

Leveraging South Korea's Strategic Approach: Developing a Robust NPL Resolution Framework for Indonesia

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Acknowledgment

Completing this research would not have been possible without the invaluable support and guidance of numerous individuals and institutions, to whom I extend my deepest gratitude.

First and foremost, I sincerely thank Dr. Sangche Lee, Honorary Fellow of the Korea Institute of Finance, for his exceptional mentorship, invaluable insights, and unwavering encouragement throughout this research journey. His guidance has been instrumental in refining the analytical framework and ensuring the academic rigor of this study. I am also profoundly grateful to Mr. Kang San Lee and Mrs. Soohye Hwang from the Korea Asset Management Corporation (KAMCO) for their remarkable dedication, expertise, and continuous support. Their profound knowledge, structured approach, and meticulous attention to detail, which have significantly enriched this research, are truly commendable. Their generosity in sharing insights and facilitating access to key resources has been invaluable in strengthening the depth of this study. My sincere thanks also go to Dr. Min Chang, Central Head of the Council on International Financial Cooperation (CIFC), for his exceptional generosity in allowing me to conduct this research and for his steadfast support. His commitment to fostering international collaboration has played a pivotal role in facilitating this study. I would also like to thank the CIFC Global Outreach Team—Mrs. SeungEun Baek, Mr. Yeob Lee, Mrs. Hyejin Shin, Ms. Minah Park, and Mrs. Hyun Ae Lee—for their outstanding assistance, encouragement, and facilitation throughout the research process. Their extraordinary support in arranging discussions, providing guidance, and ensuring a seamless research experience has been invaluable. Their unwavering commitment and warm hospitality have made this journey truly meaningful. Furthermore, I am deeply grateful to the experts from KAMCO, Woori Bank Korea, Hana F&I, and PT Perusahaan Pengelola Aset (PPA) for their willingness to share knowledge, provide thoughtful feedback, and engage in insightful discussions. Their contributions through various forums and focus group discussions have greatly enhanced the practical relevance of this study. I would also like to extend my sincere gratitude to the leadership of Otoritas Jasa Keuangan (OJK), particularly Mr. Eddy Manindo Harahap, Mr. Mohamad Miftah, Mrs. Indah Iramadhini and Mr. Nursantyo, for their trust and invaluable support. Their permission and encouragement have allowed me to fully immerse myself in this research and engage in international collaboration, which has been an enriching professional experience. Lastly, I extend my heartfelt appreciation to my family, whose unwavering support, patience, and encouragement have been my most significant source of strength and inspiration throughout this journey. Their support has been invaluable, and I am deeply grateful for it. I offer my sincerest gratitude to all who have contributed to the completion of this research.

ABSTRACT

The resolution of Non-Performing Loans (NPLs) is critical for financial stability and economic resilience, particularly in emerging markets like Indonesia. This research examines Indonesia's NPL resolution framework and identifies opportunities for enhancement by drawing lessons from South Korea's model, led by the Korea Asset Management Corporation (KAMCO). The study highlights that South Korea's success underscores the importance of KAMCO's pivotal role, with robust regulatory frameworks, innovative financial instruments, the development of a secondary NPL market, and private sector participation in creating an efficient, market-driven system. These elements enable efficient asset recovery and effective systemic risk management. By comparison, Indonesia's framework, while achieving notable progress at the institutional level, requires further development to incorporate innovative, market-driven solutions and a broader systemic orientation. Through comparative and gap analyses, the study identifies critical areas for improvement in Indonesia's framework, including regulatory flexibility, operational efficiency, market infrastructure, and crisis preparedness.

To bridge these gaps, the study proposes a strategic roadmap emphasizing regulatory reforms for market-driven solutions, operational improvements through standardization and digitalization, development of a secondary market with active private sector participation, and the creation of a centralized public entity for systemic risk management. Capacity building and international collaboration are also identified as critical to ensuring alignment with global best practices. By adopting a holistic, innovative, and market-oriented framework, Indonesia can strengthen its financial resilience, attract diversified investment, and position itself as a leader in regional distressed asset management. The findings offer practical recommendations to advance Indonesia's financial stability and long-term economic growth.

Keywords: Non-Performing Loans (NPLs), Financial Stability, KAMCO, Systemic Risk Management, Secondary Market, Private Sector, Distressed Asset Management.

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Chapter I. Introduction

1.1 Background of the Study

Non-Performing Loans (NPL) pose a persistent concern for financial systems worldwide, especially in developing economies where economic growth relies significantly on credit expansion. NPL occur when borrowers do not fulfill their repayment commitments, leading to loans that are either delinquent or have a significant probability of default. The accumulation of distressed assets can significantly strain banks' balance sheets, diminish profitability, restrict lending capacity, and impede the broader economic growth essential for recovery and development.

NPL have a profound impact on economic stability, financial resilience, and access to credit. Elevated NPL levels create macrofinancial feedback loops that further impair the real economy and financial sector. Rising NPL ratios restrict the flow of credit, limiting funds to productive sectors and diminishing banks' lending capacity. This leads to reduced Gross Domestic Product (GDP) growth and rising unemployment, as constrained credit dampens economic activity and investment. Sustained high NPL ratios weaken financial resilience further, creating systemic challenges for maintaining stability in the financial sector.¹

The interconnected nature of global financial systems intensifies the effects of NPLs across regions. Heightened NPL ratios in one economy can increase risk aversion globally, prompting capital outflows that tighten credit conditions in other regions. These shifts lead to liquidity shortages that destabilize financial systems reliant on foreign capital, with NPL accumulation

¹ Lee, J., & Rosenkranz, P. (2019). Nonperforming loans in Asia: Determinants and macrofinancial linkages (ADB Economics Working Paper Series No. 574). Asian Development Bank.

contributing to financial instability through cross-border banking linkages and affecting economies dependent on external financing.

To mitigate the adverse effects of NPLs on both the financial and real economy, robust policy responses are essential. Comprehensive NPL management frameworks—such as asset management companies, regulatory reforms, and coordinated restructuring strategies—are crucial for sustaining economic growth, preserving financial stability, and enhancing the resilience of credit systems. Such mechanisms not only address immediate credit risks but also support long-term economic stability within an increasingly interconnected global financial environment.

Several countries worldwide have successfully implemented advanced frameworks for managing NPL, establishing global best practices that can serve as valuable references for nations grappling with high NPL ratios. These best practices often include integrated, government-backed asset management corporations that streamline the process of NPL acquisition, restructuring, and disposal². For instance, countries like Ireland, Spain, China, and South Korea have established such institutions to address their own financial crises. Ireland's National Asset Management Agency (NAMA), created in response to the 2008 Global Financial Crisis, focused on acquiring and managing distressed assets, effectively stabilizing the banking sector³. Similarly, Spain's SAREB (Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria) was established to address NPLs within Spanish banks, aiming to manage and liquidate troubled assets rapidly⁴. These frameworks underscore the value of a structured, centralized approach to asset recovery, supported by clear regulatory frameworks and state-backed funding, as essential components for effective NPL resolution.

² Financial Stability Institute. (2020). Financial Stability and NPLs – An International Perspective.

³ National Asset Management Agency (NAMA). (2009). Annual Report.

⁴ Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria (SAREB). (2012). Annual Reports.

South Korea's experience is a significant standard for crisis-driven NPL management, particularly pertinent to Indonesia's current issues in anticipating potential crises and fostering sustainable financial stability. The Korean government's reaction to the 1997 Asian Financial Crisis, characterized by the creation of the Korea Asset Management Corporation (KAMCO), a state-owned asset management entity, and the NPL Resolution Fund, offers significant lessons for Indonesia to consider and tailor to its circumstances⁵.

KAMCO's model was supported by integrated, government-endorsed strategy facilitating extensive asset acquisition, liquidation, and business rehabilitation procedures. The NPL Resolution Fund played a crucial role in stabilizing South Korea's banking sector, attaining a high recovery rate, and representing an important milestone in the country's economic recovery. The Korean model's adaptability was further exemplified during the 2008 Global Financial Crisis, when the government established the Restructuring Fund under KAMCO as a response.

The Korean example demonstrates the effectiveness of NPL management framework, wherein targeted governmental interventions and allocated money facilitate prompt and efficient solutions to systemic problems. This methodology differs from Indonesia's dispersed, reactive system and serves as a case study on how institutional reorganization can enhance financial stability.

In Indonesia, tackling NPL has emerged as a paramount concern due to the intrinsic link between economic stability and the banking industry's resilience⁶. The problem of NPL in the banking industry, characterized by borrowers' prolonged failure to fulfill payment commitments, poses a significant danger to the integrity of Indonesia's financial system. An elevated NPL ratio can significantly hinder the bank's capacity to perform its core functions,

⁵ Kang, J. (2009). The Role of Korea Asset Management Corporation in Resolving Non-Performing Loans. Korea Development Institute.

⁶ Financial Services Authority (OJK) of Indonesia. (2024). Indonesia Banking Surveillance Report.

including extending credit to the public. This constraint may result in diminished bank liquidity, as capital that could have been allocated for credit distribution is encumbered by NPL. Consequently, economic growth may be impeded, since enterprises and the individuals would encounter greater challenges in obtaining financing for investment or consumption. Consequently, proficient and effective management of NPL is crucial for the banking sector in Indonesia, given its substantial impact on the national economy.

As of 2024, the NPL percentage in Indonesia's banking sector is between 2.3% and 2.4%, with notable concentration in high-risk sectors, including trade, construction, and Micro, Small and Medium Enterprises (MSMEs)⁷. These sectors, already impaired by the economic recession induced by the COVID-19 pandemic, persist in encountering cash flow difficulties and debt repayment hurdles. This vulnerability highlights the necessity for a comprehensive framework to manage and resolve NPL effectively and avert future decline in the financial industry.

Indonesia's current strategy for handling NPL is predominantly dispersed, depending on individual banks to address their distressed assets. This disjointed approach hampers scalability, diminishes asset recovery efficiency, and constrains the banking sector's ability to rapidly recuperate from financial pressures. Transitioning to an integrated and organized NPL management framework is crucial for strengthening the system's resilience to future economic disruptions and establishing a sustainable platform for credit expansion. This framework would align Indonesia's financial system with global best practices, providing a sustainable, long-term solution for NPL management.

The current reactive approach to NPL management in Indonesian banking, often resorting to restructuring, is no longer sufficient. The need for more effective and proactive management

⁷ Financial Services Authority (OJK) of Indonesia. (2024). Indonesia Banking Surveillance Report.

strategies is becoming increasingly urgent in order to obtain sustainable financial stability. In addition, the wave of global economic changes, which is filled with uncertainty, is caused by geopolitical tensions, changes in commodity prices, and post-pandemic recovery issues. These changes can significantly impact the NPL levels in the banking sector.

Therefore, implementing a robust and proactive NPL management framework is necessary and promising. Drawing on best practices from developed countries with effective NPL resolution frameworks like South Korea's, this comprehensive and proactive approach will ensure the long-term stability of the financial system, providing a sense of hope and reassurance to the audience. A solid NPL management framework is expected to increase banking resilience in Indonesia, strengthen the resilience of the national financial system, withstand future crises, and ultimately promote sustainable financial stability.

1.2 Research Objectives and Research Questions

The primary objective of this study is **to assess the applicability and relevance of South Korea's strategic framework for NPL management and resolution within the Indonesian banking sector**. South Korea has implemented a robust, integrated approach to NPL management, characterized by coordinated government interventions, stringent regulatory policies, and the establishment of specialized institutions dedicated to managing distressed assets. This framework has demonstrated efficacy in enhancing financial stability, particularly during periods of economic crisis. Given the pressing challenges associated with NPL in Indonesia, this study explores the potential adaptation of South Korea's methodologies to Indonesia's unique economic and regulatory environment to establish an effective and sustainable NPL management system to support long-term financial resilience.

1. Objectives:

- a. To evaluate the strategies employed by South Korea for NPL management and resolution, focusing on the effectiveness of its approaches in stabilizing the financial sector.
- b. To identify the regulatory and institutional challenges within Indonesia's current framework for NPL management and resolution that may hinder the efficiency and effectiveness of NPL resolution efforts.
- c. To propose a strategic roadmap and policy recommendations for Indonesia, drawing on South Korea's and global best practices, to support the development of a robust, integrated, and proactive NPL management framework that strengthens financial stability.

2. Research Questions:

- a. What are the key strategies and mechanisms employed by South Korea for NPL management and resolution in South Korea, and how do these processes — particularly in terms of valuation, pricing, acquisition, and disposal — contribute to financial stability?
- b. What are the primary regulatory, institutional, and implementation challenges within Indonesia's current NPL management framework, and how do these challenges impact the effectiveness of NPL resolution efforts?
- c. How can Indonesia enhance its NPL management and resolution framework by adopting policies, strategies, and regulatory practices from South Korea and other global best practices to establish a robust, effective, and resilient system?

1.3 Urgency and Importance of the Research

This research is critical for several reasons:

1. Financial Stability

NPL are a crucial risk factor for Indonesia's financial stability. The current approach, which largely relies on individual banks managing their NPL independently, limits the scalability and efficacy of recovery efforts. A comprehensive NPL management framework is essential to mitigate systemic risks and promote sustaina.

2. Learning from Global Best Practices

Countries have successfully implemented integrated NPL management frameworks that mitigate systemic financial risks. For instance, South Korea offers a balanced approach by integrating proactive restructuring with effective asset disposal and has proven its ability to address NPL swiftly during financial crises. By studying South Korea's approach, Indonesia could adopt strategic insights tailored to its unique regulatory and economic landscape.

3. Reducing Economic Strain on Vulnerable Sectors

Indonesia's high NPL concentration in SMEs, trade, and construction sectors reflects structural weaknesses that could impede economic recovery and growth. Without an effective resolution mechanism, these sectors may remain overburdened, reducing their ability to contribute meaningfully to the economy. A robust framework could facilitate the efficient resolution of distressed assets, freeing up resources and enabling financial institutions to reallocate credit to productive sectors.

4. Policy and Regulatory Improvements

Indonesia's regulatory environment currently lacks an integrated mechanism for NPL resolution, which hampers its ability to implement cohesive, large-scale solutions.

This research aims to identify regulatory reforms that could strengthen Indonesia's NPL management practices by examining South Korea's regulatory framework. Establishing a solid framework could strengthen NPL regulatory oversight.

5. Enhancing Credit Market Confidence

Addressing the NPL issue effectively can restore confidence in Indonesia's credit market, a fundamental requirement for attracting investment. Furthermore, with greater confidence in the banking's resilience, financial institutions could be better positioned to expand credit safely, thereby supporting broader economic objectives.

1.4 Scope of the Study

The scope of the study is defined across three dimensions.

1. Geographical Scope:

The study primarily examines Indonesia's current NPL resolution practices in the context of global best practices, particularly in South Korea, to identify specific reforms that could strengthen Indonesia's NPL resolution framework.

2. Sectoral Scope:

This research is focused on Indonesia's banking sector, given that it dominates the financial market share within the country (78%). This sectoral focus ensures relevance, as the banking sector has a predominant role in Indonesia's financial system.

3. Source Scope

This study utilizes primary data from in-depth interviews (IDI) and secondary data from regulatory documents, academic journals, and NPL case studies. IDI respondents include KAMCO, one private AMC, and one bank from South Korea, as well as PPA, one private AMC, four banks, and Indonesia's FSA (OJK) from Indonesia. While comprehensive, the study may not fully represent all stakeholder perspectives.

1.5 Research Methodology

The study mainly focuses on qualitative methods, including literature review, comparative analysis, gap analysis, and expert interviews to explore NPL management and resolution.

1. Literature Review:

An extensive review of academic research, policy papers, and case studies on NPL management and resolution in South Korea and other global best practices.

2. Comparative Analysis:

The study uses comparative analysis to evaluate the effectiveness of different NPL resolution frameworks and identify best practices that apply to Indonesia.

3. Gap Analysis:

This study analyzes gaps in Indonesia's NPL framework compared to established models and recommends targeted interventions for improvement.

4. Expert Interviews:

Interviews with relevant stakeholders involved in NPL resolution provide insights into the practical implementation of NPL resolution in Indonesia and South Korea.

1.6 Structure of the Research

1. Chapter I: Introduction

This section provides the study's context, objectives, and key questions. It explains the importance of NPL management and resolution in financial stability.

2. Chapter II: Non-Performing Loan

This section discusses NPL definitions and data trends globally, within South Korea, and in Indonesia. It provides insights into how these trends shape and impact financial system health and policy priorities.

3. Chapter III: South Korea's Approach for NPL Resolution

This chapter examines South Korea's framework for managing Non-Performing Loans (NPLs) following the 1997 Asian Financial Crisis, highlighting its integration of public intervention, private sector engagement, and innovative financial mechanisms. Focusing on KAMCO, private AMCs, and securitization, it explores how these components worked synergistically to stabilize the financial sector, enhance market efficiency, and establish a resilient system adaptable to future crises.

4. Chapter IV: NPL Management and Resolution Mechanism

This chapter provides an in-depth analysis of NPL resolution frameworks and mechanisms, focusing on the strategies employed by South Korea and Indonesia. It examines the regulatory and operational approaches for managing and resolving NPLs, highlights best practices from global institutions, and explores the role of the KAMCO as a model for successful NPL resolution. The chapter further identifies gaps and areas for improvement in Indonesia's NPL management by comparing it to South Korea's robust framework.

5. Chapter V: Conclusion and Strategic Actions for Indonesia

The concluding section summarizes the key findings of the study and offers strategic recommendations for Indonesia. It proposes an implementation framework for improving NPL management, enhancing regulatory structures, and developing a secondary market, drawing on South Korea's experience to bolster financial stability.

Chapter II. Non-Performing Loans (NPL)

2.1 Definition of NPL and NPL Data Trends Globally

2.1.1 Understanding NPL Globally

Defining NPL in a Global Context. NPL are typically defined as loans for which the borrower has not made scheduled principal or interest payments for a specified period, often 90 days or more. However, the criteria for NPL classification vary significantly across countries and regions, influenced by local regulatory standards and economic conditions. For example, the International Monetary Fund (IMF) defines NPLs as loans overdue by 90 days or more, including loans in arrears and those showing signs of financial distress, such as the initiation of legal proceedings⁸.

The European Banking Authority (EBA) adopts a similar approach. However, it uses the broader term "Non-Performing Exposure" (NPE) to include all loans in default or undergoing restructuring due to financial difficulties⁹. This definition, adopted widely within the EU, has facilitated cross-country comparability across the region but remains challenging to harmonize with definitions outside Europe. In contrast, the United States Office of the Comptroller of the Currency (OCC) focuses on overdue periods as the primary criterion for NPL classification, placing less emphasis on qualitative indicators¹⁰.

The *Guidelines Prudential Treatment of Problem Assets – Definitions of Non-Performing Exposures and Forbearance* by the Basel Committee on Banking Supervision (BCBS) (2017), reveal how inconsistencies in defining NPLs across jurisdictions limit the

⁸ International Monetary Fund. Online Appendix for The Dynamics of Non-Performing Loans during Banking Crises: A New Database.

⁹ ECB Banking Supervision. (2017). Guidance to banks on non-performing loans.

¹⁰ Office of the Comptroller of the Currency. (2012). Liquidity Booklet.

comparability of asset quality globally¹¹. A BCBS survey showed that 82% of jurisdictions and 65% of banks have unique NPL categorization criteria, diverging significantly due to local regulatory, accounting, and supervisory practices. For instance, while the BCBS establishes a standard 90-day past-due threshold for identifying NPLs, some jurisdictions extend this threshold to 180 days, particularly for loans backed by high-quality collateral, while others set shorter timeframes or use qualitative factors like the borrower's financial difficulty. This divergence complicates efforts to achieve a unified understanding of asset quality, reducing transparency in global financial comparisons.

Challenges of Inconsistent NPL Definitions¹². Inconsistent definitions of NPL across jurisdictions present significant challenges for global financial transparency and complicate cross-border banking supervision. The BCBS identifies that these variations stem from diverse regulatory frameworks and supervisory practices tailored to local economic conditions. For example, several countries have adopted longer or shorter timeframes based on asset class or collateral quality, leading to differing standards that obscure the true risk levels of bank portfolios internationally. Additionally, there is considerable variation in the scope of what constitutes an NPL: while some jurisdictions limit this classification to loan exposures, others extend it to include debt securities, financial guarantees, and off-balance-sheet items. Differences in materiality thresholds and collateral treatment further compound these inconsistencies, as some countries delay NPL classification based on high-quality collateral.

Challenges are further intensified by discrepancies in criteria for reclassifying NPLs back to performing status. The BCBS suggests that reclassification should follow a

¹¹ Basel Committee on Banking Supervision. (2017). Prudential Treatment of Problem Assets – Definitions of Non-Performing Exposures and Forbearance. Bank for International Settlements.

¹² Basel Committee on Banking Supervision. (2017). Prudential Treatment of Problem Assets – Definitions of Non-Performing Exposures and Forbearance. Bank for International Settlements.

probation period with sustained on-time payments, but this guidance is unevenly applied across regions. Some countries enforce shorter probation periods, while others implement lengthy waiting times with additional qualitative requirements, such as improved borrower financial stability. These disparities fragment the global approach to NPL management, reducing the reliability of asset quality comparisons and complicating risk assessments for regulators and investors. The BCBS advocates for **harmonized definitions and criteria, promoting a standardized approach that strengthens cross-border supervision, and ensures a level playing field for international financial institutions.**

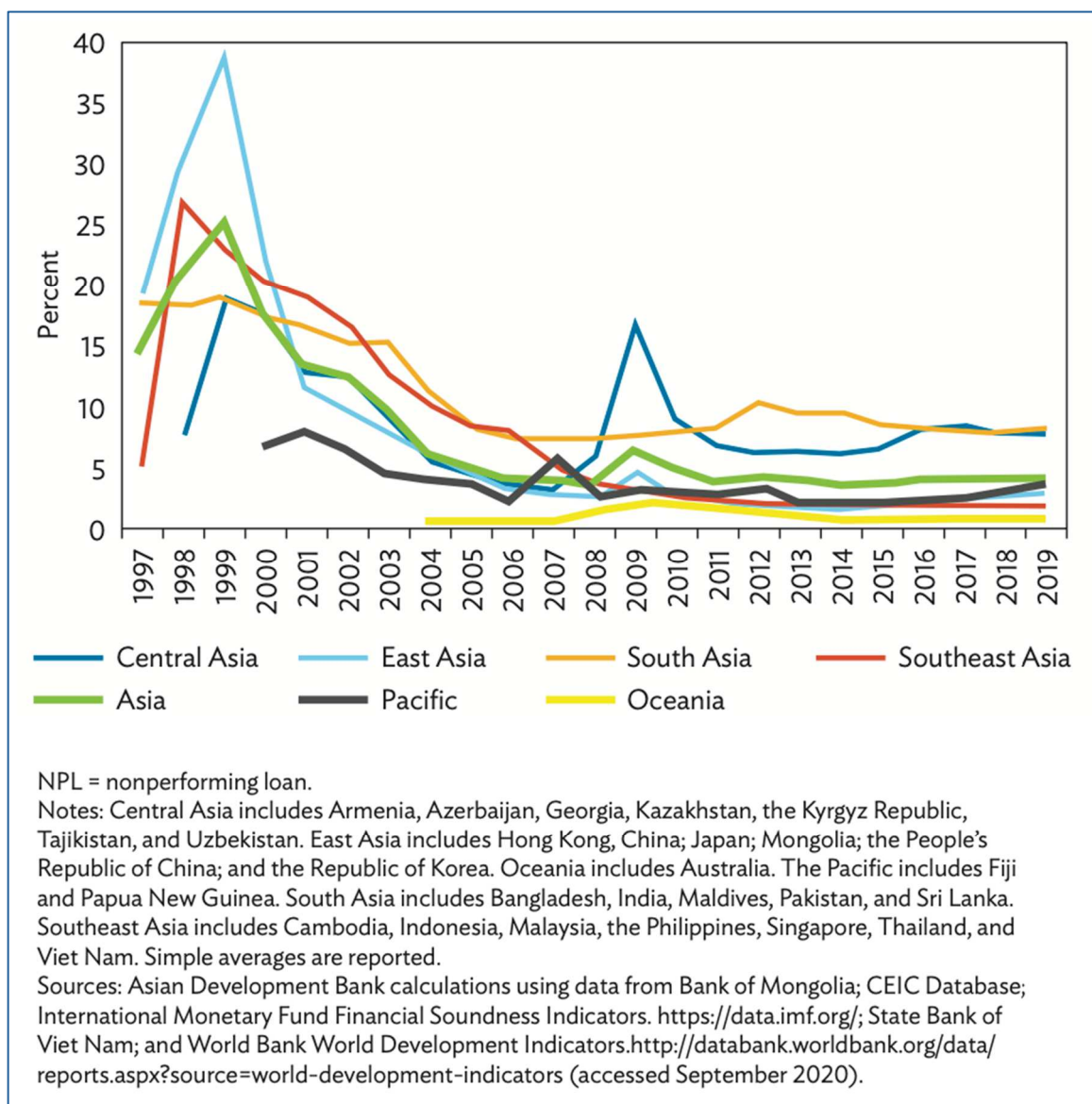
2.1.2 Historical Trends in NPL Ratios During Financial Crises

NPL Ratios in Major Financial Crises¹³. Historical trends in NPL ratios reveal that NPL levels typically surge during economic downturns and financial crises. The Asian financial crisis of 1997–1998 marked a pivotal moment for Non-Performing Loans (NPLs) and financial sector reforms in Asia. The crisis led to a severe economic downturn, with the aggregate GDP of key Southeast Asian countries plummeting by 30% within a year, and NPL ratios soaring above 40%. Over the following decade, strong post-crisis reforms, micro- and macroprudential policies, and improved macroeconomic conditions brought NPL ratios down significantly across most Asian economies. However, the global recession of 2008 triggered a resurgence of distressed assets in some regions, particularly in Central and South Asia, as well as Mongolia, where NPL ratios rose sharply due to external economic shocks like falling natural resource prices. These elevated NPL levels posed risks to banking system stability and economic growth.

¹³ Asian Development Bank (2021). Nonperforming Loans in Asia and Europe—Causes, Impacts, and Resolution Strategies.

A review of NPL trends over the past three decades reveals distinct peaks during the Asian financial and global financial crises. In East Asia, decisive reforms and political commitment led to a rapid reduction in NPL ratios, while South and Central Asia saw slower progress. Central Asia, in particular, experienced a significant resurgence in NPL ratios following the euro area sovereign debt crisis. These regional patterns underscore the need for robust measures to resolve NPL issues and prevent prolonged financial instability.

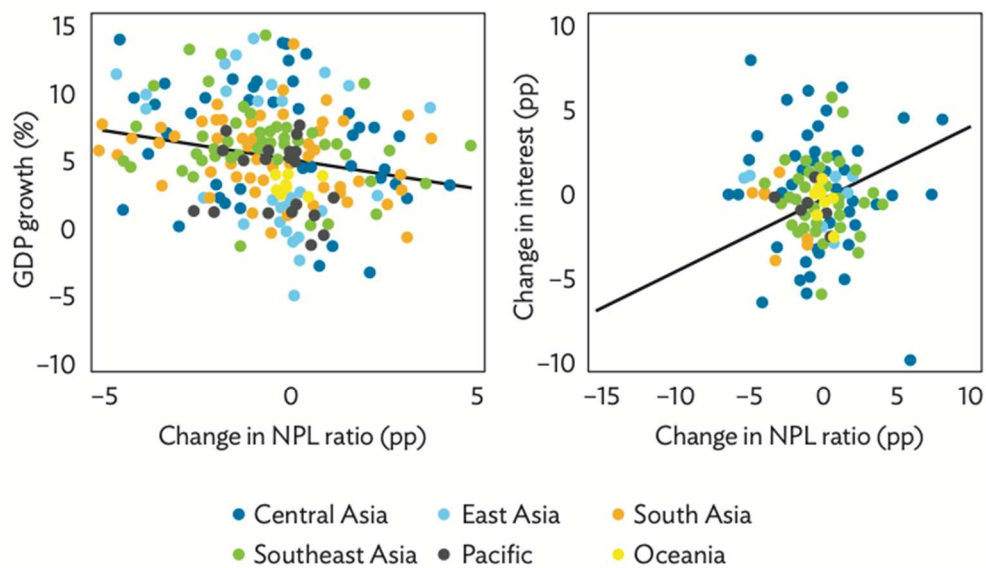
Figure 2.1. NPL Ratio by Subregion, 1997–2019



Source: Asian Development Bank (2021). *Nonperforming Loans in Asia and Europe—Causes, Impacts, and Resolution Strategies*.

High NPL ratios in many economies are closely linked to adverse macroeconomic conditions, as seen during the global financial crisis and subsequent recession, which exposed vulnerabilities in banking systems, particularly in Central Asia. Rapid credit expansion preceding the crisis, followed by sharp declines in global oil prices in 2008–2009, weakened corporate profits and economic outlooks, leading to a surge in NPLs and credit constraints that slowed recovery. These episodes underline the critical interplay between macroeconomic conditions and banking sector health, where deteriorating economic environments amplify credit risks, and weakened bank balance sheets further constrain economic growth. Trends from 2000 to 2017 demonstrate a negative correlation between NPL ratios and GDP growth, as well as a positive relationship between rising NPLs and increasing interest rates, highlighting their profound macrofinancial linkages.

Figure 2.2 NPL Ratios, GDP Growth, and Interest Rates in Asia, 1997–2019



GDP = gross domestic product, NPL = nonperforming loan, pp = percentage point.

Note: Interest rates refer to central bank policy rates.

Sources: Asian Development Bank calculations using data from the Bank of Mongolia; CEIC Database; International Monetary Fund Financial Soundness Indicators. <https://data.imf.org/>; State Bank of Viet Nam; and World Bank World Development Indicators. <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators> (accessed September 2020).

Source: Asian Development Bank (2021). Nonperforming Loans in Asia and Europe—Causes, Impacts, and Resolution Strategies.

These crises highlight the vulnerability of banking systems to macroeconomic shocks and the critical role of NPL management in crisis recovery. During these periods, high NPL ratios exacerbated financial instability by impairing banks' lending capacities, leading to credit constraints that slowed economic recovery. For example, the European Central Bank (ECB) observed that NPL accumulation during the GFC limited banks' ability to extend new credit, affecting economic growth across the Eurozone.

While both developed and emerging economies experience NPL surges during crises, the recovery trajectories differ due to structural and regulatory factors. Developed countries with robust regulatory frameworks, like the EU and the US, often implement targeted measures to manage NPL, such as **asset management companies (AMCs) and public-private partnerships**. These strategies enable a quicker reduction in NPL ratios post-crisis, as observed in Ireland and Spain after the GFC.

In contrast, emerging markets may lack the institutional capacity to implement such measures effectively, resulting in prolonged high NPL levels. For instance, Indonesia experienced sustained NPL ratios following the Asian Financial Crisis, with limited resources to facilitate rapid resolution. The impact of external shocks, such as the COVID-19 pandemic, has renewed concerns over rising NPL in emerging markets, particularly as government stimulus measures begin to phase out.

Implications for Financial Stability¹⁴. Effective NPL resolution during financial crises is essential due to the harmful macrofinancial feedback effects that distressed assets exert on the real economy. Both macroeconomic downturns—such as declining output growth, rising unemployment, and inflation—and bank-specific factors like reduced profitability and prior excessive lending contribute to elevated NPL ratios, increasing

¹⁴ Asian Development Bank. (2021). Nonperforming loans in Asia and Europe—Causes, impacts, and resolution strategies. Asian Development Bank.

credit risk during financial crisis. Evidence indicates that economic growth and reduced financial market volatility correlate with significant NPL reductions, whereas adverse conditions such as currency depreciation and heightened global volatility lead to NPL rises. **Public Asset Management Companies (AMCs) have been shown to play a crucial role in achieving sharp NPL declines, although they are less effective in preventing initial NPL increases, highlighting their utility primarily as crisis resolution tools.**

Reducing NPL ratios yields positive macrofinancial effects, including stabilization of deteriorating economic conditions. **This outcome aligns with findings from Asian economies, where NPLs have demonstrated adverse feedback effects, reinforcing the need for rapid and comprehensive NPL resolution measures during financial stress. In this context, it is critical to enhance national legal, regulatory, and supervisory frameworks, and to develop robust NPL markets to facilitate effective resolution.** Given the increasingly interconnected nature of financial markets, regional cooperation is vital to managing cross-border spillover risks and contagion, especially with the growth of cross-border banking and the potential for systemically important regional banks. Regional regulatory dialogue and cooperation, along with cross-border resolution mechanisms, are essential for addressing these NPL challenges comprehensively.

2.1.3 Sectoral Analysis of NPL Distribution Globally

Sector-Specific Vulnerabilities in NPL Accumulation. Sectoral analysis reveals that certain industries, particularly real estate, manufacturing, and retail, exhibit higher vulnerability to NPL accumulation. The real estate sector, for example, is highly sensitive to economic cycles, and downturns in property values directly impact loan collateral values,

increasing default risk. During the GFC, European banks faced high NPL levels in real estate portfolios, contributing significantly to the overall NPL ratios in the region¹⁵.

The World Bank highlights similar patterns in emerging markets, where sectors like agriculture and small and medium enterprises (SMEs) show heightened vulnerability due to their limited financial buffers and dependence on local economic conditions. This sectoral concentration of NPL necessitates tailored policy responses, as a one-size-fits-all approach may not effectively address sector-specific risks¹⁶.

Global Sectoral Distribution of NPL. The distribution of NPL varies significantly across regions, reflecting structural differences in economic activities and sectoral exposures. In Asia, for example, The Asian Development Bank (ADB) notes that real estate and SME loans constitute a significant portion of NPL, while Europe's NPL are more concentrated in corporate and real estate sectors. This distribution indicates the underlying economic dependencies and risk exposures in each region, which influence the severity and persistence of NPL accumulation¹⁷.

2.1.4 Lesson Learned from Global Practices

Countries that successfully navigated financial crises and achieved sustainable financial stability employed several key strategies:

1. Asset Management Companies (AMCs)

Public AMCs, like Korea Asset Management Corporation (KAMCO), were established to centralize and efficiently resolve Non-Performing Loans (NPLs). These entities

¹⁵ European Central Bank. Real estate markets, financial stability and macroprudential policy. (2022)

¹⁶ International Financial Corporation. (2011). Scaling Up Access to Finance for Agricultural SMEs Policy Review and Recommendations.

¹⁷ Asian Development Bank. (2021). Nonperforming Loans in Asia and Europe—Causes, Impacts, and Resolution Strategies.

acquired distressed assets, managed their recovery or disposal, and provided a mechanism to prevent fire sales of assets during crises.

2. Legal and Institutional Reforms

Countries implemented robust legal frameworks and strengthened insolvency processes to facilitate the resolution of distressed assets. These reforms included faster and more transparent insolvency proceedings, improved collateral enforcement mechanisms, and incentives for out-of-court settlements, reducing delays and costs associated with NPL resolution.

3. Development of NPL Markets with Private Sector Engagement

Secondary NPL markets, supported by private sector involvement, allowed banks to offload distressed assets to specialized investors, enhancing liquidity and operational focus. Private AMCs and institutional investors provided expertise and capital, often collaborating with public AMCs to manage NPL portfolios. Electronic trading platforms further promoted transparency and reduced transaction costs, fostering efficient and competitive NPL markets.

4. Macprudential and Supervisory Measures

Strong regulatory oversight, including stringent provisioning requirements and enhanced risk assessment practices, ensured that banks maintained healthy balance sheets. These measures discouraged excessive risk-taking and promoted early identification of problem loans.

5. Regional and International Cooperation

Collaborative frameworks, particularly in Europe, provided standardized regulations and pooled resources for addressing NPLs. In Asia, knowledge-sharing platforms like

the International Public AMC Forum facilitated the exchange of best practices and innovative strategies among member countries.

6. Securitization Schemes for Risk Distribution

The use of securitization allowed the conversion of NPLs into tradable securities, supported by government guarantees in some cases. This approach attracted broader investor participation and distributed risks across the financial system.

These strategies underscore the importance of combining institutional frameworks, market mechanisms, and policy measures to address NPLs effectively and build resilient financial systems.

2.2 Definition of NPL and NPL Data Trends in South Korea

2.2.1 Defining and Classifying NPL in South Korea

Definition of NPL. NPL means the principal of loans and interest thereon, payment guarantee, and other equivalent loans as prescribed by Presidential Decree which arise from credit transactions by financial companies, etc., and fall under any of the following items: (1) A loan requiring the adoption of a special collection measure or management method which is not repaid in standard ways for any reason. (2) A loan whose collection is or is likely to be in any considerable risk in the light of the management conditions, financial standing, and expected demand for cash of a debtor, etc., and which is recognized by the board of directors.¹⁸

¹⁸ Article 22, Korea Asset Management Corporation (KAMCO) Act. (2024).

Classification of NPL in Banking Sector¹⁹. In South Korea, the classification of NPL in the banking sector is based on standards set by the Financial Supervisory Service (FSS) and the Financial Services Commission (FSC). South Korean banks classify loans into five primary categories, based on the borrower's repayment capability, arrears, and credit status. These categories align with international standards, particularly those of the Basel Committee on Banking Supervision.

Classification Categories:

1. **Substandard:** Loans that are more than 90 days overdue. Borrowers show significant financial distress, and there is a clear risk of non-repayment. Substandard loans are the starting point for categorizing loans as non-performing.
2. **Doubtful:** Loans with a high likelihood of default, where repayment is considered uncertain. This category requires significant provisioning due to the borrower's severe financial difficulties.
3. **Estimated Loss (or Loss):** Loans where recovery is unlikely, and the bank anticipates writing off the loan. These are considered full losses, and banks set aside provisions for these loans.

2.2.2 NPL Data Trends in South Korea

Total Amount of NPL. At the end of 2023, financial institutions' NPL amounted to 43.7 trillion won, an increase across banks and non-banks from the end of 2022. Banks' NPL increased from 10.1 trillion won at the end of 2022 to 12.5 trillion won at the end of 2023. Non-banks grew by 23.8%, with the largest increase (73.4%) from 18.0 trillion won to 31.2

¹⁹ Financial Supervisory Service. (1998). Regulation on Supervision of Banking Business. South Korea. (Updated periodically)

trillion won over the same period. Financial institutions will sell and write off NPL to 13.4 trillion won in 2022 and \$24.3 trillion in 2023. In 2023, banks' NPL write-offs were projected to reach 9.1 trillion won and 15.2 trillion won for non-banks. Savings banks also saw a significant increase in new NPLs last year.²⁰

NPL of domestic banks. The NPL ratio of domestic banks at the end of June 2024 was 0.53%, non-performing loans amounted to 14.4 trillion won, an increase of 1.0 trillion won from the end of the previous quarter (13.4 trillion won) and consisted of corporate loans (11.6 trillion won), household loans (2.6 trillion won) and credit card loans (0.2 trillion won). The balance of allowance for loan losses at the end of June 2024 (KRW 27.1 trillion) increased due to the expansion of trade and sales. Coverage ratio* (188.0%) decreased 15 percentage points from the end of the previous quarter (203.1%) due to higher non-performing loans²¹

* Allowance for loan losses = Gross allowance balance / non-performing loans

Figure 2.2. Trends in the Size and Ratio of NPL for Domestic Banks

(Unit: trillion, %, %p)

Year	2022			2023				2024		(+)/(-)	
Month	6	9	12	3	6	9	12	3	6	(C-A)	(C-B)
NPL	10.3	9.7	10.1	10.4	10.5	11.5	12.5	13.4	14.4	3.9	1.0
Corporate¹⁾	8.6	8.0	8.3	8.2	8.2	9.0	10.0	10.7	11.6	3.4	0.9
Households	1.5	1.5	1.7	2.0	2.2	2.3	2.3	2.5	2.6	0.4	0.1
Credit card	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0
Total Credit	2,475.2	2,541.1	2,532.4	2,540.7	2,564.1	2,616.2	2,629.0	2,676.9	2,739.9	175.8	63.0
Allowance	21.1	21.7	23.0	24.0	23.8	24.7	26.7	27.2	27.1	3.3	0.1
NPL Ratio²⁾	0.41	0.38	0.40	0.41	0.41	0.44	0.47	0.50	0.53	0.12	0.03
Coverage ratio³⁾	205.6	223.9	227.2	229.9	226.4	215.3	214.0	203.1	188.0	38.4	15.1

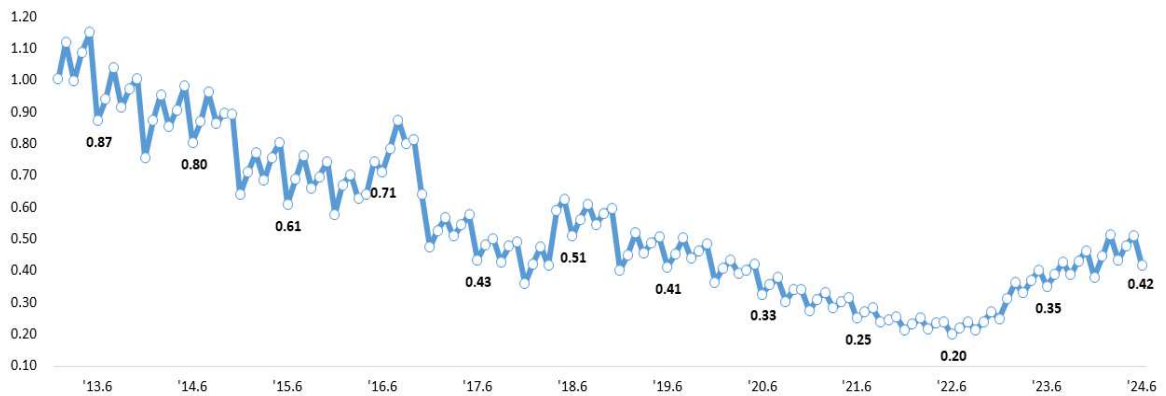
Source: Financial Supervisory Services in Korea (FSS) (August 2024)

²⁰ Financial Supervisory Services in Korea (FSS) (August 2024)

²¹ Financial Supervisory Services in Korea (FSS) (August 2024)

The table shows a rising trend in NPL among South Korean domestic banks from June 2022 to June 2024, with total NPLs increasing from 10.3 trillion KRW to 14.4 trillion KRW. Corporate loans remain the main source, growing from 8.6 trillion to 11.6 trillion KRW, while household NPLs rose moderately. The NPL ratio also increased slightly from 0.41% to 0.53%, despite an expansion in total credit from 2,475.2 trillion KRW to 2,739.9 trillion KRW. Although allowances have risen to 27.1 trillion KRW, the coverage ratio fell from 205.6% to 188%, indicating that provisions are not fully keeping pace with NPL growth.

Figure 2.3. Trends in KRW Loan Delinquency Rate (2013~2024.6)

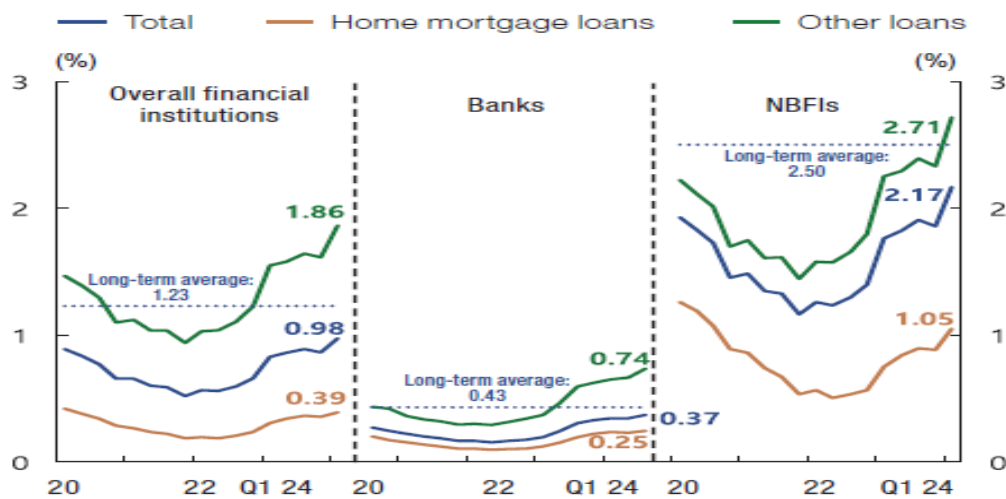


Source: Financial Supervisory Services in Korea (FSS) (August 2024)

The chart above illustrates the trend in South Korea's KRW loan delinquency rate from June 2013 to June 2024. Over this period, the delinquency rate shows a general downward trajectory, starting at 0.87% in 2013 and reaching a low of 0.20% in 2020, reflecting improvements in credit quality and effective risk management. However, following the COVID-19 pandemic, a slight uptick is observed, with the rate rising to 0.42% by mid-2024. This recent increase indicates emerging repayment challenges, likely influenced by economic recovery pressures. The overall trend highlights both the banking sector's historical resilience in managing credit risks and the need for ongoing vigilance in light of recent increases in delinquency rates.

Trend in Delinquency Rate on Household Loans. The delinquency rate on household loans has been on the rise since the second half of 2022. At the end of the first quarter of 2024, the delinquency rate on household loans reached 0.98%, up by 0.09%p from the end of the third quarter of 2023. By loan type, the delinquency rate on home mortgage loans increased by 0.03%p to 0.39%, while the delinquency rate on other loans rose by 0.22%p to 1.86%. Such increases in delinquency rates have been observed primarily in vulnerable segments where the burden of debt repayment has increased due to interest rates.

Figure 2.4. Delinquency rates of household loans extended by banks and NBFIs

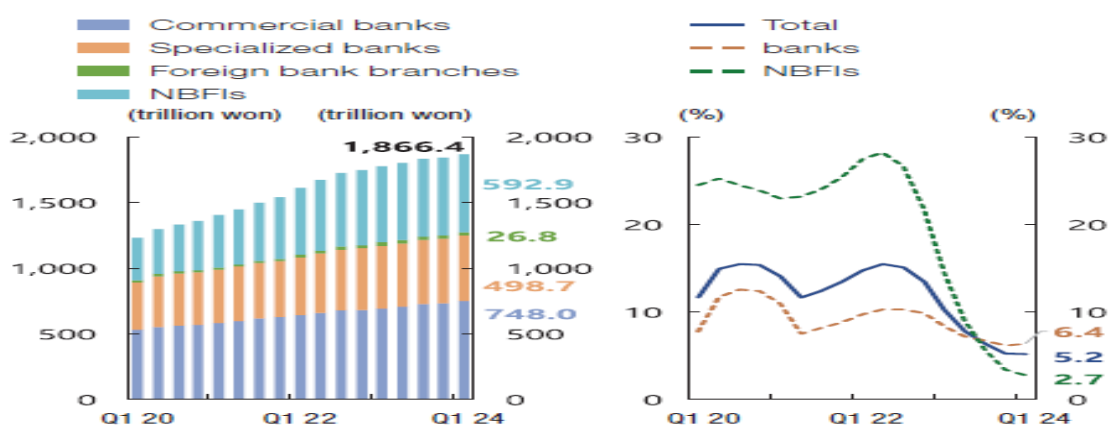


Source: Bank of Korea (BOK) (2024), “Financial Stability Report” (June 2024)

Slowdown in Corporate Credit Growth. At the end of the first quarter of 2024, corporate loans from financial institutions stood at KRW 1,866.4 trillion, recording an increase of 5.2% year-on-year. Corporate loans witnessed their growth slowing, centered on loans extended by NBFIs and on loans issued to SMEs, under the influence of the continued debt repayment burden of borrowers and the tightened lending attitude of NBFIs. By financial sector, corporate loans from banks amounted to KRW 1,273.5 trillion at the end of the first quarter of 2024 (KRW 748.0 trillion from commercial banks, KRW 498.7 trillion from specialized banks, and KRW 26.8 trillion from branches of foreign banks), showing an increase of 6.4% year-on-year (8.3% at commercial banks and 4.2% at specialized banks).

Due to the eased lending attitudes of domestic banks in 2024 and the increased demand for funds among enterprises, corporate loans from banks continued to rise, although their growth rate has slowed. Meanwhile, corporate loans from NBFIs amounted to KRW 592.9 trillion, up by 2.7% year-on-year. As the tightened lending attitudes persisted in response to rising delinquency rates of corporate loans, the growth of corporate loans across the entire non-banking sector significantly decelerated. In particular, insurance companies and mutual savings banks saw the balance of their corporate loans decline year-on-year.

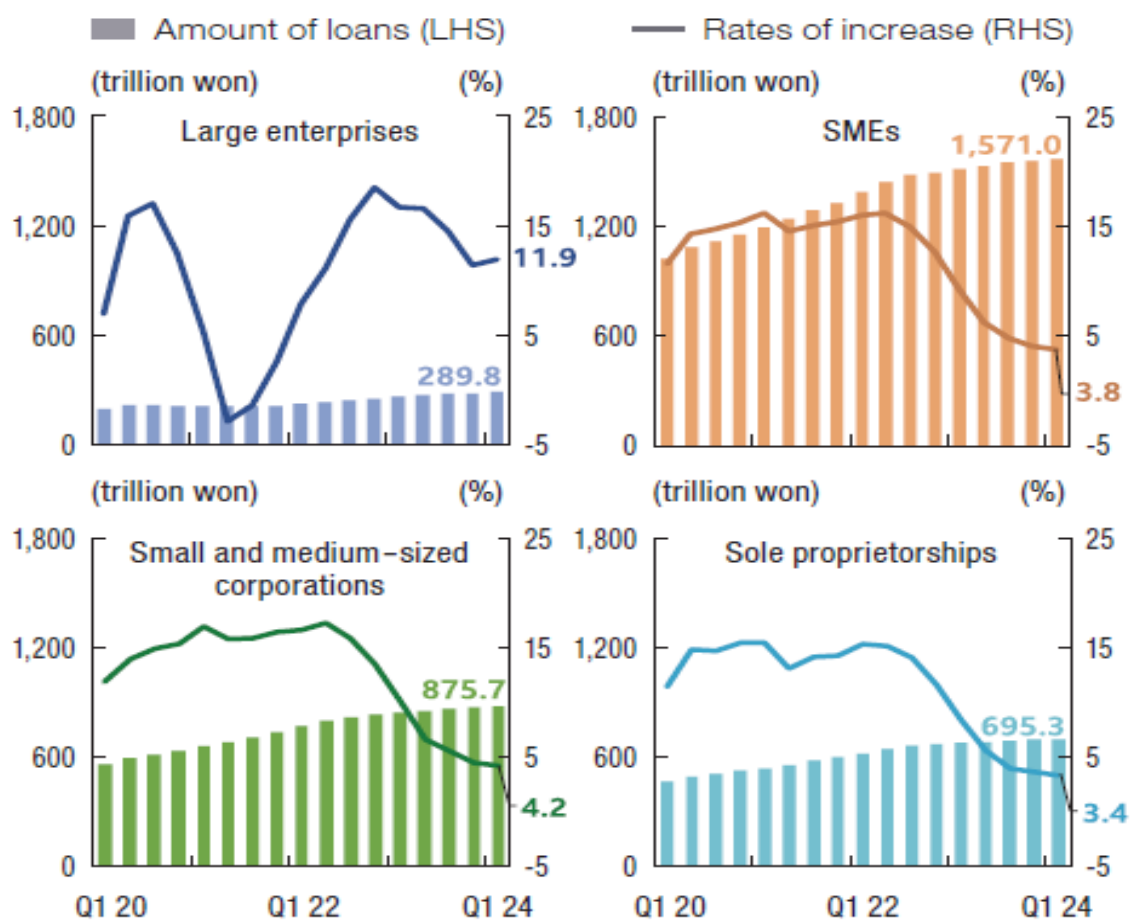
Figure 2.5. Corporate loans from financial institutions



Source: Bank of Korea (BOK) (2024), “Financial Stability Report” (June 2024)

By company size, loans to large enterprises (KRW 289.8 trillion, a year-on-year increase of 11.9%) sustained a relatively high growth rate due to intensified lending operations by banks and increased demand for facility funds. On the other hand, loans to SMEs (KRW 1,571.0 trillion, 3.8%) saw their growth slow due to high credit risk and the sluggishness of the real estate sector, as reflected in loans to small-and medium-sized corporations (KRW 875.7 trillion, 4.2%) and loans to sole proprietors (KRW 695.3 trillion, 3.4%). Meanwhile, loans issued to self-employed business owners (SEBOs), including household loans to borrowers with sole proprietor loans, amounted to KRW 1,055.9 trillion at the end of the first quarter of 2024, up by 2.1% year-on-year.

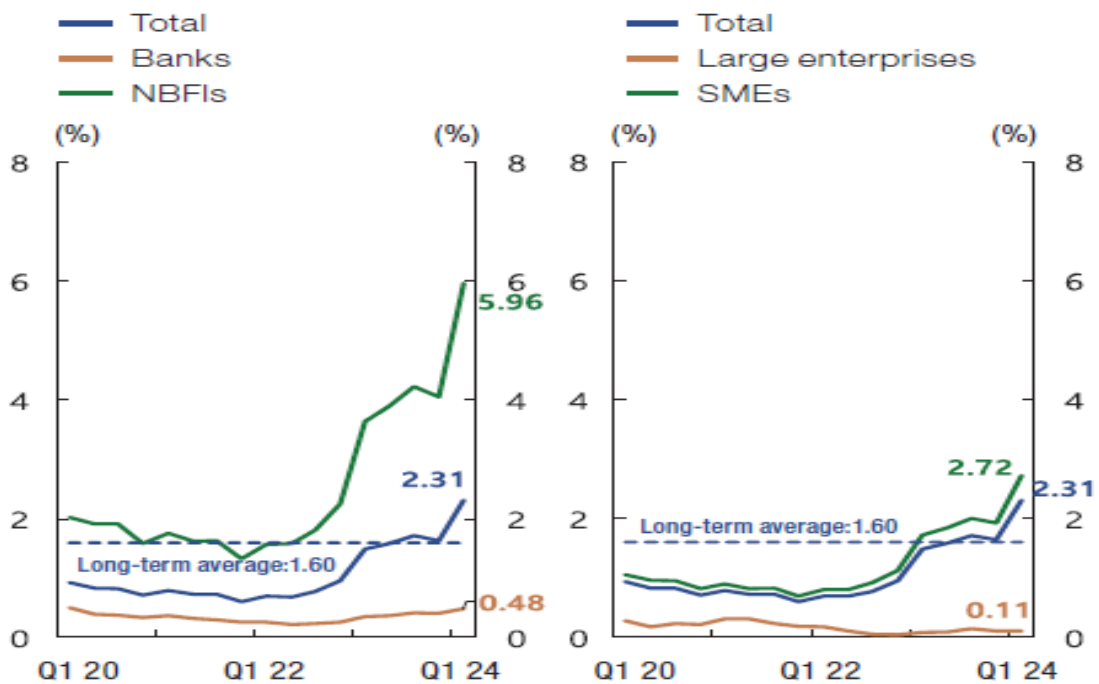
Figure 2.6. Corporate loans by company size



Source: Bank of Korea (BOK) (2024), “Financial Stability Report” (June 2024)

Continued Increase in Delinquency Rates of Corporate Loans. At the end of the first quarter of 2024, the delinquency rate of corporate loans recorded 2.31%, up by 0.59%p from the end of the third quarter of 2023 (1.72%). By financial sector, the delinquency rate of corporate loans from banks rose to 0.48%, an increase of 0.06%p from the end of the third quarter of 2023(0.42%). The delinquency rate faced by NBFIs climbed to 5.96%, up by 1.73%p from the end of the third quarter of 2023 (4.23%), exhibiting steep growth, led by mutual savings banks and mutual credit cooperatives. By company size, the delinquency rate of loans to large enterprises remained low (0.15% at the end of the third quarter of 2023 → 0.11% at the end of the first quarter of 2024), while the delinquency rate of loans to SMEs grew significantly (2.00% → 2.72%).

Figure 2.7. Delinquency rates of corporate loans By financial sector & By company size



Source: Bank of Korea (BOK) (2024), “Financial Stability Report” (June 2024)

2.2.3. Sectoral Contributions to NPLs in South Korea²²

Corporate NPL ratio (0.65%) increased by 0.04 percentage points compared to the end of the previous quarter (0.61%). Big Business (0.44%) decreased 0.04 percentage points from the end of the previous quarter (0.48%). Small Business (0.77%) is up 0.08 percentage points from the end of the previous quarter (0.69%). Small businesses (1.00%) increased 0.11 percentage point from the end of the previous quarter (0.89%). Sole proprietorships (0.44%) increased 0.03 percentage point from the end of the previous quarter (0.41%). NPL to households (0.27%) was similar to the end of the previous quarter (0.27%). Residential mortgages (0.18%) were similar to the end of the previous quarter (0.18%).

²² Financial Supervisory Service (FSS) (2024), “2024 Non-performing loans of domestic banks”

Figure 2.8. NPL ratio by segment in Korea

< NPL ratio by segment in Korea >

(Units: %, %p)

Category	NPL Ratio ('13.3~'24.6)	'19	'20	'21	'22	'23		'24 years		Increase/ Decrease	
		12th	12th	12th	12th	6 (A)	12th	3(B)	6(C)	(C-A)	(C-B)
Total Credit		0.77	0.65	0.50	0.40	0.41	0.47	0.50	0.53	0.12	0.03
Corporate Credit)		1.11	0.92	0.71	0.52	0.49	0.59	0.61	0.65	0.16	0.04
Large enterprises		1.52	1.25	0.99	0.49	0.35	0.50	0.48	0.44	0.09	0.04
SME businesses		0.89	0.76	0.57	0.53	0.57	0.64	0.69	0.77	0.20	0.08
Small business		1.31	1.15	0.86	0.76	0.77	0.85	0.89	1.00	0.23	0.11
Sole business		0.35	0.27	0.20	0.23	0.30	0.34	0.41	0.44	0.14	0.03
Household Credit		0.25	0.21	0.16	0.18	0.24	0.25	0.27	0.27	0.03	0.00
Mortgages		0.19	0.16	0.11	0.12	0.16	0.16	0.18	0.18	0.02	0.00
Credit, loans, etc.		0.37	0.33	0.26	0.34	0.47	0.47	0.53	0.54	0.07	0.01
Credit card		1.12	0.98	0.77	0.91	1.27	1.36	1.61	1.60	0.33	0.01

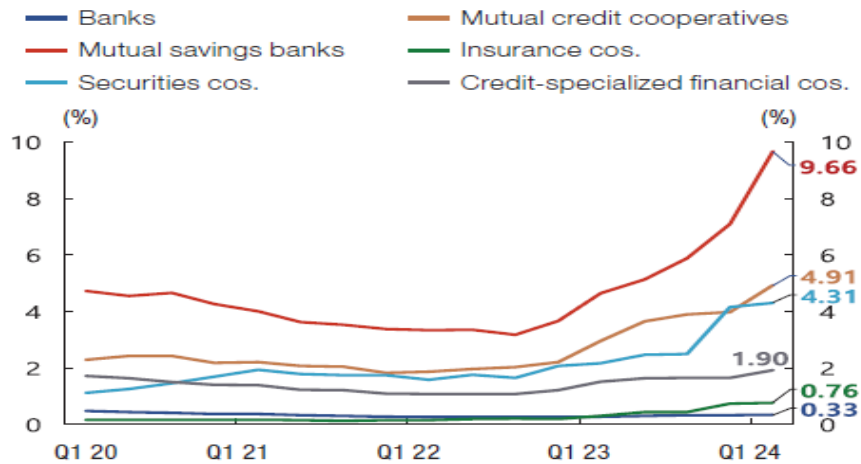
Source: Financial Supervisory Services in Korea (FSS) (August 2024)

Financial Stability Situation by Sector

The soundness of financial institutions varied somewhat across financial sectors. Banks and insurance companies maintained favourable profitability amid expanding asset growth. Conversely, non-bank deposit-taking institutions, such as mutual credit cooperatives and mutual savings banks, experienced a significantly slowed asset growth and deteriorating profitability due to their tightened lending attitudes in response to an increase in non-performing loans. Securities and credit-specialized financial companies exhibited growth in assets but faced a decline in profitability overall.

Meanwhile, asset quality deteriorated across all financial sectors. In the banking sector, the increase in the substandard-or-below loan ratio was constrained, in part by banks' proactive efforts to clean up non-performing loans, while the non-banking sector saw a significant rise in the ratio, influenced by continued depression in the real estate PF market.

Figure 2.9. Substandard-or-below loan ratio

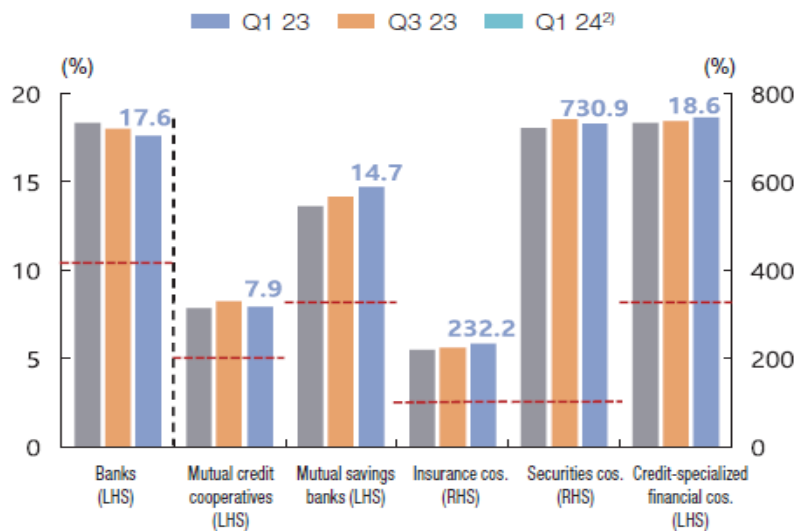


Source: Bank of Korea (BOK) (2024), “Financial Stability Report” (June 2024)

Resilience of the Financial System

Examining each sector in terms of resilience, which refers to the financial system’s capacity to withstand domestic and external shocks, the resilience of financial institutions was assessed to remain stable. Despite a decline in the provision coverage ratio across most sectors due to an increase in the amount of substandard-or-below loans, each sector’s capital adequacy ratios and liquidity ratios significantly exceeded the regulatory standards.

Figure 2.10. Financial institutions’ capital adequacy ratios¹⁾



Notes: 1) The red dotted lines represent the regulatory standards for each sector
 2) As of end-Q4 2023 for insurance companies

Source: Bank of Korea (BOK) (2024), “Financial Stability Report” (June 2024)

Major Financial Stability Risk Assessment

Korea's financial system remained largely stable. As the real economy recovered, private credit leverage declined and market vigilance in the financial markets eased, as indicated by narrower credit spreads. Financial institutions maintained robust resilience in terms of capital adequacy and liquidity. Moreover, the government, supervisory authorities, and Bank of Korea made concerted efforts to ensure a smooth transition of the real estate PF market towards a soft landing to alleviate uncertainties, while preventing potential spillover effects of geopolitical risks into the domestic financial markets.

However, short-term risk factors persist, including the accumulation of debt repayment burdens among vulnerable borrowers, concerns regarding the insolvency of real estate PF loans, deterioration of asset quality in financial institutions, and heightened uncertainties in the external sector such as changes in major economies' monetary policy stances. From a medium- to long-term perspective, amid persistently high private credit leverage, there are potential risks of rising financial vulnerability, such as a resurgence in household debt accumulation.




2.2.4. Implications of NPL Trends for South Korea's Financial Stability²³

South Korea's financial authorities and institutions are facing critical challenges in mitigating risks associated with rising NPLs, particularly in the real estate project financing (PF) sector. To address these issues, the government has introduced soft landing measures, emphasizing the need for orderly restructuring and ongoing communication with construction companies and market participants to avoid market instability. Financial institutions are urged to strengthen their loss absorption capacity and improve asset quality through active write-offs and sales of distressed assets. Policy efforts also include stabilizing

²³ Bank of Korea (BOK) (2024), "Financial Stability Report" (June 2024)

private credit leverage, improving household debt quality through measures like monitoring the stressed debt service ratio (DSR), and implementing targeted risk management for rapidly expanding corporate credit.

Figure 2.11. Financial stability situation

Vulnerability assessment		Risk factors
Credit market	Accumulation of debt servicing burden in vulnerable sectors	Uncertainties regarding monetary policy stances in major economies
Asset market	Concerns about the insolvency of real estate estate PF loans	Possible unrest in external conditions, including geopolitical risks
Financial institutions	Deteriorating of asset quality non-banks	Concerns about market unrest in line with real estate PF restructuring
Policy responses		
 Easing uncertainties regarding real estate PF and alleviation of market instability	<ul style="list-style-type: none"> Supporting an orderly restructuring by facilitating real estate PF soft landing measures Strengthening communication with construction firms and market participants regarding concerns about real estate PF restructuring 	
 Enhancing resilience of financial institutions	<ul style="list-style-type: none"> Continuous efforts to improve asset quality by facilitating sales and write-offs of non-performing assets Strengthening liquidity management in preparation for unexpected market shocks 	
 Strengthening private credit management and supporting vulnerable sectors	<ul style="list-style-type: none"> Efforts to gradually lower and stabilize the ratio of private credit to GDP <ul style="list-style-type: none"> (Household credit) Reviewing the adequacy of DSR coverage and Continuing efforts to improve household debt quality (Corporate credit) Strengthening the management and supervision of concentration risk of exposures, and managing industry-specific risks. Stepping up monitoring of borrower financial soundness and maintaining selective support for vulnerable sectors 	

Source: Bank of Korea (BOK) (2024), “Financial Stability Report” (June 2024)

Rising NPL levels, which reached 0.53% in mid-2024 from 0.38% in 2022, remain a concern despite being lower than pre-COVID-19 levels. High NPLs impact financial stability by reducing bank profitability, eroding capital buffers, and restricting credit supply, which stifles economic growth, particularly for SMEs. This dynamic can lead to reduced investments, and heightened sovereign risks, straining public finances and investor confidence. Persistent NPLs also undermine monetary policy effectiveness and increase systemic risks, potentially driving borrowers toward shadow banking. To counter these challenges, enhanced loan monitoring, corporate restructuring, and macroprudential policies are essential to strengthen financial sector resilience and maintain economic stability.

A critical strategy to address the persistent challenges posed by rising Non-Performing Loan (NPL) levels and their broader economic impact is the development of a structured and efficient NPL market, coupled with leveraging the strategic role of the Korea Asset Management Corporation (KAMCO). A well-structured NPL market enables financial institutions to efficiently transfer distressed assets, thereby providing much-needed liquidity and alleviating the systemic burden of problematic loans. By facilitating the transfer of these assets to private investors, such a market enhances transparency, attracts investment, and expedites the resolution process, ultimately restoring credit flow to businesses and households.

KAMCO, with its proven track record, offers a comprehensive framework for the management and resolution of distressed assets. As a coordinated entity for handling NPLs, KAMCO not only acquires and resolves non-performing loans but also facilitates the restructuring of troubled borrowers, thereby supporting financial institutions in restoring their financial health. **Through effective asset management and disposal mechanisms, KAMCO has played a pivotal role in stabilizing South Korea's financial sector during periods of economic distress. By adopting a similar model and expanding the secondary NPL market, South Korea can further strengthen its financial stability, address existing vulnerabilities, and maintain robust credit availability to support sustainable economic growth. This dual approach integrates immediate relief for the banking sector with long-term systemic resilience.**

2.3 Definition of NPL and NPL Data Trends in Indonesia

Within Indonesia's regulatory framework, NPLs are defined and categorized to enable banks to accurately evaluate their assets' quality, which is essential for sound risk management and regulatory compliance. As stipulated by the OJK, NPLs are categorized reflecting their

increased risk of default or partial recovery. These classifications form part of a broader approach to evaluate the soundness of banks, with the OJK's regulatory guidelines playing a crucial role in ensuring transparency, consolidated supervision, and risk-based assessment.

2.3.1 Defining and Classifying Non-Performing Loans (NPLs) in Indonesia

The definition of NPL is guided by POJK No. 4/POJK.03/2016 and SEOJK No. 14/SEOJK.03/2017 concerning the Soundness Assessment of Commercial Banks. In addition, the definition of NPL is also included in it POJK No. 37/POJK.03/2019 and SEOJK No. 9/SEOJK.03/2020 concerning Transparency and Publication of Bank Reports. Under these regulations, NPL refer to loans or productive assets categorized as regulated in the POJK concerning the assessment of the asset quality of general banks. This classification excludes loans extended to other banks, focusing instead on the quality of credit extended to the broader economy, ensuring the focus is on retail and corporate loans. This focus on "problematic credit," as defined in the Circular Letter, encompasses assets with a higher probability of impairment, thus necessitating increased scrutiny and provisioning.

1. Substandard (Kurang Lancar)

Loans classified as Substandard indicate initial signs of payment issues, such as repayment delays, though they still retain some potential for recovery. Banks are required to monitor these loans closely, as their financial health may further deteriorate without intervention. Provisions for these assets are mandatory, reflecting their increased risk level.

2. Doubtful (Diragukan)

Doubtful loans exhibit more severe repayment challenges, suggesting substantial uncertainty about the borrower's ability to meet obligations. The

Doubtful classification signals to the bank and regulatory authorities that these assets pose a significant risk, requiring substantial provisioning to cover potential losses.

3. Loss (Macet)

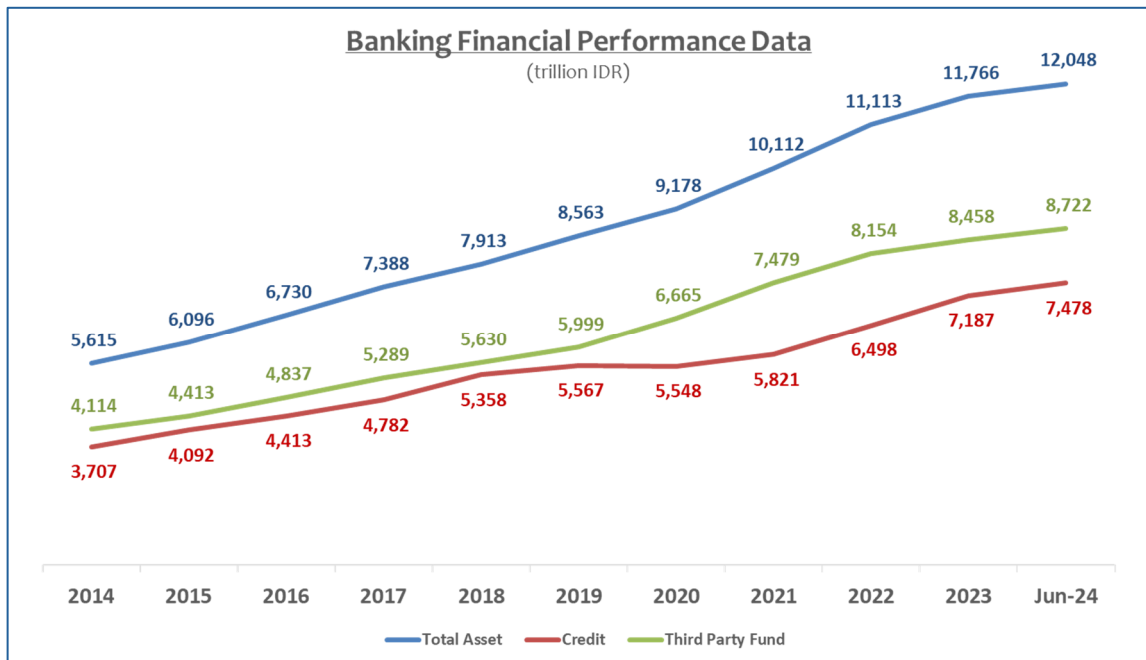
Loans classified as Loss represent the highest level of impairment, as they are mainly considered irrecoverable. For these loans, the bank must allocate complete provisioning to offset anticipated defaults, thereby ensuring these assets are not overvalued on the balance sheet. This category's complete provisioning requirement reinforces prudent asset management practices by preparing banks for likely financial losses.

These classifications support the OJK's mandate for transparency and consistency in asset quality assessment. They form the basis for calculating both Gross and Net NPL ratios, which measure the extent of problematic loans within a bank's portfolio. The Gross NPL ratio includes all non-performing loans. In contrast, the Net NPL ratio adjusts for collateral and provisions, providing a clearer view of potential losses after mitigating factors are considered.

2.3.2 Historical Trends in NPL Ratios in Indonesia

The following graph illustrates the financial performance of Indonesia's banking sector from 2014 to mid-2024, showcasing key metrics such as total assets, credit, and third-party funds. This data provides insight into the sector's growth trajectory and its pivotal role in supporting economic expansion through lending.

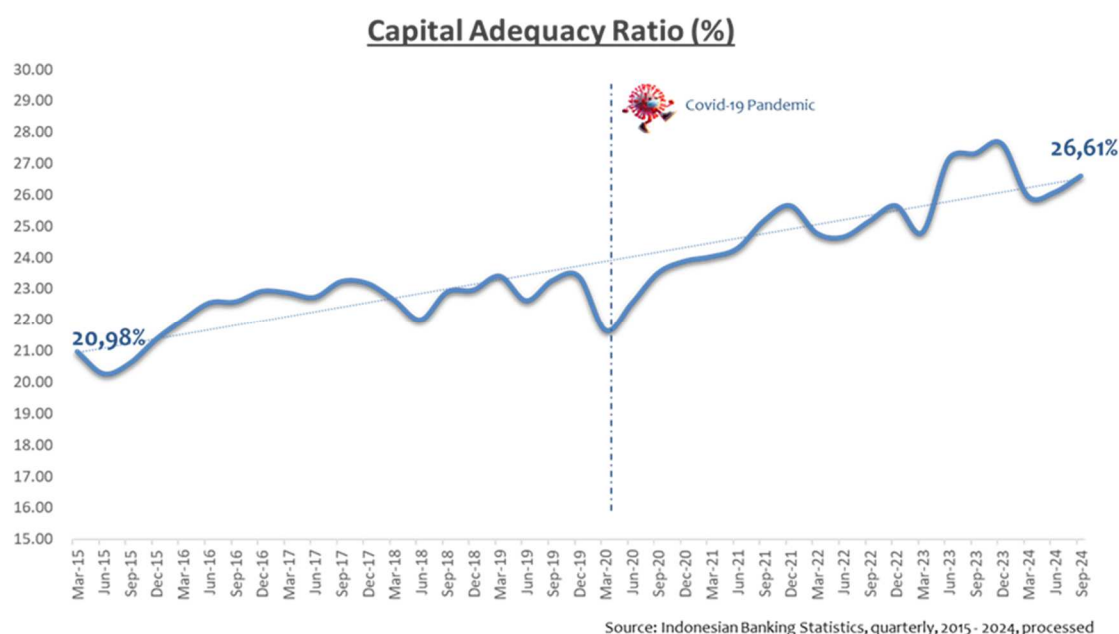
Figure 2.12. Indonesia’s Banking Financial Performance Data 2014-2024 (trillion IDR)



Source: Indonesian Banking Statistics, quarterly

The growth trends in Indonesia’s banking sector from 2014 to 2024 underscore the sector’s crucial role in economic expansion, particularly through lending. The steady increase in total assets and third-party funds reflects strong financial foundations and customer confidence, enabling banks to support sustained credit flow. Although loan growth has been cautious, especially during economic downturns like the COVID-19 pandemic, this prudent approach has helped manage risk while still financing key economic activities. By balancing credit expansion with risk management, the banking sector strengthens economic resilience, facilitates business growth, and promotes long-term development.

Figure 2.13. Indonesian Banking CAR Ratio 2015-2024

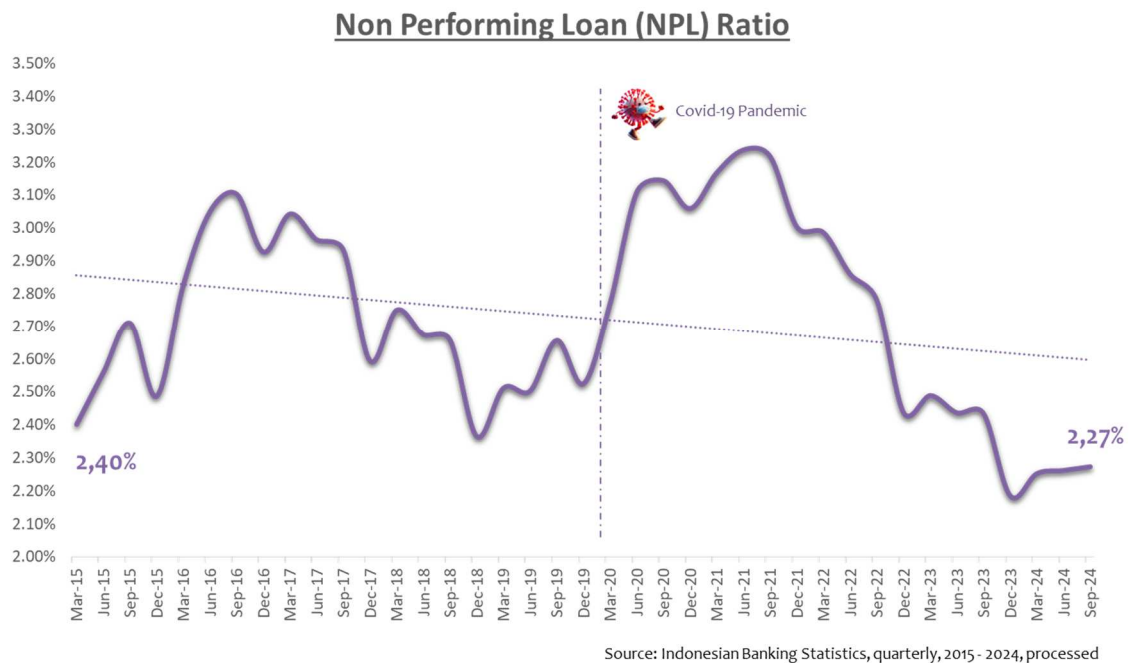


Source: Indonesian Banking Statistics, quarterly

The increasing trend in Indonesia's Capital Adequacy Ratio (CAR) from 2015 to 2024, rising from around 20% to over 26%, reflects a strong focus on financial stability and risk management among Indonesian banks. This upward trajectory, particularly post-COVID-19, indicates that banks have bolstered their capital buffers in response to potential economic uncertainties, positioning themselves to better absorb credit risk and manage NPL. The higher CAR suggests that banks not only comply with Basel III requirements but are also proactively building reserves to support lending growth while mitigating risks associated with economic fluctuations. This robust capital foundation enables banks to expand credit responsibly without compromising financial stability, even as they face challenges like fluctuating NPL levels. By maintaining strong capital adequacy, Indonesian banks are better equipped to manage credit expansion and absorb potential losses from NPLs, ultimately contributing to a resilient banking sector supporting sustainable economic growth.

The graph below displays the historical trend of Indonesia's NPL ratio from 2015 to mid-2024. It captures key periods of fluctuation, reflecting the banking sector's exposure to economic pressures over time. This trend provides context for analyzing the impact of economic disruptions on credit quality and the effectiveness of subsequent recovery efforts.

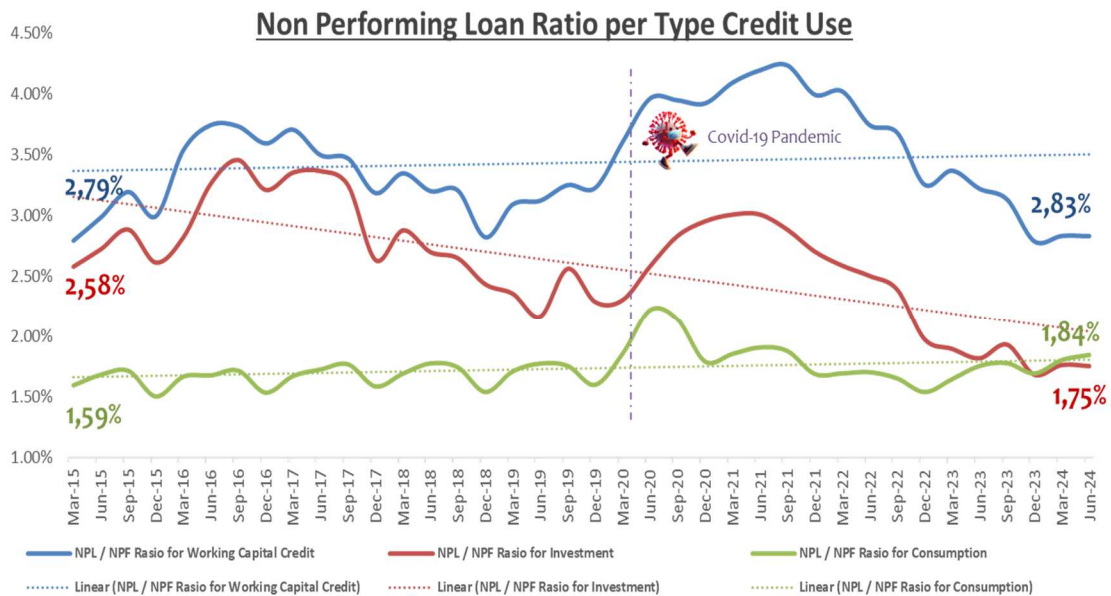
Figure 2.14. Indonesian Banking NPL Ratio 2015-2024



Source: Indonesian Banking Statistics

The fluctuations in Indonesia's NPL ratio, peaking around 3.3-3.5% during the COVID-19 pandemic, indicate significant credit stress as businesses and households struggled to meet debt obligations. While the subsequent decline in NPL ratios to below 3% by 2024 reflects the effectiveness of recovery strategies such as loan restructuring and enhanced credit risk management, it also reveals that the banking sector remains less resilient to major disruptions like the pandemic. This highlights the need for a more robust and optimal NPL management framework to ensure that future disruptions have minimal impact on NPL levels and do not significantly affect the broader economy.

Figure 2.15. Indonesian Banking NPL Ratio per Type Credit Use 2015-2024



Source: Indonesian Banking Statistics, quarterly, 2015 - 2024, processed

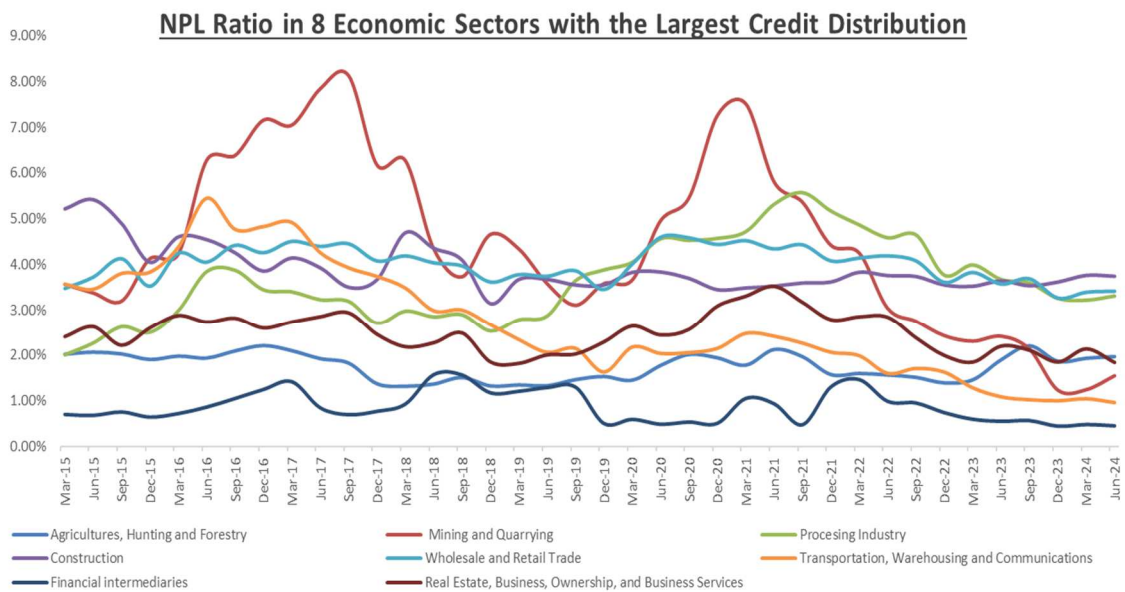
Source: Indonesian Banking Statistics

The NPL ratios by credit type reveal varying levels of resilience across lending segments in Indonesia. Working capital credit, with the highest NPL volatility, underscores the vulnerability of businesses to economic disruptions, as seen during the COVID-19 pandemic. While the post-pandemic decline to 2.83% indicates recovery, this segment remains sensitive to future shocks. Investment credit NPL ratios have generally been lower and reflect improved loan performance, stabilizing at 1.84% by mid-2024, suggesting renewed borrower confidence and economic recovery. Consumption credit, the most stable segment with a low NPL ratio of 1.75% by 2024, highlights the robustness of retail lending bolstered by effective risk management and pandemic relief measures. These trends suggest a need for targeted risk management strategies across segments to enhance resilience against economic fluctuations.

2.3.3 Sectoral Analysis of NPL Distribution in Indonesia

The graph below depicts the distribution of NPL ratios across eight key economic sectors in Indonesia from 2015 to 2024. This trends offers insight into sector-specific vulnerabilities and highlights how different industries responded to economic pressures.

Figure 2.17. Indonesian Banking NPL Ratio in Largest Economic Sectors 2015-2024

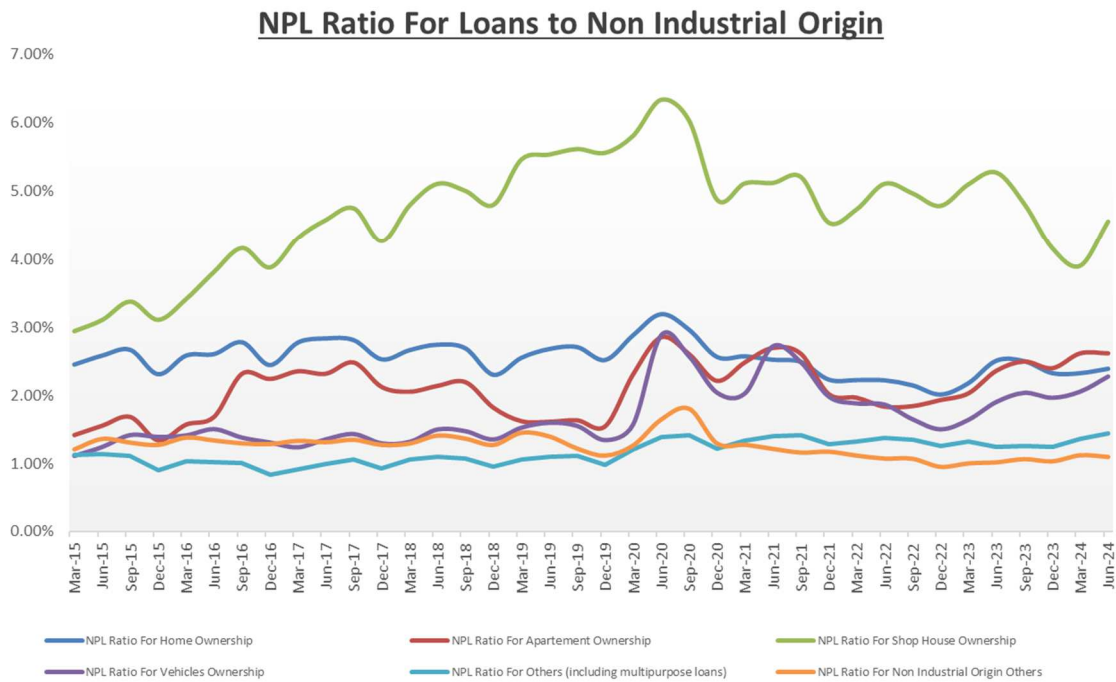


Source: Indonesian Banking Statistics, quarterly, 2015 - 2024, processed

Source: Indonesian Banking Statistics

The NPL trends across Indonesia’s major economic sectors illustrate varying levels of vulnerability to external shocks and economic cycles. Sectors like mining, construction, and real estate show higher NPL volatility, largely due to dependency on commodity prices and credit financing, which make them more susceptible to disruptions like the COVID-19 pandemic. The processing industry and wholesale/retail trade sectors also faced significant NPL increases during demand-side shocks, highlighting their sensitivity to consumption patterns. In contrast, financial intermediaries maintained stable, low NPL ratios, reflecting strong risk management and resilience. These sectoral differences underscore the need for targeted risk mitigation strategies tailored to each sector's unique exposure to economic fluctuations, enhancing overall stability in the banking sector.

Figure 2.18. NPL Ratio for Loans to Non Industrial Origin 2015-2024



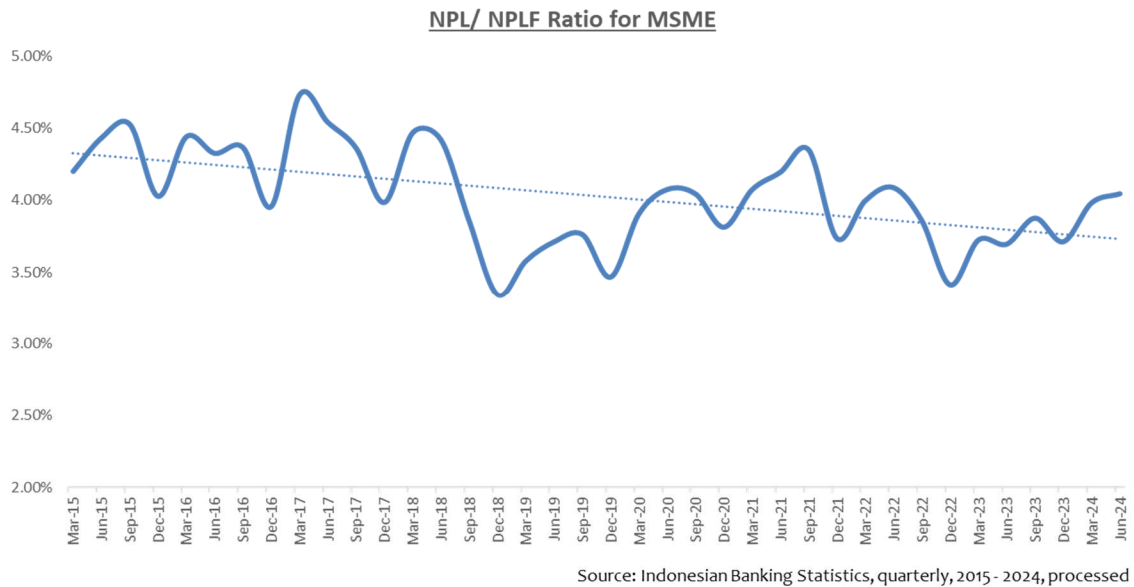
Source: Indonesian Banking Statistics, quarterly, 2015 - 2024, processed

Source: Indonesian Banking Statistics

The NPL ratios for loans to non-industrial sectors highlight varying risk exposures, with shop house²⁴ loans showing the highest volatility, peaking between 4-6% during the COVID-19 pandemic due to their dependence on business activity and consumer demand. In contrast, home ownership loans remained relatively stable, supported by loan restructuring programs that helped borrowers manage payments. Apartments and vehicle loans displayed moderate risk, reflecting temporary impacts from economic uncertainty but stabilizing post-pandemic as demand recovered. Loans for multipurpose and other non-industrial uses showed the lowest NPL ratios, indicating minimal risk, likely due to flexible loan terms and relief measures. These trends underscore the importance of targeted support for high-risk segments and suggest that effective risk management can enhance resilience in consumer lending during economic disruptions.

²⁴ Mixed-Use Business Operation: A type of commercial activity conducted in a location that also serves as a residence, often involving retail, services, or small-scale production.

Figure 2.19. NPL Ratio for Micro Small Medium Enterprise 2015-2024



Source: Indonesian Banking Statistics

The downward trend in the NPL/NPLF ratio for SMSEs from around 4.5% in 2015 to approximately 4.0% by 2024 reflects effective risk management practices and targeted support for this sector. Periodic fluctuations indicate SMSEs' sensitivity to economic cycles, emphasizing the need for cyclical risk management. The post-2020 stabilization suggests that recovery efforts, such as loan restructuring and financial aid programs, were successful in helping MSME borrowers regain financial stability. This improvement in credit quality signals a positive long-term trajectory for SMSEs, which is critical given their significant contribution to economic growth and employment. Continued support and adaptive credit policies will be essential to sustain this resilience.

2.3.4 Implications for Financial Stability and Market Confidence

The analysis of NPL trends and sectoral risks in Indonesia's banking sector underscores critical implications for financial stability and market confidence. Steady growth in assets and third-party funds reflects robust foundations and investor trust, enabling cautious yet responsible credit expansion, particularly during downturns like the COVID-19

pandemic. The sector's resilience is further bolstered by a rising Capital Adequacy Ratio (CAR), increasing from 20% in 2015 to over 26% in 2024, aligning with Basel III standards and ensuring preparedness for potential losses.

While Indonesia's banking sector has shown resilience through prudent credit management and proactive capital strengthening, persistent challenges in managing NPL highlight the need for a more comprehensive and integrated framework in order to promote sustainable financial stability. **The NPL ratio trends, coupled with several sectoral vulnerabilities, reveal gaps in current NPL resolution mechanisms that could hinder financial stability during economic disruptions.**

Globally, **countries have successfully tackled similar challenges through the establishment of Public Asset Management Companies (AMCs) and the development of secondary markets for NPLs.** For instance, South Korea's KAMCO serves as a **benchmark in managing distressed assets.** Similarly, many advanced economies have leveraged secondary NPL markets to enhance liquidity, attract private sector participation, and expedite the resolution process.

Indonesia's current challenges in NPL management—such as limited tools for banks to offload distressed assets, sector-specific risks, and varying resilience across lending segments—underscore the need to adopt such global best practices. **By adopting proven strategies and tailoring them to Indonesia's specific context, the country can strengthen its financial sector's ability to navigate economic shocks, enhance market confidence, and promote sustainable growth, aligning with its broader goals of financial stability and economic development.**

Chapter III. South Korea's Approach for NPL Resolution

The effective management of Non-Performing Loans (NPLs) has been a critical factor in maintaining financial stability in South Korea, particularly in the aftermath of the 1997 Asian Financial Crisis. During this period, the nation faced unprecedented levels of financial distress, with a surge in NPLs threatening the stability of its banking system and broader economy. The South Korean government responded with an innovative strategy that not only resolved the immediate crisis but also established a framework for long-term resilience in its financial sector.

At the heart of this strategy was a recognition of the need for a **multifaceted approach, integrating public sector intervention, private sector engagement, and innovative financial mechanisms**. By combining public and private resources with innovative solutions, South Korea has built a resilient financial system capable of addressing future crises. The three key pillars of this framework—**KAMCO (Korea Asset Management Corporation), private Asset Management Companies (AMCs), and securitization through Asset-Backed Securities (ABS)**—work in synergy to ensure effective NPL resolution and long-term financial stability. These components exemplify South Korea's ability to balance governmental oversight with market-driven solutions, creating a model that other economies continue to study and adopt.

KAMCO emerged as the state-owned institution to manage NPLs, leveraging public funds and providing a coordinated response to stabilize financial institutions. Alongside this, private AMCs played a vital role in expanding market capacity, introducing specialized expertise, and fostering competitive efficiency. These private entities also facilitated innovation in asset recovery strategies, contributing to a more dynamic and efficient NPL market. The use of securitization through ABS transformed illiquid distressed assets into tradable securities, providing liquidity while encouraging participation from a diverse range of investors.

3.1 The Role of KAMCO in Enhancing Financial Stability

3.1.1 Establishment of KAMCO

The establishment of the KAMCO in 1997 was a pivotal moment in South Korea's economic history, a response to the urgent need for financial stability. The 1997 Asian Financial Crisis plunged the country into one of the most severe economic downturns it had ever experienced. The crisis exposed significant structural vulnerabilities within South Korea's financial system, including excessive corporate debt, inadequate regulatory frameworks, and ineffective risk management mechanisms. By late 1997, these weaknesses had culminated in a surge of NPLs within the banking sector, totaling KRW 32.2 trillion and representing an alarming 17.2% of total loans. The ballooning of distressed assets rendered financial institutions incapable of extending credit, thereby paralyzing economic activity and deepening the crisis.

The crisis also significantly pressured South Korea's foreign exchange reserves, which decreased from USD 30.5 billion in October 1997 to USD 20.4 billion by December 1997. The rapid depletion of reserves, along with a sharp depreciation of the Korean won, intensified market instability and increased the vulnerability of financial institutions. In addition, international credit rating agencies downgraded South Korea's sovereign credit rating and those of central domestic banks. This led to a surge in borrowing costs, further undermining investor confidence and accelerating capital outflows. Faced with this complex crisis, the South Korean government took the lead in recognizing the urgent need to establish a robust institutional framework to manage the growing volume of distressed assets and restore financial stability, leading to the establishment of KAMCO.

Legal Foundation and Mandate

The KAMCO was restructured and formally empowered under the "Act on Efficient Management of Non-performing Assets of Financial Institutions and Establishment of Korea Asset Management Corporation" (the KAMCO Act), which was enacted in November 1997. **This legislation represented a cornerstone of South Korea's response to the Asian Financial Crisis, providing KAMCO with the legal authority, operational flexibility, and financial resources necessary to address the systemic challenges confronting the nation's financial sector.** By equipping KAMCO with the mandate to acquire, manage, and resolve distressed assets, the act positioned the institution as the principal mechanism for restoring financial stability and fostering economic recovery.

The mandates assigned to KAMCO were carefully delineated to address the multifaceted dimensions of the financial crisis. They encompassed the following three strategic objectives:

- **Stabilizing the Banking Sector.** A primary focus of KAMCO's mandate was stabilizing South Korea's banking sector. This objective was pursued through large-scale acquisition of NPLs from financial institutions, alleviating liquidity pressures and enabling banks to restore their capital adequacy. By reducing the burden of distressed assets, KAMCO facilitated the resumption of credit flows essential for economic activity and economic growth.
- **Facilitating Corporate Restructuring.** In recognition of the significant distress faced by the corporate sector, KAMCO was tasked with supporting the rehabilitation of financially troubled enterprises. Through debt restructuring, operational reforms, and the resolution of unsustainable obligations, KAMCO sought to preserve viable businesses, safeguard employment, and sustain the nation's industrial base.

- **Recovering Public Funds.** KAMCO was entrusted with efficiently resolving distressed assets to ensure the recovery of public funds deployed in financial sector bailouts. This mandate underscored KAMCO's role in safeguarding fiscal sustainability while addressing systemic risks.

Between 1998 and 2003, KAMCO executed its mandates with remarkable efficacy. The institution acquired NPLs with a total face value of KRW 110.1 trillion, accounting for approximately 50% of the total NPLs in the banking sector during this period. These acquisitions were financed by issuing KRW 39.2 trillion in government-backed bonds, underscoring the government's commitment to financial stability.

Institutional Design and Governance

KAMCO's institutional design and governance framework were meticulously structured to uphold transparency, accountability, and operational efficiency. These principles were central to KAMCO's ability to navigate the complexities of the 1997 Asian Financial Crisis and effectively fulfill its mandate of stabilizing the financial sector. KAMCO set a benchmark for institutional excellence in financial crisis management by establishing a robust governance architecture and fostering stakeholder confidence.

KAMCO operated under the Financial Services Commission's (FSC) supervision, ensuring alignment with national economic policies while maintaining operational autonomy. This balance of oversight and independence was critical in enabling KAMCO to act decisively and efficiently in addressing systemic financial risks. The governance framework was further reinforced by establishing a supervisory board, which included representatives from the government, financial sector experts, and private industry stakeholders. The board's composition was designed to ensure a diversity of perspectives,

promote accountability, and align KAMCO's strategic initiatives with broader economic objectives.

The supervisory board was entrusted with critical responsibilities, including setting strategic priorities, approving significant transactions, and monitoring the performance of KAMCO's operations. This oversight mechanism ensured adherence to KAMCO's legal mandate and fostered a culture of transparency and ethical decision-making. By integrating expertise from both the public and private sectors, the board strengthened KAMCO's capacity to address the multifaceted challenges posed by the financial crisis.

Transparency was a cornerstone of KAMCO's institutional framework, underpinning its operations and stakeholder interactions. To foster trust and credibility, KAMCO implemented rigorous measures to ensure that its activities were conducted with accountability.

- **Regular Audits.** KAMCO's financial and operational activities were subject to regular audits conducted by independent external auditors. These audits evaluated compliance with legal requirements, assessed the accuracy of financial reporting, and identified areas for improvement. The findings were publicly available, reinforcing KAMCO's commitment to accountability and fiscal responsibility.
- **Public Disclosures.** In addition to audits, KAMCO published comprehensive annual reports detailing its financial performance, asset recovery rates, and progress meeting its strategic objectives. These reports were disseminated to domestic and international stakeholders, enhancing transparency and enabling informed evaluations of KAMCO's impact.
- **Stakeholder Engagement.** KAMCO maintained an open dialogue with stakeholders, including financial institutions, investors, and policymakers. By actively engaging

with these groups, KAMCO ensured its operations aligned with market realities and stakeholder expectations.

While the FSC supervised KAMCO, it was granted significant operational independence to execute its mandate without undue political interference. This autonomy was crucial for ensuring the institution's agility and effectiveness in responding to the rapidly evolving challenges of the financial crisis.

KAMCO's robust governance framework played a pivotal role in its operational success and long-term sustainability. By prioritizing transparency, accountability, and collaboration, KAMCO built trust among stakeholders, including financial institutions, investors, and the general public. This trust facilitated cooperation with banks and other entities, enabling KAMCO to acquire, manage, and resolve distressed assets effectively.

Funding Mechanism

KAMCO's financial capacity was central to its ability to address the unprecedented challenges posed by the 1997 Asian Financial Crisis. Adequate funding enabled KAMCO to acquire substantial NPLs, stabilizing the banking sector and restoring economic confidence. The funding mechanisms employed by KAMCO were designed to ensure both immediate liquidity for its operations and long-term fiscal sustainability, reflecting a balance between urgency and prudence.

Government-Guaranteed Bonds. The primary funding source for KAMCO's operations was issuing government-guaranteed bonds. These bonds were explicitly guaranteed by the South Korean government, providing a high degree of security for investors and ensuring the availability of substantial financial resources. The government's backing of these bonds demonstrated its commitment to stabilizing the financial system and mitigating systemic risks. The bond issuance strategy allowed KAMCO to raise the capital

required to purchase NPLs at scale while avoiding immediate fiscal strain on the national budget. By leveraging the government's robust credit rating, KAMCO was able to secure funding at competitive interest rates, minimizing the financial burden on taxpayers. These bonds also sent a positive signal to domestic and international markets, reinforcing confidence in South Korea's ability to manage the crisis effectively and restore stability.

Non-Performing Asset (NPA) Fund. In addition to government-guaranteed bonds, KAMCO's funding is from the Non-Performing Asset (NPA) Fund, financed through industrial banks and public funds contributions. This fund provided supplementary resources, ensuring that KAMCO could sustain its operations over the long term and address emerging challenges as the crisis evolved. The NPA Fund was particularly valuable in financing the acquisition of distressed assets that required specialized management.

The integration of diverse funding sources, including the NPA Fund, underscored the collaborative approach adopted by KAMCO in its crisis response. By engaging multiple stakeholders, including financial institutions and public agencies, the fund facilitated a shared responsibility for financial stabilization.

Valuation and Acquisition Process. A key element of KAMCO's funding strategy was its rigorous approach to valuing and acquiring NPLs. The valuation process was overseen by an independent committee comprising financial experts and auditors to ensure fairness and transparency. This committee assessed the market value of distressed assets based on objective criteria, such as the quality of the underlying collateral and the probability of recovery. On average, KAMCO acquired NPLs at 36% of their face value, a pricing strategy that balanced the need for fiscal responsibility with the urgency of stabilizing the financial system.²⁵

²⁵ Ungersboeck, P., & Nunn, S. M. (2021). Korea Asset Management Corporation (KAMCO): Resolution of Nonperforming Loans in South Korea. *Journal of Financial Crises*, 3(2), 357-380.

By adhering to transparent and standardized valuation practices, KAMCO minimized the risks of overpayment and resource misallocation. **This disciplined approach safeguarded public funds and strengthened trust among stakeholders, including banks, investors, and international organizations.**

KAMCO's Broader Role in Financial Stabilization. Between 1998 and 2003, KAMCO acquired distressed assets with a total face value of KRW 110.1 trillion, representing approximately 50% of the total NPLs in South Korea's banking sector. This large-scale intervention alleviated liquidity pressures on financial institutions, allowing them to recapitalize and resume lending operations.²⁶

The innovative funding mechanisms employed by KAMCO enabled the institution to fulfill its broader mandate of financial stabilization. By leveraging a combination of government-backed bonds, the NPA Fund, and disciplined asset valuation practices, KAMCO demonstrated the importance of well-designed financial strategies in managing systemic risks. Its success underscores the critical role of institutional capacity and funding flexibility in addressing financial crises.

KAMCO's approach to funding also highlights the value of a proactive and collaborative framework. The involvement of multiple stakeholders, including the government, financial institutions, and international partners, ensured that KAMCO's operations were adequately resourced and aligned with broader economic objectives. This collaborative model provided a blueprint for other countries seeking to establish similar institutions to manage distressed assets and promote financial stability.

²⁶ He, D. (2004). The Role of KAMCO in Resolving Nonperforming Loans in the Republic of Korea (IMF Working Paper No. WP/04/172). International Monetary Fund.

3.1.2 KAMCO's Role During Financial Crises

The KAMCO was pivotal in addressing South Korea's financial instability during two major global crises: the Asian Financial Crisis of 1997-1998, and the Global Financial Crisis of 2008–2009. Its interventions were instrumental in stabilizing the financial system, managing systemic risks, and fostering economic recovery. By leveraging its legal framework, financial capacity, and operational strategies, KAMCO demonstrated its ability to adapt to diverse crisis contexts while maintaining transparency and accountability.

Korea experienced an unprecedented foreign exchange crisis in 1997, known in Korea as the International Monetary Fund (IMF) Crisis. At that time, with the BIS ratio for banks at 7%, asset quality was fragile, and the Korean economy was plunged into turmoil due to a sharp increase in NPL caused by the serial failures of large conglomerates. The government set up the "NPL Resolution Fund (NPL Fund)" at the KAMCO to organize NPLs systematically and promote corporate restructuring to overcome this economic crisis. Based on these efforts, the NPL Fund recorded an unprecedented recovery rate and became known in Korean economic history as a success story of crisis recovery. As the global financial crisis, triggered by the 2008 U.S. subprime mortgage loan meltdown, increased uncertainty in the domestic financial market and the possibility of a gradual expansion of financial distress, the government established a "Restructuring Fund" at KAMCO in 2009 to proactively respond to these domestic and international financial market instability factors. In order to prevent financial instability and spread to the real economy due to the recent expansion of real estate PF risks, KAMCO and the financial sector established the "PF Workplace Normalization Support Fund (PF Fund)" In 2023. It

is crucial to utilize KAMCO's experience and know-how in overcoming the economic crisis and exploring implications and responses.²⁷

Table 3.1. Comparison between KAMCO NPL Fund and Restructuring Fund

< Comparison between KAMCO NPL Fund and Restructuring Fund >

Category	<u>NPL Resolution Fund</u>	Restructuring Fund
Period	1997~2012.	2009~2014
Funding	<ul style="list-style-type: none"> • Government, • Public Fund 	<ul style="list-style-type: none"> • Financial companies • <u>KAMCO</u>
Size	<ul style="list-style-type: none"> • 20.5 <u>KRW trillion</u> 	<ul style="list-style-type: none"> • <u>KRW 40 trillion,</u>
Assets to be acquired	<ul style="list-style-type: none"> • <u>Financial company NPL</u> • Assets subject to a troubled company resolution plan 	<ul style="list-style-type: none"> • <u>Financial company NPL</u> • Assets subject to a troubled company resolution plan • <u>Non-business assets of Financial company, etc.</u>
Method	<ul style="list-style-type: none"> • Direct acquisition 	<ul style="list-style-type: none"> • Direct acquisition or indirect investment vehicle acquisition

Source: Financial Services Commission-Korea Asset Management Corporation (2015), 'White Paper on Restructuring Funds', p52. p55-56.

KAMCO's Role During the Asian Financial Crisis (1997–1998)

The 1997 Asian Financial Crisis exposed deep structural vulnerabilities within South Korea's financial and corporate sectors, dramatically escalating NPLs and a systemic liquidity crisis. By the end of 1997, NPLs in the banking sector had reached KRW 32.2 trillion, with an NPL ratio of 17.2%, severely impairing the ability of financial institutions to lend and threatening the stability of the entire financial system. Recognizing the urgent need for intervention, the South Korean government restructured the KAMCO as the central institution to manage the escalating volume of distressed assets.²⁸

KAMCO's role during this period was guided by the "Act on the Efficient Disposal of Non-Performing Assets of Financial Institutions," enacted in November 1997, which

²⁷ KAMCO Research Institute (2024).

²⁸ KAMCO Research Institute (2024).

empowered it to acquire, manage, and resolve NPLs. This legal framework allowed KAMCO to adopt a multifaceted approach to stabilizing the banking sector, facilitating corporate restructuring, and recovering public funds. Central to these efforts was the establishment of the NPL Resolution Fund, a purpose-built financial instrument designed to facilitate large-scale acquisitions of distressed assets.

NPL Resolution Fund: Stabilizing the Banking Sector. The NPL Resolution Fund was pivotal to KAMCO's intervention strategy during the Asian Financial Crisis. Established to resolve NPLs and inject liquidity into the financial system, the fund was supported by government and public funds contributions, reflecting a strong national commitment to addressing systemic financial risks. With a total of KRW 20.5 trillion, the NPL Resolution Fund enabled KAMCO to acquire a significant volume of distressed assets, amounting to KRW 110.1 trillion in face value between 1998 and 2003. This represented approximately 50% of the total NPLs in the banking sector, underscoring the impact of KAMCO.

The acquisition of NPLs was carried out through direct acquisition methods, ensuring that KAMCO could immediately control distressed assets and implement resolution strategies efficiently. An independent committee conducted the valuation of these assets to ensure fairness and transparency, with NPL purchased at an average price of 36% of their face value. This rigorous approach safeguarded public resources and strengthened trust among stakeholders, including banks, creditors, and investors.

Table 3.2. Performance of KAMCO NPL Fund in 1997 IMF crisis

< Acquisition and Recovery of KAMCO NPL fund >

(Unit: KRW trillions)

Category	~2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013.2	Total
Receivables	64.6	4.0	3.1	2.1	2.8	1.3	0.6	0.2	0.4	0.1	32.2	0.2	111.6
Acquisition	26.5	1.8	1.0	0.8	0.8	0.3	0.2	0.02	0.1	0.02	7.7	-.	39.2

Recovery	30.3	2.5	1.6	2.2	4.9	0.9	0.8	0.4	1.8	0.3	1.0	0.3	47.0
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Source: Financial Services Commission-Korea Asset Management Corporation (2015), 'White Paper on Restructuring Funds', p197-202.

Table 3.3. Mechanism of KAMCO NPL Fund in 1997 IMF crisis

< Acquisition and Disposal Mechanism of KAMCO NPL Fund >

(Unit: KRW 100million)

Category	Receivables	Disposal	Recovery
International bidding	61,379	12,995	16,619
ABS Issuance	87,337	46,398	52,213
AMC-CRC for Sale	47,899	10,571	17,053
Sell bonds individually	34,841	7,958	13,120
Auctions and direct repossessions	267,839	77,370	116,261
Reorganization Plan Recovery	348,616	98,180	150,483
Sell residual property in bulk	71,082	35,725	805
Subtotal	918,993	289,197	366,554
Repurchase-Release	197,504	103,014	103,014
Total	1,116,497	392,211	469,568

Source: Financial Services Commission-Korea Asset Management Corporation (2015), 'White Paper on Restructuring Funds', p.198. Appendix Summary of Non-Performing Loan Funds

By removing "toxic assets" from financial institutions' balance sheets, KAMCO alleviated liquidity pressures and allowed banks to restore their capital adequacy. This intervention stabilized the banking sector and created the conditions necessary for financial institutions to resume lending activities, which were critical for economic recovery.

Recovering Public Funds. A key aspect of KAMCO's mandate was the recovery of public funds to finance its operations. The revenues from asset sales, corporate restructuring, and securitization were reinvested to repay the government-backed bonds issued under the NPL Resolution Fund. According to Table 3.3, KAMCO recovered approximately 42% on the distressed assets it acquired, highlighting the institution's efficiency and fiscal responsibility. Public funds' transparent and disciplined management reinforced KAMCO's credibility among stakeholders and restored confidence in South Korea's financial system.

By effectively resolving distressed assets, KAMCO set a precedent for institutional accountability and efficiency in managing financial crises.

Impact of KAMCO's Interventions. KAMCO's interventions during the Asian Financial Crisis had a transformative impact on South Korea's financial system and the broader economy. By reducing the banking sector's NPL ratio from 17.2% in 1998 to 2.3% by 2002, KAMCO alleviated systemic risks and restored market stability. Its efforts also attracted foreign investment, bolstered investor confidence, and paved the way for South Korea's swift economic recovery.

KAMCO's Role During the Global Financial Crisis (2008–2009)

A decade after the 1997 Asian Financial Crisis, South Korea once again faced economic challenges brought on by the Global Financial Crisis (2008–2009). The U.S.-based financial crisis that began in September 2008 with the bankruptcy of Lehman Brothers spread to a global economic crisis. The global recession caused by the financial crisis triggered panic in domestic economies highly dependent on external markets. The credit crunch caused by the financial crisis in the U.S. led to a shortage of dollar liquidity as international financial companies withdrew their investment capital, causing the won/dollar exchange rate to rise vertically. The exchange rate reached a yearly high of KRW 1,525 on November 21, 2008, from the low 900s at the beginning of the year, a 60% increase from the beginning of 2008.²⁹

While the reforms implemented after 1997 had enhanced the resilience of South Korea's financial system, the global crisis created widespread disruptions, exposing vulnerabilities in specific sectors. The crisis led to severe liquidity shortages, destabilizing financial institutions, and critical export-driven industries such as shipbuilding, construction,

²⁹ KAMCO Research Institute (2024).

and heavy manufacturing. These challenges required a swift and tailored policy response to mitigate systemic risks and ensure economic stability.

Building on its institutional expertise gained from the Asian Financial Crisis, the KAMCO played a critical role in managing the financial and sectoral fallout of the crisis. Leveraging its mandate and experience, KAMCO implemented targeted interventions to address liquidity constraints, stabilize financial markets, and support the restructuring of distressed industries.

Restructuring Fund. One of KAMCO’s most significant initiatives during the Global Financial Crisis was the establishment of the Restructuring Fund in 2009. The Restructuring Fund was designed to support strategically important but financially distressed industries. The fund aimed to:

- Provide immediate financial assistance to industries suffering from liquidity shortages.
- Facilitate operational reforms and restructuring to ensure long-term viability.
- Prevent the collapse of sectors critical to South Korea's economy.

Table 3.4. Performance of KAMCO Restructuring Fund by Sector

(Unit: KRW 100 million)

Category	Acquisition		Disposal				Holding	
	Receivables	Acquisition	Receivables	Acquisition	Recovery	%	Receivables	Acquisition
Bank	8,520	4,465	8,170	4,255	4,487	100.5%	350	210
Saving Bank	61,693	38,678	61,634	38,621	40,360	104.4%	59	57
etc	2,043	600	2,043	600	647	107.6%	-	-
Total	72,256	43,743	71,847	43,476	45,494	104.0%	409	267

Notes: As of March 2015, difference between acquisition and cleanup amounts due to incremental settlement. Source: Financial Services Commission-Korea Asset Management Corporation (2015), 'White Paper on Restructuring Funds', p.153.

The shipbuilding industry, a cornerstone of South Korea's export economy, was particularly hard-hit by the crisis due to declining global demand and tightening credit conditions. KAMCO utilized the Restructuring Fund to stabilize shipbuilders by injecting liquidity and enabling debt restructuring. This intervention preserved jobs, safeguarded industrial capacity, and positioned the sector for recovery once global demand rebounded. Similarly, the Restructuring Fund supported heavy manufacturing, ensuring the survival of companies integral to South Korea's industrial base.

Through the Restructuring Fund, KAMCO demonstrated its capacity to act not only as a financial stabilizer but also as a facilitator of corporate rehabilitation, preserving strategically important sectors while enabling necessary structural reforms.

Table 3.5. Performance of KAMCO Restructuring Fund

(Unit: KRW 100 million)

Category		Acquisition		Disposal		
		Receivables	Acquisition	Receivables	Acquisition	Recovery
Financial co.]	Collateralized Debt Obligations	12,475	8,387	12,424	8,352	9,041
	PF loan	72,256	43,743	71,847	43,476	45,494
	Hybrid loan	17,441	4,291	17,426	4,286	4,625
	Capitalization	-	9	-	9	-
	Sub total	102,172	56,430	101,697	56,123	59,160
Restructu ring co.	Vessel	10,599	4,666	10,599	4,666	6,168
	Unsold apartments	1,612	527	1,612	527	559
	Capital contributions	-	70	-	70	96
	Sub total	12,211	5,263	12,211	5,263	6,823
Total		114,383	61,693	113,908	61,386	65,983

Notes: difference between acquisition and cleanup amounts due to incremental settlement.

Source: Financial Services Commission-Korea Asset Management Corporation (2015), 'White Paper on Restructuring Funds', p.106, p.168.

Bond Market Stabilization. In addition to sectoral interventions, KAMCO played a central role in addressing liquidity shortages in capital markets, which the global financial

turmoil had severely disrupted. In 2009, the South Korean government established the Bond Market Stabilization Fund to stabilize the bond market and ensure continued access to financing for corporations. KAMCO was entrusted with managing the fund, reflecting its institutional credibility and expertise.

The fund was instrumental in stabilizing bond prices, which had plummeted due to heightened risk aversion and a lack of market liquidity. By purchasing bonds directly from the market, KAMCO restored investor confidence and prevented further declines in asset values. These actions ensured financial institutions and corporations retained access to critical funding during the crisis.

The Bond Market Stabilization Fund also helped restore normal market functioning by providing a temporary liquidity backstop. This intervention allowed private sector investors to re-enter the market once conditions stabilized, facilitating a gradual recovery of South Korea's capital markets.

Impact of KAMCO's Interventions During Financial Crises

KAMCO's targeted interventions during the Global Financial Crisis had a profound impact on South Korea's economy and financial system. Key outcomes include:

- **Preservation of Strategic Industries.** Through the Corporate Restructuring Fund, KAMCO provided critical support to distressed sectors such as shipbuilding and heavy manufacturing. These interventions preserved industrial capacity, protected jobs, and ensured that South Korea remained competitive in global markets.
- **Stabilization of Financial Markets.** The Bond Market Stabilization Fund, managed by KAMCO, prevented a deeper collapse in capital markets by stabilizing bond prices and restoring investor confidence. This ensured that corporations and financial institutions could continue to access funding during the crisis.

- **Enhanced Liquidity and Recovery.** By securitizing distressed assets through ABS issuance, KAMCO injected liquidity into the financial system, alleviating liquidity pressures on banks and corporations. This contributed to a faster recovery of financial markets and reduced the fiscal burden on the government.
- **Operational Flexibility and Resilience.** KAMCO's ability to adapt its strategies to the unique challenges of the Global Financial Crisis highlighted its operational flexibility and institutional resilience. Its innovative use of financial instruments and targeted interventions underscored its capacity to address economic crises effectively.

3.2 Private Sector Engagement in Fostering Sustainable Financial Stability

The engagement of the private sector in Non-Performing Loan (NPL) management has played a pivotal role in fostering sustainable financial stability, as demonstrated in the experiences of South Korea and other economies recovering from financial crises. In South Korea, private sector involvement complemented public initiatives, enhancing the capacity and efficiency of NPL resolution frameworks. Private Asset Management Companies (AMCs) introduced market-driven solutions and expertise, significantly contributing to the establishment of a robust and competitive NPL market. These firms partnered with public institutions like KAMCO to co-manage NPL portfolios, implement innovative recovery techniques, and leverage advanced analytics to maximize asset recovery rates.

Moreover, private equity firms and institutional investors brought much-needed liquidity and competition to the NPL market, fostering a dynamic environment for distressed asset resolution. These players also actively participated in securitization processes, creating Asset-Backed Securities (ABS) that transformed illiquid NPLs into tradable financial products. This approach diversified risk and attracted a broader range of investors, thereby stabilizing the financial system. Collaborative frameworks such as joint ventures between domestic and

international entities further facilitated knowledge transfer and expanded market reach, enabling more efficient NPL management.

Private sector involvement also accelerated the development of a secondary NPL market, which enhanced the liquidity and operational focus of financial institutions by enabling the sale of distressed assets. The creation of electronic trading platforms and favorable regulatory policies encouraged transparency and efficiency in NPL transactions. These initiatives not only improved recovery rates but also reduced the fiscal burden on public resources. In addition, private participation fostered market competition, driving innovation and improving overall asset management standards.

Ultimately, the active role of the private sector in NPL resolution has underscored the importance of public-private synergy in achieving sustainable financial stability. By aligning government oversight with private sector capabilities, economies like South Korea have demonstrated how such collaborations can effectively resolve distressed assets, mitigate systemic risks, and build resilience against future financial shocks. This model serves as a valuable framework for other nations facing similar challenges.

3.2.1 Trends in NPL Private market players in South Korea

The private NPL market in South Korea has seen significant growth and diversification over recent years. Here are the key trends in private market players in the Korean NPL market:

1. Increased Participation of Private Equity and Foreign Investors

Private equity firms, both domestic and international, are increasingly drawn to South Korea's Non-Performing Loan (NPL) market due to the promising returns that distressed assets can offer. These investments are particularly appealing because NPLs often trade at significant discounts, allowing firms to capitalize on potential recovery gains

through strategic restructuring, asset management, and market resales. Domestic private equity firms leverage their understanding of local regulatory frameworks and market dynamics to efficiently navigate the NPL landscape. Meanwhile, international firms see South Korea's robust and maturing NPL market as a lucrative opportunity, especially given the country's transparent legal and financial systems, which reduce investment risks.

In addition to individual investments, **foreign investors** are establishing partnerships and making direct investments in South Korean NPL portfolios. These collaborations enhance liquidity within the market and introduce competitive dynamics, driving innovation and efficiency in NPL resolution processes. By partnering with local asset managers or financial institutions, foreign investors can overcome entry barriers, such as unfamiliar regulatory environments, while benefiting from local expertise in asset recovery and market operations. This cross-border participation not only diversifies the investor base but also strengthens the overall NPL resolution framework, contributing to improved recovery rates and fostering greater financial stability in South Korea.

2. Emergence of Specialized Distressed Asset Management Firms

Specialized asset management firms have become a significant force in South Korea's Non-Performing Loan (NPL) market, focusing on the management and recovery of distressed assets. These firms have emerged in response to the growing need for expertise in handling complex NPL portfolios, a demand amplified by financial crises and economic fluctuations. By collaborating with financial institutions and private investors, they co-manage or directly acquire distressed portfolios, providing customized solutions tailored to specific market conditions or asset types. Their specialized knowledge of regulatory frameworks, local market dynamics, and asset recovery mechanisms positions them as indispensable players in the efficient resolution of NPLs.

These firms leverage advanced recovery techniques, restructuring strategies, and data-driven analytics to optimize recovery rates and create substantial value from distressed assets. Their methodologies include renegotiating loan terms, liquidating collateral, and restructuring corporate debts, all aimed at maximizing asset profitability. Additionally, the use of predictive analytics and sophisticated market assessments allows these firms to identify opportunities and mitigate risks effectively. This operational excellence appeals to both local and international investors, who see the involvement of these firms as a marker of potential success and a way to ensure higher returns on investments. Through their efforts, specialized asset management firms not only contribute to the efficiency of the NPL market but also bolster confidence in South Korea's financial system.

3. Partnerships and Joint Ventures

Collaborations between foreign and domestic private players in South Korea's Non-Performing Loan (NPL) market have become increasingly prevalent, driven by the need to pool expertise and resources for effective distressed asset resolution. **Joint ventures and strategic partnerships** offer significant advantages to foreign investors, enabling them to navigate South Korea's regulatory and market landscape with greater ease. Local firms, with their deep understanding of regulatory requirements, cultural nuances, and market dynamics, provide invaluable support, reducing entry barriers for foreign entities. In turn, these partnerships enhance the efficiency of recovery processes, as foreign investors bring additional capital, global experience, and innovative practices that complement local expertise, resulting in improved recovery rates and operational effectiveness.

Beyond operational benefits, such collaborations also serve as a platform for knowledge transfer between international and domestic firms. Foreign investors often introduce advanced asset management techniques, cutting-edge technologies, and global best practices, which domestic firms can adopt and adapt to the South Korean context. This

exchange not only elevates the capabilities of local firms but also broadens their market reach, enabling them to participate in more complex and diverse asset management projects. Over time, these partnerships foster a more sophisticated and competitive NPL market, where both local and international players contribute to the development of a resilient and dynamic financial ecosystem. This collaborative approach underscores the value of combining global perspectives with local expertise to achieve sustainable financial stability.

4. Growing Interest in Securitization and Structured Products

The **securitization of Non-Performing Loan (NPL) portfolios** has emerged as a transformative trend in South Korea's financial landscape, particularly among private players. This process involves pooling NPLs into structured financial products, such as Asset-Backed Securities (ABS), which are then sold to institutional investors. By converting illiquid and distressed assets into tradable securities, private firms not only create new investment opportunities but also diversify the associated risks. Securitization attracts a wide range of investors, including pension funds, insurance companies, and hedge funds, by offering tailored risk-return profiles through tranches of securities. This broad investor participation enhances market liquidity and fosters a dynamic ecosystem for distressed asset resolution.

This trend has been bolstered by favorable **regulatory frameworks that provide a supportive environment for private entities to engage in securitization**. Regulations allow the establishment of Special Purpose Vehicles (SPVs) to facilitate the issuance of NPL-backed securities, ensuring legal and financial safeguards for all stakeholders. SPVs serve as intermediaries that separate the securitized assets from the originator's balance sheet, further reducing risk for investors. These regulatory provisions not only encourage innovation in NPL management but also promote risk-sharing across the financial system, reducing the concentration of distressed assets within individual institutions. Collectively,

the adoption of securitization by private players represents a significant step forward in enhancing the efficiency and resilience of South Korea’s NPL market.

5. Improved Business Viability Evaluation Criteria of Real Estate Project Financing (PF)

The Financial Supervisory Service (FSS) has improved the 'Business Viability Evaluation Criteria' to guide financial companies to objectively and reasonably evaluate PF business viability. As of June 2024, the total PF exposure of financial institutions was 216.5 trillion won. Doubtful and estimated loss amounted to KRW 21.0 trillion 9.7% of the total PF exposure. (PF exposure = PF loans (PF loans+collateral) + debt guarantee exposure)

Exhibit 11. Real Estate PF Exposure Status (June 18, 2024)

(Unit: trillion)

Division	Banking	Insurance	Securities	Savings	capital	Mutual.	Total
PF Exposure	51.5	39.9	26.5	16.6	27.5	54.6	216.5
Type	Main PF	47.7	37.7	19.7	6.5	18.2	154.3
	Bridge loan	3.8	2.2	6.8	1.3	5.7	20.5
	Land loan	-	-	-	8.8	3.6	41.8

Source: Financial Supervisory Services (FSS) (August 2024) “Financial company for real estate PF Viability assessment results and future plans”

The **main PF loans**, which account for a significant portion of the exposure, totaled 154.3 trillion won, while **bridge loans**, used for short-term funding, amounted to 20.5 trillion won. Additionally, **land loans**, typically riskier assets, represented 41.8 trillion won. The FSS’s guidelines aim to strengthen financial institutions' ability to manage risk.

These measures illustrate a maturing and dynamic NPL private market in South Korea, which is characterized by the active involvement of private equity firms, specialized asset managers, foreign investors, and financial institutions. The evolving NPL market has become increasingly attractive and accessible for diverse private players, with improved evaluation criteria ensuring more accurate risk assessments. By supporting better risk

management, enhancing liquidity, and fostering higher recovery rates, these developments contribute significantly to financial stability in South Korea's real estate and NPL markets.

6. Situation of Private players³⁰

Non-Performing Loan (NPL) market in South Korea has evolved significantly, with private entities playing an increasingly pivotal role. Historically, KAMCO's initiatives not only addressed immediate financial challenges but also fostered the development of a market infrastructure that enabled private sector participation in NPL transactions.

In South Korea's Non-Performing Loan (NPL) market, several private players play a critical role in acquiring, managing, and resolving distressed assets, complementing the efforts of public entities like KAMCO. Some of the key private players in the NPL market including United Asset Management Corporation (UAMCO), Daeshin Finance & Investment (Daeshin F&I), and Aegis Asset Management.

According to the investment banking industry, UAMCO recently began the sale process for Paper Korea and signed a binding MOU with Easy Construction. The sale target is the 86.6% stake in Paper Korea held by 'UAMCO Corporate Rebound 7th Corporate Financial Stability Private Equity Investment Partnership' and all of the 111th convertible bonds (CB). The expected sale price is ~~predicted~~ ~~expected~~ to be over KRW 300 billion, including the management premium. UAMCO acquired Paper Korea for KRW 30 billion in 2017. After that, in July of last year, Paper Korea participated in a paid-in capital increase to improve its financial structure, and received an additional 220 billion won. UAMCO failed to sell Paper Korea in 2022. It selected Shinyoung Group as the preferred bidder and entered into negotiations, but failed to narrow the gap in views on the sale price.

³⁰ Chosun Biz, "Will UAMCO's restructuring investment bear fruit?" (2024.10.29.), Newsis, "Saemaul Geumgo-UAMCO to create 500 billion won in real estate PF normalization fund"(2024.09.24), Daeshin F&I, "reducing real estate investment and aggressively purchasing NPLs... PF bond recovery is the key" (2024.10.15.), Yonhap Infomax, "Aegis Asset Management, NPL 4th fund creation imminent... Cumulative 900 billion track record." (2024.10.31.)

After establishing a restructuring (CR) division at the end of 2015, UAMCO began making investments in earnest the following year. According to the Financial Supervisory Service' s private equity fund integrated status, its assets under management (AUM) currently stands at 1.9 trillion won. An IB industry insider explained, “In a situation where debt ratio management is a concern for NPL investment companies, investment recovery is just as important as low-interest fund procurement,” adding, “As package sales of companies with low recovery potential are sluggish, successful sales of Paper Korea and Plantec are necessary.”

Daeshin F&I has been increasing the scale of NPL purchases in earnest since the second half of last year. It is understood that Daeshin F&I purchased a relatively large amount of NPLs in the recent third quarter bank NPL bidding. The analysis is that Daeshin F&I was able to increase the scale of purchases further as Hana F&I and Woori Financial F&I, which are affiliated with financial holding companies, reduced the scale of NPL purchases to manage risk-weighted assets (RWAs). Daeshin F&I also participated in the third joint sale of savings banks NPLs for the first time recently, purchasing collateralized NPLs from savings banks.

The real estate market has worsened, but the NPL market is rapidly expanding. In fact, the amount of bank NPLs sold this year is expected to be around KRW 9 trillion based on OPB (Operating Balance of Principal). It is expected. Industry insiders are analyzing it as the largest since the financial crisis in 2008. In 2020, the recognition of bad debts was postponed due to the government's financial stability policy due to COVID-19, but the scale of NPL sales in the banking sector has increased significantly due to the recent economic slowdown and the improvement of the soundness of the banking sector.

In the first half of 2024, Daeshin F&I's NPL investment asset ratio (41.1%) surpassed its real estate investment asset ratio (34.5%) due to active portfolio adjustment. By the end of 2022, the NPL investment asset ratio was down to 18%, the lowest among NPL investment companies, but it quickly expanded its NPL purchases.

It is also starting to raise funds in earnest due to the NPL boom. Daeshin F&I carried out a paid-in capital increase worth 390.6 billion won in October last year and issued corporate bonds three times this year alone. While expanding its NPL purchases, Daeshin F&I is suspending its real estate construction business with Nine One Hannam as its last, and focusing on real estate PF and PI recovery. Focusing on it. However, since most of Daeshin F&I's real estate PF and PI are mid-to low-priced loans, it is evaluated that recovery is not easy. This is because the profitability is declining, centering on local PF loans and bridge loans. The fact that there are a lot of overseas office building investment assets is also pointed out as a factor of uncertainty.

Some also point out that expanding the borrowing scale for NPL purchases, while recovering real estate investment assets, may have a negative effect on asset soundness. As of the first half of this year, Daeshin F&I's total asset leverage ratio is 4.5 times, increasing from 2.9 times in 2022 and 3.7 times in 2023. The appropriate leverage ratio of NPL investment companies is usually known to be within 4 times.

Aegis Asset Management is expected to complete the creation of the 4th non-performing loan (NPL) fund around November 2024. The fund size is expected to be approximately 150 billion won, and Aegis Asset Management will now have an NPL fund track record of close to 900 billion won. According to the investment finance (IB) industry, Aegis Asset Management plans to complete the creation of the 'Aegis NPL Specialized Investment Private Equity Real Estate Investment Trust No. 4' fund around the middle of November 2024. Korea Asset Management Corporation (KAMCO) selected Aegis Asset

Management as the trust management company for KAMCO NPL investment fund and will invest 40 billion won in this fund.

However, the size of the fund shrank somewhat as the insurance industry hesitated to invest in NPLs in preparation for the introduction of the new solvency system (K-ICS). Under the Kicks system, a high risk coefficient is applied to investments in the form of securitization, making it difficult for insurance companies to invest in NPLs.

3.2.2 Impact of Private Sector Engagement in NPL Management

Private sector engagement in Non-Performing Loan (NPL) management has played a transformative role in fostering South Korea's sustainable financial stability. Through their involvement, private players have significantly enhanced liquidity, fostered competition, advanced innovative solutions like securitization, and strengthened the overall resilience of the financial system.

Enhancing Liquidity and Market Competition. Private equity firms and institutional investors have provided critical liquidity to the NPL market, enabling financial institutions to stabilize their operations and refocus on core lending activities. These private players purchase distressed assets, allowing banks to free up capital and reduce the weight of NPLs on their balance sheets. By introducing much-needed liquidity, private sector involvement helps financial institutions maintain solvency and weather financial downturns.

Moreover, the influx of private players creates a competitive environment where NPL portfolios are priced more accurately, ensuring fair market valuations. This competition incentivizes efficiency and drives innovation in asset recovery methods, ultimately improving recovery rates. Additionally, competitive bidding processes among private equity firms for NPL portfolios have further enhanced transparency and accountability in the

market. These dynamics not only improve asset management practices but also boost investor confidence, contributing to the overall stability of the financial ecosystem.

Advancing Securitization and Risk Diversification. Securitization has emerged as a transformative approach in NPL management, with private players leveraging this technique to pool distressed assets into structured financial products such as Asset-Backed Securities (ABS). These securities are then sold to institutional investors, including pension funds, insurance companies, and hedge funds, allowing private players to diversify risks and attract a broader range of capital sources. By converting illiquid NPLs into tradable instruments, securitization ensures that risks are distributed across multiple stakeholders, reducing the concentration of distressed assets within individual institutions.

Regulatory frameworks in South Korea, such as those allowing the establishment of Special Purpose Vehicles (SPVs), have further bolstered the securitization process. SPVs act as intermediaries, separating securitized assets from the originator's balance sheet, mitigating risks for investors and enhancing transparency. This structured approach has not only increased liquidity in the financial system but also fostered a dynamic ecosystem for distressed asset resolution. By promoting innovation and risk-sharing, securitization has become a cornerstone of the private sector's contribution to NPL management.

Role of Specialized Asset Management Firms. Specialized asset management firms have become critical players in South Korea's NPL market, providing tailored expertise in handling complex distressed asset portfolios. These firms employ advanced recovery strategies, such as debt restructuring, collateral liquidation, and predictive analytics, to optimize recovery rates and maximize asset value. Their methodologies often involve renegotiating loan terms, restructuring corporate debts, and identifying market opportunities, ensuring that distressed assets are resolved efficiently and profitably.

In collaboration with financial institutions and private investors, these firms co-manage or acquire NPL portfolios, integrating their expertise in regulatory frameworks and local market dynamics. Their involvement not only enhances the operational efficiency of NPL management but also attracts both local and international investors. The confidence instilled by these firms' expertise and track record ensures greater participation in the NPL market, contributing to its growth and sustainability.

Collaborations and Partnerships. The increasing prevalence of partnerships between domestic and international private players has significantly strengthened South Korea's NPL resolution framework. Joint ventures allow foreign investors to leverage the expertise of local firms, enabling them to navigate complex regulatory landscapes and better understand market dynamics. This collaboration reduces entry barriers for foreign players, fostering a more inclusive and competitive market environment.

In addition to operational benefits, these partnerships facilitate knowledge transfer, equipping domestic firms with advanced asset management techniques, global best practices, and innovative financial tools. The exchange of expertise enables local players to expand their market reach and handle more diverse and complex portfolios. Over time, these collaborations have created a sophisticated NPL market in South Korea, characterized by strong public-private synergies and the integration of global perspectives with local expertise. Such partnerships not only enhance recovery rates but also ensure that the market remains competitive, dynamic, and capable of adapting to evolving economic challenges.

Development of a Secondary NPL Market and Long-Term Stability. The development of a secondary market for Non-Performing Loans (NPLs) has been a critical area where the private sector has made significant contributions. This market enables financial institutions to sell distressed assets to private investors, such as asset management companies, institutional investors, and private equity firms, thereby enhancing liquidity and

operational efficiency. By offloading NPLs, banks can clean up their balance sheets and redirect resources toward healthier lending practices, improving overall financial health.

The introduction of electronic trading platforms has further enhanced the transparency and efficiency of the secondary NPL market. These platforms allow for standardized processes, reduce transaction costs, and ensure fair pricing for all participants. Additionally, regulatory frameworks that support these platforms have encouraged participation from both domestic and international investors. The growth of the secondary market has not only accelerated the resolution of NPLs but also diversified the pool of market participants, ensuring a dynamic and sustainable mechanism for addressing distressed assets.

Market Resilience and Long-Term Stability. The private sector's engagement in NPL management has significantly bolstered market resilience and contributed to long-term financial stability. By introducing innovative recovery methods, advanced risk management strategies, and dynamic market mechanisms such as securitization and secondary trading, private players have enhanced the financial system's ability to absorb shocks and recover from economic downturns. Their expertise and proactive approach to asset resolution have ensured that distressed assets are handled efficiently.

Furthermore, private sector participation has reduced the fiscal burden on public institutions like state-owned AMCs, allowing governments to focus on broader financial and economic stability measures. The competitive dynamics introduced by private players have driven continuous improvements in asset recovery processes, fostering a more robust and resilient financial ecosystem. This long-term stability is characterized by a self-sustaining NPL market, where private sector innovation and public oversight work in synergy to mitigate systemic risks and build confidence among investors, financial institutions, and regulators. By contributing to the creation of such a resilient framework, the private sector

ensures that financial systems are better equipped to manage future challenges and maintain economic growth.

3.3 Innovative Financial Mechanism in Strengthening Financial Resilience

Immediately after the establishment of the NPL fund, KAMCO was preoccupied with the issue of how to quickly monetize non-performing assets. The introduction of an innovative financial mechanism which is the ABS system, a prerequisite for the IMF's funding, was the best way to do so. The government was also active in introducing the ABS system as a major policy issue, and in September 1998, it enacted the "Asset Securitization Act" to lay the groundwork. By the end of 1998, the domestic economy was slowly recovering, and conditions were ripe for ABS issuance to domestic investors. Finally, in June 1999, KAMCO succeeded in issuing KAMCO Future Bond 99-1, the first ABS in Korea to be securitized as special bonds with repurchase rights. The KAMCO Future Bonds 99-1 were purchased by five Big banks. After the successful issuance of KAMCO Future Bond 99-1, KAMCO issued a total of 17 rounds of ABS by the end of August 2003, collecting KRW 5.724 trillion (based on contractual value) from the issuance. At the time, KAMCO's ABS issuance was the first new non-performing loan resolution technique in Korea.³¹

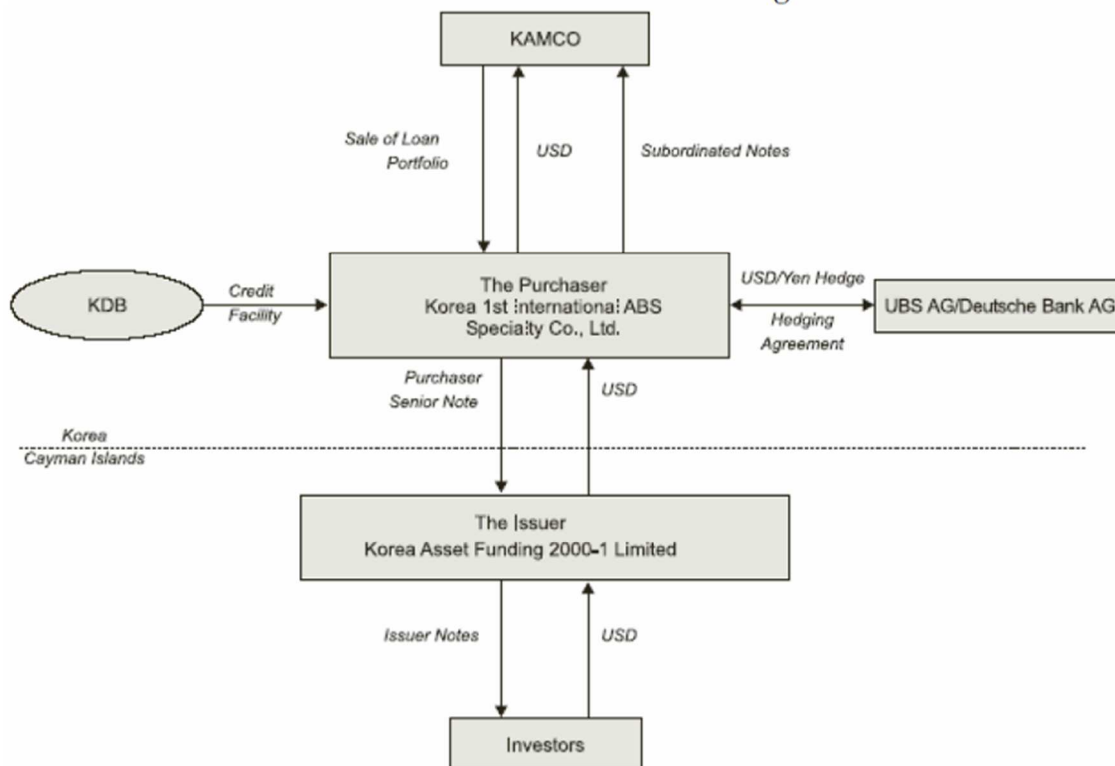
By successfully introducing ABS issuance in addition to the traditional methods of non-performing loans such as original auction and public auction, KAMCO contributed to the formation and development of the ABS market in Korea and broadened the way to efficiently recover public funds through the mass sale of non-performing loans. Among them, the foreign currency-denominated ABS issued in 2000 was a great success in the market and won 10 awards from Euro Money and other world-renowned financial publications. In 2005, it was also selected as a case study to be used in the official textbook of Harvard Business School in the United States,

³¹ KAMCO Research Institute (2024).

signaling to the world that the Korean economy was successfully overcoming the IMF foreign exchange crisis.

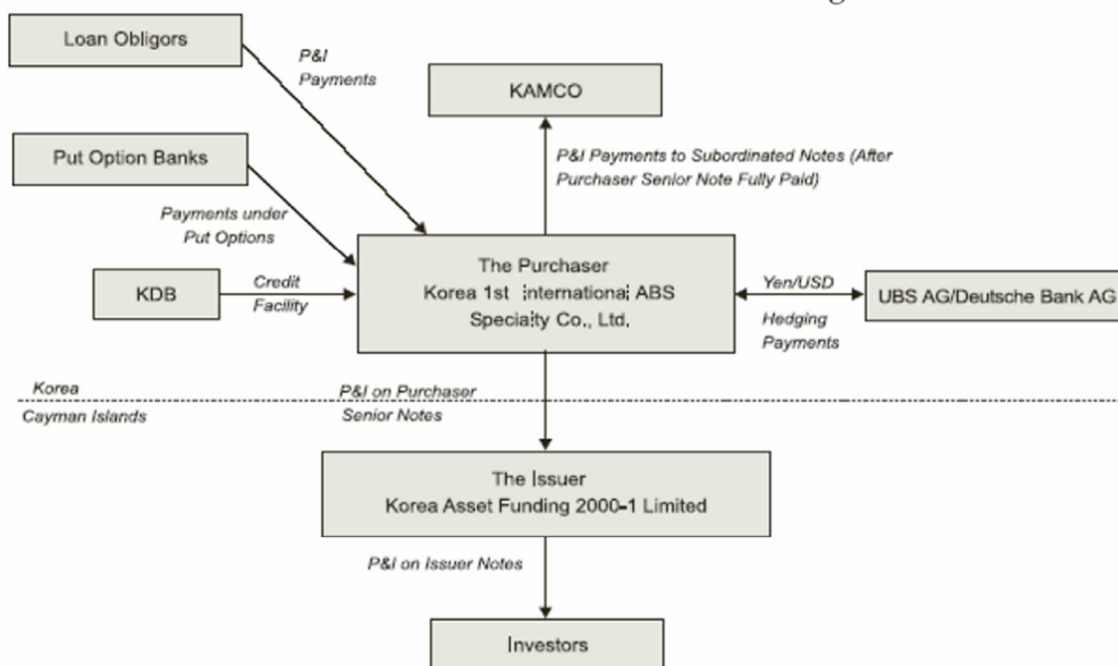
Figure 3.1. KAMCO NPL Fund Securitization Structure

a. The Securitization Transaction Structure—at Closing



KAMCO – Korea Asset Management Corp. KDB – Korea Development Bank. USD – US dollar.

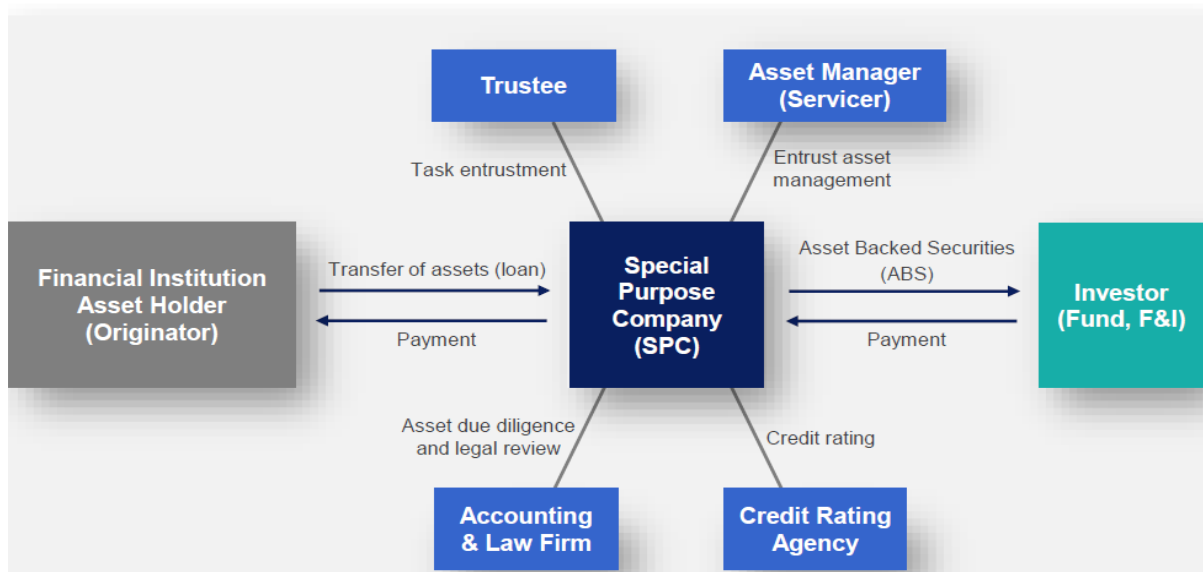
b. The Securitization Transaction Structure—Post-Closing



KAMCO – Korea Asset Management Corp, KDB – Korea Development Bank, P&I – Principal and interest, USD – US dollar.

Source: “Korea Asset Funding 2000-1 Limited,” Fitch Analyst Report, July 10, 2000, p. 5.

Figure 3.2. Structure of ABS



Source: KAMCO (2024)

The diagram illustrates the Structure of Asset-Backed Securities (ABS), with the Special Purpose Company (SPC) as the central entity coordinating the securitization process. The process begins with the originator, typically a financial institution, transferring distressed assets, such as loans, to the SPC in exchange for payment. This transfer removes the assets from the originator's balance sheet, enhancing financial stability and ensuring regulatory compliance. The SPC collaborates with accounting and legal firms to conduct due diligence and ensure asset quality and compliance, while a credit rating agency evaluates the securities' creditworthiness to attract investors. A trustee oversees the administration of the securitized assets, safeguarding investor interests.

To manage the securitized assets, the SPC appoints an asset manager (servicer) responsible for ensuring collections and maintaining asset performance. The SPC issues ABS to investors, such as institutional funds and financial institutions, providing capital to complete the transaction. This structure offers financial institutions immediate liquidity and creates structured investment opportunities for investors. By promoting transparency, efficiency, and stability, the ABS framework plays a critical role in supporting financial market resilience.

3.3.1 Key Milestones in Securitization for South Korea's NPL Resolution³²

1998: First Domestic ABS Issuances. In response to the 1997 Asian Financial Crisis, KAMCO pioneered the use of securitization as a strategy to resolve Non-Performing Loans (NPLs) by issuing the first domestic asset-backed securities (ABS) in 1998. This marked the beginning of structured finance in South Korea's distressed asset market. By bundling NPLs from financial institutions and converting them into securities, KAMCO provided liquidity to banks that were struggling with insolvency risks. These securities were sold to local institutional investors, offering them a relatively safe investment opportunity with predictable cash flows. The success of these initial issuances demonstrated the feasibility of securitization in managing distressed assets, establishing it as a cornerstone of financial recovery strategies. It also showcased the potential of leveraging domestic capital markets to stabilize the financial system during periods of economic distress.

1999–2000: Expansion into Cross-Border Securitization. By the turn of the century, KAMCO expanded its securitization efforts internationally, achieving a significant milestone in 2000 by completing South Korea's first cross-border securitization of NPLs. This deal raised \$367 million and was listed on the Luxembourg Stock Exchange, making it the first securitization of distressed assets outside Japan in Asia. This achievement positioned South Korea as a leader in structured finance for NPL resolution. The cross-border transaction not only attracted global investors but also elevated South Korea's reputation in international financial markets. By involving foreign institutional investors, the transaction diversified the investor base, increased market confidence, and demonstrated the viability of South Korean financial instruments on a global scale. It also paved the way for other economies in Asia to adopt similar approaches for distressed asset resolution.

³² Chacko, G., Hook, J., Dessain, V., & Sjöman, A. (2005). *KAMCO and the Cross-Border Securitization of Korean Non-Performing Loans*. Harvard Business School Case 9-205-037. Harvard Business School Publishing.

Evolution of the Securitization Market. Over the years, securitization evolved into a core strategy for KAMCO in its broader efforts to manage NPLs and stabilize the financial system. KAMCO diversified its methods by combining securitization with international auctions, loan workouts, and partnerships with private sector players. The agency issued multiple ABS products tailored to market demands and investor preferences, ensuring sustained interest and participation from institutional investors. This evolution reflected KAMCO's ability to adapt to changing financial landscapes, using securitization not only as a crisis response tool but also as a long-term mechanism for maintaining market liquidity and stability. The diversification of strategies enhanced KAMCO's role as a leader in financial innovation and resilience.

3.3.2 Legal and Regulatory Framework of Asset-Backed Securitization

The **Asset-Backed Securitization Act** (ABS Act), enacted in 1998, is a cornerstone of South Korea's legal framework, designed to facilitate the structured financing of assets through securitization. Introduced in the aftermath of the Asian Financial Crisis, the Act enables the transformation of illiquid assets into marketable securities, supporting liquidity, innovation, and systemic resilience. The Act aims to bolster financial stability by enabling institutions to manage risks more effectively and improve liquidity in the financial market. It was enacted in response to financial crises and economic challenges, recognizing the need for mechanisms that could transform illiquid assets, such as loans and real estate, into marketable securities.

Key Objectives and Scope. The Act's primary objective is to provide a legal and operational foundation for asset securitization, ensuring transparency, efficiency, and investor protection. It supports the resolution of Non-Performing Loans (NPLs), strengthens the financial system's soundness, and expands housing finance options. By establishing a

standardized securitization process, the Act allows financial institutions, enterprises, and public entities to pool their assets, convert them into securities, and sell them to investors.

Establishment of Special Purpose Companies (SPCs). A pivotal aspect of the Act is the creation of **Special Purpose Companies (SPCs)**, which are central to the securitization process. These entities are specifically designed to acquire, manage, and dispose of securitized assets while ensuring the protection of investors. SPCs are regulated to operate within the bounds of securitization plans and are prohibited from engaging in unrelated activities to prevent conflicts of interest.

Securitization Process and Legal Safeguards. The Act outlines a detailed process for securitization, including the transfer of assets from originators (e.g., financial institutions or corporations) to SPCs. This transfer must be registered with the **Financial Services Commission (FSC)** to ensure compliance and transparency. The securitization plan includes details about the underlying assets, the structure of the issued securities, and mechanisms for asset management.

To protect investors, the Act requires robust disclosures, credit rating assessments, and ongoing monitoring of securitized assets. SPCs must work with trustees who oversee the administration of the securitization, ensuring that payments and obligations are managed in the best interests of the investors.

Regulatory Oversight and Compliance. The Financial Services Commission (FSC) is tasked with overseeing the implementation of the Act, ensuring that all transactions meet legal and regulatory standards. The Act also imposes penalties for non-compliance, ranging from fines to the revocation of SPC registrations. These measures enhance the accountability and reliability of the securitization process.

Impact on Financial Markets. The Asset-Backed Securitization Act has had a transformative impact on South Korea's financial markets. It has enabled institutions to

offload illiquid assets, freeing up capital and improving financial ratios. By fostering a liquid and transparent market for asset-backed securities, the Act has attracted domestic and international investors, expanded access to housing finance, and supported economic growth. It also serves as a model for other jurisdictions seeking to implement securitization frameworks.

The Asset-Backed Securitization Act is a comprehensive framework that facilitates the efficient and secure transformation of assets into tradable securities. By addressing legal, operational, and regulatory aspects of securitization, it plays a critical role in enhancing financial stability, supporting economic development, and fostering investor confidence in South Korea's financial markets.

3.3.3 Impact of Securitization on the NPL Resolution Process

Liquidity Injection. Securitization played a vital role in restoring liquidity to the banking sector during the financial crisis. By converting NPLs into marketable securities, financial institutions were able to offload bad debts and receive immediate capital inflows. This liquidity helped banks meet regulatory requirements for capital adequacy, stabilize their operations, and resume lending activities. The availability of credit facilitated economic recovery by supporting businesses and households in need of financing. Moreover, the liquidity generated through securitization reduced reliance on government bailouts, thereby minimizing fiscal burdens.

Market Development. The success of securitization spurred the development of South Korea's ABS market, creating new investment opportunities for both domestic and international investors. The growth of this market encouraged financial innovation, as KAMCO and other entities introduced diverse ABS products tailored to different investor preferences. This diversification strengthened the financial ecosystem by attracting a broader

investor base and increasing market participation. Over time, the ABS market became a critical component of South Korea's financial infrastructure, providing a sustainable mechanism for managing distressed assets and maintaining financial stability.

International Recognition. South Korea's achievements in securitization, particularly its cross-border transactions, garnered international recognition and positioned the country as a pioneer in distressed asset management. The success of these initiatives attracted global investors, enhancing the country's financial profile and credibility. By demonstrating the effectiveness of securitization in resolving NPLs, South Korea set a benchmark for other nations dealing with financial crises. This recognition also opened new avenues for international collaboration and knowledge exchange, further solidifying South Korea's leadership in financial innovation.

3.4 Development of Secondary NPL Market for Sustainable Financial Stability

The secondary market for Non-Performing Loans (NPLs) in South Korea has been a critical component in promoting financial stability and strengthening the resilience of the financial system, facilitates the efficient transfer of distressed assets from financial institutions to specialized asset management companies (AMCs) and private investors, enabling banks to restore liquidity, improve asset quality, and focus on core lending activities. South Korea's Korea Asset Management Corporation (KAMCO), has played a pivotal role in acquiring, restructuring, and disposing of NPLs while fostering a transparent and efficient marketplace that attracts private sector participation. This has led to the establishment of standardized mechanisms for asset valuation, bidding, and disposal, ensuring fair market practices.

The sustainable development of the secondary Non-Performing Loan (NPL) market in South Korea is underpinned by a combination of robust regulatory frameworks, institutional collaboration, and continuous market infrastructure enhancements. These frameworks ensure

transparency, accountability, and efficiency in the market, which are critical for building investor confidence. For instance, standardized asset valuation processes, well-defined bidding mechanisms, and structured asset disposal practices have reduced uncertainties surrounding distressed asset transfers. Additionally, institutional collaboration has been instrumental in developing and stabilizing the secondary NPL market.

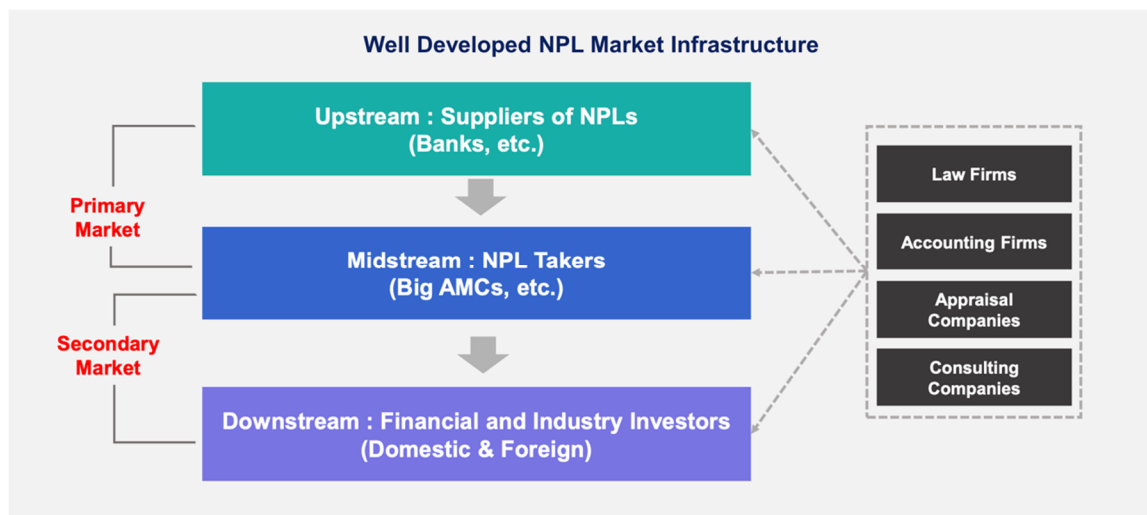
Furthermore, policies encouraging private sector participation and the adoption of innovative financial instruments have significantly expanded the market's capacity to absorb distressed assets. The introduction of tools such as asset-backed securities (ABS) and structured financing arrangements has provided new avenues for investors to engage in NPL markets while diversifying risks. By enabling private Asset Management Companies (AMCs) and financial investors to play a more active role, South Korea has created a dynamic and competitive marketplace that accelerates NPL resolution. This approach has minimized the systemic risks associated with prolonged NPL holdings, which can otherwise impair credit flow and economic growth. As a result, the secondary NPL market not only contributes to financial stability by alleviating pressure on banks' balance sheets but also stimulates economic recovery by redirecting capital to productive sectors. South Korea's success in building a resilient and efficient secondary NPL market offers a valuable framework for other economies aiming to strengthen their financial systems and achieve sustainable financial stability.

3.4.1 NPL Market Infrastructure

The development of a well-functioning Non-Performing Loan (NPL) market is critical for enhancing financial stability and ensuring the resilience of the financial system. In South Korea, a well-structured NPL market infrastructure has been established, encompassing upstream, midstream, and downstream participants. The figure below illustrates the comprehensive ecosystem of the NPL market, highlighting the roles of suppliers, takers, and

investors, as well as supporting institutions that facilitate the efficient functioning of both primary and secondary markets.

Figure 3.3. NPL Market Infrastructure



Source: KAMCO (2024)

The **upstream segment** of the NPL market serves as the initial source of distressed assets, primarily involving banks and other financial institutions. These entities accumulate Non-Performing Loans (NPLs) due to defaults, delayed repayments, or a decline in borrowers' creditworthiness. As the primary suppliers of NPLs, banks play a pivotal role in initiating the market flow of these distressed assets. The timely offloading of NPLs is crucial, as prolonged retention of these assets can significantly impair the banks' balance sheets, limit liquidity, and restrict their capacity to extend new credit to the economy. By transferring NPLs into the market, banks can mitigate systemic risks, improve financial health, and refocus on their core function—stimulating economic growth through sustainable credit disbursement.

The **midstream segment** constitutes NPL takers, including large Asset Management Companies (AMCs) and other specialized financial entities. These institutions are integral to the management, acquisition, and restructuring of NPLs, acting as intermediaries between

upstream suppliers and downstream investors. Midstream participants provide expertise in debt restructuring, asset-backed securities issuance, and portfolio management, thereby maximizing the economic value of distressed assets. By efficiently consolidating and managing these assets, the midstream segment creates a streamlined pathway for downstream investment while ensuring minimal market disruption.

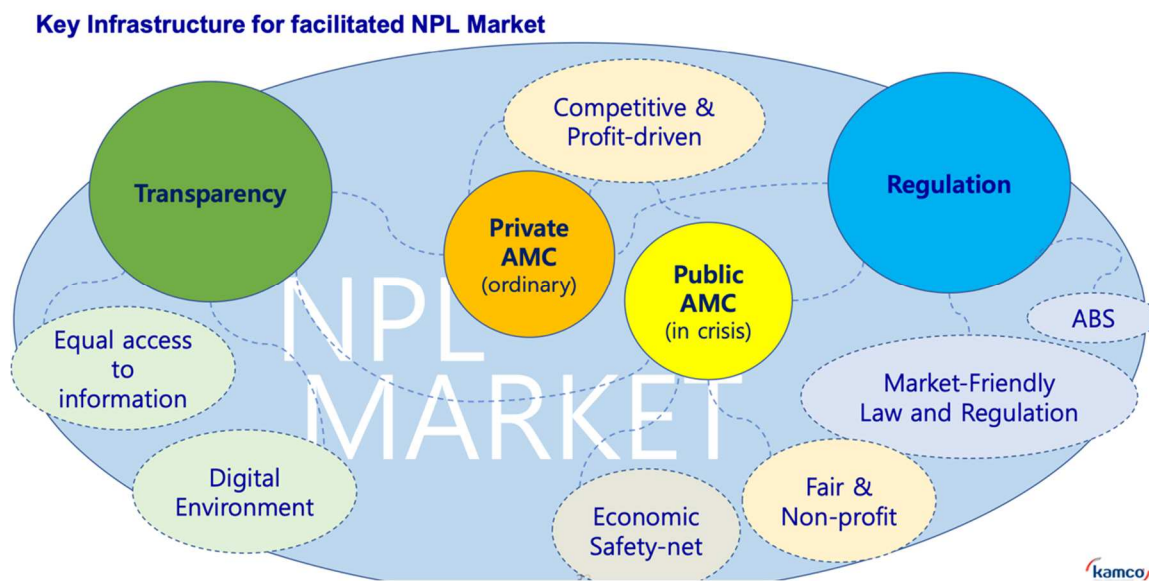
The **downstream segment** represents financial and industrial investors, both domestic and foreign, who engage in purchasing restructured NPLs or investing in the secondary market. These investors play a critical role in creating liquidity and ensuring market competitiveness. The participation of foreign investors in particular introduces additional capital flows and international expertise, further strengthening the NPL market ecosystem. Downstream investors typically seek opportunities to maximize returns by acquiring NPL portfolios at discounted prices, restructuring debt, or repurposing assets for profitable ventures. This segment significantly contributes to the stabilization of financial markets, as it enables distressed assets to re-enter the economy in productive forms.

Supporting the entire NPL market infrastructure are essential **ancillary service providers**, including law firms, accounting firms, appraisal companies, and consulting firms. These institutions ensure transparency, regulatory compliance, and market efficiency through legal advisory, financial audits, and accurate asset valuation. Their involvement adds credibility to the NPL resolution process by addressing critical challenges such as contract enforcement, dispute resolution, and accurate pricing of distressed assets. Collectively, these components form an interconnected ecosystem where upstream suppliers, midstream NPL takers, downstream investors, and supporting institutions work in harmony to achieve sustainable NPL resolution.

The robust development of South Korea's NPL market infrastructure has not only facilitated the timely resolution of distressed assets but also enhanced financial stability by

reducing systemic risks. The seamless integration of stakeholders across all market segments demonstrates a balanced and sustainable approach to NPL management. South Korea’s success serves as a model for other economies striving to establish resilient NPL markets, particularly in mitigating financial crises, restoring banking sector health, and driving economic recovery.

Figure 3.4. Key Infrastructure Elements of NPL Market



Source: KAMCO (2024)

The Non-Performing Loan (NPL) market in South Korea is supported by a well-developed infrastructure that ensures transparency, effective regulations, and competitive market mechanisms. The diagram above illustrates the key infrastructure elements that facilitate the efficient functioning of the NPL market, highlighting the role of public and private Asset Management Companies (AMCs), digital environments, equal access to information, and regulatory frameworks. These components work together to create a sustainable, market-friendly ecosystem for NPL resolution.

At the core of South Korea’s NPL market is **transparency**, which ensures equal access to information for all market participants. Transparency is achieved through

standardized reporting systems, open market transactions, and comprehensive digital infrastructure. By providing a level playing field, stakeholders, including banks, AMCs, and investors, can make informed decisions based on accurate and reliable data. The establishment of a **digital environment** further enhances efficiency by streamlining asset valuation, transaction processes, and information sharing. This transparency reduces information asymmetry and fosters trust, which is vital for attracting private and international investors into the NPL market.

The NPL market infrastructure is further strengthened by the coexistence of **public and private AMCs**, each playing a distinct role. Private AMCs operate on a profit-driven basis under normal market conditions, ensuring competitive pricing and efficient asset management. In contrast, **public AMCs**, such as KAMCO, play a critical role during financial crises by serving as economic safety nets. Public AMCs step in to acquire large volumes of distressed assets to stabilize financial markets and prevent systemic risks. This dual approach ensures the NPL market remains resilient under varying economic conditions while balancing commercial viability and public interest.

Regulation serves as the backbone of South Korea's NPL market, ensuring fairness, compliance, and market stability. Market-friendly laws and regulations promote asset-backed securities (ABS) issuance, enabling the securitization of NPLs to attract investment and expand liquidity. Additionally, regulations uphold principles of fairness and non-profit orientation during critical economic periods to safeguard financial stability. By maintaining a balance between regulatory oversight and market freedom, South Korea fosters an ecosystem where public and private institutions collaborate effectively to resolve NPLs. Collectively, these components—transparency, competitive AMCs, and supportive regulations—contribute to a sustainable, efficient, and resilient NPL market that can serve as a model for other economies.

3.5 South Korea's Key Success Factors on NPL Resolution

South Korea's successful management of Non-Performing Loans (NPLs) during financial crises, particularly the Asian Financial Crisis (1997–1998) and the Global Financial Crisis (2008–2009) serves as a global benchmark. Central to these efforts was the role of the Korea Asset Management Corporation (KAMCO), which was instrumental in stabilizing the financial system and fostering economic recovery. Four key factors contributed to South Korea's effective NPL resolution framework: (1) the establishment of KAMCO supported by strong institutional and legal frameworks, government backing, and a commitment to transparency, (2) rigorous pricing and valuation mechanisms, (3) securitization and risk diversification, and (4) the development of a robust secondary market for distressed assets with private sector engagement.

3.5.1 Establishment of KAMCO: Strong Institutional and Legal Frameworks, Government Support, and Transparency

The establishment of KAMCO in 1997, restructured during the Asian Financial Crisis, provided South Korea with a centralized public Asset Management Company (AMC) to resolve systemic risks effectively. KAMCO's institutional design and operational mandates were supported by robust legal frameworks and strong government backing, ensuring its capacity to manage distressed assets on a national scale.

- **Legal Foundation:** KAMCO operated under the “Act on the Efficient Disposal of Non-Performing Assets of Financial Institutions”, enacted in November 1997, which provided it with the authority to acquire, manage, and resolve NPLs.
- **Government Support and Adequate Funding:**
 - KAMCO was primarily funded through government-backed bonds totaling KRW 39.2 trillion, ensuring liquidity for large-scale NPL acquisitions.

- Between 1998 and 2003, KAMCO acquired NPLs with a total face value of KRW 110.1 trillion, representing approximately 50% of the banking sector's NPLs.
- **Transparency and Accountability:**
 - KAMCO emphasized transparency by subjecting its operations to regular audits and public disclosures, which enhanced stakeholder trust.
 - Its collaboration with international organizations, such as the IMF and the World Bank, further bolstered governance standards and operational credibility.

The establishment of KAMCO underscored the importance of a public AMC in managing systemic financial risks, particularly during periods of economic instability. Its role ensured accountability, efficiency, and alignment with economic objectives.

3.5.2 Pricing and Valuation: Ensuring Fairness through Restrictive Valuation

One of the foundational aspects of KAMCO's success was its adherence to a rigorous and transparent valuation process for NPL acquisitions. To avoid overpayment and safeguard public resources, KAMCO implemented restrictive valuation methodologies overseen by an independent valuation committee comprising financial experts and auditors. This committee assessed the fair market value of distressed assets by considering the quality of underlying collateral, the likelihood of recovery, and broader economic conditions.

- **Independent Valuation Committees:** Valuation processes were overseen by independent committees, who assessed the market value of NPLs based on objective criteria such as collateral quality and recovery probabilities.
- **Restrictive Pricing Approach:**
 - KAMCO acquired NPLs at an average of **36% of their face value**, reflecting a balance between fiscal responsibility and stabilizing the financial sector.

- This disciplined approach minimized risks of overpayment and speculative trading while maintaining fairness.
- **Stakeholder Confidence:** The transparent valuation methodology safeguarded public resources and reinforced trust among domestic and international investors.

By adopting restrictive valuation practices, KAMCO ensured that public funds were utilized effectively while maintaining transparency. **This strategy also set a benchmark for NPL pricing in the market, reducing the risks of speculative trading and promoting long-term stability.**

3.5.3 Securitization and Risk Diversification: Enhancing Financial Stability

One of the most significant factors behind South Korea's financial stability is its innovative use of securitization coupled with risk diversification strategies. These mechanisms allowed the efficient resolution of Non-Performing Loans (NPLs) while ensuring the resilience of the financial system. By transforming illiquid assets into marketable securities, securitization provided liquidity to financial institutions and diversified risks across a broad investor base, reducing systemic vulnerabilities.

- **Securitization as a Liquidity Tool:** South Korea leveraged securitization to address liquidity shortages within financial institutions. By transferring NPLs to Special Purpose Companies (SPCs) and issuing Asset-Backed Securities (ABS), banks were able to offload distressed assets and restore their capital adequacy ratios, thereby meeting regulatory requirements.
- **Diversification of Risks:** Through the issuance of ABS, risks associated with distressed assets were distributed among various investor groups, including domestic institutional investors and international participants. This approach minimized concentration risks for individual institutions and enhanced the overall stability of the financial system.

- **Market Confidence and Innovation:** Securitization introduced innovative financial instruments, such as tranches in ABS, which allowed investors to select risk levels according to their preferences. This flexibility fostered investor confidence and encouraged greater participation in the financial markets.
- **Global Recognition:** South Korea's cross-border securitization initiatives, such as KAMCO's \$367 million international ABS issuance in 2000, established the country as a leader in structured finance. These efforts not only attracted global investors but also demonstrated South Korea's capability to implement sophisticated financial solutions.

By implementing **securitization and risk diversification**, South Korea successfully stabilized its financial system, reduced systemic risks, and set a global benchmark for NPL resolution. **These strategies remain central to South Korea's continued financial resilience and innovation.**

3.5.4 Development of a Secondary NPL Market: for Sustainable Financial Stability

The success of South Korea's secondary NPL market lies in its integrated infrastructure, transparency, institutional collaboration, regulatory support, and private sector engagement. These components collectively foster a dynamic, resilient, and efficient NPL market, contributing to financial stability and economic recovery.

- **Robust NPL Market Infrastructure:** South Korea's NPL market infrastructure comprises three key segments: **Upstream**, where banks supply NPLs to restore liquidity and asset quality; **Midstream**, where AMCs manage and restructure NPLs as intermediaries; and **Downstream**, where investors add liquidity and repurpose distressed assets. Ancillary service providers, such as law firms and appraisal companies, support transparency, compliance, and accurate asset valuation, ensuring a credible NPL market.

- **Transparency and Digital Environment:** Transparency is at the core of South Korea's NPL market success. Standardized reporting, open bidding mechanisms, and reliable digital infrastructure ensure equal access to information for all participants, reducing information asymmetry. This fosters a high level of trust among stakeholders, attracting investors to the NPL market.
- **Role of AMCs:** The dual structure of public and private AMCs underpins the sustainability of South Korea's NPL market. **Private AMCs** operate competitively under normal conditions, driving profit-based asset management and market dynamism, while **public AMCs**, such as KAMCO, act as economic safety nets during financial crises by acquiring and managing large distressed portfolios to mitigate systemic risks. This balanced approach ensures market resilience under varying economic conditions.
- **Supportive Regulatory Framework:** A robust and market-friendly regulatory framework ensures fairness, compliance, and stability within the NPL market. Regulations uphold principles of transparency, fairness, and non-profit orientation during crises, further ensuring market sustainability and financial stability.
- **Encouragement of Private Sector Participation:** South Korea's policies actively encourage private sector involvement by introducing innovative financial instruments and competitive bidding processes. This approach has expanded market capacity to absorb distressed assets, diversified risks, and accelerated the resolution process.

Through the establishment of a vibrant secondary NPL market, South Korea has successfully enhanced financial stability and strengthened investor confidence. This approach has proven essential for sustainable economic recovery and serves as a model for other economies aiming to manage distressed assets effectively.

Chapter IV.

Comparative and Gap Analysis on NPL Resolution Framework

4.1 Overview of NPL Resolution Framework in South Korea and Indonesia

4.1.1. Overview of South Korea's NPL Resolution Framework

South Korea's Non-Performing Loan (NPL) resolution framework has been widely recognized as a global benchmark for addressing financial crises and fostering long-term financial stability. Developed in response to the 1997 Asian Financial Crisis, the framework integrates legal, institutional, and market-driven mechanisms to efficiently manage distressed assets, restore confidence in the financial system, and minimize systemic risks. The key features of this framework reflect a strategic blend of government intervention, private sector engagement, and financial innovation.

1. Role of the Korea Asset Management Corporation (KAMCO)

At the core of South Korea's NPL resolution framework is the **Korea Asset Management Corporation (KAMCO)**, a state-owned entity established to manage distressed assets. KAMCO was instrumental in stabilizing the financial system during the Asian Financial Crisis by acquiring NPLs from financial institutions at an average of 36% of their face value. This **pricing approach, guided by restrictive valuation methodologies, ensured fairness while minimizing fiscal risks.**

KAMCO also employed **innovative strategies, such as loan restructuring and bulk asset sales, to optimize recovery rates.** Additionally, its securitization initiatives converted illiquid NPLs into tradable Asset-Backed Securities (ABS), attracting a broad range of investors and fostering market liquidity. KAMCO's ability to coordinate with private sector

players, such as asset management firms and law firms, further enhanced the efficiency of NPL resolution.

2. Legal and Institutional Framework

South Korea's success in NPL management is underpinned by a robust legal framework that supports creditor rights, insolvency resolution, and asset securitization. The **Asset-Backed Securitization Act (ABS Act)**, enacted in 1998, provides a comprehensive structure for securitization activities. This legislation established the use of **Special Purpose Companies (SPCs)** to facilitate the transfer of distressed assets, ensuring legal separation and risk isolation.

The government also implemented reforms in bankruptcy laws, simplifying insolvency procedures and improving the enforceability of creditor claims. These legal measures created a stable and transparent environment for NPL resolution, attracting both domestic and international investors.

3. Securitization and Risk Diversification

Securitization has been a pivotal component of South Korea's NPL resolution framework. By pooling NPLs into structured financial products such as ABS, financial institutions were able to offload distressed assets while diversifying risks. The issuance of tranches in ABS allowed investors to choose risk profiles that matched their appetite, promoting broader participation in the market.

KAMCO's **international securitization initiatives**, including its landmark \$367 million ABS deal listed on the Luxembourg Stock Exchange in 2000, demonstrated South Korea's capability to engage global capital markets. These efforts not only attracted international funding but also showcased the country's leadership in structured finance.

4. Collaboration with Private Sector Players

South Korea's NPL resolution framework actively integrates private sector participation, recognizing the value of market-driven solutions and specialized expertise. Private equity firms, asset management companies, and institutional investors played a significant role in acquiring and managing NPL portfolios. Collaborations between foreign and domestic entities further enriched the ecosystem by facilitating knowledge transfer and leveraging local expertise.

The secondary NPL market, supported by electronic trading platforms, also provided an efficient mechanism for distressed asset transactions. This market development reduced reliance on public resources and fostered competitive dynamics, improving recovery rates and market efficiency.

5. Development of a Resilient Financial Ecosystem

South Korea's NPL resolution framework has contributed to the creation of a resilient financial ecosystem capable of withstanding future economic shocks. By ensuring liquidity, improving asset quality, and diversifying risks, the framework has restored confidence in the banking sector. Ongoing reforms, such as enhanced prudential regulations and forward-looking criteria, continue to strengthen financial institutions' ability to manage credit risks proactively.

South Korea's NPL resolution framework exemplifies a holistic approach to managing financial crises and fostering long-term stability. Its success in integrating legal, institutional, and market-based mechanisms provides valuable lessons for other economies facing similar challenges. **By balancing government intervention with private sector innovation, South Korea has built a sustainable model for addressing distressed assets and ensuring systemic resilience.**

4.1.2. Overview of Indonesia's NPL Resolution Framework

Indonesia's Non-Performing Loan (NPL) resolution framework is a key component of its financial stability strategy, aimed at addressing systemic risks and fostering a resilient banking system. Indonesia has developed a comprehensive framework that integrates regulatory oversight, institutional mechanisms, and market-based solutions. By focusing on risk management, transparency, and efficient asset recovery, Indonesia seeks to align with global best practices while addressing unique domestic challenges.

1. Regulatory Environment and Key Institutions

The Financial Services Authority (OJK) and Bank Indonesia (BI) serve as the cornerstone of Indonesia's NPL resolution framework. OJK, established under Law No. 21 of 2011, oversees the financial services sector, encompassing banking, capital markets, and non-bank financial institutions. OJK is empowered to issue regulations, supervise financial institutions, and enforce compliance with prudential standards. This regulatory authority ensures the stability and integrity of the financial system.

The introduction of Law No. 4 of 2023 (P2SK Law) further strengthened OJK's mandate, allowing it to supervise financial innovations and ensure consumer protection. This expansion enables OJK to address emerging risks associated with technological advancements in the financial sector while maintaining systemic stability. Together, these legal frameworks provide a robust foundation for managing distressed assets and safeguarding financial stability (OJK, 2019; OJK, 2023).

2. Asset Classification and Proactive Risk Management

Indonesia's NPL resolution framework emphasizes stringent asset classification and provisioning practices to manage credit risks effectively. Under POJK No. 40/POJK.03/2019, banks are required to classify assets into five categories: Performing

(Lancar), Special Mention (Dalam Perhatian Khusus), Substandard (Kurang Lancar), Doubtful (Diragukan), and Loss (Macet). This classification system reflects the severity of credit risk and ensures that banks maintain adequate provisioning levels corresponding to the likelihood of default.

The regulation also incorporates a forward-looking approach to asset evaluation, requiring banks to assess debtor business prospects, financial performance, and repayment capacity. This multidimensional approach aligns with international standards, such as Basel III, and enhances the ability of banks to anticipate and mitigate credit risks proactively. These measures not only promote prudent risk management but also contribute to the stability of the financial system (OJK, 2019).

3. Institutional and Market-Based Solutions

Indonesia's NPL resolution framework leverages a combination of institutional and market-driven approaches to address distressed assets effectively.

- **Credit Restructuring.** Credit restructuring provisions under POJK No. 40/POJK.03/2019 allow banks to modify loan terms for borrowers facing financial difficulties. Options include extending repayment periods, reducing interest rates, and converting debt into temporary equity participation. By rehabilitating viable borrowers, these measures aim to reduce credit losses and minimize systemic risks.
- **Securitization.** POJK No. 11/POJK.03/2019 on Asset Securitization for Commercial Banks establishes a regulatory framework to enhance liquidity and improve balance sheet structures by converting pools of financial assets into tradable securities. In practice, securitization in Indonesia is applied primarily to performing assets. Despite the regulatory tools being in place, the implementation of NPL securitization remains suboptimal, requiring further market development.

4. Challenges in NPL Management

Despite its progress, Indonesia faces several challenges in fully realizing the potential of its NPL resolution framework:

- **Legal and Procedural Barriers.** Prolonged court processes and inconsistencies in the enforcement of creditor rights hinder efficient asset recovery. These delays increase the cost and complexity of resolving distressed assets.
- **Limited Early Warning Systems.** The absence of advanced predictive analytics and early warning indicators limits the ability of financial institutions to identify and address potential NPLs before they materialize.
- **Underdeveloped Secondary NPL Market.** The lack of a robust platform for trading distressed assets restricts liquidity and hampers the involvement of private sector players in NPL resolution.

Smaller banks in Indonesia face significant challenges in meeting stringent provisioning requirements due to their limited resources, constrained capital reserves, and operational inefficiencies. Additionally, operational constraints hinder their ability to manage distressed assets effectively through restructuring or recovery, prolonging resolution timelines and increasing financial exposure.

Indonesia's NPL resolution framework demonstrates a comprehensive approach to managing financial stability, combining regulatory oversight with market-based solutions and institutional support. While challenges remain, such as legal inefficiencies and underdeveloped market infrastructure, the framework continues to evolve in response to emerging risks and opportunities.

4.2 The Establishment of Public Asset Management Companies (AMC)

The establishment of Public Asset Management Companies (AMCs) has proven to be a pivotal strategy for resolving Non-Performing Loans (NPLs) and ensuring financial stability during periods of economic distress. AMCs serve as entities tasked with acquiring, managing, and resolving distressed assets from financial institutions, thereby relieving pressure on the banking sector and fostering economic recovery.

4.2.1 Global Best Practices³³

Public Asset Management Companies (AMCs) have become a cornerstone in global financial stability frameworks, particularly during crises marked by high levels of Non-Performing Loans (NPLs). Countries worldwide have established AMCs to address systemic risks in their banking systems, leveraging lessons from global best practices. These are four critical components: **the background of their establishment, legal foundation and mandate, funding mechanisms, and their role in ensuring financial stability.**

1. Background of Establishment

The establishment of AMCs typically arises from financial crises where the accumulation of NPLs threatens the solvency of banks and undermines economic stability. Benchmarking global examples highlights common triggers and responses:

- **Crisis Triggers:**
 - The **Asian Financial Crisis (1997-1998)** saw countries like South Korea, Malaysia, and Indonesia grapple with surging NPLs, leading to the creation of AMCs such as KAMCO (Korea Asset Management Corporation) and Danaharta in Malaysia.

³³ Cerruti, C., & Neyens, R. (2016). *Public Asset Management Companies: A Toolkit*. World Bank.

- The **Global Financial Crisis (2008)** exposed vulnerabilities in Western banking systems, prompting the establishment of entities like Ireland's National Asset Management Agency (NAMA) and Spain's SAREB.
- **Strategic Responses.** AMCs were established to purchase distressed assets, clean up bank balance sheets, and facilitate the recovery of the financial system. These entities provided immediate relief to struggling banks while fostering long-term market stability. For instance, KAMCO acquired over 80% of Korea's NPLs, addressing systemic risks and restoring confidence.

2. Legal Foundation and Mandate

The success of AMCs hinges on robust legal frameworks and clearly defined mandates. Benchmarking across regions reveals key practices:

- **Legal Foundations.** AMCs are often established under specific legislation that grants them special powers for efficient operations. For example:
 - **KAMCO** operates under **the KAMCO Act** and Public Fund Oversight Act, which grants authority to acquire, manage, and dispose of distressed assets efficiently.
 - **NAMA** in Ireland was created through the **NAMA Act**, providing it with a broad mandate to manage property-related NPLs arising from the financial crisis.
- **Mandates.** Successful AMCs focus on narrow, well-defined roles to avoid mission creep. Common mandates include:
 - Acquiring NPLs from banks to stabilize balance sheets.
 - Resolving distressed assets through restructuring, sales, or securitization.
 - Supporting broader financial recovery efforts by restoring credit flows and market confidence.

Some AMC's, such as Sweden's Securum, focused exclusively on managing and recovering distressed assets, while others, like IBRA in Indonesia, also undertook bank restructuring.

- **Special Legal Powers.** AMC's are often granted extraordinary powers, such as expedited foreclosure rights and exemptions from typical legal proceedings, to accelerate asset resolution. For instance, IBRA had the authority to seize assets without court approval, while Danaharta could override certain bankruptcy protections to recover value efficiently.

3. Funding Mechanism

Adequate and sustainable funding is critical for the operational success of AMC's. Global benchmarking identifies diverse approaches to AMC financing:

- **Government Funding.** Many AMC's receive initial capital injections directly from governments to ensure liquidity. For example:
 - **Danaharta** was capitalized with public funds to acquire and manage NPL's during Malaysia's crisis.
 - **NAMA** relied on government-backed securities for its operations, ensuring investor confidence.
- **Bond Issuance with Guarantees.** The issuance of AMC bonds, often guaranteed by the government, is a common funding strategy. This approach ensures sufficient liquidity while leveraging public trust:
 - **KAMCO** issued government-guaranteed bonds to acquire NPL's, enhancing market confidence and stabilizing Korea's financial sector.

- **Public-Private Partnerships (PPPs).** Some AMCs, such as Spain's SAREB, adopted PPP models to share financial risks between the public and private sectors. This model reduces the fiscal burden on governments while leveraging private sector expertise.
- **Central Bank Support.** Central banks sometimes provide short-term liquidity to AMCs, particularly during the initial phases of establishment. This funding ensures that AMCs can operate effectively while long-term financing mechanisms are put in place.

4. Role in Financial Stability Framework

AMCs play a pivotal role in the financial stability framework, with global examples demonstrating their impact on systemic risk mitigation, market development, and economic recovery:

- **Systemic Risk Mitigation.** AMCs reduce systemic risks by acquiring NPLs, allowing banks to focus on core activities like lending. This intervention restores the flow of credit and prevents a credit crunch.
- **Restoration of Market Confidence.** The establishment of AMCs signals strong government commitment to financial stability, reassuring investors, depositors, and stakeholders. The success of **NAMA** in Ireland demonstrated how public intervention can restore confidence in the property and banking sectors.
- **Development of Secondary Markets.** AMCs foster the development of secondary markets for distressed assets, promoting transparency and liquidity.
- **Efficient Asset Resolution.** Centralized asset management allows AMCs to achieve economies of scale and optimize recovery rates through restructuring, securitization, and direct sales.

- **Institutional Reforms and Policy Alignment.** AMCs often work in tandem with legal and regulatory reforms to strengthen the broader financial system. For example, the success of Sweden's Securum was supported by complementary reforms in corporate governance and insolvency laws.

The establishment of public AMCs provides a proven framework for addressing systemic banking crises and fostering financial stability. Global best practices highlight the importance of:

- **A robust legal foundation and clearly defined mandates** to ensure operational focus and efficiency.
- **Sustainable funding mechanisms**, including government support and bond issuance, to provide AMCs with the financial resources required for large-scale NPL resolution.
- **Integration into the financial stability framework**, with AMCs playing a critical role in systemic risk mitigation, market development, and economic recovery.

4.2.2 South Korea's KAMCO

1. Background of Establishment

Korea Asset Management Corporation (KAMCO) was established in 1997 as a direct response to the devastating Asian Financial Crisis, which exposed South Korea's financial vulnerabilities. The crisis led to an unprecedented surge in non-performing loans (NPLs), totaling KRW 32.2 trillion, equivalent to 17.2% of total loans by the end of 1997. These distressed assets crippled the banking sector, halting credit flow and exacerbating economic stagnation. Additionally, the sharp depletion of foreign exchange reserves and depreciation of the Korean won further intensified financial instability. Recognizing the critical need to

stabilize the financial system, the South Korean government established KAMCO to manage distressed assets, stabilize financial institutions, and facilitate economic recovery.

2. Legal Foundation and Mandate

KAMCO's establishment was formalized under the “**Act on Efficient Management of Non-performing Assets of Financial Institutions and Establishment of Korea Asset Management Corporation**” (**KAMCO Act**) in November 1997. This law granted KAMCO the legal authority and flexibility to address systemic financial challenges. The act outlined KAMCO's three primary mandates:

- **Stabilizing the Banking Sector.** By acquiring and managing NPLs, KAMCO alleviated liquidity pressures on financial institutions, enabling them to recapitalize and restore credit flows essential for economic activity.
- **Facilitating Corporate Restructuring.** KAMCO actively supported debt restructuring and operational reforms for distressed corporations. This process aimed to preserve viable businesses, protect employment, and maintain industrial stability.
- **Recovering Public Funds.** Through the resolution and sale of distressed assets, KAMCO ensured the recovery of government funds used in financial sector bailouts, reinforcing fiscal sustainability and mitigating taxpayer burdens.

KAMCO acquired NPLs totaling KRW 110.1 trillion (50% of the banking sector's NPLs) between 1998 and 2003, reflecting the scale and urgency of its interventions.

3. Funding Mechanism

KAMCO utilized sustainable funding approaches to finance its operations:

- **Government-Guaranteed Bonds.** Issuing KRW 39.2 trillion in government-backed bonds allowed KAMCO to secure the liquidity required for large-scale NPL

acquisitions. These bonds were explicitly guaranteed by the government, attracting investor confidence and enabling the institution to raise funds at competitive rates.

- **Non-Performing Asset Fund (NPA Fund).** Supplementary funding was sourced from public contributions and industrial banks, ensuring long-term financial sustainability.
- **Disciplined Valuation of NPLs.** To safeguard public resources, KAMCO implemented a transparent valuation process overseen by independent committees. Assets were purchased at an average of 36% of their face value, balancing fiscal responsibility with financial stabilization needs.

This multi-pronged funding strategy underscored KAMCO's financial prudence and ensured adequate resources for its operations.

4. Role in Financial Stability Framework

- **Enhancing Financial Stability.** KAMCO played a pivotal role in restoring stability to South Korea's financial sector by addressing the root causes of the crisis:
- **Asset Resolution.** KAMCO acquired distressed assets from banks, removing "toxic assets" that hindered their ability to lend. This intervention improved banks' balance sheets, restored liquidity, and facilitated credit flows critical for economic recovery.
- **Corporate Rehabilitation.** By restructuring corporate debt and resolving unsustainable obligations, KAMCO preserved economic productivity and reduced unemployment.
- **Public Fund Recovery.** Through efficient asset resolution, securitization, and sales, KAMCO achieved a recovery rate of approximately 42% on distressed assets, highlighting its fiscal accountability and operational efficiency.

Strategic Interventions and Innovations.

- **Asset-Backed Securitization (ABS).** KAMCO pioneered the use of ABS to convert NPLs into tradable securities, injecting liquidity into the banking sector and attracting domestic and international investors. Between 1999 and 2003, KAMCO issued 17 rounds of ABS, raising KRW 5.724 trillion. This strategy diversified risks and reduced reliance on government bailouts.
- **Cross-Border Securitization.** In 2000, KAMCO conducted South Korea's first cross-border ABS issuance, raising \$367 million and securing international recognition. This transaction not only diversified the investor base but also reinforced global confidence in South Korea's financial recovery.

5. Long-Term Impact on Financial Stability

KAMCO's interventions had a transformative impact on South Korea's financial system and economy:

- **Banking Sector Stabilization.** The NPL ratio in South Korea's banking sector was reduced from 17.2% in 1998 to 2.3% by 2002, signaling a remarkable recovery.
- **Attracting Investment.** KAMCO's efforts restored investor confidence, resulting in increased foreign investment and economic revitalization.
- **Institutional Benchmark.** KAMCO's success established a global benchmark for NPL resolution, influencing financial crisis management strategies worldwide.

Through its innovative strategies, legal mandate, and transparent governance, KAMCO demonstrated the critical role of a centralized asset management corporation in overcoming systemic financial crises and fostering economic resilience.

4.2.3 Indonesia

1. Background of Establishment

PT Perusahaan Pengelola Aset (PPA), Indonesia's Public AMC, was established in **2004** as a strategic initiative to address Indonesia's financial challenges following the **Asian Financial Crisis (1997–1998)**. The crisis exposed severe weaknesses in the country's financial sector, with a significant rise in **non-performing loans (NPLs)** and widespread corporate insolvencies.³⁴ These conditions necessitated swift government intervention to stabilize the banking system and manage distressed assets. The Indonesian Bank Restructuring Agency (IBRA) was formed as a temporary body to manage the crisis, acquiring and restructuring problematic assets from financial institutions and corporations³⁵.

However, the conclusion of IBRA's mandate in 2004 left residual challenges that required a long-term solution. Recognizing this, the government established PPA under **Government Regulation No. 10 of 2004**. Unlike IBRA, PPA's mandate was not limited to crisis management but included long-term responsibilities for managing distressed assets, revitalizing underperforming state-owned enterprises (SOEs), and supporting systemic financial stability. Over the years, PPA has transitioned from a reactive crisis manager to a proactive driver of economic recovery and asset optimization, playing a critical role in Indonesia's financial stability framework³⁶.

2. Legal Foundation and Mandate

The establishment and operations of PPA are guided by a robust legal framework that ensures alignment with Indonesia's national economic goals. PPA's legal foundation lies in

³⁴ PT. Perusahaan Pengelola Aset. 2023. Annual Report 2023.

³⁵ PT. Perusahaan Pengelola Aset. 2024. Sekilas tentang Perusahaan Pengelola Aset.

³⁶ PT. Perusahaan Pengelola Aset. 2023. Annual Report 2023.

Government Regulation No. 10 of 2004, which grants it the authority to manage and optimize distressed assets while supporting financial and corporate restructuring³⁷. This regulation defines PPA's role as a state-owned entity responsible for stabilizing financial institutions, supporting corporate recovery, and revitalizing SOEs.

Under **Law No. 19 of 2003 on State-Owned Enterprises (SOEs)**, PPA operates with a mandate to uphold transparency, accountability, and efficiency in managing public resources. The **State Finance Law No. 17 of 2003** further strengthens PPA's governance by providing a framework for fiscal responsibility and financial reporting³⁸.

3. Funding Mechanism

PPA's funding mechanism ensures financial sustainability and operational effectiveness. The organization receives **government capital contributions** to acquire distressed assets and fund revitalization projects. Additionally, it generates significant income through **asset management activities**, including the restructuring and disposing of NPLs and equity stakes³⁹. The **Special Situations Fund (SSF)** further provides tailored financial solutions for corporate restructuring. Partnerships with private sector entities and revenue from advisory services contribute to PPA's diversified funding strategy⁴⁰.

In **2023**, PPA recorded a **net profit of IDR 325.64 billion**, reflecting an **80% growth** compared to the previous year, supported by total assets of **IDR 17.37 trillion**, a **17.26% increase**⁴¹.

³⁷ PT. Perusahaan Pengelola Aset. 2024. Sekilas tentang Perusahaan Pengelola Aset.

³⁸ PT. Perusahaan Pengelola Aset. 2023. Annual Report 2023.

³⁹ PT. Perusahaan Pengelola Aset. 2023. Annual Report 2023.

⁴⁰ PT. Perusahaan Pengelola Aset. 2023. Annual Report 2023.

⁴¹ PT. Perusahaan Pengelola Aset. 2023. Annual Report 2023

4. NPL Management

PPA plays a crucial role in stabilizing Indonesia's banking sector by NPLs through innovative approaches like asset-backed securitization. This method enables banks to offload NPLs and access liquidity. By 2023, PPA managed an NPL portfolio worth IDR 10 trillion, significantly contributing to financial stability.

However, PPA faces challenges due to its limited mandate tied to government directives and regulatory constraints, particularly the prohibition on state-owned banks selling NPLs below principal value. These limitations reduce PPA's ability to purchase NPLs directly, often restricting its role to that of a facilitator.

To overcome these barriers, PPA operates via two mechanisms. The first involves direct management, where PPA purchases NPLs with borrowed funds, retaining them on its balance sheet while managing recovery internally. The second mechanism utilizes an AMC model, acquiring NPLs through asset swaps, such as Sukuk issuance, and transferring them to the AMC's balance sheet for recovery and restructuring. This minimizes PPA's financial risks and leverages partnerships with investment-grade entities.

Despite its achievements, PPA's impact remains constrained by regulatory challenges and sporadic involvement. Greater regulatory flexibility and structured collaboration with the banking sector are needed to enhance its effectiveness and long-term contributions to financial stability in Indonesia.

5. SOE Revitalization

As a strategic shareholder and operational partner, PPA is critical in revitalizing underperforming SOEs. Its approach involves conducting in-depth diagnostics to identify inefficiencies, implementing turnaround strategies to enhance operational performance, and developing sustainable exit plans, such as initial public offerings (IPOs) or mergers.

By the end of 2023, PPA had revitalized 21 SOEs and subsidiaries, with total assets exceeding IDR 20 trillion, spanning industries such as aviation, logistics, and infrastructure. These efforts preserved over 5,837 jobs, underscoring PPA's role in fostering economic resilience and industrial stability.⁴²

6. Special Situations Fund (SSF)

The SSF represents an innovative approach to addressing corporate financial challenges. The SSF supports SOEs and corporates in achieving sustainable growth by providing multi-tiered capital solutions. The SSF has supported strategic projects, including the revitalization of Garuda Indonesia, the development of tourism infrastructure for the World Superbike Mandalika 2023, and the deployment of electric buses for the G20 Summit in Bali, with total investments of IDR 1.8 trillion⁴³.

7. Strategic and Long-Term Impact

Through its interventions, PPA has significantly strengthened Indonesia's financial system, reduced systemic risks, and revitalized critical industries. Its innovative approaches, such as asset-backed securitization and financial engineering, have served as a model for asset management and economic stabilization. PPA's role in managing NPLs, revitalizing SOEs, and providing financial solutions for corporate restructuring has had a profound and lasting impact on Indonesia's financial and economic landscape.

⁴² PT. Perusahaan Pengelola Aset. 2023. Annual Report 2023

⁴³ PT. Perusahaan Pengelola Aset. 2024. Sekilas tentang Perusahaan Pengelola Aset.

4.2.4 Comparative and Gap Analysis

COMPARATIVE ANALYSIS

Background and Mandate. KAMCO, established in 1997 amidst the Asian Financial Crisis, was tasked with stabilizing South Korea's financial system by managing Non-Performing Loans (NPLs), facilitating corporate restructuring, and recovering public funds. Over time, it has transitioned from a crisis manager into a globally recognized leader in asset management, influencing international standards and frameworks. Indonesia's Public AMC was founded in 2004, following the conclusion of the Indonesian Bank Restructuring Agency (IBRA)'s mandate. Its primary focus is on revitalizing underperforming State-Owned Enterprises (SOEs), managing distressed assets, and supporting domestic economic recovery. While KAMCO addresses both public and private sectors on a national and international scale, Indonesia's Public AMC remains focused solely on SOEs, limiting its impact to domestic corporate restructuring.

Scope of Operations. KAMCO operates with a broad mandate encompassing financial institutions, private corporations, and public funds, enabling systemic solutions for national financial stability. It actively engages in cross-sectoral restructuring, addressing issues across banking, industrial sectors, and corporate distress. In contrast, Indonesia's Public AMC focuses solely on SOEs, with jurisdiction over the broader financial sector or private corporations but lack in the implementation. This narrower scope restricts its ability to influence systemic financial stability or participate in multi-sectoral recovery efforts.

Legal Framework and Regulatory Differences. KAMCO operates under the comprehensive KAMCO Act of 1997, which provides the authority to manage NPLs, restructure corporations, and recover public funds. This framework allows flexibility and

innovation, enabling KAMCO to address a wide range of financial challenges. Indonesia's Public AMC is governed by Government Regulation No. 10 of 2004 and State Finance Law No. 17 of 2003, which emphasize SOE support. A key regulatory distinction lies in the management of NPLs in Indonesia, regulations require NPLs from state-owned banks to be purchased at 100% of their principal value. This constraint limits the ability to apply market-driven valuation mechanisms, hindering efficiency and cost-effectiveness.

Funding Mechanisms. KAMCO employs diverse and innovative funding strategies, including government-guaranteed bonds, a Non-Performing Asset (NPA) Fund, and advanced asset-backed securitization (ABS). Its pioneering use of cross-border ABS transactions, such as a \$367 million issuance in 2000, demonstrates its capacity to attract international investment and diversify funding sources. Indonesia's Public AMC relies heavily on government capital contributions and basic ABS issuance. While it has established a Special Strategic Fund (SSF) for specific projects, the absence of advanced funding mechanisms, such as international ABS, restricts its financial flexibility and ability to scale operations.

Operational Practices. KAMCO has managed KRW 110.1 trillion in NPLs, stabilizing 50% of South Korea's banking sector. It uses advanced securitization techniques, including blockchain for asset tracking, and engages in corporate restructuring to preserve industrial stability. By contrast, Indonesia's Public AMC has handled IDR 10 trillion in NPLs, focusing on domestic banking stability and SOE revitalization. It has successfully restructured 21 SOEs, preserving over 5,837 jobs. However, its operations lack the technological integration and advanced techniques seen in KAMCO's practices.

Innovations and Global Impact. KAMCO has established itself as a global benchmark in asset management, influencing international practices through innovative tools like

cross-border ABS, transparent governance mechanisms, and comprehensive restructuring frameworks. Indonesia’s Public AMC remains focused on domestic challenges, leveraging financial engineering and operational restructuring to improve SOE profitability. Despite its contributions to Indonesia’s economic stability, its lack of international engagement and benchmarking limits its potential to adopt or influence global best practices.

Table 4.1. Comparative Analysis on The Establishment of Public Asset Management Companies (AMC)

Topic	South Korea	Indonesia
Background and Mandate	KAMCO, established in 1997, transitioned from crisis manager to global leader in asset management, influencing international standards.	Public AMC founded in 2004, focuses on SOE revitalization and domestic economic recovery.
Scope of Operations	Broad mandate covering financial institutions, corporations, and public funds; systemic solutions for financial stability.	Narrow focus on SOEs; limited influence on systemic stability or multi-sector recovery.
Legal Framework	Operates under the flexible KAMCO Act of 1997, enabling innovative and comprehensive financial solutions.	Governed by regulations emphasizing SOE support; lacks market-driven valuation mechanisms.
Funding Mechanisms	Uses diverse strategies like government bonds, NPA Fund, and cross-border ABS to attract international investment.	Relies on government funding and basic ABS; limited financial flexibility and scalability.
Operational Practices	Managed KRW 110.1 trillion NPLs; advanced techniques like blockchain and industrial restructuring.	Handled IDR 10 trillion NPLs; focuses on domestic banking and SOE restructuring without advanced tools.

Innovations and Impact	Global benchmark in asset management, influencing international practices and frameworks.	Focuses on domestic challenges; lacks global engagement and adoption of best practices.
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GAP ANALYSIS

Strategic Orientation. KAMCO’s global mandate enables it to influence international asset management frameworks and engage in cross-border NPL resolutions. Indonesia’s Public AMC, with its domestic-focused scope, primarily addresses SOE challenges and lacks involvement in international markets. This limited orientation reduces opportunities for benchmarking against global standards and participating in international collaborations.

Regulatory Frameworks and Practices. The regulatory environment in South Korea grants KAMCO extensive authority to manage NPLs, restructure corporations, and recover public funds, fostering flexibility and innovation. In contrast, Indonesia’s Public AMC operates within a narrower legal framework emphasizing SOEs. A critical regulatory distinction is that Indonesian laws require NPLs from state-owned banks to be purchased at 100% of their principal value. This limitation prevents the application of discounted valuations or market-driven mechanisms, restricting the AMC’s ability to optimize asset recovery.

Funding Mechanisms. KAMCO’s advanced funding strategies, including cross-border ABS and specialized funds, provide flexibility and scalability. Indonesia’s Public AMC, relying predominantly on government contributions and basic ABS issuance, lacks

the diversity and innovation required to expand its financial capacity. The absence of cross-border ABS limits its access to international funding and investment opportunities.

Operational Scope and Impact. KAMCO addresses NPLs across financial institutions, private corporations, and public funds, providing systemic solutions to financial instability. Indonesia's Public AMC focuses narrowly on SOEs, missing opportunities to address broader corporate distress or private-sector recovery. While its focus on SOE revitalization is a strength, the lack of diversification reduces its broader economic impact.

Technological Integration and Innovations. KAMCO's use of advanced securitization techniques and technologies, such as blockchain, enhances efficiency and transparency. Indonesia's Public AMC has limited technological integration and continues to rely on basic ABS techniques, restricting its ability to innovate and attract international investment.

Market Strategies and Global Recognition. KAMCO's proactive market strategies, including restructuring and pooling NPL portfolios, align buyer-seller expectations and enhance marketability. Its global recognition as a benchmark in asset management underscores its influence on international practices. Indonesia's Public AMC, with a reactive approach focused on regulatory compliance, lacks innovative restructuring strategies and minimal global engagement, limiting its potential for international recognition and collaboration.

4.3 NPL Pricing and Valuation Framework

An effective pricing and valuation framework for Non-Performing Loans (NPLs) is essential for ensuring transparency, optimizing recovery rates, and fostering confidence among stakeholders in the financial system. This framework integrates regulatory guidelines, market-driven methodologies, and economic considerations to accurately assess the value of distressed assets and determine fair pricing for resolution. By combining approaches such as market value analysis, liquidation value estimation, and projected cash flow modeling, financial institutions can tailor strategies to the unique characteristics of each NPL portfolio.

4.3.1 Global Best Practices

The pricing and valuation framework for Non-Performing Loans (NPLs) plays a critical role in financial stability, enabling effective resolution of distressed assets. Across the globe, diverse methodologies have been employed by countries to address systemic risks and stabilize financial systems during economic crises. Benchmarking these practices offers valuable insights into implementing robust, transparent, and efficient NPL valuation frameworks adaptable to varying economic conditions.

1. The Importance of a Robust NPL Pricing Framework

A comprehensive NPL pricing framework ensures:

- **Fair Valuation:** Accurate asset valuation reflects their true market value, minimizing overpricing risks that could lead to financial losses or underpricing that might discourage investor participation.
- **Market Efficiency:** Transparent valuation practices attract investors, promoting liquidity in distressed asset markets.

- **Regulatory Compliance:** Alignment with international standards like Basel III and IFRS fosters trust and cross-border collaboration.
- **Crisis Management:** Establishes mechanisms for addressing NPLs during financial downturns, preventing contagion across the banking sector.

2. Benchmarking Global Practices

European Union: Standardization through EBA Guidelines. The European Banking Authority (EBA) has established standardized valuation practices for managing NPLs across European Union, addressing challenges posed by global financial crisis.⁴⁴

- **Centralized NPL Platforms:** These platforms facilitate transparent price discovery and encourage investor participation.
- **Expected Credit Loss Models:** Under IFRS 9, the EU mandates banks to account for expected credit losses, integrating forward-looking valuation techniques.
- **Stress Testing:** EBA guidelines emphasize stress testing and scenario analysis to assess the value of distressed assets under adverse conditions.

United States: Market-Driven Solutions in TARP. The U.S. Troubled Asset Relief Program (TARP) adopted a market-based valuation model during the 2008 global financial crisis.⁴⁵

- **Market Pricing Mechanisms:** NPL pricing relied on competitive bidding to ensure fair market valuations.
- **Innovative Instruments:** The program introduced Public-Private Investment Partnerships (PPIP) to leverage private capital for acquiring distressed assets.

⁴⁴ European Banking Authority. (2018). Guidelines on management of non-performing and forborne exposures.

⁴⁵ Congressional Budget Office. (2024). Final Report on the Troubled Asset Relief Program.

- **Dynamic Adjustments:** Valuations were regularly updated to reflect changing market conditions, ensuring adaptive pricing strategies.

Ireland: The NAMA Model. Ireland's National Asset Management Agency (NAMA) provides another robust example of public AMC-driven valuation frameworks.⁴⁶

- **Discounted Cash Flow (DCF) Analysis:** NAMA employed DCF methodologies to project recovery potential, incorporating discount rates reflecting asset risk profiles.
- **Transparency Standards:** Regular reports to Parliament and adherence to international accounting principles bolstered public trust.
- **Asset Management Expertise:** NAMA engaged with private sector experts for valuations, enhancing credibility and efficiency.

3. Key Innovations in NPL Valuation

Global practices highlight innovations that enhance valuation frameworks:

Securitization and Risk Diversification. Countries like South Korea and the EU have utilized securitization to transform NPLs into tradeable securities. Special Purpose Vehicles (SPVs) manage these assets, mitigating risks for originators and ensuring investor protection.

AI-Driven Valuation Models. Advanced economies increasingly deploy Artificial Intelligence (AI) for predictive analytics in NPL valuation. AI models analyze borrower behavior, collateral trends, and macroeconomic variables to project asset recovery rates.

Collateral-Based Pricing. In asset-heavy markets like the U.S. and EU, collateral value forms a significant basis for NPL pricing. This method provides tangible benchmarks for valuation, particularly for secured loans.

⁴⁶ Regling, K., & Watson, M. (2010). A Preliminary Report on The Sources of Ireland's Banking Crisis.

Portfolio Diversification. Valuation frameworks now consider portfolio-level diversification to minimize risks of individual NPLs. This approach is evident in practices employed by private equity funds managing distressed assets in Europe and Asia.

4. Challenges in NPL Valuation

Despite advancements, NPL valuation frameworks face several challenges:

- **Data Gaps:** Emerging economies often lack the granular data required for precise valuations, leading to inconsistencies.
- **Market Volatility:** External shocks, such as global pandemics or geopolitical conflicts, disrupt valuation assumptions.
- **Legal and Institutional Barriers:** In jurisdictions with weak legal frameworks, asset recovery timelines are protracted, affecting valuation accuracy.

5. Opportunities for Improvement

Global benchmarking reveals opportunities to strengthen NPL valuation frameworks:

- **Capacity Building:** Training financial institutions in advanced valuation methodologies fosters consistency and expertise.
- **Technological Integration:** AI and blockchain technologies streamline valuation processes and enhance transparency.
- **Cross-Border Collaboration:** Sharing insights and harmonizing practices among countries strengthens global markets for distressed assets.
- **Regulatory Enhancements:** Aligning national frameworks with international standards, such as those set by the Basel Committee, ensures credibility.

A robust NPL pricing and valuation framework is fundamental to resolving distressed assets, ensuring financial stability, and fostering investor confidence. Countries like South Korea, the U.S., and the EU provide valuable benchmarks, showcasing **the importance of transparency, innovation, and market-driven solutions.** By adopting these best practices, nations can enhance their capacity to manage systemic risks, support economic recovery, and build resilient financial systems.

4.3.2 South Korea's KAMCO

1. Valuation Methods for Non-Performing Loans (NPLs)

Korea Asset Management Corporation (KAMCO) employs a multifaceted valuation methodology tailored to the specific characteristics of NPLs and their associated collateral. This ensures precision, transparency, and alignment with market realities.

Market Value Approach. This approach focuses on the current market value of collateral assets, particularly real estate. Valuations are based on recent appraisals, adjusted to reflect local economic conditions, such as fluctuations in property prices and regional demand. By grounding valuations in real-time market data, this method ensures credibility and transparency, providing a reliable basis for asset pricing.

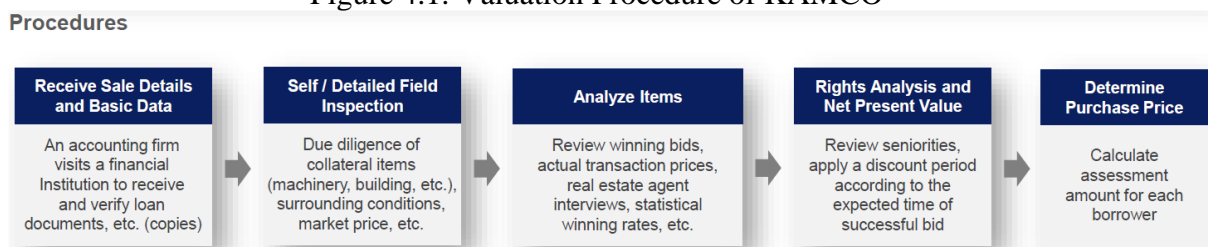
Liquidation Value Method. Applied primarily to assets intended for quick disposal, this method estimates the recovery value under distressed market conditions. By offering a realistic assessment of what can be recouped in a rapid sale, it accommodates scenarios where expedited resolution is necessary.

Discounted Cash Flow (DCF) Method. For income-generating assets like rental properties or receivables, the DCF approach estimates the present value of future cash inflows. Adjustments for risks such as non-collection probability and economic uncertainties

ensure accuracy. This method is particularly effective for assets with predictable revenue streams.

Integrated Valuation Approaches. For complex or diverse NPL portfolios, KAMCO combines these methodologies, selecting the most appropriate based on asset type, market conditions, and recovery scenarios. This flexible approach ensures comprehensive and fair valuations.

Figure 4.1. Valuation Procedure of KAMCO



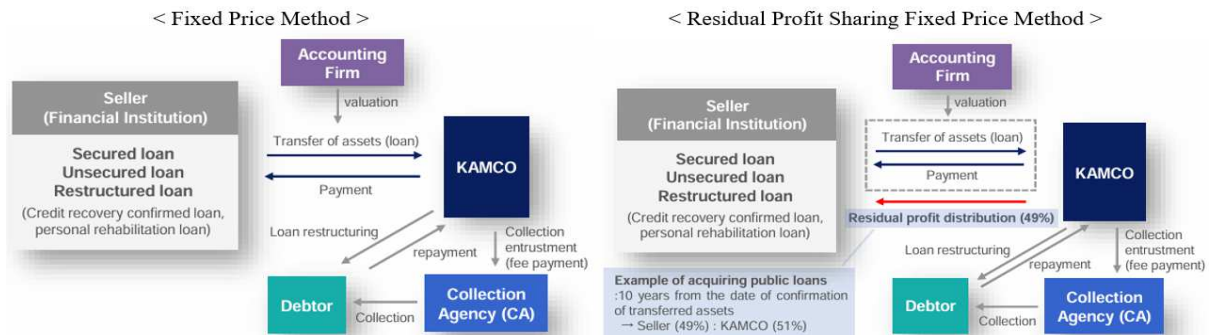
Source: KAMCO (2024)

Korea Asset Management Corporation (KAMCO) employs a structured and detailed valuation process for Non-Performing Loans (NPLs) to ensure accuracy and transparency. The process begins with the collection and verification of loan documents by an accounting firm from the selling financial institution. This is followed by an on-site inspection of collateral assets, where detailed due diligence is conducted on properties, machinery, and other relevant assets, along with an evaluation of surrounding conditions and market price trends. These steps provide a solid foundation for further analysis.

The collected data is then scrutinized through market comparisons, reviews of past transaction prices, and statistical analyses to reflect current market dynamics. Additionally, a rights analysis determines claim seniority, and net present value calculations incorporate recovery timelines and associated risks. Finally, KAMCO synthesizes all insights to determine a fair purchase price, ensuring that valuations are market-aligned and reflective

of the true economic value of the assets. This rigorous procedure highlights KAMCO's commitment to upholding financial stability and ensuring credibility in its transactions.

Figure 4.2. Structure of KAMCO NPL Acquisition Methods



Source: KAMCO (2024)

KAMCO's NPL acquisition methods consist of the Fixed Price Method and the Residual Profit Sharing Fixed Price Method. In the Fixed Price Method, an independent accounting firm values secured, unsecured, or restructured loans. The financial institution transfers these assets to KAMCO, which pays the assessed amount. KAMCO then works with Collection Agencies (CA) to manage loan restructuring and repayment collection under a fee-based agreement.

In the Residual Profit Sharing Fixed Price Method, the process includes a profit-sharing mechanism, with 51% of residual profits allocated to KAMCO and 49% to the financial institution. This method incentivizes both parties to maximize recoveries. Both approaches ensure effective resolution of diverse NPL portfolios, leveraging independent valuations and structured collaborations with financial institutions and collection agencies.

2. Ensuring Transparency in Valuation

KAMCO emphasizes transparency and objectivity through the integration of independent appraisers and third-party experts in its valuation processes.

Independent Appraisers. External appraisers play a pivotal role in eliminating conflicts of interest and ensuring impartial valuations. For high-value assets, independent assessments by public valuation firms (e.g., real estate appraisers) ensure adherence to regulatory requirements and international standards.

Third-Party Collaboration. KAMCO collaborates with reputable valuation firms for particularly complex or high-stake NPLs. These firms provide additional scrutiny, cross-verification, and enhanced credibility to the valuation process.

Consistency and Verification. KAMCO applies standardized methodologies, subject to periodic independent reviews. This fosters accountability, aligns with global best practices, and strengthens stakeholder trust.

3. Consideration of Economic and Market Factors

KAMCO's valuation framework incorporates a thorough analysis of economic indicators and market trends, ensuring realistic assessments.

Market Dynamics. Real estate trends, demand fluctuations, and the liquidity of assets are central considerations. Adjustments for market volatility ensure valuations remain relevant to prevailing economic conditions.

Macroeconomic Indicators. Factors such as GDP growth, inflation, and interest rates influence valuation metrics. For example, high inflation may necessitate adjustments in discount rates or projected cash flows.

Sector-Specific Risks. Borrower profiles and sectoral exposures are evaluated to gauge the impact on recovery probabilities. Industries with inherent risks, such as construction or SMEs, are analyzed for broader economic implications.

4. NPL Pricing Strategies

KAMCO employs pricing strategies that strike a balance between aligning with market realities and achieving optimal recovery outcomes. These strategies are underpinned by structured methodologies and adaptive practices that respond to the unique characteristics of the assets and market conditions.

Fair Market Value as a Baseline. KAMCO's pricing framework begins with a fair market value assessment, which serves as the foundation for all pricing decisions. This baseline is determined through independent appraisals conducted by external valuation experts, ensuring that the initial prices are both credible and realistic. By leveraging independent evaluations, KAMCO eliminates bias, builds trust with stakeholders, and sets prices that align with recovery expectations, fostering transparency and consistency.

Competitive Bidding Mechanisms. To maximize recovery and promote market efficiency, KAMCO frequently utilizes competitive bidding processes. By inviting multiple investors to submit offers for NPL portfolios, KAMCO facilitates price discovery, ensuring that sale prices reflect actual market demand. This mechanism not only optimizes pricing outcomes but also creates a dynamic and transparent environment where investors compete for high-value assets. The competitive nature of this approach drives better recovery rates while maintaining alignment with market conditions.

Flexible Pricing Approaches. Recognizing the diversity of NPL portfolios, KAMCO incorporates flexible pricing strategies that are tailored to specific asset characteristics. Key considerations include the type of asset, the quality of the underlying collateral, and prevailing market conditions. This adaptability allows KAMCO to cater to a broader range of potential investors, ensuring that assets are priced competitively and recovery objectives

are met. By integrating structured and flexible pricing approaches, KAMCO effectively enhances the appeal of its offerings while maintaining financial integrity.

5. Addressing Price Gaps

Bridging the gap between the book value of NPLs and buyer offers is a key challenge in distressed asset markets. KAMCO adopts innovative approaches to address this:

Acquisition at Fair Market Value. NPLs are purchased at significant discounts to their nominal value, reflecting market realities and facilitating downstream sales.

Acquisition at Fixed Price and Profit/Loss Sharing. Fixed price acquisition models combined with profit and loss sharing agreements allow risks and returns to be distributed equitably among stakeholders, fostering buyer participation and market stability.

Portfolio Restructuring. By pooling or restructuring bad loans, KAMCO enhances their appeal to potential buyers, increasing the likelihood of successful transactions.

Transparent Sales Mechanisms. Competitive bidding and independent appraisals ensure that pricing aligns with both buyer expectations and seller requirements.

6. Discount Strategies for High-Risk or Low-Liquidity NPLs

Discounting is a critical tool for managing high-risk or low-liquidity NPLs, tailored to specific market conditions and asset characteristics.

High-Risk Assets. Assets with greater uncertainty are offered at steep discounts to compensate buyers for the associated risks.

Low-Liquidity Assets. For assets in less active markets, steeper discounts are applied to stimulate buyer interest and encourage faster transactions.

Market-Driven Discounts. KAMCO adjusts discounts based on demand for distressed assets and broader economic indicators, ensuring balance between competitiveness and recovery potential.

KAMCO's approach to NPL valuation and pricing reflects a comprehensive and systematic integration of market analysis, economic risk assessment, and transparent methodologies. Through the use of independent appraisers, flexible pricing strategies, and robust valuation techniques, KAMCO ensures that its transactions are fair, market-aligned, and conducive to financial stability. These practices not only position KAMCO as a leader in NPL management but also serve as a benchmark for international best practices in asset recovery and distressed asset markets.

4.3.3 Indonesia

1. Valuation Methods for Non-Performing Loans (NPLs)

Indonesia employs a combination of regulatory compliance and market-driven approaches to value Non-Performing Loans (NPLs) accurately. A commonly adopted method is the **fixed-principal valuation**, where NPLs are valued at 100% of their principal amount (PPA, 2024), as mandated by banking institutions. This approach aligns with financial stability standards, providing consistency and clarity in transactions while instilling confidence among stakeholders.

Another prevalent approach integrates the **liquidation value method** and the **market value method**:

- The **liquidation value method** estimates the recoverable amount from collateral sales under distressed conditions, focusing on realizable proceeds in secondary markets.

- The **market value method** assesses high-demand assets, such as real estate in prime locations, by referencing historical transaction data and current market trends. These methods are further refined with **risk-based adjustments**, accounting for debtor creditworthiness, collateral liquidity, and economic factors. This multi-faceted framework ensures that valuations are tailored to the specific characteristics of each asset, balancing precision with flexibility.

2. Role of Independent Appraisers

Independent appraisers play a critical role in ensuring the objectivity and transparency of NPL valuation processes in Indonesia. These appraisers conduct detailed assessments of collateral, providing an unbiased foundation for valuation outcomes. **Public appraisal services** (Kantor Jasa Penilai Publik or KJPP) are often engaged to deliver reports that comply with regulatory standards and align with industry best practices.

Periodic revaluations are undertaken to reflect changing market conditions, ensuring that valuations remain current and relevant. Certified internal appraisal teams complement these external evaluations, creating a comprehensive and robust valuation framework. By eliminating potential conflicts of interest and adhering to international best practices, independent appraisers bolster trust in valuation processes and enhance market credibility.

3. Market and Economic Considerations in Valuation

Market and economic factors are integral to the valuation of NPLs in Indonesia, ensuring realistic and balanced assessments.

Market Dynamics. The valuation process incorporates local economic trends, asset demand, and real estate market conditions. Properties located in high-demand urban or strategic areas command higher valuations due to their liquidity and market potential.

Conversely, assets in rural or less liquid markets are assessed conservatively to account for their limited appeal.

Economic Risks. Key macroeconomic indicators—such as inflation rates, interest rates, and GDP growth—are factored into valuation models. These variables inform the discount rates applied to projected recoveries, ensuring that valuations accurately reflect the economic environment.

Collateral Quality. The liquidity and legal standing of collateral assets significantly influence their valuation. Assets with strong legal documentation and high marketability receive favorable assessments, reinforcing the reliability of valuation outcomes.

By systematically incorporating these factors, the valuation framework remains adaptable and reflective of prevailing market conditions.

4. Pricing Strategies for NPLs

Pricing strategies in Indonesia combine regulatory compliance with market responsiveness to ensure efficient resolution of NPLs.

Auction-Based Pricing. Public auctions are a common mechanism for determining NPL prices. Initial auction prices are derived from market value assessments conducted by independent appraisers, ensuring credibility and alignment with market conditions. The final selling price reflects competitive bidding outcomes, emphasizing transparency and adherence to governance principles.

Multidimensional Pricing Models. For more complex NPL portfolios, pricing incorporates **liquidation value analysis, market value assessments, and risk-based discounts**. Tangible assets are priced based on their recovery potential, with adjustments made for factors such as debtor quality, asset demand, and collateral liquidity. Historical

recovery data further informs these pricing models, ensuring alignment with past market performance.

By integrating structured and adaptive pricing approaches, financial institutions in Indonesia ensure the marketability of NPL portfolios while maximizing recovery outcomes.

5. Addressing Price Gaps

Bridging the price gap between book values and buyer offers is a persistent challenge in the NPL market. To address this issue, institutions employ flexible negotiation strategies, including:

- **Phased Payment Schemes.** Buyers are offered the option to pay in installments over an extended period, enhancing affordability and facilitating transactions.
- **Bulk Portfolio Discounts.** Discounts are applied to bundled NPL portfolios, making them more attractive to buyers while optimizing recovery outcomes for sellers.

These strategies align buyer expectations with realistic valuations, fostering efficient and mutually beneficial transactions.

6. Discount Strategies

Discounting remains a central strategy for managing high-risk or low-liquidity NPLs in Indonesia. The application of discounts is tailored to the specific asset characteristics.

- **Strategic Assets.** High-value properties in prime locations are offered minimal discounts to retain their market appeal and maximize recovery rates.
- **Challenging Assets.** Assets with legal complexities or limited marketability receive larger discounts to attract buyers and stimulate interest.

- **Bulk Sales.** Discounts on bundled NPL portfolios incentivize buyers while streamlining transaction processes. This approach balances recovery objectives with market competitiveness.

These targeted discount strategies ensure that NPL portfolios remain appealing and viable in the market.

Indonesia's NPL valuation and pricing framework exemplifies a blend of regulatory adherence, market alignment, and strategic flexibility. By integrating independent appraisals, thorough market analysis, and adaptive pricing strategies, the framework ensures transparency, efficiency, and effectiveness in the management of distressed assets. These practices position Indonesia's financial sector to optimize recovery outcomes while maintaining market stability and stakeholder confidence.

4.3.4 Comparative and Gap Analysis

COMPARATIVE ANALYSIS

Valuation and pricing practices are critical in the effective resolution of Non-Performing Loans (NPLs), shaping the efficiency and transparency of financial systems. This analysis compares the methodologies employed in South Korea, represented by KAMCO, with the current frameworks utilized in Indonesia.

1. Valuation Frameworks.

South Korea's valuation methodologies are highly advanced and incorporate a combination of approaches tailored to different asset classes and market dynamics. The Market Value Approach relies on up-to-date appraisals adjusted for market trends, ensuring valuations reflect real-time economic conditions. The Liquidation Value Method is used for distressed assets, providing recovery estimates based on expedited sales scenarios.

For income-generating assets, the Discounted Cash Flow (DCF) method is applied to calculate the present value of future income streams, offering a forward-looking perspective. Additionally, South Korea integrates borrower-specific risks, sectoral risks, and market conditions into its evaluations, enabling more precise recovery predictions.

In contrast, Indonesia's valuation frameworks are simpler and more reactive. The Principal-Based Valuation often values NPLs at their full principal amount as a regulatory standard. The Liquidation Value Approach focuses on recovery under distressed sale conditions, and the Market Value Approach is applied for assets with tangible demand. However, Indonesia's valuations lack forward-looking methods like DCF and often rely on past debtor performance and historical data, with minimal adjustments for macroeconomic factors or sector-specific risks.

2. Economic and Market Integration

South Korea integrates a comprehensive range of macroeconomic indicators, such as GDP growth, inflation rates, and sector-specific trends, into its valuation frameworks. By actively monitoring market volatility and demand shifts, South Korea ensures its valuations align with current economic realities. Sector-specific risks, such as borrower industries and collateral types, are thoroughly analyzed to deliver tailored and market-relevant valuations.

In Indonesia, valuations focus on localized market conditions, including property trends at the neighborhood level and liquidity risks. Discount rates account for inflation and interest rates, but the integration of broader macroeconomic indicators remains limited. The absence of sector-specific risk assessments reduces the precision of valuations.

3. Pricing Mechanisms

Pricing practices in South Korea emphasize transparency and market efficiency. Competitive bidding systems ensure fair market-driven pricing during auctions,

while flexible pricing models adapt to borrower creditworthiness, collateral recovery potential, and market dynamics. Discounts are carefully tailored to reflect asset-specific risks and recovery challenges, enhancing liquidity for low-liquidity or high-risk NPLs.

Indonesia relies heavily on public auctions, where prices are derived from appraised market values and finalized through competitive bidding. Negotiated pricing is used for non-auction sales, focusing on collateral quality and liquidity risks. Discounts are applied to improve marketability, often standardized and less sophisticated than South Korea's risk-adjusted strategies.

4. Transparency and Governance

South Korea ensures transparency through mandatory independent appraisals for all transactions, supplemented by third-party reviews for high-value assets. Multi-tiered review mechanisms, including internal audits and external validations, enhance the robustness and reliability of valuations. Regulatory standards align with international best practices, supporting global comparability and investor confidence.

Indonesia relies on public appraisal firms and internal assessments for valuations, with limited engagement of third-party appraisers for complex transactions. Verification mechanisms lack the multi-layered review processes seen in South Korea, and alignment with international valuation standards remains limited, impacting global investor trust.

5. Addressing Price Gaps

South Korea addresses price gaps proactively by restructuring and pooling NPL portfolios to enhance their marketability. Transparent pricing, flexible payment schemes, and phased payments for bulk buyers effectively align buyer and seller expectations. Indonesia, however, focuses on phased payments and negotiations to bridge price gaps, lacking innovative restructuring strategies or sector-specific solutions.

Table 4.2. Comparative Analysis on NPL Pricing and Valuation Framework

Topic	South Korea	Indonesia
Valuation Frameworks	Advanced methodologies including Market Value, Liquidation Value, DCF, and risk integration for precise recovery predictions.	Simpler frameworks relying on Principal-Based Valuation, Liquidation Value, and historical data with limited macroeconomic adjustments.
Economic and Market Integration	Integrates macroeconomic indicators and sector-specific risks for market-relevant valuations.	Focuses on localized market conditions; lacks integration of broader macroeconomic and sector-specific risk indicators.
Pricing Mechanisms	Emphasizes transparency with competitive bidding, flexible pricing, and risk-adjusted discounts.	Relies on public auctions and standardized discounts, with less sophisticated risk-adjusted pricing models.
Transparency and Governance	Mandatory independent appraisals, third-party reviews, and multi-tiered validation mechanisms aligning with international standards.	Public appraisals and internal assessments with limited third-party involvement and limited alignment to international standards.
Addressing Price Gaps	Uses restructuring and pooling of NPL portfolios, transparent pricing, and phased payments to address price gaps.	Focuses on phased payments and negotiations, lacking innovative restructuring or marketability enhancement strategies.

GAP ANALYSIS

While Indonesia has established foundational practices for NPL valuation and pricing, significant gaps remain compared to South Korea's advanced systems. These gaps are outlined as follows:

1. Valuation Practices

- **Forward-Looking Approaches:** South Korea incorporates advanced methods like DCF to predict asset recovery, while Indonesia relies on simpler, historical data-driven methods.
- **Sector-Specific Adjustments:** South Korea integrates borrower and sector-specific risks into valuations, providing tailored and precise assessments. Indonesia, however, primarily adjusts for collateral liquidity and debtor profiles, with minimal sectoral considerations for adjustments.
- **Revaluation and Verification:** In South Korea, valuations are regularly updated and cross-verified through multi-tiered mechanisms. Indonesia conducts periodic revaluations but more comprehensive review processes needed in order to enhance valuation accuracy and reliability.

2. Pricing Mechanisms

- **Auction Practices:** South Korea employs competitive bidding systems that foster transparent, market-driven pricing. In contrast, Indonesia's reliance on public auctions limits pricing innovation and responsiveness to market dynamics.
- **Discounting Strategies:** Discounts in South Korea are carefully calibrated to reflect risks, recovery potential, and market demand. In Indonesia, discounts are standardized, offering limited differentiation and flexibility.

3. Transparency and Governance

- **Independent Appraisals:** South Korea mandates independent appraisals for all transactions, with third-party validations for high-value cases. Indonesia relies heavily on public appraisers, with limited engagement of third-party experts, particularly for complex transactions.
- **Review Mechanisms:** South Korea's multi-layered review processes ensure robust valuation governance. Indonesia's reliance on single-layer verification reduces the reliability and robustness of asset valuations.

4. Market and Strategic Approaches

- **Proactive Strategies:** South Korea actively pools and restructures NPL portfolios, increasing their marketability and aligning pricing expectations. Indonesia lacks such proactive restructuring mechanisms, which could enhance market appeal.
- **Innovative Approaches:** South Korea's forward-looking strategies and market-oriented practices contrast with Indonesia's reactive approaches, which primarily respond to regulatory requirements and market dynamics.

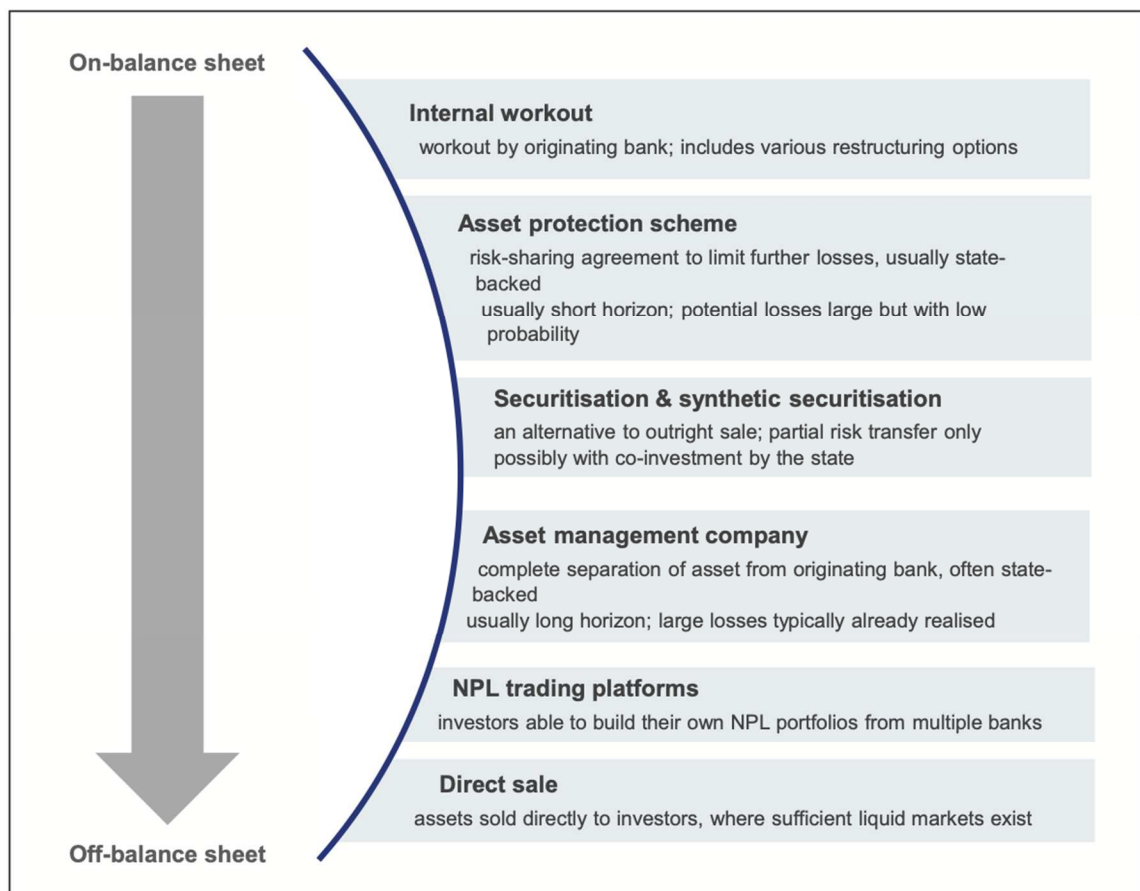
4.4 Risk Diversification and NPL Disposal Framework

Effective NPL resolution and disposal frameworks are critical for reducing systemic risks, enhancing banking liquidity, and maintaining financial stability in banking systems worldwide. Risk diversification ensures that the burden of distressed assets is distributed across institutions and sectors, promoting a balanced and stable financial ecosystem.

4.4.1 Global Best Practices

A structured framework for Non-Performing Loan (NPL) disposal is essential for managing distressed assets and ensuring financial stability. **Best practices globally transition NPLs from internal bank management (on-balance sheet) to external solutions (off-balance sheet)**, addressing systemic risks, promoting market participation, and optimizing asset recovery.

Figure 4.3. Elements of a Comprehensive Approach to NPL Resolution



Source: Fell et al. (2016).

1. Internal Workout

Banks initially manage NPLs by restructuring loan terms, adjusting repayment schedules, or reducing interest rates to rehabilitate borrowers.

- **Global Example:** Japanese banks during the 1990s financial crisis adopted internal workouts to stabilize corporate borrowers, preserving value but delaying systemic resolution.⁴⁷
- **Risk Diversification:** Risks remain on the bank's balance sheet but preserve borrower relationships, reducing immediate losses.

2. Asset Protection Scheme (APS)

APS involves governments or third parties sharing NPL-related losses, providing temporary relief while banks retain asset ownership.

- **Global Example:** The UK's APS in 2009 guaranteed over £60 billion in toxic assets for RBS, stabilizing the banking sector.⁴⁸
- **Risk Diversification:** Partial risk transfer to guarantors ensures liquidity but retains ownership risks with banks.

3. Securitization and Synthetic Securitization

Securitization pools NPLs into portfolios. Synthetic securitization uses derivatives for risk transfer without transferring assets.

- **Global Example:** Italy's GACS scheme (2016) reduced NPL ratios via state-guaranteed senior tranches, revitalizing distressed debt markets.⁴⁹

⁴⁷ Bank of Japan. (2002). Japan's nonperforming loan problem.

⁴⁸ National Audit Office. (2010). HM Treasury: The Asset Protection Scheme.

⁴⁹ Ministry of Economy and Finance. (2016). Guarantee on Securitization of Bank Non-Performing Loans (GACS) to be introduced shortly.

- **Risk Diversification:** Risk spreads across investors through tranches, reducing systemic exposure while providing liquidity.

4. Asset Management Companies (AMCs)

AMCs acquire NPLs from banks, fully removing them from balance sheets for professional resolution or liquidation.

- **Global Examples:**
 - **South Korea's KAMCO** resolved NPLs through auctions and securitization during the Asian Financial Crisis.
 - **Spain's SAREB** acquired approximately €50.8 billion in assets, including real estate-backed non-performing loans (NPLs), from nationalized banks at significant discounts.⁵⁰
- **Risk Diversification:** Full risk transfer to AMCs allows banks to stabilize operations and resume lending.

5. NPL Trading Platforms

Trading platforms enable direct NPL sales, fostering transparency and competition in the distressed debt market.

- **Global Example:** China's e-commerce platform, Taobao, has evolved into a significant marketplace for the auction of non-performing loans (NPLs), facilitate NPL sales online, improving liquidity and price discovery.⁵¹
- **Risk Diversification:** Risks are dispersed among private investors, enhancing market-based solutions.

⁵⁰ Tam, M. (2020). Spain – Sociedad de Gestión de Activos procedentes de la Reestructuración Bancaria (SAREB). Yale Program on Financial Stability.

⁵¹ McMahan, D. (2019, August 30). Taobao Bad Loan Auctions: What Online Prices Reveal About the NPL Market.

6. Direct Sale

Direct sale involves banks selling NPLs individually or in bulk to investors, often through competitive auctions.

- **Global Example:** Ireland's NAMA achieved substantial recoveries by auctioning real estate-backed NPLs to private investors.⁵²
- **Risk Diversification:** Immediate ownership transfer eliminates balance sheet risks for banks.

Conclusion. Global NPL disposal best practices emphasize a transition from internal management to external mechanisms, tailoring strategies to market maturity and regulatory contexts. Examples such as South Korea's KAMCO, Italy's GACS, and Ireland's NAMA demonstrate the importance of combining risk diversification, institutional innovation, and market-based solutions to foster financial resilience and economic recovery.

4.4.2 South Korea

Key pillars of South Korea's successful NPL resolution frameworks include the establishment of Korea Asset Management Corporation (KAMCO), development of secondary markets for NPL transactions, the incorporation of public-private partnerships, and regulatory support.

As a backbone of South Korea's NPL resolution framework, Korea Asset Management Corporation (KAMCO) employs a multi-faceted approach to managing Non-Performing Loans (NPLs) post-acquisition and ensuring effective disposal. Its strategies are rooted in loan restructuring, asset securitization, and collaboration with third parties, with the overarching aim of maximizing asset recovery and promoting financial stability.

⁵² Regling, K., & Watson, M. (2010). A Preliminary Report on The Sources of Ireland's Banking Crisis.

NPL Post-Acquisition Management

1. Main Strategies for Managing NPLs

KAMCO leverages several innovative methods to resolve NPLs effectively:

- **Restructuring Loans.** KAMCO works directly with borrowers to adjust repayment terms. By reducing debt burdens, extending repayment periods, or restructuring interest rates, the focus is on rehabilitating borrowers and ensuring their financial sustainability. This method aligns with the goal of stabilizing broader financial ecosystems.
- **Direct Sales.** Selling NPLs or underlying collateral directly to investors allows KAMCO to generate immediate liquidity. By transferring risk to buyers, KAMCO can focus resources on managing other distressed assets.
- **Securitization.** KAMCO converts NPLs into Asset-Backed Securities (ABS), which are sold to investors. This approach enables risk-sharing across a broader investor base and diversifies funding sources.
- **Collaboration with Third Parties.** Through partnerships with Special Purpose Vehicles (SPVs) and private investors, KAMCO ensures that the NPLs are professionally managed. This collaboration enhances the resolution process by pooling expertise and financial resources.

2. NPL Classification and Resolution Approach

KAMCO classifies NPLs into distinct categories based on recovery prospects. This classification is used to tailor recovery strategies and allocate resources efficiently.

- **Rehabilitation Candidates.** Borrowers with the potential for financial recovery are prioritized for restructuring efforts.
- **Disposition Candidates.** Non-viable loans are slated for disposal through securitization, auctions, or bulk sales.

3. Debt Restructuring Processes

KAMCO customizes restructuring strategies based on the unique characteristics of the NPLs. Key methods include:

- **Interest Rate Reduction.** Lowering rates to ease borrowers' repayment burdens.
- **Principal Reduction.** Reducing the outstanding loan amount for borrowers with severe financial challenges.
- **Debt-to-Equity Conversion.** Converting debt into equity stakes in a borrower's company to align interests and facilitate recovery.
- **Sale-and-Leaseback Arrangements.** Purchasing a borrower's asset and leasing it back to provide liquidity while allowing continued use of the asset.
- **Microcredit Support.** For individual borrowers, offering microloans tailored to meet immediate financial needs and prevent further delinquencies.

4. Selecting the Right Resolution Strategy

KAMCO evaluates each NPL's circumstances, considering factors such as borrower financial health, collateral value, and recovery prospects. Based on this analysis, KAMCO selects the most suitable resolution path, whether through restructuring, liquidation, or market-based solutions.

KAMCO's Disposal and Liquidation of Assets

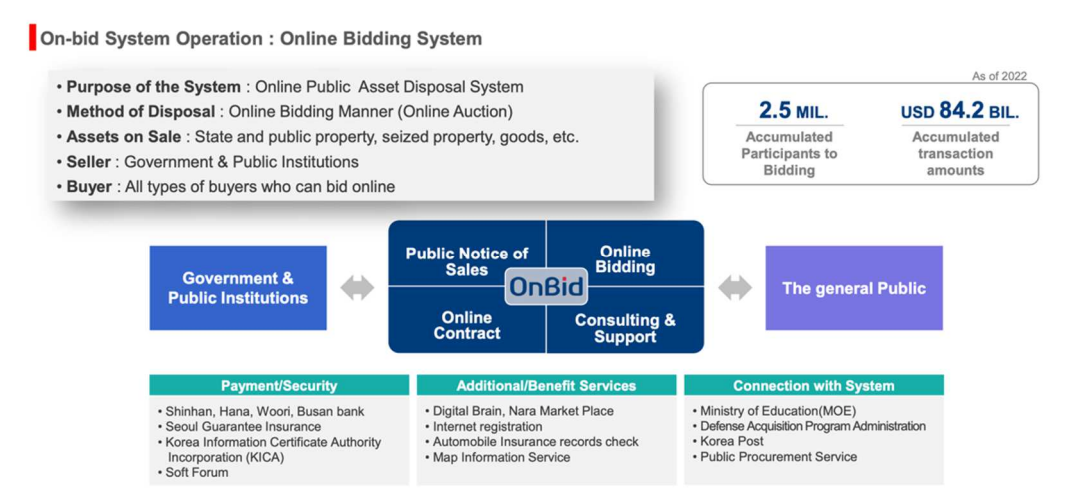
KAMCO's disposal and liquidation of assets involve strategic processes to efficiently sell or liquidate NPLs. This is essential to recovering funds, improving financial institutions' balance sheets, and maintaining stability in South Korea's financial market. Here are the key methods KAMCO uses for asset disposal and liquidation:

1. **Public Auctions:** KAMCO frequently organizes public auctions to sell collateral assets associated with NPLs. These auctions are often held for real estate, machinery,

or other valuable assets used as collateral by defaulting borrowers. Public auctions ensure transparency and allow KAMCO to reach a broad audience of potential buyers.

2. **Online Auction Platforms:** KAMCO leverages online auction platforms to reach a wider audience for asset sales, making it easier for potential buyers to participate in the auction process from anywhere. This digital approach enhances accessibility and can result in better pricing due to increased competition. Online auctions are particularly effective for smaller assets or those in remote locations, where physical auctions might not attract enough participants.

Figure 4.4. KAMCO Online Bidding System (On Bid) Process

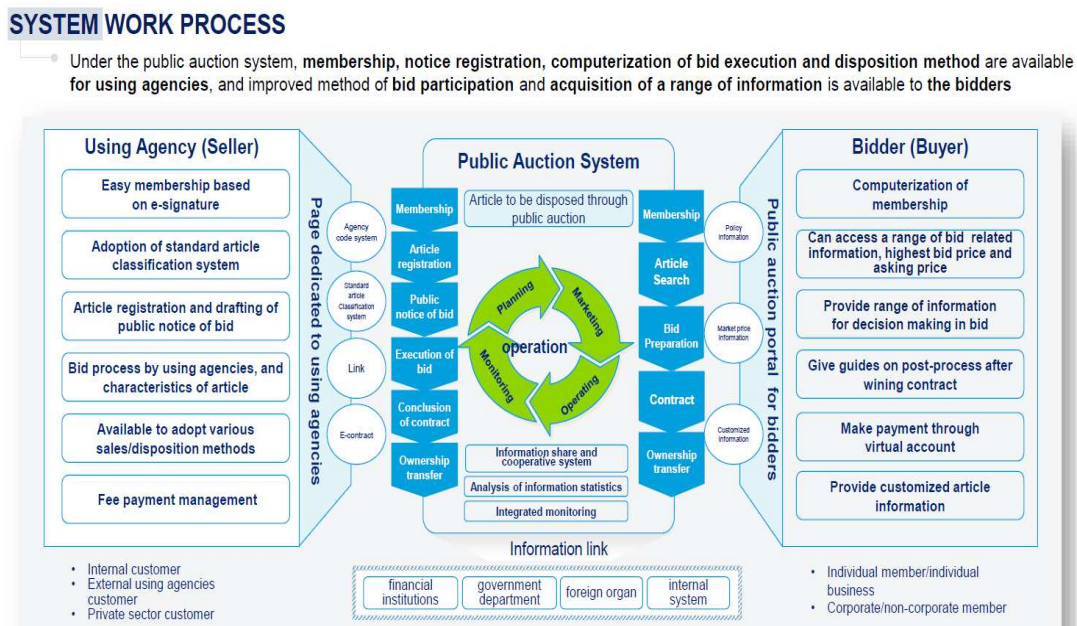


Source: KAMCO (2024)

The OnBid System in South Korea is an online public asset disposal platform operated through a transparent and efficient bidding process. Designed to facilitate the disposal of state and public properties, seized assets, and other goods, the system connects government and public institutions (sellers) with the general public (buyers) via online auctions. It ensures fairness and accessibility by providing public notices of sales, online bidding, contracts, and consulting support services. With 2.5 million accumulated participants and transaction volumes reaching USD 84.2 billion as of 2022, OnBid plays a pivotal role in enhancing asset liquidity and market efficiency.

Supported by secure payment systems, additional benefit services like internet registration and map information, and connections to key systems, OnBid fosters a robust and transparent digital marketplace for asset disposal.

Figure 4.5. KAMCO Online Bidding System (On Bid) Process



Source: KAMCO (2024)

- 3. Special Purpose Vehicles (SPVs) for Securitization:** For certain types of assets, KAMCO sets up Special Purpose Vehicles (SPVs) to securitize the distressed assets, effectively turning them into tradable securities. This approach pools assets into a single financial instrument, which is then sold to investors. Securitization through SPVs allows KAMCO to attract a broader range of investors, diversify risk, and raise liquidity efficiently than through direct asset sales alone.
- 4. Partnerships with Asset Management Firms:** KAMCO partners with private asset management companies that specialize in NPLs. Through these partnerships, KAMCO benefits from the expertise and networks of private firms to manage, market, and sell assets effectively.

4.4.3 Indonesia

Indonesia's non-performing loan (NPL) resolution framework employs two primary approaches: internal workouts by banks and disposal through asset management companies (AMCs). These strategies aim to strike a balance between operational efficiency, regulatory compliance, and optimizing recoveries from distressed loans. The following sections provide a detailed explanation of these practices, emphasizing the methods, advantages, challenges, and recommendations.

Internal Workout (Bank-Side Approach)

Internal workouts represent the first and most immediate strategy employed by banks in Indonesia to address NPLs. This approach focuses on in-house mechanisms to recover loans while managing distressed borrowers effectively. By retaining control over the resolution process, banks aim to minimize losses, protect their financial health, and maintain long-term relationships with borrowers.

Loan Restructuring. Loan restructuring is the cornerstone of internal workouts. It involves modifying loan terms to reflect the borrower's financial situation, enabling gradual recovery of the loan while providing relief to the borrower. Key practices include:

1. Modification of Loan Terms:
 - Banks often adjust interest rates, extend repayment periods, or even reduce the principal amount to ease the financial burden on borrowers.
 - Grace periods and temporary payment holidays are also offered to borrowers facing short-term financial challenges, allowing them time to stabilize.
2. Risk-Based Decision-Making:
 - Decisions regarding restructuring are guided by a comprehensive assessment of the borrower's financial condition, including:

- Cash flow stability: The borrower's ability to generate consistent income to meet restructured obligations.
- Sectoral risks: Economic conditions affecting the borrower's industry, particularly in sectors like tourism or agriculture, which are highly sensitive to market fluctuations.
- Collateral valuation: The quality and liquidity of collateral securing the loan, which provides a fallback option for recovery.

3. Sector-Specific Strategies:

Banks often design tailored restructuring solutions for borrowers in distressed sectors. For example, loans in the tourism industry may be restructured with longer repayment horizons, anticipating sectoral recovery.

Recovery Units and Borrower Engagement. To operationalize restructuring and manage NPLs effectively, banks establish dedicated recovery units. These teams are responsible for:

- Engaging proactively with borrowers to negotiate restructuring agreements that align with their repayment capacity.
- Monitoring restructured loans to ensure adherence to revised terms, mitigating re-default.
- Initiating legal enforcement, including collateral seizure or liquidation, in cases where borrowers fail to comply with restructuring terms.

Asset Securitization

POJK No. 11/POJK.03/2019 on Asset Securitization for Commercial Banks, establishes a regulatory framework for asset securitization to guide Indonesian commercial banks, addressing the need for alternative funding mechanisms to enhance liquidity and

improve balance sheet structures. Asset securitization involves converting pools of financial assets into tradable securities, enabling banks to obtain funds backed by cash flows from these assets. To mitigate associated risks, the regulation mandates strict adherence to prudential principles to safeguard credit and market stability, aligning with both national and international standards. The regulation defines key components of securitization:

1. Asset Securitization: The issuance of Asset-Backed Securities (~~A~~EBA) where repayment is derived from the cash flows of transferred assets.
2. Securitization Participants: Critical roles include the originator (bank), issuer, servicer, credit enhancement provider, liquidity facility provider, investors, and custodian banks, ensuring transparency and structured processes.

The asset securitization regulated under POJK No. 11/POJK.03/2019 is, in practice, primarily applied to **performing assets** in Indonesia, excluding Non-Performing Loans (NPLs). While the regulation allows for the securitization of NPLs as part of banks' assets, practical implementation faces significant challenges. One of the main obstacles lies in **pricing mechanisms**, which are critical to aligning the interests and preferences of banks as originators and potential investors. As a result, while the regulatory tools are already in place, the implementation of NPL securitization has not been carried out optimally in practice, highlighting the need for further market development and alignment of stakeholder expectations. These challenges hinder the practical adoption of NPL securitization, despite its potential as a strategic tool for improving liquidity and managing distressed assets within Indonesia's financial system.

NPL Disposal via Asset Management Companies (AMC)

AMCs play a pivotal role in Indonesia's NPL resolution landscape. These entities specialize in acquiring NPLs from banks, managing them efficiently, and ultimately

disposing of them to recover value. This approach allows banks to clean their balance sheets and focus on core banking activities.

Management of Acquired NPLs. Once NPLs are acquired, AMCs focus on stabilizing and optimizing their value through tailored management strategies. This phase sets the foundation for effective resolution by ensuring that assets are appropriately prepared for disposal or restructuring. Key elements include:

1. **Tailored Asset Management:** Strategies are developed based on a comprehensive assessment of the asset's value, legal complexity, and marketability. AMCs prioritize restructuring for assets with viable recovery potential while focusing on debtor cooperation and market conditions.
2. **Restructuring Efforts:** For debtors categorized as collectible, AMCs implement restructuring mechanisms, such as repayment term adjustments, interest rate reductions, or partial debt forgiveness. These measures aim to restore debtors' repayment capacity while securing recovery for the institution.
3. **Data-Driven Decisions:** Historical financial data, risk profiling, and sector-specific insights guide the management approach. These analyses ensure that strategies are realistic and aligned with broader economic conditions.

By focusing on these principles, AMCs create a solid foundation for effective asset recovery and market readiness.

Disposal Strategies. Disposition of NPLs is a critical aspect of AMC operations, requiring a dynamic and flexible approach to maximize recovery. The key disposal methods employed by AMCs include:

1. **Direct Negotiation Sales:** High-value or strategically located assets are sold through direct negotiations, providing flexibility in pricing and transaction terms. This method ensures customized solutions for individual buyer needs.
2. **Auctions Through KPKNL:** Auctions are a transparent and efficient mechanism for disposing of low-demand or complex assets. Conducted through the State Asset and Auction Service Office (KPKNL), auctions attract competitive bidding and provide fair market pricing.
3. **Sales Through Property Agents:** Property agents are engaged to market assets to targeted buyers, including institutional investors and niche markets. This approach broadens market exposure and improves the chances of successful disposal.
4. **Bulk Sales and Portfolio Grouping:** AMCs package high- and low-quality assets into bundled portfolios, creating diversified investment opportunities for institutional buyers. This strategy balances risk and value, increasing the attractiveness of the offering.

Direct Sale

Direct sale is another widely used method for NPL disposal, applicable to both banks and AMCs. This strategy involves selling NPLs to third-party investors through transparent auctions or private negotiations.

Auction Sales. Auctions provide a competitive platform for selling NPLs, attracting institutional investors, private equity firms, and asset recovery specialists. Aggregating NPLs into portfolios enhances their marketability and value.

Private Transactions. For high-value or complex assets, private negotiations allow sellers to tailor agreements to buyers' requirements, optimizing deal outcomes.

4.4.4 Comparative and Gap Analysis

COMPARATIVE ANALYSIS

This analysis delves into the strategies, operational mechanisms, and challenges of NPL disposal, comparing the sophisticated systems of Korea Asset Management Corporation (KAMCO) in South Korea with the emerging frameworks used in Indonesia. The analysis identifies key differences, strategic advantages, and gaps, providing actionable recommendations to enhance Indonesia's NPL management practices. Insights are drawn from KAMCO's best practices, offering a pathway for Indonesia to adopt scalable, market-oriented, and innovative solutions.

1. Strategic Approaches to NPL Disposal

KAMCO's Systematic and Scalable Model. KAMCO stands as a benchmark for structured and institutionalized NPL disposal systems. The cornerstone of its strategy is **portfolio diversification**, where NPLs are pooled into portfolios with varying risk profiles. This approach reduces risk concentration, enhances market appeal, and attracts a broader investor base that includes both domestic and international participants. KAMCO's commitment to **securitization** transforms illiquid NPLs into marketable securities. Through the establishment of **Special Purpose Vehicles (SPVs)**, assets are isolated from balance sheets, thereby reducing risk for investors. Additionally, credit enhancement measures, such as guarantees and over-collateralization, make these securities more attractive to institutional investors, improving liquidity and accelerating asset recovery.

KAMCO's approach is characterized by **market alignment**, ensuring that strategies cater to investor demand while adapting to market cycles for sustainability. By forging **third-party collaborations**, such as joint ventures with private investors, KAMCO pools expertise and resources to optimize recovery efforts. This partnership model not only

enhances the efficiency of NPL management but also fosters private sector participation, creating a robust and dynamic distressed asset market.

Indonesia's Practical and Localized Model. Indonesia's NPL disposal strategies focus on addressing local market needs but lack the institutionalized framework and innovation seen in KAMCO. The emphasis on **localized market adaptation** ensures that strategies are practical and aligned with immediate recovery goals, though they often forgo scalability and long-term sustainability. **Securitization**, a proven tool for liquidity enhancement, remains largely unexplored in Indonesia. While it is recognized as a potential mechanism to attract institutional investors, operational and regulatory readiness for its adoption is still under development.

Indonesia's reliance on **direct sales and auctions** reflects its localized approach. Auctions, adjusted to domestic market dynamics, are conducted through formal government platforms. However, challenges such as **valuation discrepancies, low participation rates, and limited transparency** restrict their effectiveness. Collaboration with private entities, while present, is generally exploratory and operationally focused, lacking the strategic depth and innovative partnerships seen in KAMCO's model.

2. Operational Mechanisms in NPL Management

KAMCO's Transparent and Robust Framework. KAMCO employs a comprehensive and transparent operational framework for NPL disposal. Its **five-step securitization process** begins with **asset pooling**, aggregating NPLs with diverse risk profiles to create marketable portfolios. These portfolios are transferred to SPVs, ensuring risk separation and enhancing transparency. The issuance of **Asset-Backed Securities (ABS)** facilitates liquidity creation, while **credit enhancements**, such as guarantees,

increase the appeal of these securities to investors. By targeting institutional investors, KAMCO ensures liquidity inflow and broadens market participation.

KAMCO's auction processes are equally structured and competitive. Leveraging **digital platforms** and structured data rooms, KAMCO attracts both domestic and international participants. Proactive marketing strategies and global alignment ensure high visibility and participation. Competitive bidding and standardized timelines further reinforce investor confidence and maximize recovery rates.

Indonesia's Emerging Framework. Indonesia's operational mechanisms for NPL management are in a developmental stage. Auctions remain a key mechanism but face challenges related to **administrative inefficiencies, limited scalability, and insufficient international promotion**. Transparency is constrained, and digitalization efforts are nascent, resulting in reduced investor confidence and lower participation rates. Despite these limitations, there is growing awareness of the potential benefits of advanced mechanisms like securitization, with exploratory initiatives underway to assess feasibility.

3. Challenges in NPL Disposal

Both systems encounter challenges, but their nature and mitigation strategies vary.

Valuation Discrepancies. KAMCO addresses valuation issues through independent appraisals and market-based pricing, supplemented by credit enhancements to mitigate risks. Indonesia, however, struggles with gaps between buyer and seller expectations, relying on flexible pricing and efforts to enhance market data accuracy.

Regulatory Barriers. KAMCO's alignment with international standards streamlines compliance and facilitates market access. Conversely, Indonesia faces legal and procedural complexities, particularly in collateral execution and auction processes, which deter broader participation and require substantial reforms.

Market Reluctance. Investor hesitancy is mitigated in KAMCO’s model through transparent processes, credit enhancements, and promotional efforts. In Indonesia, limited buyer interest is compounded by legal uncertainties and market-specific challenges, necessitating improved asset grouping, due diligence, and targeted promotion.

Operational Delays. While South Korea’s KAMCO efficiently coordinates multi-stakeholder processes, Indonesia experiences delays due to resource constraints and procedural inefficiencies, highlighting the need for standardized workflows and enhanced operational capacity.

Table 4.3. Coparative Analysis on NPL Disposal Framework

Topic	South Korea	Indonesia
Strategic Approaches to NPL Disposal	KAMCO employs portfolio diversification, securitization through SPVs, and strategic private collaborations to optimize recovery. It adapts to market cycles and ensures investor appeal with credit enhancements and institutionalized frameworks.	Focuses on localized and practical strategies, relying on direct sales and auctions. Lacks broader frameworks and scalability. Securitization is under development, with limited strategic private collaborations.
Operational Mechanisms in NPL Management	Comprehensive framework including asset pooling, ABS issuance, and transparent auctions. Uses digital platforms for competitive bidding and international promotion, ensuring high participation and market visibility.	Emerging framework centered on auctions, facing transparency, scalability, and promotion challenges. Digitalization is in its early stages, with exploratory initiatives for securitization.
Challenges in NPL Disposal	Addresses valuation discrepancies with independent appraisals,	Struggles with valuation gaps, regulatory barriers, and market

	aligns with international standards, and mitigates market reluctance through transparent processes and credit enhancements.	reluctance. Faces operational delays due to resource constraints and lacks standardized workflows.
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GAP ANALYSIS

The analysis underscores critical gaps in Indonesia’s NPL disposal practices:

Strategic Frameworks. Limited comprehensive frameworks are in place to scale NPL disposal and align efforts with broader financial stability goals. Additionally, risk diversification and scalability are underemphasized, reducing the potential for effective, long-term outcomes.

Auction Processes. Auctions lack international competitiveness and transparency, facing challenges in attracting sufficient participants and achieving competitive pricing. Limited promotion, digitalization, and complex administrative procedures further hinder auction efficiency and investor appeal.

Securitization Frameworks. There is an absence of established frameworks to facilitate liquidity enhancement and risk transfer through securitization of NPL. Operational readiness for advanced mechanisms like ABS issuance and SPVs remains underdeveloped.

Regulatory and Market Challenges. Misalignment with international standards restricts global investor participation, while procedural inefficiencies increase costs and reduce recovery rates. Market reluctance, legal complexities, and the absence of structured asset grouping or promotion strategies limit the appeal of NPL portfolios.

Operational Inefficiencies. Delays in auction settlements, non-standardized workflows, and insufficient process optimization reduce recovery rates and overall efficiency. These inefficiencies impact the speed of NPL resolution.

Collaboration and Foreign Investor Engagement. Limited use of strategic partnerships with private entities constrains recovery processes. Additionally, regulatory opacity and minimal alignment with global best practices reduce foreign investor participation, further weakened by inadequate promotional efforts.

4.5 Development of NPL Secondary Market

The secondary market for Non-Performing Loans (NPLs) serves as a critical component of modern financial systems, offering mechanisms for banks to offload distressed assets and redirect their focus toward productive lending. The creation of such markets enables banks to improve liquidity, comply with regulatory capital requirements, and reduce systemic risks associated with high levels of NPLs.

4.5.1 Global Best Practices

Global financial crises, including the European sovereign debt crisis and Asia's post-COVID-19 challenges, have underscored the need for robust secondary markets to manage and resolve NPLs effectively⁵³. This section examines innovative mechanisms, regulatory structures, and operational strategies while outlining a roadmap for Indonesia to develop an efficient and sustainable secondary market for NPLs.

⁵³ PricewaterhouseCoopers. (2008). NPL Asia, Issue 10: The Asian non-performing loan market.

Regulatory Frameworks Supporting NPL Secondary Markets

A well-structured regulatory framework is critical for fostering efficient and transparent NPL secondary markets. Regulatory support provides the foundation for investor confidence, ensures fair competition, and mitigates systemic risks associated with the trading of distressed assets.

1. Global Standards and Guidelines

International regulatory bodies and financial institutions have established standards to ensure consistency, transparency, and efficiency in NPL secondary markets.

- **EU NPL Directive:** The EU has developed a harmonized framework for managing NPLs across member states, culminating in Directive (EU) 2021/2167. This directive establishes transparent rules for credit servicers and purchasers, reduces entry barriers, and ensures data consistency. The result is increased cross-border investment and market liquidity, particularly in economies with historically high NPL levels, such as Italy and Greece.⁵⁴
- **IMF Recommendations:** The IMF emphasizes the need for streamlined bankruptcy laws, improved creditor rights, and expedited judicial procedures to support the efficient functioning of NPL markets. Comprehensive legal reforms not only attract investors but also enhance debt recovery processes.⁵⁵

2. Country-Specific Approaches

While global standards provide overarching principles, country-specific regulatory frameworks tailor these guidelines to address local market dynamics and challenges.

⁵⁴ KPMG. (2018). Prerequisites for developing markets for distressed assets. KPMG International.

⁵⁵ International Monetary Fund. (2015). A strategy for developing a market for nonperforming loans in Italy (IMF Working Paper No. WP/15/24). International Monetary Fund.

- **South Korea's KAMCO Model:** The Korea Asset Management Corporation (KAMCO) has been instrumental in stabilizing South Korea's financial system by acquiring, restructuring, and disposing of NPLs. KAMCO operates under a robust framework, ensuring consistency in valuation and resolution mechanisms. It has become a model for emerging economies seeking effective NPL management.
- **Italy's GACS Program:** Italy's Garanzia sulla Cartolarizzazione delle Sofferenze (GACS) program leverages government guarantees on senior tranches of securitized NPL portfolios, reducing investor risk and encouraging private sector participation.

Market Mechanisms and Instruments

Market mechanisms and instruments are essential for the efficient functioning of NPL markets. They facilitate the transfer and resolution of distressed assets by providing clear structures, transparency, and tools that enhance market liquidity and investor confidence.

1. Asset Management Companies (AMCs)

AMCs are entities established to manage distressed assets, playing a pivotal role in resolving NPLs and stabilizing financial systems. They provide a structured approach to the acquisition, management, and disposal of NPLs, ensuring efficient resolution.

- **Spain's SAREB.** Established in 2012 during Spain's banking crisis, SAREB manages real estate-related NPLs and foreclosed assets. It purchases distressed assets from banks and uses market-driven strategies for efficient divestment, balancing financial returns with economic stability.⁵⁶

⁵⁶ European Commission. (2018). First progress report on the reduction of non-performing loans in Europe. European Commission.

- **Thailand's TAMC.** Formed after the Asian Financial Crisis, TAMC centralized NPL management in Thailand, focusing on restructuring viable loans and liquidating nonviable ones. It played a crucial role in restoring stability to the country's financial sector.⁵⁷

2. Securitization

Securitization is a financial instrument that transforms illiquid assets into marketable securities. It is a powerful tool for mobilizing capital and reducing risk exposure.

- **Italy's GACS Program:** Securitization allows banks to bundle NPLs into marketable securities, which are then sold to investors. Italy's GACS program enhances this process by providing state guarantees, ensuring investor confidence and reducing perceived risks.
- **Japan's RCC-Driven Securitization:** Japan's Resolution and Collection Corporation (RCC) plays a pivotal role in NPL securitization by acquiring distressed assets and converting them into tradable instruments, creating liquidity while maintaining stability.⁵⁸

3. Digital Platforms

The Asian Development Bank (ADB) Roadmap highlights the potential of digital platforms to streamline NPL transactions, reduce costs, and increase transparency.

These platforms facilitate seamless interactions between buyers and sellers, improving market accessibility and operational efficiency.⁵⁹

⁵⁷ Asian Development Bank. (2008). Nonperforming loans in Asia: Causes, impacts, and resolution strategies. Asian Development Bank.

⁵⁸ Bank of Japan. (2002). Japan's Nonperforming Loan Problem. Quarterly Bulletin.

⁵⁹ Asian Development Bank. (2022). Road map for developing an online platform to trade nonperforming loans in Asia and the Pacific.

Prerequisites for Developing Secondary Markets⁶⁰

Creating and sustaining such markets requires meeting several critical prerequisites, which can be categorized into legal and regulatory frameworks, market infrastructure, institutional support, and incentives for market participants.

1. Legal and Regulatory Foundations

Efficient NPL markets require strong legal frameworks that support quick and predictable debt recovery. Streamlined insolvency laws and foreclosure procedures are essential for attracting investors. The UK, for example, has implemented legal reforms that facilitate faster NPL resolutions.

2. Data Transparency and Standardization

Standardized reporting, such as the templates provided by the European Banking Authority (EBA), ensures consistent and reliable data for investors. High-quality data improves asset valuation accuracy and builds market trust.

3. Market Incentives

Government interventions, such as tax benefits for NPL transactions and guarantees for securitization, incentivize private sector participation. Italy's tax incentives for NPL buyers have significantly increased market activity.

Operational Challenges in NPL Secondary Markets

1. Liquidity Constraints

High bid-ask spreads in underdeveloped markets deter investor participation. Addressing these constraints through accurate pricing mechanisms and state-backed guarantees can enhance market liquidity.

⁶⁰ KPMG. (2018). Prerequisites for developing markets for distressed assets. KPMG International.

2. Institutional Capacity

Many developing countries lack the institutional infrastructure to manage NPL transactions effectively. Capacity-building initiatives, such as training programs and international partnerships, are critical for overcoming these challenges.

3. Economic Uncertainty

External shocks, such as global recessions, can prolong the NPL resolution process. Countries must adopt contingency measures, such as establishing state-backed AMCs, to stabilize markets during crises.

Lessons from Global Case Studies

1. Europe: Harmonized Regulations and Centralized Data Platforms⁶¹

The European Union (EU) has implemented the **NPL Directive**, which harmonizes regulations for credit servicers and purchasers, reducing barriers and enhancing cross-border NPL transactions. The **European DataWarehouse (EDW)** serves as a centralized platform providing standardized, reliable data, addressing information asymmetry and boosting investor confidence. This combination of regulatory alignment and data transparency has made the The European Union (EU) a global leader in cross-border NPL trading.

2. Asia: Leveraging Asset Management Companies and Digital Platforms

Asia showcases effective use of Asset Management Companies (AMCs) and emerging digital platforms in NPL resolution:

- **Thailand's TAMC** centralized NPL management during the Asian financial crisis, stabilizing its banking sector through standardized restructuring and liquidation mechanisms.

⁶¹ European Commission. (2018). First progress report on the reduction of non-performing loans in Europe. European Commission.

- **South Korea's KAMCO** demonstrated the effectiveness of a centralized AMC model, acquiring and resolving distressed assets with market-driven transparency.
- **Digital Platforms**, as proposed by the Asian Development Bank (ADB) in the “Road map for developing an online platform to trade nonperforming loans in Asia and the Pacific”, improve efficiency, reduce costs, and attract global investors by facilitating seamless NPL trading.

3. Japan: Market-Based Solutions with Government Intervention⁶²

Japan's Resolution and Collection Corporation (RCC) integrated market-based securitization with state intervention to manage NPLs from its banking crisis in the 1990s. The RCC rehabilitated viable borrowers, liquidated unviable assets, and used securitization to generate liquidity, providing a balanced model for public-private partnerships in NPL resolution.

4.5.2 South Korea

South Korea's development of a robust Non-Performing Loan (NPL) secondary market offers a comprehensive model for addressing financial instability through structured, transparent, and efficient mechanisms. This section synthesizes insights from key literature, including experiences of South Korea during and after the 1997 financial crisis, emphasizing the institutional, operational, and regulatory frameworks, and the processes leading to the successful development of the NPL secondary market.

Institutional and Regulatory Framework

South Korea's NPL secondary market relied on strong institutional roles and a comprehensive legal framework that ensured systematic processes and market trust.

⁶² Bank of Japan. (2002). Japan's nonperforming loan problem.

1. Institutional Design

- **Korea Asset Management Corporation (KAMCO)**

KAMCO was pivotal in acquiring, managing, and resolving NPLs. It used a market-driven approach, purchasing NPLs at fair market value (often significantly discounted from nominal values) to reduce the financial burden on banks.

- **Market-Making.** KAMCO acted as a market maker by creating platforms and infrastructure necessary for NPL transactions. In the absence of a functioning NPL market, it established auction systems, engaged private investors, and institutionalized transparent transaction mechanisms.
- **Innovative Approaches.** KAMCO introduced Joint Venture Special Purpose Vehicles (JV-SPVs), allowing private investors to co-invest in pooled NPL portfolios. These JV-SPVs reduced financial risk for the public sector while attracting private sector expertise and capital.
- **International Collaboration.** KAMCO collaborated with international investors and agencies, leveraging global best practices to attract diverse participants into the NPL market.

- **Private Sector Participation**

Private equity firms, private asset management companies, and foreign investors actively collaborated with KAMCO to enhance market efficiency, provide liquidity, and innovate in asset recovery strategies.

- **Financial Supervisory Commission (FSC)**

The FSC provided regulatory oversight, ensuring that financial institutions adhered to capital adequacy requirements and risk management standards. It enforced compliance with NPL classification and provisioning regulations to standardize

market operations. The FSC coordinated closely with KAMCO, providing the regulatory backing needed for institutional efficiency and public trust.

- **Korea Deposit Insurance Corporation (KDIC)**

Provided financial stability through deposit insurance payouts and bank recapitalization, supporting a stable environment for NPL transactions. KDIC offered financial support to recapitalize banks and provide deposit insurance, ensuring stability in the banking system. KDIC partnered with KAMCO in purchasing NPLs from distressed banks, helping to stabilize financial institutions while allowing them to focus on core banking operations.

2. Legal and Regulatory Framework

- **Non-Performing Asset Management Fund (NPAF)**

The NPAF, financed through public and private contributions, was created to fund KAMCO's operations, ensuring sufficient resources to acquire and manage large volumes of distressed assets. This fund provided the financial backbone for South Korea's early crisis response.

- **Empowering Legislation**

Laws like the KAMCO Act and the Asset-Backed Securitization Act provided legal clarity for asset acquisition, pooling, and securitization processes, reducing risks for market participants.

- **Transparency and Governance**

Legislation required regular disclosures and compliance with valuation and transaction standards. This reduced information asymmetry and improved investor confidence in the market.

- **Tax and Fiscal Incentives**

Tax exemptions and reduced transaction costs for NPL trades encouraged private sector participation, boosting liquidity and fostering a competitive environment.

These incentives were critical in stimulating early market activity.

Operational Framework

South Korea's NPL secondary market was built on a foundation of innovative operational mechanisms:

1. Standardized Valuation Methodologies

KAMCO implemented uniform valuation processes based on collateral quality, borrower profiles, and forward-looking economic indicators. This approach minimized disputes and streamlined pricing mechanisms. Valuations were regularly updated to reflect market conditions, ensuring accurate pricing for buyers and sellers.

2. OnBid Auction Platform

The OnBid platform, developed by KAMCO, allowed for open and competitive bidding for NPLs. By providing real-time asset details and transaction transparency, it attracted a wide range of investors, both domestic and international. The platform reduced transaction costs, streamlined the bidding process, and minimized delays in asset transfers.

3. Use of Special Purpose Vehicles (SPVs)

SPVs pooled NPLs into portfolios, issuing securitized instruments to spread risk among multiple investors. This attracted institutional investors and increased market liquidity. KAMCO retained partial ownership in SPVs, allowing it to benefit from future recoveries while maintaining legal and financial separation of assets.

4. Debt Restructuring Mechanisms

Before disposing of NPLs, KAMCO restructured debt through renegotiation of payment terms, interest rate reductions, or debt-to-equity swaps. This improved the financial health of distressed assets, increasing their marketability and recovery rates.

Process of Developing the NPL Secondary Market

The development of South Korea's NPL secondary market involved several stages.

1. Crisis Response Phase (1997–2000):

The government injected public funds through KAMCO and KDIC to acquire distressed assets and stabilize the financial system. Immediate measures included bank recapitalization and liquidity support to prevent systemic collapse.

2. Market Development Phase (2001–2010):

KAMCO introduced SPVs and securitization, attracting private capital and diversifying market risks. The government and KAMCO trained market participants, fostering expertise in asset management and transaction structuring.

3. Maturity Phase (2011–Present)

The market evolved into a self-sustaining system, with reduced reliance on public funds, and a sustainable ecosystem, with KAMCO transitioning to a market facilitator role. Regulatory reforms and technology integration supported continued growth.

Key Success Factors

1. Strategic Institutional Leadership

KAMCO's critical role, supported by FSC and KDIC, ensured clear accountability, market consistency, and effective decision-making.

2. Comprehensive Legal and Regulatory Framework:

A transparent and well-enforced legal and regulatory framework provided clarity for market participants, encouraging broader investor participation.

3. Innovative Mechanisms:

South Korea leveraged advanced financial tools like OnBid and SPVs enhanced market efficiency, attracting domestic and international investors.

4. Public-Private Collaboration:

South Korea's NPL secondary market benefited significantly from public-private collaboration. Co-investment schemes facilitated risk-sharing and expanded the investor pool, boosting market liquidity.

5. Capacity Building and Expertise:

South Korea's commitment to capacity building ensured the sustainability and long-term efficiency of its NPL secondary market. Training programs and partnerships with private entities helped develop technical expertise, ensuring sustainable market operations.

4.5.3 Indonesia

The secondary market for Non-Performing Loans (NPLs) plays a critical role in enhancing financial stability by enabling banks to efficiently offload distressed assets and focus on productive economic activities. In Indonesia, this market remains underdeveloped, with transactions often limited to bilateral agreements that lack scalability. Establishing a robust secondary market would improve asset liquidity, attract diverse investors, and strengthen the financial sector's resilience against systemic risks.

Current State of NPL Market in Indonesia

Indonesia's current NPL market operates within a fragmented and inefficient framework, heavily reliant on internal bank restructuring or private, bilateral sales. These mechanisms, while providing some level of relief, lack the transparency, competitiveness, and scale necessary for a well-functioning and sustainable secondary market. The main characteristics are as follows:

1. Market Fragmentation

NPL transactions are predominantly private negotiations between banks and a limited pool of local investors. This approach restricts market competition, resulting in suboptimal pricing and execution.

2. Limited Market Depth

The market lacks sufficient diversity in its buyer base, with minimal participation from institutional or international investors. This restricts liquidity and the development of scalable market solutions.

3. Regulatory Ambiguity

While regulatory frameworks permit the sale of NPLs, they are unable to establish clear and comprehensive guidelines regarding valuation standards, transaction procedures, and investor protections. This regulatory gap creates uncertainty for potential investors.

4. Transparency Deficiencies

The absence of a centralized trading platform leads to a lack of publicly available information on loan-level details, such as asset quality and recovery rates. This lack of transparency complicates investor due diligence and deters broader participation.

5. Economic Context

External shocks, such as the COVID-19 pandemic, have periodically caused spikes in NPL ratios. Although the ratios remain manageable, these fluctuations underscore the need for a robust framework to resolve distressed assets efficiently during economic downturns.

Challenges in Establishing an NPL Secondary Market

The development of a secondary market for NPLs in Indonesia faces several structural, legal, and operational challenges:

1. Legal and Regulatory Barriers

- **Complex Foreclosure and Bankruptcy Processes:** Prolonged legal procedures around foreclosure and bankruptcy create uncertainty regarding asset ownership, making NPL transactions unattractive for investors.
- **Tax Impediments:** High taxes on NPL transactions reduce the profitability of distressed asset purchases, discouraging both domestic and foreign investors.

2. Infrastructure Deficits

- **Lack of Centralized Platforms:** The absence of a dedicated marketplace or trading platform restricts transparency and efficiency, limiting the ability to attract diverse participants.
- **Insufficient Data Availability:** Inadequate systems for sharing detailed loan-level data hinder investors' ability to assess asset quality and recovery potential.

3. Limited Investor Participation

- **Domestic Investors:** A narrow buyer base dominated by local entities reduces market competition and liquidity.

- **Foreign Investors:** International participants are often deterred by unclear regulatory frameworks and concerns over enforceability of contracts.

4. Valuation and Pricing Challenges

- **Inconsistent Valuation Standards:** The absence of standardized methods for loan valuation results in disparities in pricing, undermining confidence in the market.
- **Regulatory Constraint on Valuation:** Regulations mandate that NPLs from state-owned banks be purchased at minimum 100% of their principal value, restricting the use of market-driven valuation mechanisms and thereby hindering efficiency and cost-effectiveness.

5. Cultural and Institutional Resistance

Risk-Averse Banking Culture: Indonesian banks often prioritize internal restructuring of NPLs rather than selling them in the open market. This cultural bias, coupled with limited expertise in distressed asset management, hampers large-scale market participation.

Importance of Developing a Secondary Market for NPLs

Developing a secondary market for NPLs is vital for Indonesia's financial sector, offering the following benefits:

1. Enhanced Financial Stability

A functional secondary market enables banks to transfer distressed assets to specialized entities, reducing their balance sheet risks and promoting sector stability.

2. Efficient Capital Allocation

Timely resolution of NPLs allows banks to free up capital, which can then be directed toward lending for productive activities, stimulating economic growth.

3. Increased Market Transparency

A centralized platform and clear guidelines improve transparency and enable investors to make informed decisions, fostering confidence in the market.

4. Attracting Foreign Investment

A transparent and well-regulated market for NPLs would attract foreign investors, bringing both liquidity and expertise to the financial sector.

5. Mitigating Systemic Risks

Efficient handling of distressed assets prevents the accumulation of systemic risks, ensuring faster recovery during financial crises.

The establishment of a structured and transparent NPL secondary market is a critical step in modernizing Indonesia's financial system. By addressing the regulatory, legal, and infrastructural barriers, Indonesia can create an efficient platform for resolving distressed assets. Such reforms would enhance financial stability, attract diverse investors, and support the broader economy's resilience to external shocks.

4.5.4 Comparative and Gap Analysis

COMPARATIVE ANALYSIS

1. Institutional Background and Roles

South Korea has developed a robust secondary market for Non-Performing Loans (NPLs), primarily through the Korea Asset Management Corporation (KAMCO). Established during the Asian Financial Crisis of 1997, KAMCO has played a pivotal role in stabilizing the financial sector by acquiring, managing, and disposing of NPLs using innovative, market-driven strategies. It serves as both a market maker and facilitator,

creating platforms like the OnBid auction system and leveraging international collaborations to ensure efficiency and liquidity.

In contrast, Indonesia's NPL market remains underdeveloped, characterized by fragmented transactions and limited scalability. Current mechanisms focus on bilateral agreements between banks and local investors, which lack the depth and competitiveness necessary for a thriving secondary market. This limited institutional scope reflects the absence of a centralized entity like KAMCO to manage and streamline NPL transactions.

2. Legal and Regulatory Framework

South Korea's secondary market operates within a comprehensive legal framework, underpinned by the KAMCO Act and the Asset-Backed Securitization Act. These laws empower KAMCO to acquire distressed assets at fair market values, often at significant discounts, providing banks with immediate relief and ensuring transparent processes for all stakeholders. Regulatory bodies, such as the Financial Supervisory Commission (FSC), enforce compliance with strict NPL classification and provisioning standards, ensuring market consistency and investor confidence.

In Indonesia, the regulatory framework permits NPL transactions but lacks clarity and comprehensiveness. Prolonged foreclosure and bankruptcy procedures, combined with high transaction taxes, deter market participation. A significant regulatory constraint is the requirement that NPLs from state-owned banks must be purchased at 100% of their principal value, a rule that hinders market-driven pricing and reduces the appeal of assets to investors.

3. Funding and Market Mechanisms

KAMCO employs diverse funding mechanisms, including government-guaranteed bonds, contributions from the Non-Performing Asset Fund (NPAF), and advanced securitization techniques. These strategies allow KAMCO to manage large volumes of NPLs

effectively and attract international investors through instruments like cross-border asset-backed securities (ABS).

Indonesia relies on simpler funding sources, such as direct government contributions and basic ABS issuance, without leveraging international capital markets or innovative instruments. The lack of mechanisms to pool and securitize NPL portfolios restricts scalability and diversification, reducing the overall market liquidity and investor base.

4. Operational Practices

South Korea's operational framework includes standardized valuation methodologies, advanced technology integration, and innovative approaches like Joint Venture Special Purpose Vehicles (JV-SPVs) to attract private sector participation. Platforms like OnBid facilitate transparent and competitive auctions, enabling efficient asset transfers and minimizing transaction costs.

Indonesia's operational practices are less structured. The absence of centralized platforms results in limited transparency and inefficient asset transfers. Valuation processes are inconsistent, with no standardized methodologies, leading to pricing disparities and undermining investor confidence. Data availability is also limited, complicating due diligence and deterring potential buyers.

5. Market Outcomes

South Korea's secondary market has matured into a self-sustaining ecosystem with reduced reliance on public funds and increased participation from private and international investors. By contrast, Indonesia's NPL market remains fragmented and underutilized, with limited foreign investor engagement and an overreliance on internal restructuring.

Table 4.4. Comparative Analysis on NPL Secondary Market

Topic	South Korea	Indonesia
Institutional Background and Roles	KAMCO established a robust secondary market, acting as market maker and facilitator through platforms like OnBid and international collaborations.	NPL market remains fragmented with bilateral transactions. Lacks a centralized entity like KAMCO to streamline and scale operations.
Legal and Regulatory Framework	Operates under comprehensive laws like the KAMCO Act and ABS Act, enabling market-driven pricing and ensuring investor confidence with strict compliance standards.	Regulatory framework lacks clarity; foreclosure and bankruptcy procedures are slow. Mandatory 100% principal purchase for state-owned bank NPLs hinders pricing flexibility.
Funding and Market Mechanisms	Utilizes diverse funding sources, including government bonds, NPAF, and advanced securitization to attract international investors and manage large NPL volumes.	Relies on direct government contributions and basic ABS issuance. Lacks pooling and securitization mechanisms for NPL, reducing scalability and market liquidity.
Operational Practices	Employs standardized valuations, advanced technology, and platforms like OnBid for transparent auctions. Innovates with JV-SPVs to engage private participants.	Operational practices lack structure and centralized platforms, leading to low transparency and inconsistent valuations. Limited data availability deters buyers.
Market Outcomes	Developed a mature, self-sustaining market with high private and international investor participation, reducing reliance on public funds.	Fragmented market with minimal foreign investor engagement and heavy reliance on internal restructuring, limiting market development.

GAP ANALYSIS

Institutional and Strategic Gaps. While South Korea's KAMCO plays a pivotal role in stabilizing the banking system and facilitating market development, Indonesia lacks a centralized entity to oversee and streamline NPL transactions. The absence of such an institution limits Indonesia's ability to create a cohesive and scalable secondary market.

Regulatory Limitations. Indonesia's regulatory framework is less supportive of market-driven solutions. The mandatory purchase of NPLs from state-owned banks at full principal value prevents the use of discounted valuations, reducing flexibility and efficiency. In contrast, South Korea's regulations allow for fair market valuations and innovative solutions like securitization, which enhance market liquidity and investor participation.

Funding and Financial Mechanisms. KAMCO's diverse funding sources and securitization techniques enable it to handle large volumes of NPLs and attract international investment. Indonesia's reliance on direct government contributions and limited ABS issuance restricts its financial capacity and scalability. The absence of advanced funding mechanisms further limits its ability to mobilize capital effectively.

Operational Efficiency. South Korea's standardized valuation processes and digital platforms like OnBid provide transparency and efficiency, attracting a broad range of investors. Indonesia's lack of centralized platforms and inconsistent valuation methodologies hinders transaction efficiency and deters participation. Data transparency remains a significant challenge, reducing market confidence.

Market Depth and International Engagement. South Korea's secondary market benefits from international collaboration and a diverse investor base, including foreign entities. In contrast, Indonesia's market is dominated by local investors, with minimal foreign participation due to unclear regulations and limited transparency. This lack of diversity reduces liquidity and restricts the development of scalable market solutions.

Chapter V. Conclusion and Strategic Actions for Indonesia

5.1 Summary of Findings

5.1.1 Comparative Analysis Summary

The analysis of Non-Performing Loan (NPL) resolution frameworks between South Korea (KAMCO) and Indonesia reveals distinct differences in their strategic orientations, operational mechanisms, and outcomes.

South Korea's Framework: A Holistic and Advanced Approach

South Korea's framework, led by the Korea Asset Management Corporation (KAMCO), is a benchmark for effective and comprehensive NPL resolution. It embodies a systemic approach that addresses the challenges posed by NPLs across financial institutions and other sectors, ensuring both immediate resolution and long-term financial stability.

1. Institutional and Legal Foundations

- KAMCO operates under a strong legislative framework, including the **KAMCO Act** and **Asset-Backed Securitization Act**, which enable its broad mandate and provide legal clarity for operations. These laws facilitate mechanisms such as securitization, auction-based sales, and international collaboration.

2. Advanced Mechanisms

- **Asset-Backed Securitization (ABS):**

KAMCO utilizes ABS to transform illiquid NPLs into marketable securities. This enhances liquidity, allows for risk sharing, and attracts a diverse investor base.

- **Online Platform:**

The OnBid system supports NPL resolution in South Korea by providing a transparent and efficient platform for asset disposal. Through standardized online

bidding, it ensures competitive pricing, accelerates NPL transfers, and enhances financial stability.

- **International Investor Engagement:**

KAMCO actively involves international investors through cross-border securitization and partnerships. These efforts bolster foreign investment inflows and elevate South Korea's reputation in global distressed asset management.

3. Market Development and Integration

- KAMCO plays a pivotal role in developing a secondary market for NPLs, providing a transparent platform for trading distressed assets and fostering market-based solutions.
- The integration of private sector players, such as asset management firms and institutional investors, ensures competitive pricing and diversified risk management.

4. Holistic Coverage and Systemic Stability

- KAMCO addresses NPLs from both private and state-owned banks, corporates, and public entities, thereby reducing systemic risks across sectors.
- Its ability to pool assets and execute bulk sales ensures economies of scale and rapid resolution.
- KAMCO collaborates with KDIC, which manages distressed assets from failed financial institutions, ensuring coordinated efforts in NPL resolution and strengthening systemic stability.

Indonesia's Framework: A Focused but Limited Approach

Indonesia's NPL resolution framework is less developed. The current framework relies heavily on internal workouts and limited AMC-led initiatives with narrower mandates, constraining its systemic impact.

1. Institutional and Legal Constraints

- Indonesia's Public AMC, PT Perusahaan Pengelola Aset (PPA), has a limited mandate compared to KAMCO, focusing mainly on SOEs.
- Regulatory requirements mandate that NPL purchases by AMCs occur at 100% of their principal value, especially for state-owned banks. This constraint reduces flexibility and disincentivizes banks from offloading distressed assets.

2. Operational Mechanisms

- Internal bank workouts are the dominant approach to NPL resolution. These methods often retain risk within originating institutions, as assets are transferred internally to subsidiaries or remain consolidated under the same financial group.
- Valuation methods lack standardization, leading to inconsistencies in asset pricing and investor confidence.

3. Market and Private Sector Participation:

- The absence of a secondary market for NPLs limits liquidity, investment opportunities, and competitive pricing.
- Restricted private sector engagement results in slower resolution processes and reduced efficiency. Unlike South Korea, Indonesia has yet to tap into the potential of global investors or utilize securitization to enhance asset recovery.

4. Challenges and Bottlenecks:

- Valuation Gaps: Inconsistent and opaque valuation practices undermine market confidence and recovery rates.

- **Underdeveloped Market Infrastructure:** The lack of auction platforms, digital tools, and a regulatory framework for ABS constrains the scalability of Indonesia's NPL resolution efforts.
- **Innovation Deficits:** Minimal use of tools like ABS, predictive analytics, and AI-driven valuation models hampers Indonesia's ability to modernize its framework.

Outcomes and Global Recognition

1. South Korea:

- KAMCO's integrated approach has earned global recognition, positioning South Korea as a leader in distressed asset management.
- The framework has facilitated financial stability, strengthened market resilience, and attracted foreign investment.

2. Indonesia:

- Indonesia's approach, while effective at an institutional level, lacks the systemic orientation needed to address broader financial risks.
- Constraints in regulatory flexibility, operational efficiency, and market infrastructure have limited its ability to replicate the success of South Korea's KAMCO.

5.1.2 Gap Analysis Summary

The following key gaps have been identified between South Korea's and Indonesia's NPL resolution frameworks:

Strategic Orientation of Public AMC

Indonesia's Public AMC framework is institution-focused, targeting SOEs, while South Korea adopts a systemic approach that spans across sectors, addressing both private

and public financial risks. The absence of elaborated financial sector resolution strategy in Indonesia limits its ability to address systemic financial risks and achieve macroeconomic stability during crises.

Regulatory Framework

South Korea benefits from flexible and comprehensive legal frameworks that enable market-driven solutions like ABS and discounted asset valuations, whereas Indonesia's regulatory mandates require NPL purchases at full principal value. This rigidity in Indonesia's regulations restricts the adoption of innovative mechanisms and market-aligned practices, reducing efficiency and market participation.

Operational Efficiency

Indonesia's operational processes lack standardization, with inconsistent valuation methods and manual auction processes, while South Korea employs streamlined, transparent, and digitalized workflows. These inefficiencies in Indonesia deter private sector engagement, and prolong resolution timelines.

Market Development

South Korea has a developed secondary market for NPLs that ensures liquidity and facilitates risk-sharing, whereas Indonesia lacks such a market, constraining liquidity and investor engagement. Without a secondary market, Indonesia's framework cannot attract diverse investors or achieve competitive pricing for distressed assets.

Crisis Preparedness

South Korea's KAMCO acts as a systemic stabilizer, acquiring residual distressed assets during crises, while Indonesia lacks a centralized public entity with a similar mandate. Without such an entity, Indonesia's capacity to manage systemic risks during financial crises remains limited.

5.2 Recommendations

5.2.1 Recommendations for Indonesia's NPL Resolution Framework Improvement

Based on the identified gaps in Indonesia's NPL resolution framework, the following recommendations aim to align the framework with global best practices and enhance its systemic impact, operational efficiency, and market integration.

1. Strategic Orientation: Toward a Systemic Approach

Recommendation: Expand the scope of NPL resolution efforts to include cross-sectoral strategies addressing both private and public financial risks.

- Broaden the mandate of AMCs, such as PPA, to manage NPLs from various sectors, including private banks, non-bank financial institutions, and corporates.
- Encourage collaboration between regulators and financial institutions to identify systemic risks early and implement sector-wide resolution strategies.
- Promote the acceleration and centralization of NPL resolution for financial institutions through an off-balance sheet approach to mitigate systemic risks.

2. Regulatory Framework: Enhance Flexibility and Innovation

Recommendation: Revise or make an exception of regulations to allow market-driven solutions and innovative tools.

- Permit discounted valuations for NPL purchases to reflect market conditions and attract private sector participation.
- Enhance the implementation of legal framework for securitization, including Asset-Backed Securities (ABS) and Special Purpose Vehicles (SPVs), to enhance liquidity and facilitate risk-sharing.

- Harmonize Indonesia's NPL regulations with international standards, such as Basel guidelines, to attract foreign investment and promote global collaboration.

3. Operational Efficiency: Standardize and Streamline Processes

Recommendation: Establish standardized operational procedures to improve transparency and efficiency.

- Develop uniform valuation standards across all banks, with mandatory use of independent appraisers to ensure credibility and consistency.
- Implement centralized and digitalized auction platforms for NPL transactions to reduce manual inefficiencies and enhance transparency.
- Introduce real-time tracking and reporting systems for NPLs to streamline resolution timelines and improve monitoring.

4. Market Development: Establish a Secondary Market for NPLs

Recommendation: Create a regulated secondary market to facilitate the trading of distressed assets.

- Develop a centralized platform for NPL trading with clear governance and operational guidelines to attract institutional and private investors.
- Offer tax incentives and regulatory support for private sector participants to encourage liquidity and competitive pricing.
- Promote public-private partnerships to build a robust market infrastructure and expand access to diverse investment opportunities.

5. Crisis Preparedness: Establish a Systemic Stabilizer

Recommendation: Create a centralized public entity to manage residual distressed assets and act as a stabilizing force during crises.

- Design a national AMC with a broad mandate similar to KAMCO to acquire, pool, and dispose of residual NPLs during systemic crises.
- Equip the entity with sufficient funding mechanisms, such as government-backed bonds or public-private financing models, to ensure its operational sustainability.
- Ensure the entity's operations are transparent and aligned with market-driven principles to foster efficiency and trust.
- Strengthening cooperation and collaboration between a public AMC and Indonesia Deposit Insurance Corporation (Lembaga Penjamin Simpanan, LPS), to establish a robust NPL resolution ecosystem similar to the coordination between KAMCO and KDIC in South Korea.

6. Capacity Building and Collaboration

Recommendation: Strengthen institutional capacity and international collaboration.

- Conduct training programs for banking professionals on innovative NPL management tools and global best practices.
- Facilitate knowledge exchange with international institutions, such as KAMCO, to learn from their experiences and adopt proven strategies.
- Engage with regional and global forums to align Indonesia's framework with evolving standards and practices.

5.2.2 Strategic Roadmap for NPL Resolution in Indonesia

The roadmap focuses on short-term, medium-term, and long-term actions to address the identified gaps in Indonesia's NPL resolution framework, ensuring alignment with global best practices while strengthening systemic stability and market efficiency.

Short-Term Actions (1–2 Years)

Objective: Establish the foundational regulatory, operational, and market frameworks for NPL resolution.

1. Regulatory Reforms

- Introduce interim regulations to standardize asset valuation practices across financial institutions.
- Draft proposed changes to the law for allowing discounted valuations of NPLs to reflect market conditions and encourage asset disposal.
- Draft laws to enable Asset-Backed Securitization (ABS) and Special Purpose Vehicles (SPVs) as mechanisms for liquidity enhancement and risk-sharing.

2. Operational Enhancements

- Develop and launch a centralized digital platform for auctioning NPLs, ensuring transparency, efficiency, and accessibility for investors.
- Initiate pilot open bidding projects to test market readiness, focusing on high-value NPL portfolios.

3. Market Development

- Engage stakeholders, including regulators, banks, and private investors, to define the structure and governance of a secondary market for NPLs.
- Collaborate with institutional investors to assess their participation needs and expectations.

4. Capacity Building

- Train financial institution personnel on best practices in NPL management, focusing on valuation, securitization, and auction techniques.
- Partner with international entities like KAMCO for knowledge exchange and strategy development.

Medium-Term Actions (3–5 Years)

Objective: Scale up and operationalize systemic solutions and market mechanisms for effective NPL resolution.

1. Framework Implementation

- Fully implement ABS frameworks, enabling the pooling and securitization of NPL portfolios to enhance liquidity.
- Expand the mandate of PT Perusahaan Pengelola Aset (PPA) to include the acquisition and management of residual distressed assets across sectors, ensuring systemic impact.
- Create policy to promote the acceleration and centralization of NPL resolution for financial institutions through an off-balance sheet approach to mitigate systemic risks, optimize use of AMCs.

2. Market Operationalization

- Establish a regulated secondary market for NPLs, providing a transparent platform for trading distressed assets with clear governance and oversight.
- Offer tax incentives and regulatory support to attract private sector participants and institutional investors to the secondary market.

3. Global Integration

- Align Indonesia's NPL resolution framework with international standards, such as Basel guidelines, to facilitate cross-border investment and collaboration.
- Build partnerships with international investors and distressed asset managers to enhance capital inflows and expertise.

Long-Term Goals (5–10 Years)

Objective: Establish a mature, market-driven, and innovation-led NPL resolution framework, positioning Indonesia as a regional leader in distressed asset management.

1. Crisis Preparedness and Systemic Risk Management

- Establish a centralized public entity with a broad mandate to acquire, pool, and dispose of residual NPLs during financial crises, acting as a systemic stabilizer.
- Ensure the entity is financially sustainable through funding mechanisms such as government-backed bonds and public-private partnerships.

2. Market Maturity and Expansion

- Position Indonesia's secondary NPL market as a hub for regional distressed asset trading, leveraging its transparency and efficiency to attract global investors.
- Enable securitized NPL instruments to be traded in financial markets, increasing liquidity and fostering integration into global capital markets.

3. Global Recognition and Leadership

- Actively participate in international forums to showcase Indonesia's NPL resolution framework and promote its success as a model for emerging economies.
- Establish Indonesia as a thought leader in distressed asset management, offering expertise and partnerships to other countries.

5.3 Conclusion

The analysis of Non-Performing Loan (NPL) resolution frameworks highlights significant differences between South Korea's comprehensive and systemic model, led by the Korea Asset Management Corporation (KAMCO), and Indonesia's fragmented approach. South Korea's framework stands as a global benchmark, integrating advanced mechanisms such as Asset-Backed Securitization (ABS) and OnBid Platform, private sector engagement, and secondary market development, supported by a robust legal foundation. These elements enable KAMCO to address systemic risks, ensure financial stability, and achieve efficient asset recovery.

In comparison, Indonesia's framework, characterized by internal bank workouts and limited AMC-led initiatives, faces constraints in regulatory flexibility, operational efficiency, market infrastructure, and innovation. The lack of a developed secondary market, valuation practices, and minimal use of advanced tools limit its capacity to address systemic risks effectively.

To address these gaps, a strategic roadmap has been proposed. Key recommendations include regulatory reforms to allow market-driven solutions, operational standardization and digitalization, development of a secondary market with active private sector participation, and the establishment of a centralized public entity for crisis management. These measures, coupled with capacity building and international collaboration, will enhance Indonesia's ability to resolve NPLs efficiently and align with global best practices.

By adopting a holistic, innovative, and market-driven approach, Indonesia can strengthen its financial resilience, attract diverse investment, and position itself as a regional leader in distressed asset management. The findings provide actionable insights for policymakers and stakeholders, offering a pathway toward long-term financial stability and economic growth.

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