How Have Basel Accords Influenced Banking Stability and Profitability?

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Abstract. *This paper analyses the evolution of the Basel Accords, from Basel I to the reform package known as Basel IV, with the aim of assessing their impact on the prudential regulatory framework of the banking sector. The study is motivated by the need to strengthen financial stability in the context of recurring economic crises and the debate on the relationship between stability and bank profitability. The methodology used is qualitative and based on documentary and comparative analysis of official documents issued by the Basel Committee on Banking Supervision, supplemented by relevant literature. The results highlight that each stage of Basel regulation reflects the lessons learned from financial crises and aims to correct previously identified vulnerabilities. Although the tightening of capital and liquidity requirements has put pressure on traditional profitability indicators, such as return on equity and return on assets, these measures have contributed to increasing the resilience of the banking system. The findings point to a clear transition towards a banking model characterized by more moderate but more stable and sustainable profitability in the long term.*

Keywords: Basel Accords, capital, liquidity, financial stability, profitability

JEL Classification: G21, G28, G32

1. Introduction

Prudential regulation is an essential element of the functioning of the modern banking system, with the main objective of ensuring financial stability and limiting systemic risks. In this context, the Basel Committee on Banking Supervision (BCBS) has established itself as the main international body responsible for formulating global banking regulatory standards, exerting significant influence on international financial architecture. Although the standards developed by the BCBS are not legally binding, they are widely adopted by national supervisory authorities and form the basis of banking regulations in most developed and emerging economies (Basel Committee on Banking Supervision, 2011).

Starting with the first initiatives to harmonize capital requirements and continuing with the extension of the regulatory framework to liquidity, leverage, and risk management, the Basel agreements have profoundly reshaped the way banks structure their balance sheets, manage their risks, and define their business strategies. These transformations were motivated by the need to reduce the vulnerabilities identified in the wake of financial crises, particularly the global crisis of 2007–2009, which highlighted the limitations of existing regulation and the high macroeconomic costs of banking instability (Gorton & Metrick, 2012).

However, the strengthening of prudential requirements raises important questions about the microeconomic implications, particularly for bank profitability.

Profitability is essential for the long-term sustainability of credit institutions, their ability to absorb losses, and the maintenance of the financial intermediation function. The literature highlights a possible trade-off between financial stability and financial performance, as stricter capital and liquidity requirements may affect banks' income structure, funding costs, and risk appetite (Demirgüç-Kunt et al., 2015).

From this perspective, Basel agreements are often analyzed not only as instruments for reducing systemic risk, but also as determinants of banking efficiency and competitiveness. Regulatory adjustments can lead to changes in the business model, the reorientation of asset portfolios, and changes in lending behavior, all of which have direct and indirect implications for profitability indicators such as return on assets or return on equity (Allen et al., 2011). At the same time, some studies suggest that well-capitalized banking institutions that comply with prudential standards may benefit from lower perceived risk and more favorable financing conditions, which can support profitability in the medium and long term (Berger & Bouwman, 2013).

Despite the significant amount of existing research, the relationship between Basel regulation and bank profitability remains complex and insufficiently clarified, being influenced by institutional, structural, and macroeconomic factors. Differences between banking systems, levels of economic development, and stages of implementation of prudential standards can lead to heterogeneous results in terms of impact on financial performance (Anginer et al., 2014).

The purpose of this paper is to analyze the evolution of the Basel Accords (Basel I–Basel IV) and how they have influenced the prudential regulatory framework of the banking sector in the context of major economic and financial crises. In particular, the study aims to highlight the impact of successive changes in capital requirements and risk management on the stability and profitability of credit institutions.

2. Materials and methods

The research adopts a qualitative approach, based on documentary and comparative analysis of the Basel I, II, III, and IV Accords. The methodology is appropriate for the purpose of the paper, as it allows for examination of the evolution of the prudential regulatory framework and its implications for the stability and profitability of the banking sector.

The analysis is based on official documents issued by the Basel Committee on Banking Supervision, supplemented by selected literature from established academic databases. The comparative method is used to highlight the differences between the agreements in terms of capital requirements, types of risk covered, and impact on banking performance.

In addition, the regulatory framework is analysed in relation to the economic and financial context of each stage in order to capture the link between prudential reforms and financial crises. This approach allows for the formulation of coherent conclusions regarding the transition to a banking model characterized by more moderate but more sustainable profitability.

3. Synthesis of the Literature

The development of the Basel Accords has gone hand in hand with major economic developments. Basel I, launched in 1988, laid the foundations for modern banking capital regulation at a time of expansion in international financial markets. Basel II, presented in 2004, came into force before the global financial crisis of 2008, which revealed the limitations of this framework.

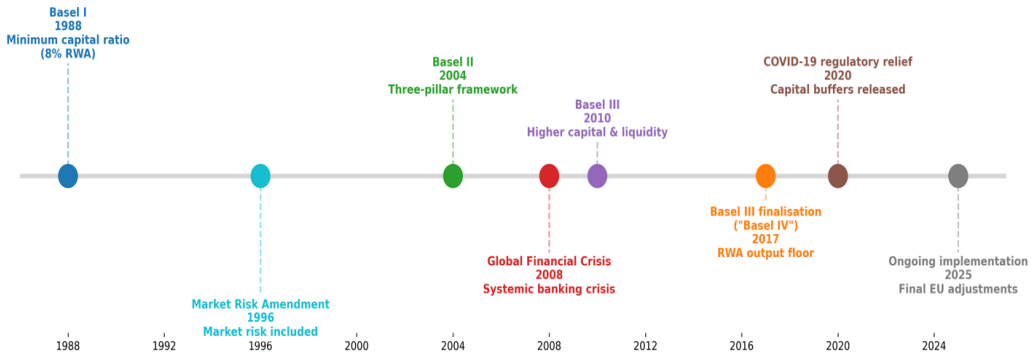

Figure 1. Evolution of the Basel Accords and key financial events (1988–2025). *Source: Own processing*

Basel III, adopted in 2010, was implemented in a context marked by the European sovereign debt crisis of 2012, with an emphasis on capital and liquidity requirements. The latest stage, known as Basel IV (2017), was introduced before the recent challenges posed by the COVID-19 pandemic in 2020 and rising interest rates in 2022, demonstrating the importance of a more robust prudential framework. Overall, each Basel agreement has reflected the lessons learned from economic crises and helped to adjust the rules to better respond to emerging risks.

3.1. The Basel I Accord and its role in laying the foundations for the banking regulatory framework

The first Basel Accord, adopted in 1988 by the Basel Committee, introduced for the first time minimum international capital standards applicable to commercial banks (Basel Committee on Banking Supervision, 1988). The main requirement was that credit institutions maintain a capital ratio of at least 8% of risk-weighted assets, a measure designed to strengthen the resilience of the banking system and ensure comparable conditions of competition between banks at the international level (Basel Committee on Banking Supervision, 1988; Blundell-Wignall & Atkinson, 2010). To this end, assets were divided into four risk categories (0%, 20%, 50%, and 100%), and the capital requirement was calculated based on these weights (Bernanke & Lown, 1991). Through a relatively simple framework, Basel I sought to protect depositors and prevent bank failures by discouraging excessive leverage (Bourke, 1989).

As the agreement was implemented in the main economies by 1992, many international banks were forced to increase their capital levels, either by raising new funds or by reducing risky exposures (Jackson et al., 1999). As a result, the average capital adequacy ratio among G10 banks rose significantly, from around 9% in 1988 to over 11% in the 1990s, reflecting a strengthening of capitalization (Jackson et al., 1999). However, this change also had implications for profitability, as equity capital is more expensive than debt, and return on equity (ROE) declined slightly for some banks (Bernanke & Lown, 1991; Cosimano & Hakura, 2011). In addition, compliance with the 8% threshold led some institutions to reduce lending and sell assets, which contributed to the credit contraction observed in the early 1990s, particularly in the US (Bernanke & Lown, 1991; Jackson, 2017).

It should be noted, however, that banks with capital levels already above the minimum requirements did not experience the same pressures, maintaining indicators such as return on assets (ROA) relatively constant (Bourke, 1989; Molyneux &

Thornton, 1992). Previous research even introduced the idea that stronger capitalisation may be associated with higher profitability, as well-capitalised banks benefit from lower financing costs and lower risks (Bourke, 1989; Berger, 1995). From this perspective, Basel I significantly changed the way banks could develop their business, requiring them to correlate the expansion of risky assets with capital increases and to streamline their operations (Jones, 2000; Repullo & Suarez, 2013).

At the same time, many institutions sought solutions to maintain their profitability under the new conditions. Among the strategies used were asset securitisation and the transfer of exposures off-balance sheet, practices known as capital arbitrage, through which banks were able to comply with formal rules while maintaining their profit margins (Jones, 2000; Basel Committee on Banking Supervision, 2004). Thus, Basel I represented a turning point: it strengthened the stability of the banking sector by increasing capital, but it also led to structural changes in the way credit institutions operated, which oscillated between operational adaptation and the use of innovative instruments to remain competitive (Jackson et al., 1999; Blundell-Wignall & Atkinson, 2010).

3.2. The Basel II Accord and the extension of banking risk regulations

The Basel II Accord, published in June 2004, sought to modernize the rules introduced by Basel I and correct its limitations (Basel Committee on Banking Supervision, 2004). In the 1990s, it became increasingly clear that the simplified approach of Basel I encouraged regulatory arbitrage. For example, all loans to the private sector were assigned a 100% risk weight, regardless of the borrower's creditworthiness, which encouraged banks to gravitate toward exposures that were undervalued in terms of risk or to resort to securitization (Blundell-Wignall & Atkinson, 2010; Jones, 2000). To overcome these limitations, Basel II introduced a more risk-sensitive approach based on three pillars: more sophisticated minimum capital requirements, enhanced prudential supervision, and market discipline through transparency (Basel Committee on Banking Supervision, 2004). Under Pillar 1, credit institutions could use internal ratings-based (IRB) models, approved by regulators, to determine credit risk and the associated capital requirements. Alternatively, a risk score could be applied based on external ratings assigned to different exposures (Hanson et al., 2011). At the same time, Basel II expanded the regulatory framework to explicitly include operational risk, alongside credit risk and market risk, which required additional capital to cover losses arising from internal errors, fraud, or external events (Basel Committee on Banking Supervision, 2004). These changes were intended to align capital requirements more closely with the actual risk profile of each bank, reducing the inefficiencies of Basel I (Blundell-Wignall & Atkinson, 2010).

The implementation of Basel II began gradually, being transposed in the European Union through the CRD (Capital Requirements Directive) in 2007–2008. However, the coincidence with the onset of the global financial crisis made it difficult to fully assess the long-term benefits (Tarullo, 2008; ElBannan, 2017). In the years prior to the crisis, the framework seemed to offer large banks the opportunity to optimize capital allocation. The use of internal models allowed them to obtain lower risk weights for mortgage portfolios or exposures to highly rated borrowers, thereby reducing their overall capital requirements (Mariathasan & Merrouche, 2014). This favored an increase in effective leverage and profitability, as banks were able to support a larger volume of risky assets with the same level of capital, amplifying ROE during the real estate boom (Blundell-Wignall & Atkinson, 2010; Mariathasan & Merrouche, 2014). At the same time, the reduced allocation of capital to assets considered safe, such as mortgage-backed securities, stimulated the accumulation of significant portfolios of such instruments (ElBannan, 2017). However, the high profits earned during that period were accompanied by risks that were insufficiently reflected in capital

requirements (Blundell-Wignall & Atkinson, 2010).

On the other hand, the introduction of requirements for operational risk and transparency (Pillar 3) generated significant compliance costs. Banks had to invest in IT systems, consulting, and specialized staff, which increased operating expenses (Tarullo, 2008; Santos, 2001). Smaller institutions in particular felt pressure on their profit margins, as they did not benefit from economies of scale to absorb these costs (Pasiouras & Kosmidou, 2007). In contrast, large international banks took advantage of the complexity of the framework, using IRB models to minimize capital requirements and gain a competitive advantage over banks that remained on the standard approach (Mariathasan & Merrouche, 2014; Le et al., 2020). This asymmetry in the effects of Basel II has been widely criticized, as it allowed sophisticated institutions to maintain high pre-crisis profitability, while other banks faced much greater constraints (Tarullo, 2008).

With the onset of the global financial crisis, the major limitations of the Basel II framework became apparent. In 2008–2009, many large institutions suffered significant losses despite apparent compliance with capital ratios. Assets initially considered safe, such as securitized mortgage loans, proved to be much riskier, and internal models seriously underestimated credit risk under conditions of systemic stress (Blundell-Wignall & Atkinson, 2010; ElBannan, 2017). In these circumstances, some banks had to resort to public recapitalization or emergency interventions, which wiped out the profits accumulated in previous years and led to a collapse in profitability (Demirguc-Kunt et al., 2013). In addition, Basel II was found to be procyclical: during the expansion phase, capital requirements appeared generous and fueled credit growth, but as economic conditions deteriorated, requirements automatically increased, forcing banks to restrict their activity and exacerbating the recession (Repullo & Suarez, 2013). The resulting volatility was directly reflected in the instability of profitability indicators, with dramatic declines in ROA and ROE in 2008–2009, following record levels in 2006–2007.

The Basel II experience demonstrated that a regulatory framework based on internal models and external ratings can generate systemic vulnerabilities when risks are not fully captured. Post-crisis literature has highlighted that many of the profitability gains achieved in the run-up to the crisis proved unsustainable, being wiped out by the massive losses that followed (Demirguc-Kunt et al., 2013). At the same time, institutions that were well capitalized before 2008 weathered the shocks better, experiencing smaller declines in profits and resuming lending more quickly (Demirguc-Kunt et al., 2013). These findings paved the way for the development of a new framework, Basel III, designed to address the identified shortcomings and strengthen the resilience of the banking system.

3.3. The Basel III Agreement and strengthening the stability of the financial system

After the 2008 financial crisis, it became clear that existing regulations were not sufficient to prevent the accumulation of systemic risks. In this context, Basel III, announced in December 2010, was designed as a global response by regulators, with the aim of restoring confidence in the banking system and reducing future vulnerabilities (Basel Committee on Banking Supervision, 2011). The main changes consisted of a significant tightening of capital and liquidity requirements. The minimum Tier 1 capital requirement was raised to 6% of risk-weighted assets, compared to 4% previously, and a 2.5% conservation buffer was introduced, raising the effective Tier 1 capital threshold to approximately 8.5% (Basel Committee on Banking Supervision, 2011). The emphasis was placed on the highest quality equity capital, consisting of common shares and retained earnings, considered to be the most capable of absorbing losses (Admati & Hellwig, 2013). In addition, Basel III provided for a

countercyclical buffer of up to an additional 2.5%, activated by national authorities during periods of excessive credit expansion to temper boom cycles and increase the resilience of the system (Basel Committee on Banking Supervision, 2011; Slovik & Cournède, 2011). At the same time, an unweighted leverage ratio was introduced, set at a minimum of 3%, which reports Tier 1 capital to total assets, regardless of the risk assigned to them. The aim was to limit excessive leverage and prevent uncontrolled balance sheet expansion through the use of overly optimistic risk models (Blundell-Wignall & Atkinson, 2010; Cohen & Scatigna, 2016).

In addition to strengthening capital requirements, Basel III regulated liquidity risk for the first time, introducing two standards: the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The LCR requires banks to hold sufficient high-quality liquid assets to withstand a 30-day stress scenario, while the NSFR aims to match long-term stable funding with corresponding assets, reducing dependence on volatile resources (Basel Committee on Banking Supervision, 2011). These instruments were intended to prevent situations such as those that occurred in 2008, when otherwise solvent institutions ran into difficulties due to a lack of liquidity (BCBS, 2011; Demirguc-Kunt et al., 2013).

With the gradual implementation of Basel III between 2013 and 2019, bank profitability came under noticeable pressure, especially in the early years. To strengthen their capital, many institutions chose to retain a larger share of their profits, reducing dividend distributions, while others resorted to share issues, which led to the dilution of existing shareholders (Cohen & Scatigna, 2016; Miles et al., 2013). This capital consolidation, although beneficial for stability, led to a decline in financial profitability compared to the pre-crisis period, when high leverage allowed for higher ROE values (Miles et al., 2013). Before 2008, large banks frequently reported ROE of over 15%, but after adapting to Basel III, values stabilised at around 8–10%, reflecting both stricter capital requirements and more prudent macroeconomic conditions (Swamy, 2018; Dagher et al., 2016). Liquidity requirements have also added a significant cost, as banks have had to build up large portfolios of low-yielding liquid assets, such as government bonds, and reduce their reliance on cheap short-term funding. These adjustments eroded net interest margins and affected revenues (King, 2013; Bitar et al., 2018). Research has confirmed that maintaining large liquidity reserves is associated with lower asset returns, as these assets generate lower returns than loans (Swamy, 2018).

At the same time, banks responded by reducing risky assets in order to quickly improve their capital-to-risk-weighted assets ratio. In Europe in particular, many institutions reduced their corporate loan portfolios and divested assets considered non-strategic, which led to a slowdown in lending (Cosimano & Hakura, 2011; Repullo & Suarez, 2013). The International Monetary Fund estimated that, in order to comply with the new requirements, banks could either reduce their assets by about 1.3% per year or increase credit margins by about 16 basis points, suggesting that part of the cost of compliance would inevitably be passed on to the economy in the form of more expensive loans (Cosimano & Hakura, 2011). In practice, strategies varied: some institutions slightly increased lending margins and fees, others reduced operating expenses through restructuring and digitization, and others shifted their focus to less capital-intensive segments, such as consulting or asset management (Bitar et al., 2018; Tarullo, 2008).

As the transition period progressed, many banks managed to adapt to the new requirements, returning to sustainable levels of profitability, albeit lower than those in the pre-crisis era (Cohen & Scatigna, 2016; Swamy, 2018). The gradual implementation allowed them to accumulate capital mainly from retained earnings, avoiding a sudden reduction in lending (Cohen & Scatigna, 2016). Although ROA declined moderately, studies show that the effect was limited: a one percentage point

increase in the Tier 1 ratio led, on average, to a decrease in ROA of only 0.04 percentage points (Miles et al., 2013). Subsequent research has even suggested that, in the long run, well-capitalized banks may enjoy more stable profitability and lower funding costs as a result of increased investor confidence (Admati & Hellwig, 2013; Dagher et al., 2016). Analyses of the impact of the COVID-19 pandemic have confirmed this trend, showing that institutions with high capital levels suffered lower losses and continued to lend (BCBS, 2021; Demirguc-Kunt et al., 2013).

The results of national studies indicate that Basel III did not lead to a collapse in bank profitability. In emerging economies, the negative impact of additional capital requirements has often been small or even insignificant. Recent analyses of South African banks show a minor negative effect on profitability, explained by rigorous supervision and business model adaptation (Mdandalaza & Jeke, 2025). Similar findings have been identified in other regions, where the relationship between capitalization and profitability depends largely on the local context and managerial efficiency (Al-Sharkas & Al-Sharkas, 2022; Nguyen, 2020).

An important point is that profitability under Basel III has become more robust. Whereas before 2008, very high ROE levels were often based on excessive leverage and risk underestimation, after the reforms were implemented, more moderate earnings were accompanied by increased resilience. Banks with stronger capitalization have better managed shocks such as the 2020 health crisis, demonstrating that lower but more stable profitability protects both institutions and the financial system as a whole (Hanson et al., 2011; Thakor, 2014; Basel Committee on Banking Supervision, 2021). In this context, Basel III has redefined how banks balance risk and profit, favouring sustainable earnings over temporary but fragile spectacular returns (Demirguc-Kunt et al., 2013; Dagher et al., 2016; Bitar et al., 2018).

3.4. Basel IV Agreement and new capital adequacy and risk management requirements

The unofficial term "Basel IV" refers to the final Basel III reform package adopted by the Basel Committee in December 2017, which made significant adjustments to risk calculation methodologies and capital requirements (Basel Committee on Banking Supervision, 2017). Although the official name remains Basel III, the term "Basel IV" has become established in the industry due to its impact being considered comparable to the introduction of a new generation of regulations (McKinsey & Company, 2017). The need for these reforms was confirmed by the large differences observed in the way banks modelled risk, differences that led to highly variable capital levels for similar portfolios (Mariathasan & Merrouche, 2014). The main goal was to reduce this variability and increase the robustness of capital requirements in order to limit the possibilities for excessive optimization of risk-weighted assets (Ingves, 2018).

Basel IV began to be implemented on January 1, 2023, in some jurisdictions, but the final implementation deadlines vary, reaching in some cases 2025-2028 or even 2026 for certain components. The final regulations were published in December 2017.

A central element of the new regulations is the minimum "output floor" threshold. Specifically, risk-weighted assets calculated using internal models cannot fall below 72.5% of the level resulting from the standardized method, a threshold that will be implemented gradually until 2028 (Basel Committee on Banking Supervision, 2017). This measure requires even banks with sophisticated internal models to maintain a minimum level of capitalisation close to the standard requirements, reducing the advantage they had through their own methodologies. At the same time, Basel IV has brought significant revisions to the standardized calculation methods for credit risk, market risk, and operational risk, to make them more sensitive to economic realities (Basel Committee on Banking Supervision, 2017; McKinsey & Company, 2017). In the case of credit, the risk weighting was recalibrated according to ratings and the

credit/collateral ratio, and the advanced method for calculating operational risk (AMA) was replaced with a standardized model (SMA), which correlates capital requirements with historical operational income and losses (Basel Committee on Banking Supervision, 2017). With regard to the trading book, the FRTB (Fundamental Review of the Trading Book) introduced stricter rules and higher capital requirements for risky positions (McKinsey & Company, 2017).

Impact assessments carried out by authorities and independent institutions show that these changes will lead to an increase in capital requirements for large banks, with significant variations between countries and types of institutions (European Banking Authority, 2019; Basel Committee on Banking Supervision, 2019). According to estimates by the European Banking Authority, full implementation of Basel IV would result in an average increase of approximately 19% in the Tier 1 capital required for banks in the European Union, and subsequent updates have adjusted this figure to around 15.4% by 2028 (European Banking Authority, 2019, 2021). To meet these requirements, banks will need to increase their capital through retained earnings or share issues, or reduce their risky assets, both of which have implications for profitability. Increasing capital can dilute ROE, while reducing assets limits earning opportunities. ECB analyses show that institutions using optimistic internal models will feel the pressure most, as they will have to allocate more capital to certain portfolios and, implicitly, accept lower returns or pass on the cost to customers through more expensive loans (Ingves, 2018; McKinsey & Company, 2017).

The new rules have a different impact depending on the segment. Mortgage lending and corporate financing for low-rated borrowers are becoming less attractive, as the new risk weights increase the capital requirements for these products (KPMG, 2017). In the case of mortgages, banks are forced to either require higher down payments from customers, thereby reducing lending volumes, or accept lower returns due to additional capital being tied up (Deloitte, 2018). At the same time, FRTB regulations require a significant increase in capital for trading desks, affecting the profitability of investment banks and causing them to restrict their operations or transfer them to less regulated entities (McKinsey & Company, 2017). Therefore, there is a growing trend for institutions to focus on less capital-intensive segments, such as advisory services, asset management, or bancassurance, and to accelerate digital transformation to reduce costs (KPMG, 2017).

Even though the effects are significant, the authorities have calibrated the process so that, at the aggregate level, the increase in capital remains manageable. The Basel Committee emphasized in its 2017 statement that the goal is not to massively increase requirements, but to standardize rules and reduce differences between banks (Ingves, 2018). Therefore, implementation has been planned for the long term, until 2028, to allow for gradual adjustment through retained earnings and to limit the impact on lending and shareholder returns (Basel Committee on Banking Supervision, 2017; Ingves, 2018). During this period, many banks recalibrated their profitability targets, moving from 12–15% ROE targets to 10–12% levels, which are considered more sustainable in the new context (McKinsey & Company, 2017). Returns for shareholders are expected to remain stable, but with lower volatility and less risk of extreme losses, which may even contribute to lowering banks' financing costs (Miles et al., 2013; Dagher et al., 2016).

Through this set of measures, Basel IV continues the logic of the Basel III reforms, reinforcing the idea of risk-calibrated profitability and less focus on short-term maximisation. Banks that have relied heavily on optimizing internal models will feel the constraints most strongly, while institutions with conservative practices will be less affected and may even benefit from the standardization of rules (European Banking Authority, 2021; Deloitte, 2018). Overall, the changes outline a more prudent model of bank profitability, based on solid capital, increased liquidity, and reduced volatility,

which enhances the resilience of the financial system and stabilizes long-term earnings (Admati & Hellwig, 2013; Thakor, 2014).

3.5. Comparative analysis of the banking regulatory framework under Basel I, II, III, and IV

The evolution of the international banking regulatory framework is closely linked to successive interventions by the Basel Committee, which aimed to strengthen the stability of the financial system. The four distinct stages—Basel I (1988), Basel II (2004), Basel III (2010), and the final package unofficially known as Basel IV (2017)—were designed as responses to dysfunctions identified in the global financial architecture.

The comparative table summarises the main elements defining each agreement: the timing of adoption and associated context, the objectives pursued, changes in the methodology for calculating capital requirements, the treatment of different risk categories and the impact on the profitability of credit institutions. Each stage of regulation was developed based on lessons learned from previous crises and the need to reduce the structural vulnerabilities of financial markets.

Basel I introduced for the first time a uniform global capital requirement, using an approach based on fixed risk weights. Although widely applicable, this framework had limitations in terms of risk differentiation. Basel II expanded on the initial approach, introducing internal assessment methods and the integration of operational risk, but was criticized for indirectly contributing to the accumulation of imbalances in the run-up to the 2008 crisis. Basel III strengthened the capital structure, introduced liquidity requirements, and limited financial leverage, but at a direct cost to profitability. The final agreement, Basel IV, aimed at stricter standardization of internal models and limiting variations between banks in the calculation of risk-weighted assets.

This analysis highlights the transition from a static and generalized regulatory framework to a dynamic one, focused on the risk profile and actual performance of the institution. At the same time, it shows how each reform has changed the operational framework of banks, influencing lending strategies, balance sheet structure, and profitability relative to capital employed.

Table 1. Comparative analysis of the main characteristics of the Basel I, II, III and IV agreements

Analyzed dimension	Basel I (1988)	Basel II (2004)	Basel III (2010)	Basel IV (2017)
Main objective	Introduction of a minimum capital requirement of 8% to strengthen banking resilience and prevent systemic failures.	Closer alignment of capital requirements with each bank's actual risk profile through internal models and detailed assessments.	Strengthening the banking system by increasing capital and liquidity requirements and reducing excessive leverage.	Harmonization of calculation methods and limitation of excessive optimization of risk-weighted assets through the introduction of the output floor.
Capital requirements	8% own funds ratio relative to risk-weighted assets.	Advanced methodologies (IRB) for risk assessment, allowing lower capital	Increase in Tier 1 capital to 6% and introduction of buffers (conservation and	Introduction of a minimum threshold (output floor) of 72.5% of standard requirements for banks using

		requirements for safer assets.	countercyclical), reaching an effective threshold of about 10.5–11%.	internal models.
Types of risk covered	Only credit risk, divided into four asset categories.	Credit, market and operational risk. Explicit inclusion of operational risk.	Credit, market, operational, liquidity and leverage risks. Focus on systemic risk.	Major adjustments to all risk methods. Introduction of FRTB for market risk and replacement of operational risk models with SMA.
Innovative instruments introduced	Fixed risk weights for assets (0%, 20%, 50%, 100%).	Three pillars: minimum capital, prudential supervision and transparency (market discipline).	Countercyclical buffer, capital conservation buffer, LCR, NSFR, leverage ratio (3%).	Output floor, SMA, FRTB – all aimed at reducing volatility and internal model arbitrage.
Impact on profitability	Temporary decline in ROE for undercapitalized banks. Well-capitalized banks were less affected.	Initially higher ROE, but unstable. The crisis exposed vulnerabilities, with sharp profitability declines.	Visible pressure on ROE and ROA due to higher capital and compliance costs. More sustainable profitability.	Lower but more stable ROE expected. Capital requirements in the EU projected to increase by 15–19% by 2028.
Advantages	Simple, clear and globally applicable framework. Established minimum standards.	High flexibility through the use of internal models. Better alignment with risk profiles.	Reduced leverage, increased confidence, enhanced financial stability and liquidity.	Greater comparability among banks. Reduced capital arbitrage. Strengthened supervisory rules.
Limitations and criticisms	Does not differentiate risks among borrowers. Encouraged regulatory arbitrage.	Excessive complexity, pro-cyclicality, opaque models. Smaller banks disadvantaged.	High implementation costs. Reduced profitability. Credit supply affected.	Lengthy and difficult implementation. Asymmetric impact on large banks. Pressure on capital-intensive business segments.

Source: Own processing

4. Conclusions

This research analyzed the evolution of the Basel Accords—from Basel I to the final package known as Basel IV—with the aim of assessing how international prudential regulations have influenced the stability and profitability of the banking sector. The results indicate that each stage of regulation was a direct response to previous financial dysfunctions and crises, reflecting a continuous adaptation of the regulatory framework to emerging risks in the global financial system.

Basel I laid the foundations for modern banking regulation by introducing a minimum capital threshold of 8%, contributing to increased capitalization and strengthened bank stability. However, its simplified nature and use of fixed risk weights

limited the ability to differentiate risks, favoring regulatory arbitrage. The impact on profitability was mixed, mainly affecting poorly capitalized banks, while sound institutions managed to maintain their financial performance.

Basel II sought to align capital requirements more closely with banks' risk profiles by introducing internal models and a three-pillar structure. Although this framework temporarily allowed for increased profitability through capital optimization, the results show that these gains were fragile and highly procyclical. The 2008 financial crisis highlighted the limitations of the internal model-based approach, demonstrating that profitability achieved under conditions of risk underestimation is not sustainable in the long term.

Basel III marked a paradigm shift, emphasizing capital quality, limiting leverage, and introducing liquidity requirements. Analysis shows that these measures have put pressure on traditional profitability indicators such as ROE and ROA, but have led to a stabilization of financial performance. Lower but less volatile profitability has been associated with greater shock absorption capacity, including in the context of the 2020 health crisis.

The Basel IV reform package continues this trend by standardizing risk calculation methods and limiting excessive optimization of risk-weighted assets. Although its implementation involves higher capital requirements and structural adjustments to business models, the results suggest that it contributes to greater comparability between banks and reduced systemic risk.

In conclusion, the Basel Accords have profoundly influenced the relationship between stability and profitability in the banking sector. Although each stage of regulation imposed short-term costs on profitability, the cumulative effect has been to strengthen the resilience of the financial system. The answer to the research question indicates that prudential regulation has favored a shift from high but unstable profits to more moderate but sustainable profitability, contributing to the long-term stability of the banking system.

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