

## **Basel Implementation in Banking in Indonesia**

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### **Abstract**

This study's goal is to determine the application of Basel in banking in Indonesia. Bank Indonesia in issuing banking regulations refers to the Bank for International Settlement (BIS) policies related to liquidity, especially as a reference to protect Indonesian banks from crises caused by insufficient liquidity needs in the Bank. policies from the BIS will be accommodated first by the Islamic Financial Service Board (IFSB). IFSB is used as a reference for regulators to make banking policies. One of the IFSB committees, namely the Basel committee in the field of banking supervision, has issued provisions that are a reference for international banking, namely Basel 1, Basel II and Basel III. This study collects data using a descriptive qualitative methodology and secondary data obtained from literature studies. The results of the research show that banks in Indonesia have implemented regulations according to the Basel III international standard OJK has adopted Basel recommendations and has implemented Basel 1, 2 and 3 although there are some shortcomings but the application of risk management is more effective and efficient. The application of the continuation of Basel III is adjusted to the conditions of national banking proportionally.

**Keywords:** basel, risk management, banking.

### **INTRODUCTION**

Financial system stability can be realized if the banking system is healthy, strong, and efficient. Indonesia implements a dual banking system so that it operates in conventional and sharia banking which is an intermediary institution that has an important function in maintaining financial system stability.

The global financial crisis that has occurred since 2008 has undeniably exposed various systemic weaknesses in the banking risk management structure. This has made policy makers respond by establishing guidelines and regulations that can strengthen financial sector stability and shield the economy from potential future crises. Risk events not only occur abroad, but are also experienced by banks in Indonesia.

Banking in Indonesia has faced several crises, but it can still stand firm even though many conventional banks were liquidated in 1998, and Islamic banking remained stable amid the shock of the 2008 crisis. However, banks must remain vigilant against crises that could occur at any time, especially those caused by lack of liquidity.

An important lesson that can be taken from events related to risk, both overseas and domestic banking, is the importance of managing risk management to minimize losses that can occur. A number of techniques and processes are used in risk management to recognize,

quantify, track, and manage risks associated with all bank business operations. Risk management is inseparable from the formation history of the Basel committee regulations. The Basel committee has issued Basel 1, Basel II and Basel III.

Some of the studies conducted on Basel in banking include Mirza Hedismarlina Yuneline and Achmad Herlanto Anggono from the School of Business and Management, Bandung Institute of Technology in 2012 entitled "Alternative Financial Strategies in Bank BJB's Business Plan to Strengthen Capital." This research aims to examine Bank BJB's financial strategy to achieve capitalization as a National Bank. The research begins with assessing internal capabilities by evaluating the present state of the bank's profitability, liquidity, earning assets, capital, asset growth, and efficiency. Then a proforma model is prepared for the Medium-Term Bank Business Plan, specifically financial statement projections, ratio projections, financing plans, and capital plans. The analysis shows that each strategy has advantages and disadvantages on performance. The reduction in dividend payout ratio causes an increase in the Operating Expense to Operating Income (BOPO) ratio and credit expansion shows an increase in the LDR ratio to exceed the rules set by Bank Indonesia. Ultimately, decision-making by the alternative financial strategies taken along with external funding is determined by the dynamic external environment associated with dividend theory and signaling theory (Bonnario 2016).

Then John Taskinsoy from the university of Malaysia conducted research on Basel III requirements on the Turkish financial sector. The largest financial and economic shock to hit Turkey in 2001 led to a complete revamp of the country's banking sector, which ultimately cost the government nearly \$50 billion. From the start of the recovery effort, the IMF was active, giving Turkey financial support of around 24 billion dollars during the precarious years of 1999 and 2002. The Turkish government recently declared that it will no longer be partnering with the IMF after 19 Stand-By agreements. It further stated that it will not sign into any new agreements following the final repayment of current debts in April 2013. Turkey's resilient banking system was able to absorb shocks during the financial stress, Turkey's economy, with a GDP of over \$1 trillion, has grown to become the 16th largest in the world, thanks to improved investor confidence and ten years of political stability (one-party rule since 2002) made possible by the BRSA's outstanding work. In contrast to the common argument, a significant number of Turkish government officials and leading banking executives believe that Basel III's stringent new capital requirements will have little or no impact on the Turkish banking sector which currently has a capital adequacy ratio (CAR) of slightly over 16%, which is significantly higher than the 10.5% imposed by Basel III in January 2019 (Bonnario 2016). Then the next research is conducted research on Liquidity-stress testing of Basel III implementation in Indonesia. The population analyzed was 120 banks in Indonesia. The results showed that the banking sector in Indonesia has a very good assessment if the Basel III standard regulations are applied, with the lowest score being BCA with an assessment of 8.89 and the highest score obtained by BRI with an assessment of 9.68. This study demonstrates that Indonesia can implement Basel III level requirements.

Liana Wati's research with the title Infrastructure Readiness of Bank X in the application of Credit Risk Management Referring to Basel II in 2006 concluded that bank X is the leading state-owned bank in anticipating risk management according to Basel II, management commitment plays the most significant role in the preparation of risk management anticipation according to Basel II where the aspects studied are the commitment of a competent human resource management team and support.

In the research of Patrick Slovik, with the title Challenges of Capital Regulation and Systematically Important Banks which discusses the application of Basel II in important banks in America, Europe, and Asia. The conclusion in this study is that new regulations tend to be

ineffective because banks try to engineer their operations to comply with these regulations, there is a relationship between the increase in minimum bank capital requirements and macroeconomic conditions (as measured by the increase in GDP) is not significant. In the research of Sani MD, et al with the title Fractional Reserve Banking and Maqasid Al Sharia: researchers see that Fractional Reserve Banking applied today is not in accordance with the principles of Maqashid Al Sharia.

Meanwhile, empirical studies conducted to determine the impact of Basel regulations include the title "Basel II in the Perspective of Islamic Law" written by Adi Rahmannur Ibnu in 2016, that the Basel Committee's commitment to preventing the global financial crisis was realized by publishing the Basel Capital Accord in 1988. This Basel Capital Accord is known as Basel I. In its development Basel I was updated and revised with Basel II which was published in 2004. Basel II was recommended by the BIS to its members because it was thought to aid in shielding the global financial system from issues that would develop in the event that one or more large banks collapsed. A significant change in Basel II is the capital adequacy requirement (CAR). According to Basel II, the CAR calculation must include operational risk items. This is not found in the Basel I CAR policy. By including operational risk items in the calculation of CAR, banks will be more sensitive and anticipatory to possible crises and macro-financial problems (Ibnu 2016).

In Bryan J Balin's research, titled Basel I, Basel II and Emerging Markets, the contents of Basel I and Basel II have not considered the objective conditions of developing countries and discussed the effect of Basel I and II on developing economies.

In addition, in the research of Jurg Blum and Martin Herwig with the title Macroeconomics on Bank CAR policy in 1996, which connects CAR with macroeconomic implications examines policies related to CAR, where tightening CAR policy has an influence on the equilibrium of demand and supply, the 1998 crisis could be prevented by CAR (Bain 2008). In an effort to ensure that bank capital is always healthy and supported by healthy asset quality as well, the monetary authority has determined the rules of bank capital health in addition to other rules that function as prudential banking supervision, so that banks do not falter in the face of difficulties that may arise (Nasiruddin, 2012). Along with the increasing complexity of the bank's business concept and the accompanying risks are increasing, coupled with the impact of the 2007 crisis, causing BCBS to make policies regarding capital (BASEL III). Basel III is an extension of the Basel Accord, which the Basel Committee on Banking Supervision (BCBS) published with proposals for banking regulation and supervision. The purpose of Basel III is to strengthen regulation, supervision, and risk management through a more comprehensive review of measurements in the banking sector. By doing so, it is expected to further improve the ability of banks to deal with shocks arising from financial and economic sector pressures (Nasirudin 2012).

Bank Indonesia in issuing banking regulations refers to the Bank for International Settlement (BIS) policy. Policies from the BIS related to liquidity in particular are used as a reference to protect Indonesian banks from crises caused by inadequate liquidity needs in each Bank. policies from the BIS will be accommodated first by the Islamic Financial Service Board (IFSB), reviewed then can be used as a reference for regulators to make policies related to banking. One of the committees owned by this institution is the Basel Committee for the oversight of banks. Risk management is inseparable from the history of the formation of the Basel committee rules. The Basel committee has issued provisions that have become a reference for international banking, namely Basel 1, Basel II and Basel III.

As described above, the author is eager to carry out studies on the application of Basel in Indonesia.

Give a succinct and thorough description of the article's background, highlighting its innovation with statistics and/or a literature review. The problematic reality that is examined from a scientific standpoint is described in this section. The goal of authoring the article is described in the introduction's conclusion.

## **METHOD**

This study collects data utilizing secondary sources from literature reviews and applies a descriptive qualitative methodology. Data was collected from the OJK official website as well as scientific journal articles or scientific papers related to the research topic. The data is reviewed and analyzed using content analysis or inductive analysis until data reduction, namely examining symptoms regarding the application of Basel in banking in Indonesia.

## **RESULT AND DISCUSSION**

### **Implementation of the Basel Framework in Indonesia**

According to the OJK Website, participating in the G-20 and other international forums, such as the Financial Stability Board (FSB) and the Basel Committee on Banking Supervision (BCBS), is Indonesia, Indonesia has pledged to implement the recommendations made by these forums. In carrying out its duties, OJK is inseparable from efforts to adopt these various recommendations. In carrying out the adoption process of the various recommendations, OJK will still adjust to the conditions and development of the banking industry in the country. BCBS is one of the standard setting bodies which is also a member of the Financial Stability Board in the FSB - Plenary. OJK is currently also a member of the FSB, especially the FSB - Supervisory and Regulatory Cooperation (SRC) and FSB - Regional Consultative Groups (RCG).

### **Basel I Framework**

Basel 1 contains capital rules, measurement of risk exposure, and rules that establish the level of capital to be maintained in relation to risk. Basel I was applied to banks in Indonesia in 1992.

The Basel 1 framework has the following objectives: to improve the stability and soundness of the global financial system to have a fair and highly consistent framework for banking that can be applied to all banks from different countries in order to reduce the level of unequal competition between international banks. The Basel 1 framework is primarily aimed at assessing capital adequacy against credit risk. Other risks and interest risk as well as investment risk in securities must be supervised by the supervisor (Indonesian Bankers Association, 2017).

The Basel 1 framework only covered credit risk. As the 1990s progressed and market risk became an important factor in the collapse of banks, the Market Risk Amendment to the Original Accord was published in January 1996. With this amendment, the Basel I capital calculation includes credit risk and market risk. However, there are several weaknesses in the implementation of Basel I, namely focusing on a single measurement, using a simplistic approach to risk sensitivity, and using a "one size fits all" approach to measuring credit risk and market risk so that there is no differentiation in risk characteristics for each bank.

The implementation of Basel I has several shortcomings including: lack of risk sensitivity, limited recognition of collateral, and incomplete coverage of risk sources, a "one-size-fits-all" approach in the sense that the requirements are almost the same, regardless of the level of risk up to the type of activity of the bank.

In addition, Basel I also ignored the value of an effective risk management procedure. Therefore, the International Basel Committee on Bank Supervision issued Basel II to

complement the shortcomings of Basel I.

### **Basel II Framework**

Indonesia has been completely implementing Pillar 1, Pillar 2, and Pillar 3 of the Basel II framework since December 2012.

The Basel II accord includes 3 pillars for risk management namely:

**Pillar 1:** Minimum Capital Requirement. Banks must maintain sufficient capital to support risk-taking activities. The regulatory capital requirement is a minimum of 8% which is calculated for the three main components of risk faced by banks: market risk, credit risk, and operational risk. These components include a form of standardized approach and internal system-based approach. Credit risk can be calculated in three different ways according to its complexity, namely: Standardized approach, Foundation IRB (Internal Rating-Based), and Advanced IRB. While operational risk is calculated using three approaches, namely the Basic Indicator Approach (BIA), Standardized Approach (STA), and Advanced Measurement Approach (AMA). Market risk can be calculated using the Value at Risk (VaR) approach.

The risk management strategies of Islamic banks rely on their capacity to deal with market discipline, adjust capital to business objectives and risk tolerances, and communicate with regulators. Nonetheless, Islamic banks function under a regulatory environment that is inclined to enforce capital adequacy requirements in order to foster stability and mitigate the danger of contagion.

**Pillar 2:** Supervisory Review Process. Banks must be able to assess the risks of their activities, and supervisors must be able to evaluate the adequacy of the assessment made by the bank.

Supervisory review aims urge banks to have internal policies and processes to evaluate and maintain capital sufficiency in line with their business strategy, operations, and risk profile to ascertain whether banks have enough capital to cover the risks associated with their business model and surrounding conditions. Bank management is responsible for ensuring that the bank has sufficient capital (Iqbal, 2011).

This pillar 2 framework addresses all other risks that the bank may face, such as legal risk, strategic risk, concentration risk, liquidity risk, systemic risk, reputation risk, as well as pension risk which are combined into residual risk.

In Indonesia, the supervisory review function is carried out by Bank Indonesia, but as mandated by law, starting December 31, 2013 this function is carried out by the Financial Services Authority (OJK). The obligation to fulfill the three pillars of Basel II, where pillar 1 requires banks to calculate minimum capital for credit risk, market risk, and operational risk in accordance with the authority's approach. The supervisory power in pillar 2 focuses on and lays out the fundamentals of the supervisors' usage of the supervisory review process. The purpose of supervisory reviews of banks is to make sure that the minimum capital requirements are followed and to motivate Islamic institutions to create and implement best practices for risk management.

The following are some crucial supervisory review tenets. First principle, banks should have a plan to keep capital at a specific level as well as a procedure to evaluate overall capital sufficiency in respect to their risk profile.

Principle 2: Supervisors should review and evaluate the bank's capital adequacy assessment and strategy and evaluate the bank's ability to monitor and ensure compliance with its capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the results obtained from the Basel II process.

Principle 3: Supervisors should require banks to operate with capital ratios above the minimum required and should have the ability to require banks to maintain capital above the

minimum.

Principle 4: Supervisors should be able to intervene early to prevent capital from falling below the minimum required level and should seek immediate elective action if a bank's capital cannot be maintained (Rustam 2013).

**Pillar 3: Market Discipline.** Banks should disclose various information to encourage market mechanisms so as to support the supervisory function of banks.

The Pillar 3 framework is designed to provide the market with a better picture of a bank's overall risk position to allow the relevant parties of the bank to address risks.

Market discipline, in accordance with the disclosure rules, banks must provide accurate and timely information to market participants so they can evaluate risks rationally. This information includes the amount of capital needed to sustain losses and risk exposures that could result in losses. Capital structure, capital sufficiency, exposure, and risk assessment encompassing both qualitative and quantitative elements are matters that must be communicated. As an illustration, consider credit, market, operational, and capital risks. Strategies, rules, and procedures as well as the risk management function's organizational structure are examples of qualitative aspects. Quantitative aspects include disclosure of specific values (Iqbal 2011).

Disclosure is very important as it provides relevant and strategic information to investors regarding the current and future performance of the Company. The information provided can be the basis for decision making by stakeholders in the bank, usually shareholders, employees, customers, and society as a whole. (Rustam 2013)

The implementation of Basel II is an unavoidable global demand, which is a broader spectrum to improve the stability of the financial system through improving the compatibility between the calculation of bank capital that is more sensitive to risk and the elements of risk faced by banks. Basel II also incentivizes quality improvement in risk management practices that not only take into account credit risk, market risk and operational risk, but also touches on supervisory aspects by the supervisory authority. The transparency aspect can expand the involvement of market participants to create market discipline in the banking industry.

There are three things that banks must pay attention to in implementing Basel II: first, banks must understand and learn the various applications of Basel II conception and the ability of banks to implement risk management as an absolute thing. Second, each bank needs to conduct a balance analysis based on the understanding of Basel II. Third, each bank is expected to immediately know the impact of the implementation of Basel II more definitively on the amount of its capital adequacy. Basel II places a strong emphasis on risk-based capital calculations, supervisory review procedures, and market discipline in an effort to increase the safety and soundness of the financial system. The Basel II framework is designed with an eye toward the future, allowing for periodic enhancements and modifications. This is to make sure that advancements in risk management and market fluctuations may be accommodated under the Basel II framework. When viewed, Basel II has various complexities and preconditions that are quite heavy for banks. But it is reasonable to see the benefits that banks will get later, in the form of capital savings in covering the risks they take. Another benefit, because Basel II is an internationally recognized standard, it will be easy for a bank that will operate globally to be accepted by the international market if it follows this standard. (Yusnta 2008)

Based on the description of these pillars, Basel I and Basel II can be compared. The following is a comparison table between Basel I and Basel II:

**Table 1: Basel I and Basel II Comparison**

| <b>Basel 1</b>                                                              | <b>Basel 2</b>                               |
|-----------------------------------------------------------------------------|----------------------------------------------|
| Focus on one way of measuring risk                                          | Focus on internal methodology                |
| Have a simple approach to risk sensitivity                                  | Has a higher level of risk sensitivity       |
| Using a <i>one size fits all</i> approach for risk and capital calculations | Easily customized through each bank's needs. |

Source: Bank Indonesia Tier I workbook and GARP

Weaknesses of Basel II. According to the Ministry of Finance's website, although Basel II was designed to strengthen the banking sector to avoid the huge losses that would arise due to the global financial crisis, the aftermath of the crisis has shown that Basel II has weaknesses, among others:

The capital requirement ratio of 4% was not strong enough to withstand the huge losses experienced due to the crisis.

Responsibility for measuring the risk-weighted level of the bank's assets are left to rating agencies, which have proven to be highly susceptible to potential conflicts of interest.

Capital requirements are pro-cyclical: If the global economy is doing well and asset prices are rising, the risk between the sovereign and the counterparties in the financial sector that deal with borrowers tends to decrease, resulting in lower capital liabilities; but in an economic recession, the opposite is true, resulting in higher capital liabilities and tightened credit.

Basel II incentivizes the securitization process, i.e., financial institutions that turn their loans into asset backed securities and take them off balance sheet, thereby reducing asset risk-weighting.

### **Basel III Framework**

On January 1, 2011, Basel III went into effect. Indonesia has adopted the Basel III framework for capital and liquidity norms; additional standards will be implemented in compliance with the timeframes established by the BCBS.

**Table 2: BCBS Standards**

| No | OJK Regulation                                                                                                      | Standard                          | Basel Documents                                                                              |
|----|---------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------|
| 1  | POJK Number: 11/POJK.03/2016 concerning the Minimum Capital Adequacy of Commercial Banks                            | Additional Tier (AT) 1, Tier 2    | Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems (2011) |
|    |                                                                                                                     | Capital Conservation Buffer (CCB) |                                                                                              |
|    |                                                                                                                     | Countercyclical Buffer (CCyB)     |                                                                                              |
| 2  | POJK Number 42/POJK.03/2015 concerning the Obligation to Fulfill the Liquidity Coverage Ratio for Commercial Banks  | LCR (Liquidity Coverage Ratio)    | Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools (2013)           |
| 3  | POJK Number 50/POJK.03/2017 concerning the Obligation to Fulfill the Net Stable Funding Ratio for Commercial Banks. | NSFR (Net Stable Funding Ratio)   | Basel III: The Net Stable Funding Ratio (2014)                                               |

Source: (OJK 2018)

Several reasons why Indonesia needs to adopt Basel III, namely; 1) Commitment as a member country of BCBS and G-20, 2) Prior to the issuance of Basel III, Indonesia had implemented Basel I and Basel II, 3) Reputational factors and their influence on international assessments of the Indonesian banking system, 4) Implementation of risk management in banks becomes more effective and efficient 5) Banking transactions with international counterparties become more credible.

According to Wimboh at the 20th International Conference of Banking Supervisors (ICBS) with the topic Navigating the Post-Basel III Banking System, in Abu Dhabi in 2018, that the application of the continuation of Basel III will be adjusted to the conditions of national banking proportionally. Unlike Basel I and II which are applied to all commercial banks, the application of some Basel III standards is only applied to certain groups of banks, especially BUKU 4, BUKU 3 and Foreign Banks. Indonesia has also prepared an umbrella regulation to mitigate risks that may arise such as cyber risk, money laundering and terrorist financing as well as promoting adequate market conduct to protect consumers.

The Basell III document that was issued in December 2010 became a reference for both conventional banking and Islamic banking, in order to have maximum resilience in facing the economic crisis. Indonesia as one of the countries that adheres to the dual banking system, of course, must see and predict how the readiness of conventional banking and Islamic banking in facing the Basell III era. (Solissa, 2018)

The Financial Services Authority (OJK) issued a new regulation through Financial

Services Authority Regulation (POJK) Number 27 of 2022 concerning the Second Amendment to POJK Number 11/POJK.03/2016 concerning the Minimum Capital Adequacy (CAR) of Commercial Banks. POJK 27/2022 was issued in order to make adjustments to the calculation of banking capital which is more risk-sensitive with strengthening in terms of risk management in line with international standards, namely Basel III: Finalizing post-crisis reforms (Basel III reforms). According to Darmansyah, Director of Public Relations of OJK, the changes in POJK KPMM are regarding technical adjustments to the calculation of Risk Weighted Assets (ATMR) which are further regulated in the related OJK Circular Letter. The core capital and complementary capital components of banks that have been regulated in this POJK have not changed to support financial market deepening by optimizing the function and role of central counterparty institutions, banks are also mandated to put into effect international norms in the form of margin requirements for non-centrally cleared derivatives and capital requirements for bank exposures to central counterparties.

## CONCLUSION

Basel I, Basel II, and Basel III, published by the BCBS, are designed to improve global financial supervision and boost the reputation of banks. Basel I was created to set a minimum capital requirement for banks based on risk-weighted assets; Basel II was created to strengthen minimum capital requirements and add supervisory duties; and Basel III was created to encourage the use of liquidity buffers, or extra layers of equity. In Indonesia, OJK adopted the Basel recommendations and has implemented Basel 1, 2 and 3 despite some shortcomings but the application of risk management has become more effective and efficient. OJK has also issued new rules that are in line with Basel III international standards.

Recommendations from this study are regulations that refer to international standards or the continuation of Basel III including risk mitigation and socialized so that risk management in banking is more effective.

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