

The recent financial crisis affected the entire financial system. Regulatory measures were implemented as a response to the deficiencies detected. Given that certain European countries were facing weak economies, the financial crisis worsened their situation. Highly indebted countries in Europe affected the banking sector, leading to the European sovereign debt crisis. Bank capital ratios can detect banks' incapability to absorb losses (BCBS, 2016).

Common Equity Tier 1 Ratio, hereafter CET1 ratio, is an example of a bank capital ratio. It indicates banks' capacity to absorb losses, which makes important to address its determinants. Identifying the factors that influence this capital ratio will allow us to use this information. According to the Basel III regulatory framework, this ratio should meet a minimum of 4,5% (Basle Committee on Banking Supervision, 2017).

Currently, European banks have 13.8%, on average, as reported by EBF¹. Still, due to the difficulties faced, the Single Resolution Board requires the establishment of Minimum Requirement for own funds and Eligible Liabilities (MREL) (KPMG International, 2019). This requirement represents one of the key tools to enhance banks' resolvability. Banks should have on their balance sheet enough capacity to absorb losses. Thereby, banks are obliged to maintain minimum own funds and eligible liabilities to be used as a buffer to absorb losses in case of a bank failure and resolution. MREL requirement includes the loss absorption amount and the recapitalization amount of the bank. Thus, according to the banks' risk exposure, it should maintain a certain amount to forearm itself in case of resolution. In this case, MREL ensures that the costs of a banks' failure will be borne by its investors, avoiding the need for bailouts.

Nowadays European banks are facing problems due to their low profitability, mainly justified by ECB's low interest rates. The economic slowdown in Europe promotes the maintenance of ECB records low interest rates. Therefore, banks' profitability is affected, which makes them change their business models. European banks are motivated to resort to Merger and Acquisitions (M&A), to diversify their business overcoming low profitability. M&A avoids bankruptcy of the acquired bank preventing its impact on the financial system.

¹ See <https://www.ebf.eu/facts-and-figures/banking-sector-performance/>

According to literature, capital requirements are a determinant of the banks' capital structure (Mishkin, 2000). Capital requirements work as a cushion to absorb unexpected losses. In case these losses exceed the buffer it could lead to bank failures (Berger *et al.*, 1995). Bank failures are contagious, so bank capital should be a regulated item (Berger *et al.*, 1995). Banks with weak capital buffer and weak capital structure are more vulnerable to spillovers (Bruyckere *et al.*, 2013). Vulnerable banks are more likely to default, making investors demand higher rates which in turn contributes to increasing default (Lane, 2012).

Banks' capital adequacy level has a significant effect in contagion, which justifies Basel III implementation (Bruyckere *et al.*, 2013). This regulatory framework strengthened bank capital requirements by increasing liquidity and decreasing leverage (Batista & Karmakar, 2017). Basel III calls for a minimum leverage ratio requirement (Gambacorta & Karmakar, 2016). This ratio was set as 3% acting as a complement to risk-weighted capital requirement² (Batista & Karmakar, 2017). Banks' CET1 ratio indicates its capacity to absorb potential losses, while leverage ratio represents the maximum loss that can be absorbed by banks' equity (Gambacorta & Karmakar, 2016).

The study aims to examine the impact of several variables on the level of banks' CET1 ratio. Our research question is:

What were the determinants of CET1 ratio in European Union banks after the Sovereign Debt Crisis?

In order to address this question, we gathered annual data related to European Union banks from 2011 to 2018, and we analysed the impact of the independent variables in the CET1 ratio.

We found that larger banks, riskier banks and higher leverage banks have lower CET1 ratio. Moreover, we observed that banks with higher liquidity ratios present higher CET1 ratios, making them more solvents. And, the Quantitative Easing, the measure held by ECB to purchase financial assets appears to increase the banks' capacity to absorb potential losses.

This paper is structured as follows. Chapter 2 embodies the literature review on the European Sovereign Debt Crisis and the CET1 ratio. Focusing on the main causes and consequences of the crisis, and findings related to past studies on capital ratios. Chapter

² CET1 ratio minimum requirement is a risk-weighted capital requirement

3 describes the data and methodology used to perform the analysis. Chapter 4 presents the results of the research. Finally, Chapter 5 summarizes the main conclusions achieved, the limitations of this research and discusses further studies.