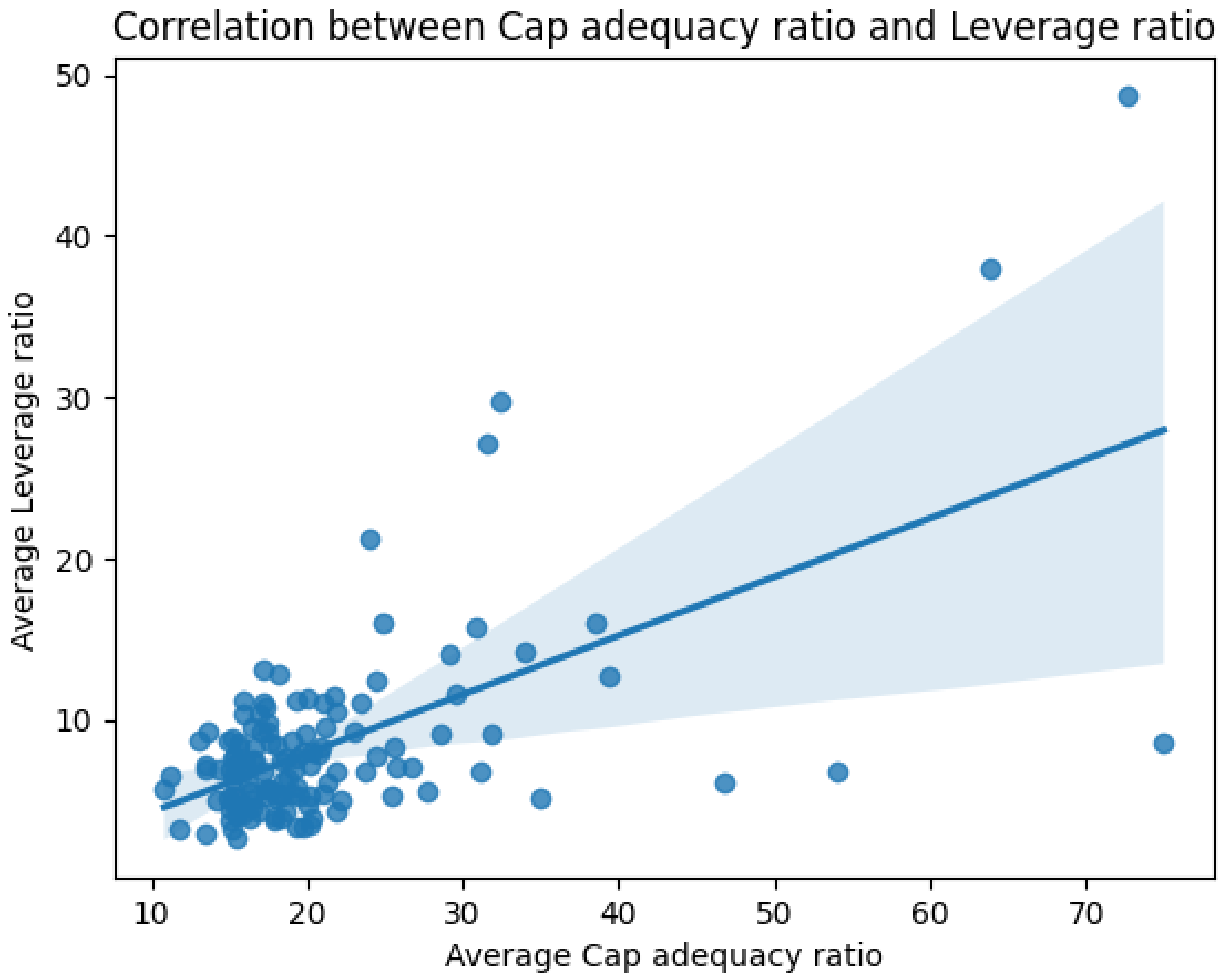
Capital adequacy ratio analysis





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Risk weighted asset analysis

RWA

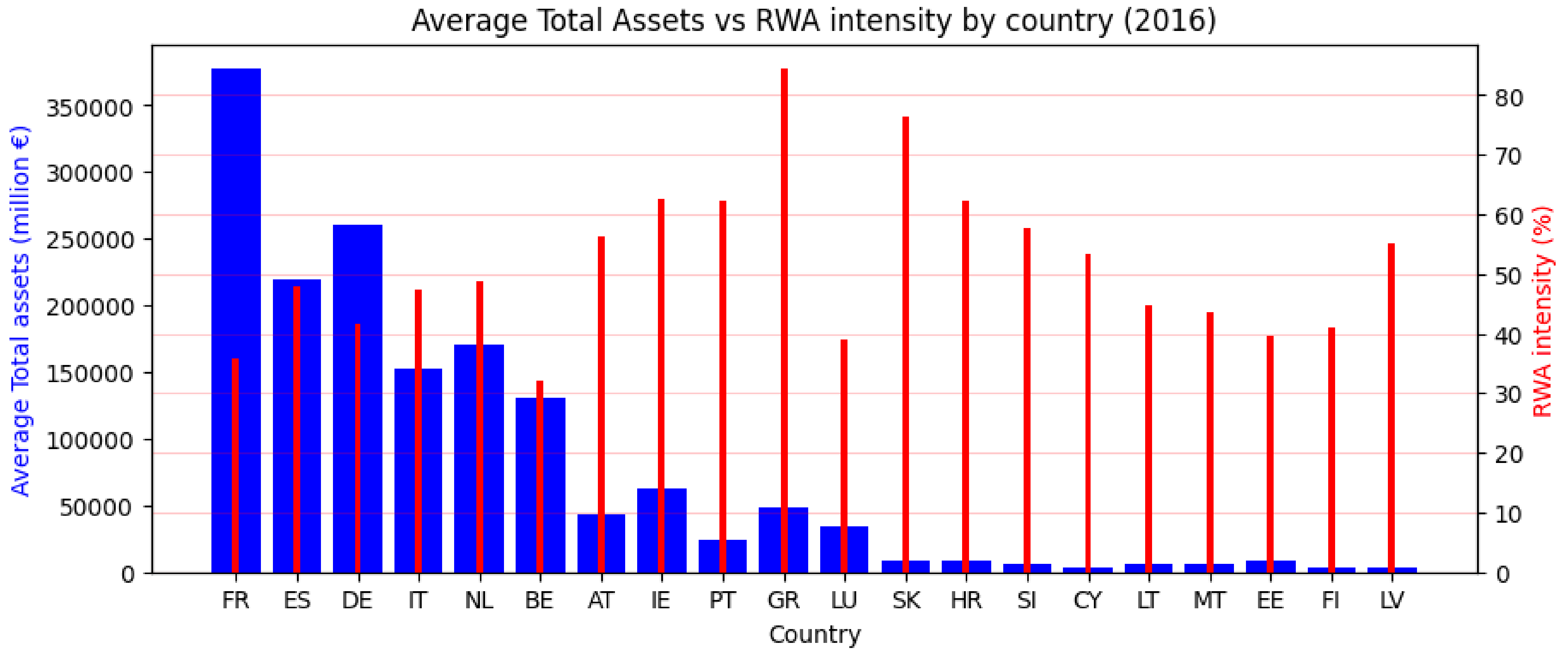
Used to determine the minimum amount of capital a bank must hold in relation to the risk profile of its lending activities and other assets.
Provide an accurate measure of a bank's exposure to risk.

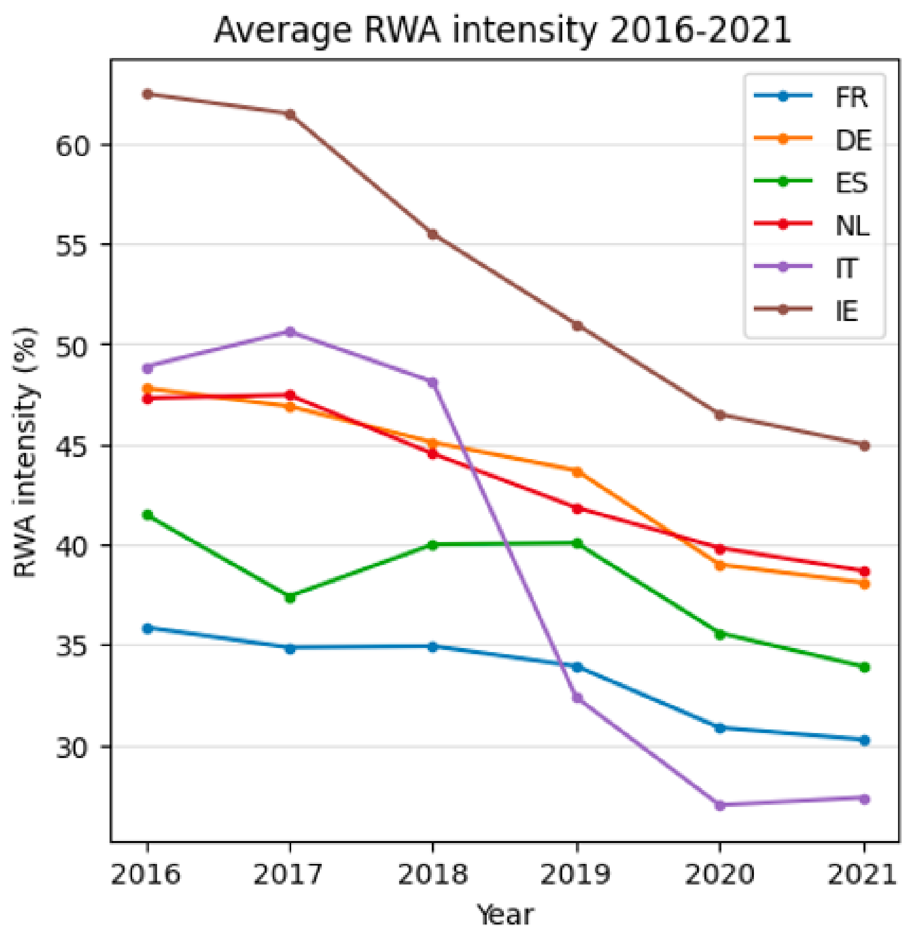
RWA intensity ratio

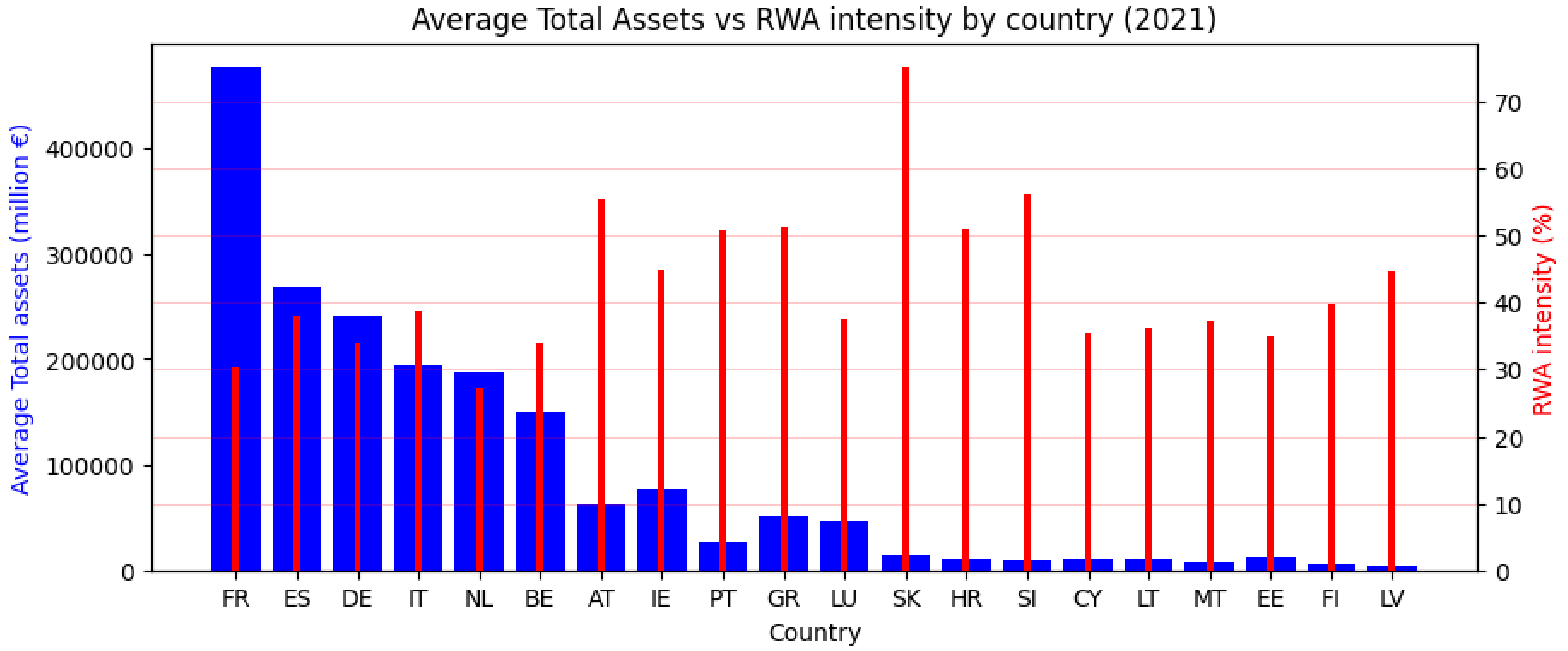
Formula to measure the value of risk-weighted assets per unit of total assets of a bank. The higher the intensity is, the higher the exposure of a bank to high risk-weighted components (riskier assets).

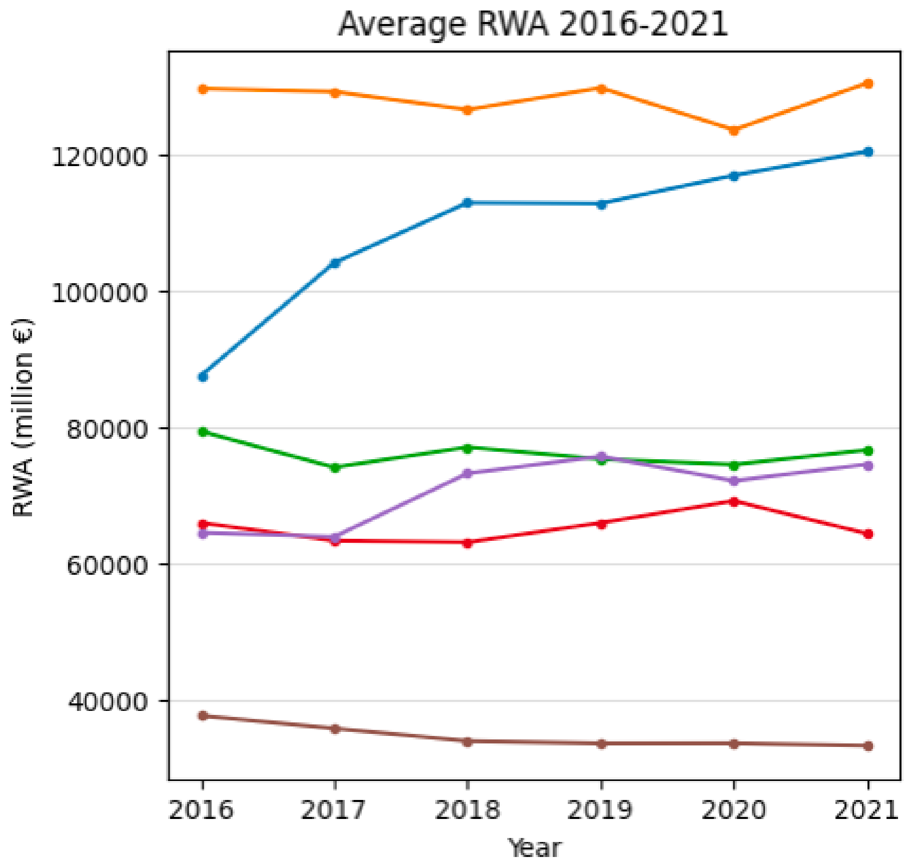
$$R.W.A.intensity = \frac{Risk\ weighted\ assets}{Total\ assets}$$

Risk weighted asset analysis









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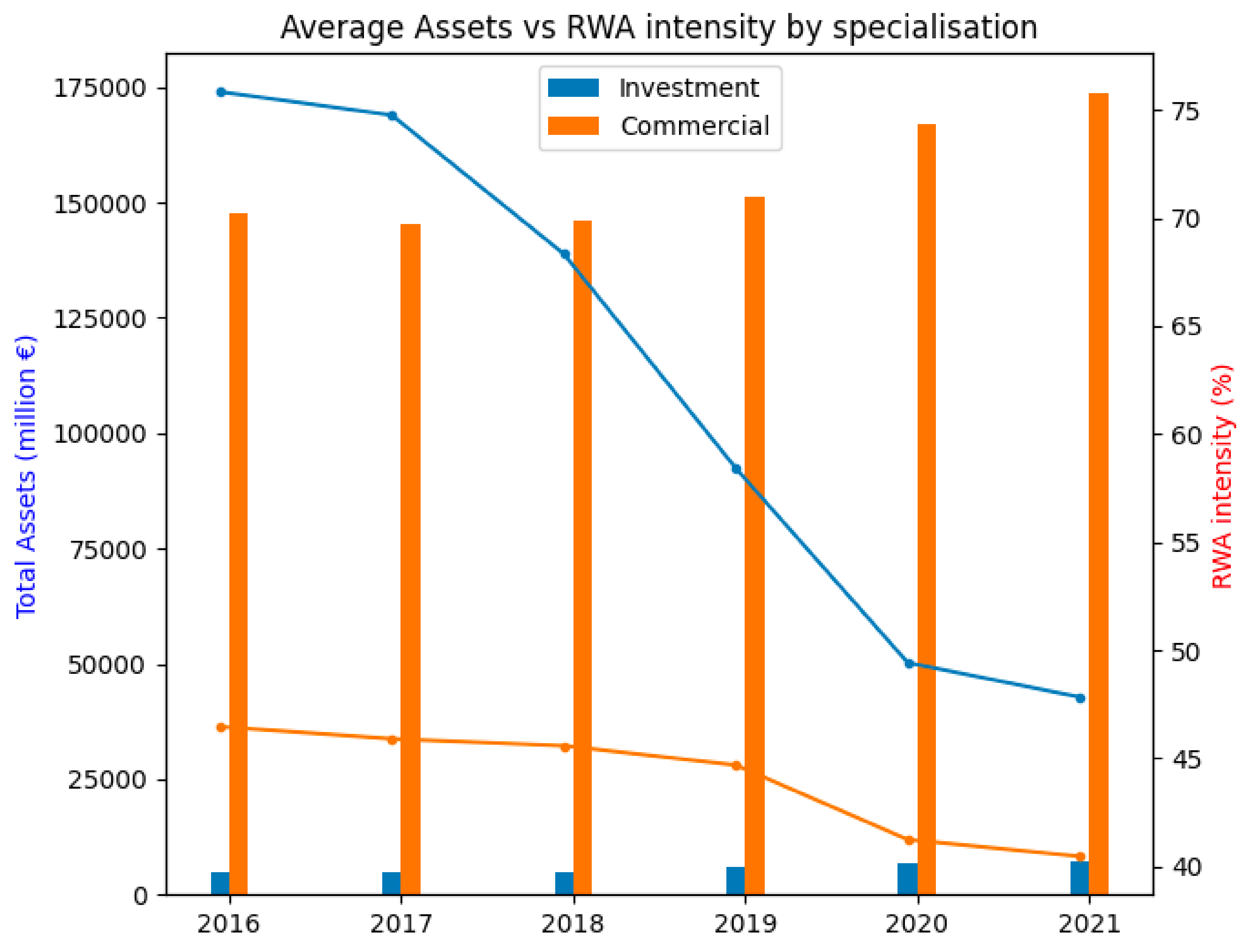
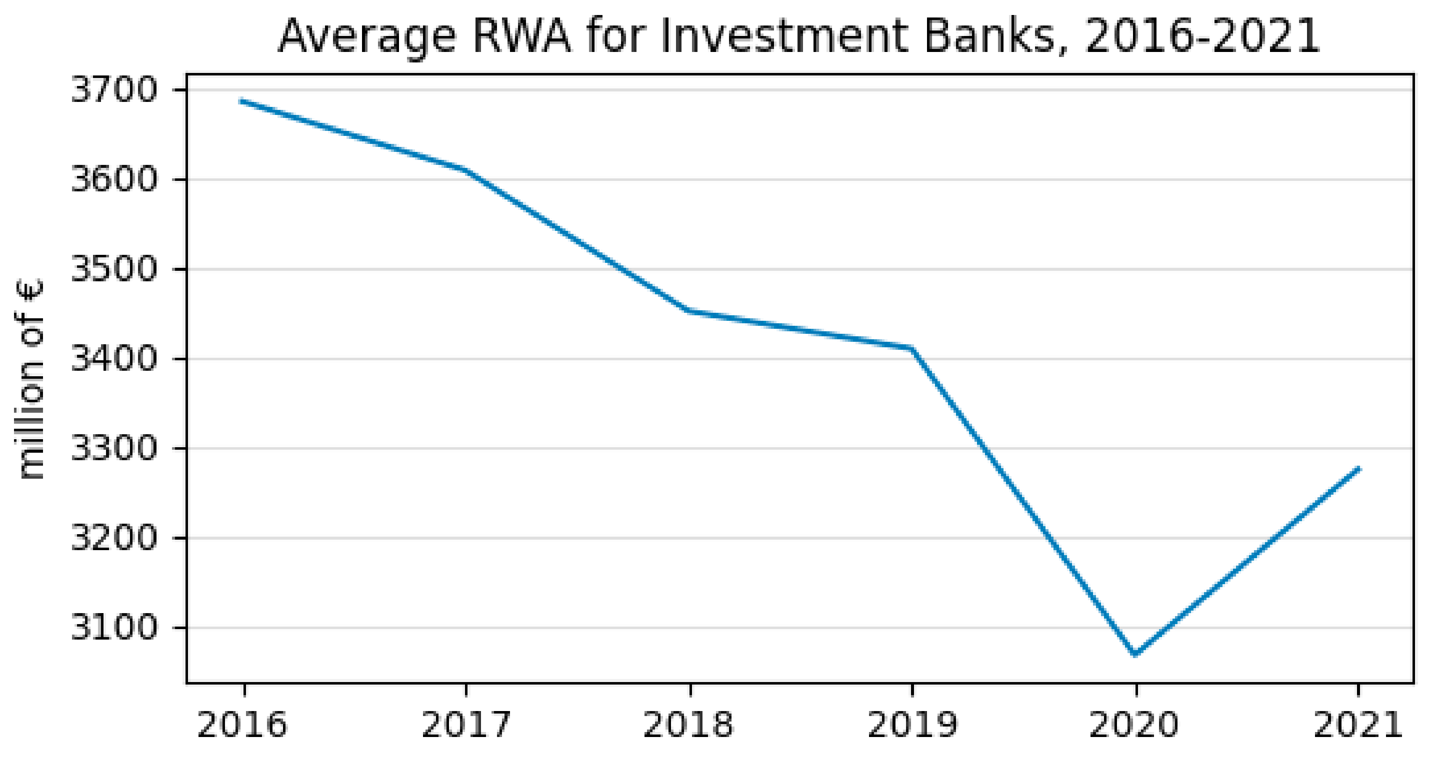
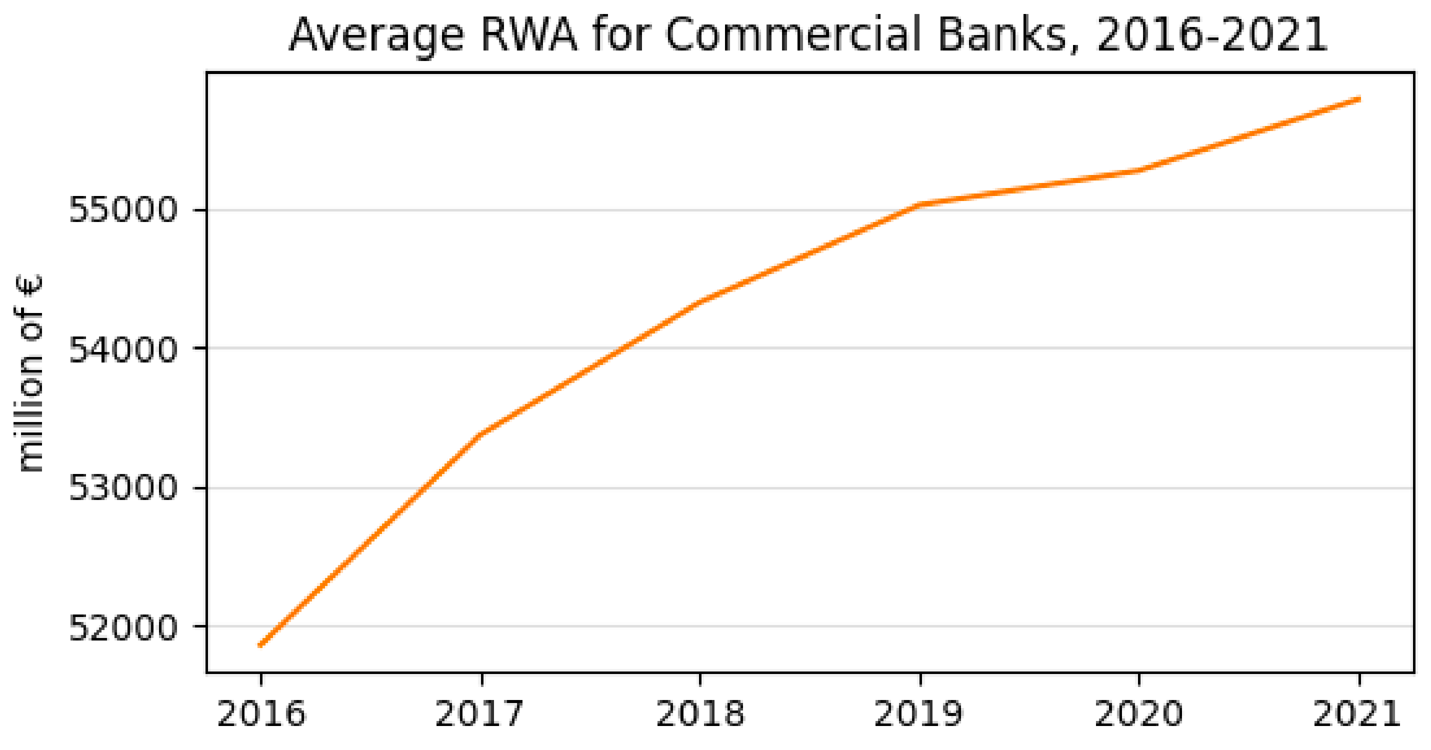
Risk weighted asset analysis







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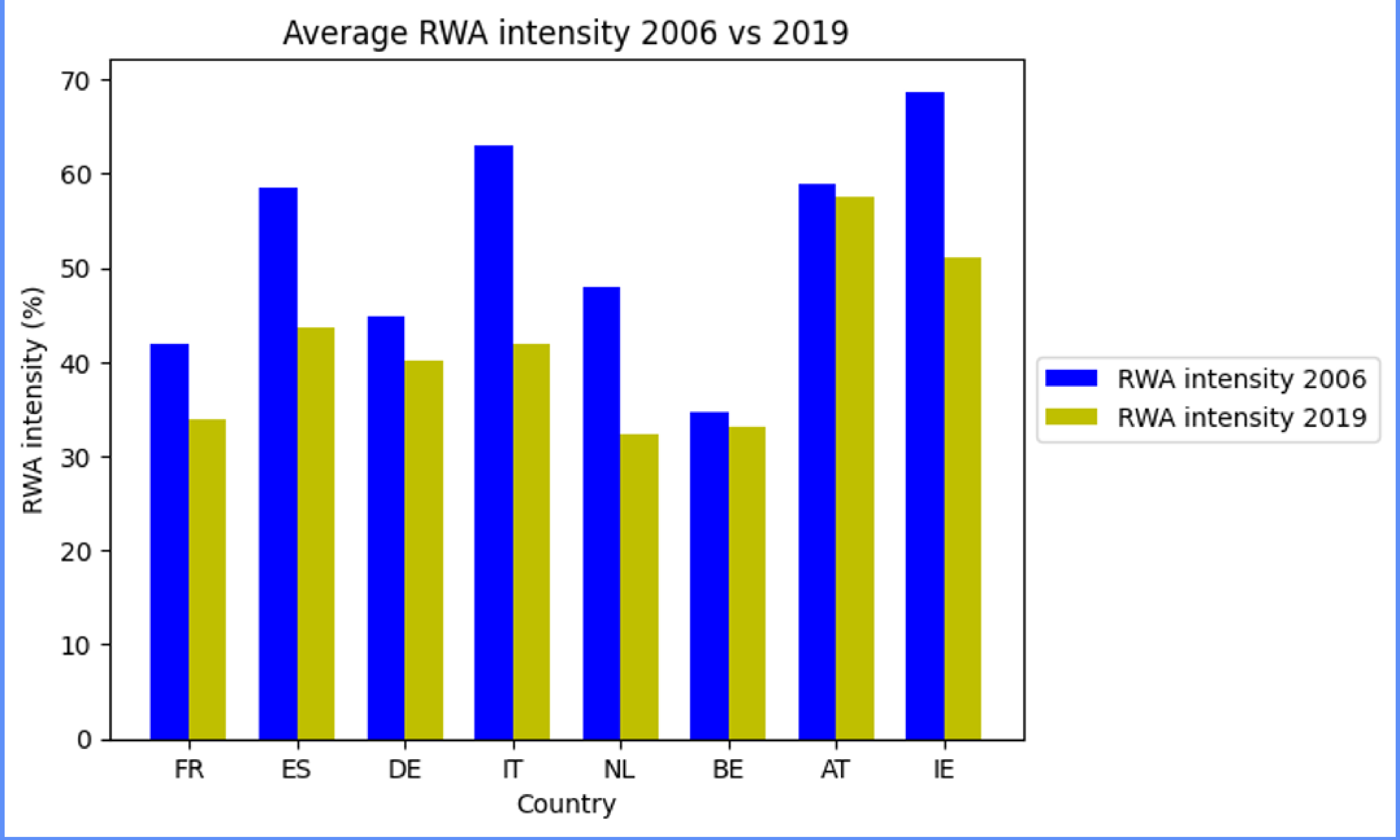
Was Basel III effectful in mitigating risk?

Comparison of pre-2008 and post Basilea III data.

- Average RWA intensity decreased for all EU banks from 2006 to 2019.
- Hence, Basel III was successful in reducing the presence of high-risk-weighted assets in the BS for both commercial and investment banks.



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Was Basel III regulation respected?

Violated measures:

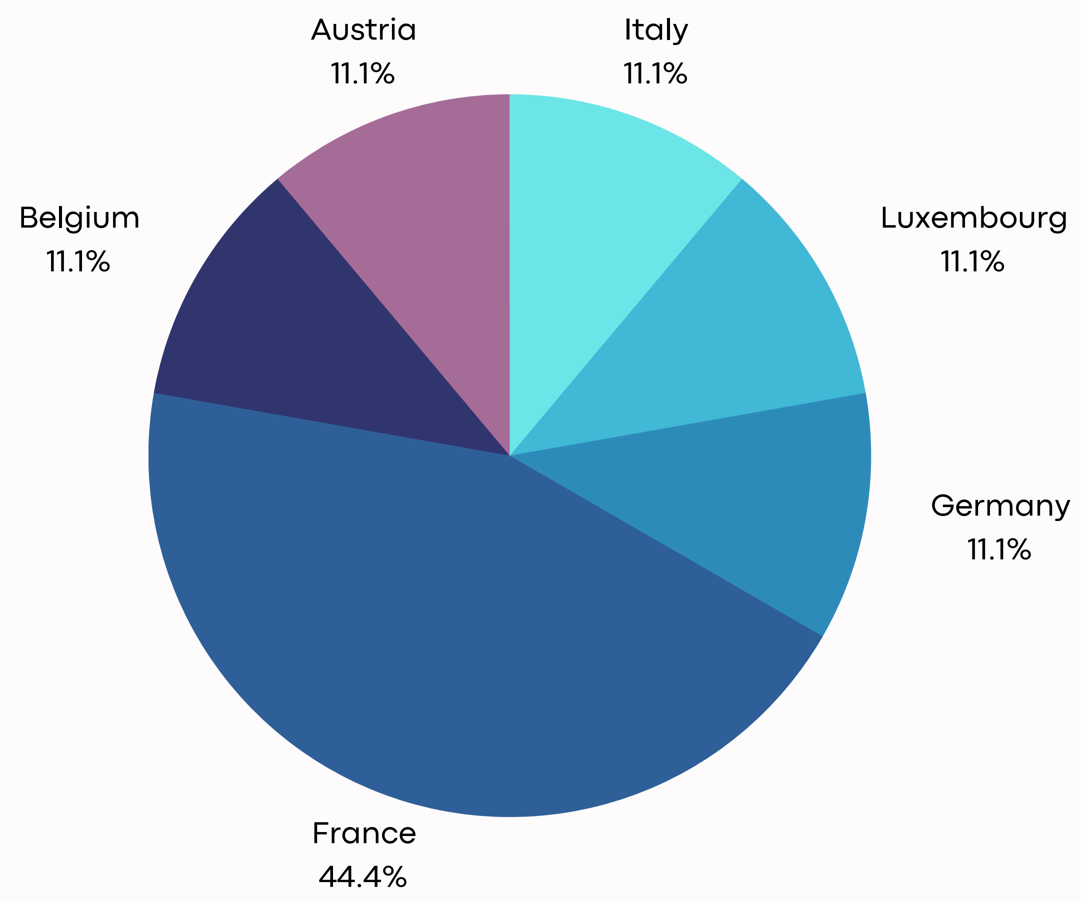
Leverage Ratio
min level 3%

DEXIA CREDIT LOCAL SA (2016, 2017); **HSBC** CONTINENTAL EUROPE (2016, 2017, 2018, 2020, 2021); **NATIXIS SA** (all years); **DEUTSCHE BANK AG** (2016); **AXA** BANQUE (2020, 2021); **LA BANQUE POSTALE** (2020, 2021).

Total Capital Ratio
min level 8%

BANQUE INTERNATIONALE A LUXEMBOURG SA (2016-2017-2018-2020); **BPER BANCA** S.P.A. (2016); **BELFIUS BANQUE SA/NV** (2016); **RAIFFEISEN BANK INTERNATIONAL AG** (2016-2018);

Domicile of Basil III infringers



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Conclusions

- Basel III proved to be an effective framework for monitoring and improving the stability of the banking system. Furthermore, as previously analysed, it helped to reduce the exposition of banks to risky assets and risk situations, by limiting the amount of leverage and increasing the capital requirements.
- Overall, there were just sporadic cases of violation of the regulations, that nevertheless didn't preclude the realisation of its objectives.

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Thank you for your attention!