



# Strategies for Developing Asia's Nonperforming Loan Markets and Resolution Mechanisms

Junkyu Lee, Cyn-Young Park, Daekeun Park,  
and Peter Rosenkranz

## 8.1 Introduction

A buildup of nonperforming loans (NPLs) poses a risk to banks' balance sheet health and financial soundness. NPLs reduce interest income, lower profitability, and deplete banks' capital bases. They also require higher risk weights and minimum loss coverage in banks' capital requirements, straining liquidity and increasing funding costs. With less money available to extend new loans, banks' capacity to lend and make profits is further constrained. NPLs also have negative impacts on bank management as their resolution takes time and effort which could be better utilized on core business. In addition, NPLs may cause banks to lose business relationships with customers.

Unresolved NPLs not only inflict direct damage on banking systems, but also eventually cast long shadows on entire economies by keeping banks from adequately performing the role of financial intermediaries, slowing overall economic activity. The adverse effects of NPLs on overall macroeconomic activities are well established in theoretical models and empirical regularities. A broad spectrum of theoretical and empirical studies offers a good background for the interactions between NPLs and the macroeconomic performance of an economy through the role of financial intermediation.

The economic literature investigating the role of financial intermediation in macroeconomic outcomes has increased significantly in the past several decades. Some theoretical models have focused on the amplifying effects of financial institutions and markets on broader economic activity and business cycles when a real or financial shock affects access to finance. Bernanke, Gertler, and Gilchrist (1996) coin the term "financial accelerator," building

on the pioneering work of Bernanke (1981, 1983) and Bernanke and Gertler (1989). A variety of the financial accelerator models offer a theoretical basis to explain the link between the financial system and the real economy. For example, asymmetric information and financial market imperfection can amplify and propagate a shock to affect broad economic conditions through sudden changes in credit market conditions and limit firms' access to finance. The financial accelerator literature further developed in Bernanke, Gertler, and Gilchrist (1999) and Kiyotaki and Moore (1997) provides one of the most prominent theoretical frameworks for thinking about the macrofinancial linkages of NPLs.

Empirical studies also confirm adverse macrofinancial feedback effects of NPLs. The magnitude differs depending on the sample group of countries and the sample period. However, these studies demonstrate that an increase in NPL ratios generates a strong, albeit short-lived negative response in economic activities such as output growth, employment, and credit growth (Espinoza and Prasad 2010, Nkusu 2011, De Bock and Demyanets 2012, Klein 2013, Lee and Rosenkranz 2019). In that vein, Chapter 4 also discusses the negative impact of NPLs on bank lending and macroeconomic conditions in 12 euro area countries.

More than anything else, a large and sustained buildup of NPLs may signal the specter of a banking crisis that could develop into a nationwide financial crisis, levying a heavy toll on the entire economy. Moreover, such a crisis is likely to spread across borders as impacts spill into broader economies given closer connections through international banking and financial activities.

Noting the key role that NPLs play in financial crises, Caprio and Klingebiel (1996), Drees and Pazarbasioglu (1998), and Kaminsky and Reinhart (1999) suggest a large increase in NPLs as a signal that might directly or indirectly help predict financial crises. A credit crunch that accompanies a financial crisis often exerts disproportionately large influence on small and medium-sized enterprises (SMEs), households, and infrastructure financing, hindering inclusive growth.

Once NPLs occur, they can be resolved by internal workout efforts of banks, including debt collection, debt restructuring, and debt write-off. NPL markets provide banks with additional means of resolving NPLs by enabling them to remove NPLs from loan portfolios through direct sale to NPL investors or through securitization. NPL markets and NPL resolution frameworks enable banks to sustain financial soundness and to adequately perform their role

of financial intermediation. They serve as financial stabilizers and crisis management tools, and contribute to financial development, which justifies the adoption of strategies to develop NPL markets nationally.

Developing NPL markets and NPL resolution frameworks, in addition, can help strengthen international financial safety nets. Since the economies in Asia and the Pacific depend heavily on US-dollar-denominated funding and depend on banks as the major channel for such funding, the interplay between NPLs and their macrofinancial impacts are important in the cross-border spillover of financial instability. On one hand, a large buildup of NPLs in a banking system raises the possibility of a currency crisis as international investors withdraw their investment from banks for fear of bankruptcy. On the other, a sharp currency depreciation is likely to deteriorate the quality of banks' assets and eventually lead to a banking crisis. Besides, as demonstrated by ADB (2017), the cross-border linkage of Asian financial markets has grown within the region and around the globe. This leaves Asian financial markets more vulnerable to cross-border spillover of financial shocks and means that the region's policy makers should pay attention to the bank balance sheet channel of cross-border contagion.

As the experience of the Asian financial and the global financial crises highlighted the importance of an international financial safety net for emerging economies in coping with currency and financial crises, emerging economies in Asia have built up theirs. Nationally, they enlarged foreign reserve holdings, while introducing and strengthening macroprudential regulations on financial institutions. Regionally, they have also built up financial safety nets, as exemplified by the Chiang Mai Initiative Multilateralization and the Asian Bond Market Initiative. The latter intends to reduce dependence on bank loans and foreign-currency-denominated external liabilities by fostering markets for local-currency-denominated bonds. Introducing NPL resolution frameworks and developing NPL markets can help strengthen Asia's international financial safety nets by complementing these existing measures.

There is no doubt that developing NPL markets and NPL resolution frameworks will be beneficial in Asia and the Pacific. This is because banks that are the key source of financing in most of the region already hold a large amount of legacy NPLs and are likely to be an important channel of cross-border spillover of financial crises. NPL markets and NPL resolution mechanisms will allow economies to enhance financial stability, manage financial crises, and promote financial development.

Yet, NPL markets are not well developed or do not even exist in some countries in Asia and the Pacific. And even where they do, they are not liquid enough to be of significant help in resolving NPLs. In Europe, too, NPL markets are not well developed even though financial markets and financial industries are well advanced, and NPL resolution after the global financial crisis has been slow and heterogeneous. As Fell et al. (2018) point out, this weighed heavily on bank profitability and ability to make new loans.

These observations demonstrate the inherent difficulties of developing NPL markets. Factors including information asymmetry, tax and accounting impediments, and inefficiency in debt and collateral enforcement hinder their development, and will continue to do so until development strategies are carefully designed to remove these fundamental impediments.

Although many of these strategies can be devised nationally, regional strategies are also needed. One reason for this is the systemic importance of foreign banks and regional banks engaged in cross-border banking activities. A more important reason arises from the negative externalities of financial crises. As the financial interconnectedness in the region deepens, it is more likely that a financial crisis in one economy will spill over to others. Regional strategies and frameworks for NPL resolution are needed to handle these negative externalities. In this regard, regional frameworks for NPL resolution serve as regional public goods.

This chapter suggests strategies to build NPL resolution frameworks and develop NPL markets in Asia based upon the experience of Asian economies to foster NPL markets. Section 8.2 assesses the status of NPLs and NPL markets in Asia, showing that those markets and NPL resolution mechanisms remain inadequate despite persistently high NPL ratios in some economies. Section 8.3 discusses structural impediments due to demand, supply, and institutional factors that hinder the development of NPL markets. Section 8.4 draws lessons from cases of developing NPL markets in Asia, and section 8.5 suggests strategies to develop NPL markets and NPL resolution frameworks based on findings. Section 8.6 concludes.

## 8.2 Nonperforming Loan Markets in Asia and the Pacific

### 8.2.1 Nonperforming Loan Ratios

Economies in the region display a wide range of NPL ratios (Table 8.1), low in some and high and rising in others. NPL ratios are persistently high in economies in Central and West Asia and in South Asia. The 2019 figures in Table 8.1 were collected from the International Monetary Fund (IMF) or official sources. However, it is likely that in some economies, these official figures understate the true nature of their NPL problems. Lack of capital to support NPL provisioning and weak supervision are creating incentives for banks to hide NPLs using practices including manipulation of loan classification and “ever-greening,”<sup>1</sup> among others. As such, independent estimates adjusted for differences in loan classification report much higher numbers than those in Table 8.1.

**Table 8.1: NPL Ratios in Asia and the Pacific**

Economy	2019	2015	Economy	2019	2015
<b>Below 5%</b>			<b>5% to below 10%</b>		
New Zealand	0.5	0.6	Armenia	5.4	7.9
Hong Kong, China	0.6	0.7	Kyrgyz Republic	8.1	7.1
Korea, Republic of	0.9	0.6	Kazakhstan	8.6	8.0
Australia	1.0	1.0	Pakistan	8.8	11.4
Japan	1.1	1.6	India	8.9	5.9
Singapore	1.4	0.9	Maldives	9.6	14.1
Uzbekistan	1.5	0.4	<b>Above 10%</b>		
Malaysia	1.6	1.6	Azerbaijan	10.1	4.9
Viet Nam	1.8	2.9	Bhutan	10.9	11.9
PRC	1.8	1.5	Bangladesh	11.5	9.3
Cambodia	2.1	1.6	Afghanistan	12.7	12.3
Philippines	2.1	1.9	Tajikistan	31.5	19.1
Georgia	2.6	2.7			
Thailand	3.1	2.7			
Fiji	3.5	1.8			
Samoa	3.9	5.3			
Brunei Darussalam	4.1	0.4			
Sri Lanka	4.8	3.2			

NPL = nonperforming loan, PRC = People's Republic of China.

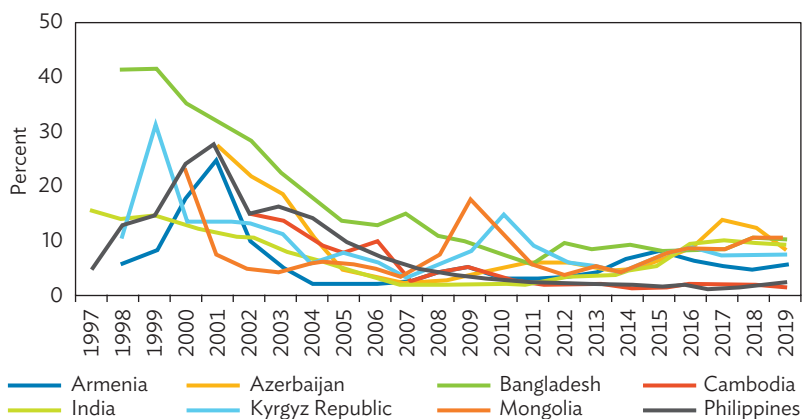
Note: All of the 2019 figures as of September 2019, except for Armenia, Cambodia, the PRC, Fiji, Samoa, Thailand, and Uzbekistan (as of June 2019), and Bhutan, Japan, and Kazakhstan (as of March 2019). Figures for New Zealand and Viet Nam are as of December 2018.

Sources: All of the 2015 figures are from World Development Indicators. Most of the 2019 figures are from the International Monetary Fund (IMF) Financial Soundness Indicators; Azerbaijan: Central Bank of the Republic of Azerbaijan, Statistics. Monetary Indicator, Sectoral Breakdown of Loans. Table 2.8.; Republic of Korea: Financial Supervisory Service. Financial Statistics Information System; New Zealand: 2019 Article IV Consultation – Press Release and Staff Report. IMF Country Report. No. 19/303. Washington, DC; Tajikistan: National Bank of Tajikistan. Financial Soundness Indicators.

<sup>1</sup> “Ever-greening” is a practice in which a bank defers the losses that are associated with an NPL by rolling the loan over and keeping it classified as performing.

In the historical trend of NPL ratios for the eight economies in Asia in Figure 8.1, two spikes are evident: one during the Asian financial crisis and one after the global financial crisis. Since the Asian financial crisis of 1997–1998, NPL ratios have been trending downward in most of these economies. Improvement in banks’ asset quality in the region can be attributed to stronger growth in nominal income and credit as well as supervisory efforts to improve banks’ credit risk management and underwriting practices. In most emerging Asian economies, however, NPL ratios spiked during and/or after the global financial crisis.

**Figure 8.1: NPL Ratios of Selected Asian Countries**



NPL= nonperforming loan.

Note: All figures in 2019 are based on September data, except for Armenia, Cambodia, and Mongolia.

Sources: International Monetary Fund (IMF) Financial Soundness Indicators; World Bank Development Knowledge Open Data; and IMF Country Report. Azerbaijan: Central Bank of the Republic of Azerbaijan, Statistics. Monetary Indicator, Sectoral Breakdown of Loans, Table 2.8.; Bangladesh's figures from 2008 through 2010: Bangladesh Bank. Annual Report for 2009–2010, Table 5.3; and for 2010–2011, Appendix 4; Kyrgyz Republic figures from 1999 through 2009: National Bank of the Kyrgyz Republic. Historical Data from 1993 to 2007, Table 4.3.4., and Statistical Bulletin for 2017. Table 4.3; Mongolia: Staff Calculations based on data from Bank of Mongolia. Banks Outstanding Loan Report.

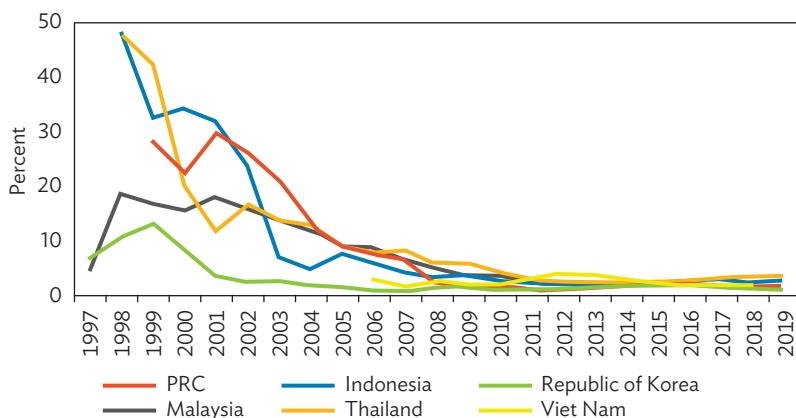
The coronavirus disease (COVID-19) pandemic raises the specter of a global debt crisis. A pandemic-induced economic slowdown implies lower corporate earnings and greater debt servicing burdens on companies, leading to increasing defaults, loss of investor confidence, and potentially widespread credit crunch. With the economic slowdown due to the COVID-19 outbreak, concerns are rising that a considerable number of corporate borrowers could default on their loans, setting off chain reactions in global financial systems.

Developing countries are often vulnerable to a global credit crunch. Countries with large current account deficits, high external debt, and low international reserves typically face financing problems during a global credit crunch. With the prolonged global trade tensions, many Asian economies have experienced a squeeze in their current account surpluses, while some endured the deficits. The external debt-to-GDP ratio for developing Asia was at 33% in 2018, only slightly lower than 34% during the global financial crisis.

As considerable global headwinds continue to exert downward pressure on the region's economic growth—particularly exacerbated by the recent COVID-19 outbreak—NPL ratios in many Asian economies in recent years have begun a trend reversal. Since 2013, NPLs—in level and as a percentage of total amount of loans—have been picking up in many economies, particularly Cambodia, India, and Kazakhstan. Moreover, NPL ratios in 2019 were more than 5% in countries including Bangladesh, India, and Kazakhstan. As jittery market sentiments and a stronger US dollar have accelerated capital outflows from emerging market economies, there are concerns that the NPL problem in these economies will worsen.

NPL ratios in Indonesia, Malaysia, the Republic of Korea, and Thailand, the four Asian economies at the center of the Asian financial crisis, have decreased substantially over the past two decades (Figure 8.2). All of these countries relied on public asset management companies (AMCs) to remove NPLs from banks. The success of these countries in managing NPLs, however, cannot be ascribed to the establishment of public AMCs alone (Chapter 5). Accompanying measures were legal and institutional arrangements designed to help AMCs and banks resolve NPLs as well as NPL resolution measures such as securitization and corporate restructuring.

**Figure 8.2: NPL Ratios of Asian Countries with Public Asset Management Companies**



NPL = nonperforming loan, PRC = People's Republic of China.

Note: Figures for Indonesia, Malaysia, and the Republic of Korea in 2019 are based on September data and for the PRC and Thailand on June data. No 2019 data are available for Viet Nam.

Sources: International Monetary Fund (IMF) Financial Soundness Indicators; World Bank Development Knowledge Open Data; and IMF Country Report. Korea: Financial Supervisory Service. Financial Statistics Information System; Thailand's figures from 1998 through 2005: Bank of Thailand. Financial Soundness Indicators. 1998–2018.

## 8.2.2 Nonperforming Loan Markets and Resolution Frameworks in Asia

NPL markets in which banks can dispose of NPLs are yet to be developed in Asia. Only a few economies in the region have NPL markets in which financial institutions and NPL investors trade NPLs and other distressed assets. In these economies, diverse tools of NPL resolution are also available. In many economies in Asia, however, NPL markets do not exist at all. Even when they exist, they are illiquid and resolution of distressed assets then must rely on global NPL investors who are willing to participate in local NPL markets only at a discount so large that it could be called a fire sale.

No public data is available to show and compare the size of NPL markets in Asian economies in consistent quantitative measures. This chapter presents qualitative measures that give rough estimates of NPL market developments in Asia. Table 8.2 describes some of the AMCs operational in Asian countries. In most of these countries, AMCs were first introduced as a public entity, such as in the four Asian countries directly hit by the Asian financial crisis that established public AMCs to restructure their banking sectors. Some of these public AMCs then ceased to operate as required by sunset



clauses. Later, the People's Republic of China (PRC) introduced four public AMCs to deal with NPLs in its four largest state-owned commercial banks. Table 8.2 also demonstrates that private AMCs operate, especially in countries that introduced public AMCs earlier. The Republic of Korea and Thailand are good examples. The public AMCs, together with government efforts to create an enabling legal and regulatory environment for these public AMCs, laid the ground for the development of NPL markets and the emergence of private AMCs.

**Table 8.2: Asset Management Companies in Asian Economies**

Economy	Asset Management Companies
China, People's Republic of	Four public asset management companies (AMCs) for each of the four largest state-owned commercial banks—China Great Wall Asset Management (for the Agricultural Bank of China); China Orient Asset Management (for the Bank of China); China Huarong Asset Management (for the Industrial and Commercial Bank of China); and China Cinda Asset Management (for the China Construction Bank)—and many local and provincial AMCs are in operation.
Indonesia	After dissolution of Indonesian Bank Restructuring Agency (IBRA), PT Perusahaan Pengelola Aset was established as a state-owned AMC in charge of managing the assets of IBRA, restructuring state-owned enterprises and managing state-owned assets. Indonesian banks rely on private, in-house methods. Foreign banks establish asset management units as nonperforming loan (NPL) warehousing entities.
Japan	Private AMCs as well as public AMCs (Resolution and Collection Corporation and Industrial Revitalization Corporation of Japan) were established to purchase NPLs.
Kazakhstan	Fund of Problem Loans (a public AMC) and OUSAs <sup>a</sup> (private AMCs) are in operation.
Malaysia	After the closure of Danaharta in 2005, private AMCs and debt collection agencies became NPL market players.
Philippines	Privately owned special purpose vehicles and global (multinational) AMCs like Collectius are used to deal with NPLs.
Korea, Republic of	Korea Asset Management Corporation and private AMCs (United Asset Management Corporation, Daishin F&I, etc.) are major NPL market players.
Thailand	Four public AMCs removed NPLs from state-owned commercial banks and Thai Asset Management Corporation (TAMC) acquired NPLs from distressed financial institutions. After TAMC's last acquisition in 2003, Bangkok Commercial Asset Management Company and Sukhumvit Asset Management Company Ltd dominate the NPL market together with small private AMCs.
Viet Nam	Vietnam Asset Management Company purchases NPLs from banks but its NPL resolution function is limited. The Debt and Asset Trading Corporation is in charge of restructuring state-owned enterprises. Bank AMCs and private debt trading companies also participate in the NPL market.

<sup>a</sup> In accordance with Article 11 of the Law of the Republic of Kazakhstan on Banks and Banking Activities, commercial banks may acquire approval from the National Bank of Kazakhstan to establish and operate a subsidiary called OUSA as the sole investor for prompt resolution of NPLs in their possession.

Source: Authors' compilation.

Table 8.3 presents the insolvency resolution framework for some Asian countries, which for many are comparable to international standards. The actual problem, however, may lie with inefficiencies in the judicial system that delay insolvency resolution, thereby increasing the cost of resolving insolvency, as will be discussed later. Table 8.3 also demonstrates that out-of-court corporate reorganization frameworks are available only in a few countries including Japan, Malaysia, the Republic of Korea, and Thailand. Out-of-court corporate reorganization frameworks make it possible to achieve corporate restructuring without going through a lengthy court process.

**Table 8.3: Insolvency Resolution Frameworks in Selected Asian Countries**

Economy	Insolvency Resolution Framework
Brunei Darussalam	Insolvency Order introduced the Company Voluntary Arrangement, a debtor rehabilitation scheme.
Cambodia	Insolvency Law, a modern framework but hampered by ineffective implementation and an underdeveloped judicial framework.
PRC	Enterprise Bankruptcy Law allows two insolvency proceedings: bankruptcy and rehabilitation. Specialized bankruptcy courts allow a sufficiently trained judiciary to resolve insolvency proceedings efficiently.
Indonesia	The Bankruptcy Law provides two procedures: a debt restructuring procedure through suspension of payment and a bankruptcy procedure.
Japan	Court supervised insolvency mechanisms consist of bankruptcy and corporate reorganization. Out-of-court workout procedures also exist.
Lao PDR	No separate liquidation or rehabilitation proceeding. Upon the company or creditor's petition, the court will convene the creditor meeting, which will ultimately decide if the company will be rehabilitated, liquidated, or sold to prospective investors.
Malaysia	The Companies Act introduced Judicial Management, a formal restructuring facility and Corporate Voluntary Arrangement, a pre-insolvency mechanism.
Republic of Korea	Two corporate rehabilitation programs are available, the Debtor Rehabilitation and Bankruptcy Act rehabilitation proceeding and the Corporate Restructuring Promotion Act workout program, an out-of-court proceeding.
Thailand	In the early days of reform, due to inexperience and inefficiencies in the judicial system, most creditors relied on debt restructuring frameworks formed through the Corporate Debt Restructuring Committee. The Bankruptcy Act has two court insolvency proceedings: business reorganization and business liquidation.
Viet Nam	Unlike other Asian insolvency laws, the Law on Bankruptcy has only one general procedure, which can branch out to either restructuring or liquidation.

ASEAN = Association of Southeast Asian Nations, PRC = People's Republic of China, Lao PDR = Lao People's Democratic Republic.

Source: Lee and Rosenkranz (2018).

Table 8.4, meanwhile, shows that in Bangladesh, Cambodia, Mongolia, and Viet Nam, it takes 4 years or more to resolve insolvency through the court process. Two years ago, India would have belonged to this group, but time and cost of resolving insolvency have been reduced dramatically through reform of the insolvency law and framework. The table also demonstrates that recovery rates are very low in many Asian economies. Longer insolvency resolution and lower recovery rates translate into higher costs of debt and collateral enforcement. This high cost of debt enforcement makes it difficult for financial institutions to resolve NPLs and for those economies to develop NPL markets, because NPL investment is unprofitable for NPL investors.

**Table 8.4: Time and Cost of Resolving Insolvency in Asian Economies**

Economy	Time (years)	Recovery Rate (cents on the US dollar)	Cost of Recovery (% of estate)
Afghanistan	2.0	26.7	25.0
Armenia	1.9	39.2	11.0
Azerbaijan	1.5	39.7	12.0
Bangladesh	4.0	29.1	8.0
Brunei Darussalam	2.5	47.2	3.5
Cambodia	6.0	14.6	18.0
China, People's Republic of	1.7	36.9	22.0
Hong Kong, China	0.8	87.2	5.0
India	1.6	71.6	9.0
Indonesia	1.1	65.5	21.6
Japan	0.6	92.1	4.2
Kazakhstan	1.5	39.8	15.0
Korea, Republic of	1.5	84.3	3.5
Kyrgyz Republic	1.5	40.6	9.5
Malaysia	1.0	81.0	10.0
Maldives	1.5	50.2	4.0
Mongolia	4.0	18.2	15.0
Pakistan	2.6	42.8	4.0
Philippines	2.7	21.1	32.0
Singapore	0.8	88.7	4.0
Sri Lanka	1.7	43.0	10.0
Tajikistan	1.7	29.6	17.0
Thailand	1.5	70.1	18.0
Uzbekistan	2.0	34.4	10.0
Viet Nam	5.0	21.3	14.5

Source: World Bank Doing Business 2020 Database.

### 8.3 Impediments to Nonperforming Loan Market Development

As noted, Asia and the Pacific is not the only region where active NPL markets have failed to emerge. In Europe, where financial markets and financial industries are more developed, NPL markets are also not fully developed and efficient (Chapters 6 and 7). This suggests that demand-side and supply-side impediments as well as structural problems often inhibit proper functioning of NPL markets and NPL resolution frameworks.

#### 8.3.1 Demand-Side Factors of Market Failure

Fell et al. (2016), discussing why secondary markets for NPLs are not active in Europe, point out that the low volume of NPL transactions despite heavy buildup of NPLs in European banks and wide bid-ask spread are indicative of typical market failure. They argue that all of the three fundamental sources of market failure, information asymmetry, lack of competition, and insufficient control, are applicable to European NPL markets. First of all, NPL markets are characterized by information asymmetries in that banks have an information advantage over investors about the quality of NPLs and collaterals. This causes a large gap between the prices that investors are willing to pay for NPLs and the prices that banks are willing to accept. Second, barriers to entry arising from institutional factors, such as licensing requirements as well as from established capacity to value NPLs, make NPL markets dominated by a few large investors, giving them the characteristics of oligopsony. Third, investors in NPLs may have to compete with other creditors if multiple creditors extended loans to the same debtor. It is likely that all of these three sources of market failure apply to economies in Asia and the Pacific region as well. Many of these economies do not have active NPL markets despite a large buildup of NPLs on the balance sheet of their banks.

#### 8.3.2 Supply Factors

The reluctance of banks to dispose of NPLs from their balance sheets also hinders development of active NPL markets by limiting the supply of NPLs to the market. A steady supply is essential for developing NPL markets in that domestic NPL investors need business volume during normal times as well as during financial crises. A few reasons may explain why banks are reluctant to sell their NPLs. First, large bid-ask spreads typical of NPL markets imply that banks are likely to realize a loss when they dispose of NPLs through the market, which hurts capital adequacy ratios and the

evaluation of the incumbent management (Fell et al. 2016; Ciavoliello et al. 2016). Instead of realizing a loss, banks would rather hold on to their NPLs and wait for a possible recovery in asset prices. Banks are also afraid of the stigma associated with NPL sales.

Second, in Europe, accounting standards or regulations that do not allow the cost of debt recovery to be fully recognized in the book value of NPLs may create a large discrepancy between the economic value and the book value of NPLs. This in turn creates disincentives to increase the supply of NPLs, which will be stronger in countries where the cost of debt recovery is significant due to an inefficient legal system for debt and collateral enforcement. In some Asian countries, the cost of debt recovery could be significant, as it takes several years to enforce a claim through the judicial system.

Third, legal and regulatory restrictions on loan sales may further hinder the market supply of NPLs. For example, in 2012, the Indonesian Constitutional Court issued a ruling prohibiting state banks (but not private banks) from restructuring or selling NPLs at a discount. This represented a significant challenge to NPL resolution in the banking industry, where the main overhang of NPLs was within state banks. Until 2015, the Vietnamese AMC's were prohibited from selling NPLs at a price lower than their book value, making it difficult for secondary markets for NPLs to appear.

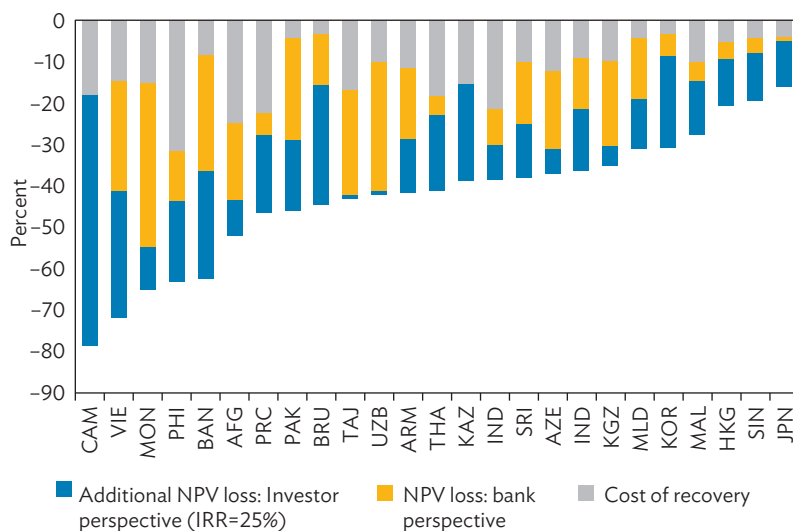
### **8.3.3 Structural Factors: Legal and Institutional Elements**

Structural factors such as inefficiency in debt and collateral enforcement may also impede the development of NPL markets. In some countries, the legal procedure needed to enforce debt and collateral may take too long and costs too much, increasing debt recovery cost. In some cases, it is not the insolvency law but the capacity of the judicial system that is responsible for inefficiency in debt and collateral enforcement. For example, the World Bank's Doing Business 2015 report states that Cambodia's Insolvency Law is a modern framework comparable to international standards but resolving insolvency in Cambodia has been hampered by ineffective implementation and an underdeveloped judicial framework. The insolvency process is criticized for lacking judicial experience as well as established precedents.

Faced with high legal cost and uncertainty, investors with limited information would use a much higher discount rate in evaluating the value of NPLs, creating a wider bid-ask spread. Adopting the same framework as in Fell

et al. (2016), Figure 8.3 illustrates three key sources of the bid-ask spread arising from inefficiency in debt enforcement. The gray segment of the bars represents the reported average cost of enforcing claims through individual legal systems, the yellow segment represents the net present value (NPV) loss from the bank perspective arising from delays in debt recovery, and the blue segment represents the additional NPV loss from the investor perspective. The NPV loss from the bank perspective is computed using the average bank lending rate of each economy in 2019 as the discount rate. The NPV loss from the investor perspective is computed using a discount rate of 25%, assumed to represent the premium required by investors for the risk of acquiring NPLs.<sup>2</sup> The blue segment is the difference between the NPV loss from the investor perspective and that from the bank perspective.

**Figure 8.3: Bid-Ask Spreads Caused by Inefficient Insolvency Framework**



AFG = Afghanistan; ARM = Armenia; AZE = Azerbaijan; BAN = Bangladesh; BRU = Brunei Darussalam; CAM = Cambodia; HKG = Hong Kong, China; IND = India; INO = Indonesia; IRR = internal rate of return; JPN = Japan; KAZ = Kazakhstan; KOR = Republic of Korea; KGZ = Kyrgyz Republic; MAL = Malaysia; MLD = Maldives; MON = Mongolia; NPV = net present value; PAK = Pakistan; PHI = Philippines; PRC = People's Republic of China; SIN = Singapore; SRI = Sri Lanka; TAJ = Tajikistan; THA = Thailand; UZB = Uzbekistan; VIE = Viet Nam.

Note: For Cambodia and Kazakhstan, only the total NPV loss is reported without being separated between bank perspective and investor perspective. The bank lending rate data is not available in these economies.

Source: Authors' calculations based on data from World Bank Doing Business 2020.

<sup>2</sup> Based on available anecdotal evidence, Ciavoliello et al. (2016) suggest using an internal rate of return (IRR) between 15% and 25%. Since the average bank lending rate exceeds 20% in some Asian economies, an IRR of 25% is adopted. Using a higher IRR increases the net present value loss.

Under the assumption of a discount rate of 25%, the bid-ask spread is likely to exceed 30% in 21 of these 25 economies.<sup>3</sup> In six economies, the spread exceeds 50%. Inefficiency in debt and collateral enforcement not only deters potential investors from participating in NPL markets, but also makes it difficult for AMCs to resolve the NPLs they acquire from banks. It is because AMCs, like other potential investors in NPLs, will be facing longer resolution times and higher costs. This will certainly deter the emergence of private AMCs. Even if governments establish public AMCs, in the absence of a special legal framework for efficient debt enforcement, these are likely to end up as NPL warehouses as they would likely be unable to find investors to purchase NPLs.<sup>4</sup>

Legal uncertainty about the transferability of NPLs and collateralized properties also deters the development of NPL markets. For example, in the PRC, NPL transactions can be ruled invalid on various grounds, including the existence of a broad “public interest.” And local governments in the PRC retain the first right of refusal in selling NPLs out of AMCs. Foreign NPL investors are required to obtain the consent of the National Development and Reform Commission, in a process that can take up to 3 months or more. In Viet Nam, legal uncertainty about registration of property ownership for foreigners makes foreign NPL investors reluctant to acquire NPLs to which real properties are attached as collateral. In Mongolia, a large portion of NPLs in the mining sector are collateralized by mining licenses, but Mongolian banks find it difficult to recover NPLs by disposing of mining licenses because of the regulation that allows acquisition of mining licenses by qualified firms only.

### **8.3.4 Sector-specific Factors and Unfavorable Macrofinancial Conditions**

Sector-specific factors may also contribute to increases in NPLs and negatively affect their resolution. The concentration of NPLs in a specific sector may make it difficult to recover NPLs through the disposal of collateral. Since collateral in real estate sector loans is mostly property, the concentration of NPLs in the real estate sector makes it difficult to recover NPLs by disposing of collateral because such attempts by banks will put

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<sup>3</sup> Even with the modest discount rate of 15%, the bid-ask spread is likely to exceed 30% in 15 of these 25 economies.

<sup>4</sup> For the National Asset Management Agency in Ireland, for example, a strong legal mandate with an objective of rapid enforcement put it in a position to quickly sell assets, not loans.

further downward pressure on property prices.<sup>5</sup> In Mongolia, NPLs have been concentrated in the mining sector as the bust in global commodity prices depressed the mining industry. Collateral for NPLs of mining companies includes heavy machinery and mining licenses. Heavy mining machinery, however, is specialized for mining use only and given that the sector was depressed in general, banks found it difficult to dispose of mining equipment.

Unfavorable macrofinancial conditions and the failure of macroeconomic and financial market policies to achieve economic stability and deliver plausible economic prospects may also delay NPL resolution and deter NPL market development. This is because macrofinancial conditions can have a direct impact on future cash flows from NPLs, both from the operations of the borrower and from the sale of collateral. Thus, policies that stabilize the economy and deliver plausible economic prospects will help secondary NPL market development and functioning. This positive impact can accrue not only through increases in asset values and economic expansion, but also through reduced uncertainty.

## **8.4 Case Studies of Developing Nonperforming Loan Markets in Asia**

Despite impediments to developing NPL markets, some countries in Asia tried to build NPL resolution frameworks and develop NPL markets. Most of these attempts were motivated by the need to have their banks restructured in the middle of a banking crisis. This section discusses a few country cases of developing NPL markets and NPL resolution frameworks. The case study begins with the four Asian countries directly hit by the Asian financial crisis. This will be followed by the cases of three other Asian countries, the PRC, Viet Nam, and Kazakhstan. These countries were not directly hit by the Asian financial crisis but tried to introduce NPL resolution frameworks and develop NPL markets to deal with their own banking problems.

### **8.4.1 Countries Directly Hit by the Asian Financial Crisis**

The banks in the four Asian countries hit directly by the Asian financial crisis—Indonesia, Malaysia, the Republic of Korea, and Thailand—were suffering from rapidly ballooning NPLs and rapidly depleting foreign exchange reserves and had difficulties in resolving NPLs in the absence of

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<sup>5</sup> In this case, a public AMC might be an appropriate policy response, to act as a warehouse of property related loans, which can be hoarded and released to the market at the appropriate time.



NPL markets. In response, these countries introduced and strengthened their NPL resolution frameworks to have their banking sectors restructured. Developing NPL resolution frameworks was part of the holistic approach to restructure the banking sector, which also included mergers and acquisitions, purchase and assumption, and bank recapitalization. AMC's were one of the main pillars of the NPL resolution framework in these countries (Chapters 2 and 5). All of these countries established centralized public AMC's to remove NPLs and other distressed assets from the balance sheets of the banking sector.

In addition to establishing public AMC's, these countries took measures to improve the legal and institutional environment for NPL resolution with a view to facilitating AMC's' operations, including in acquisition and disposal of NPLs. The adoption of these measures was motivated by the necessity to promptly remove massive amounts of NPLs from financial institutions with limited public funding. To achieve this goal while minimizing taxpayers' burden, AMC's had to promptly recover as much value as possible from the NPLs they acquired. The measures to provide AMC's with an enabling environment for NPL resolution included introducing legal and regulatory frameworks to strengthen bank supervision, introducing and revising legislation on insolvency, embarking on judicial reforms to improve the efficiency of court-driven debt enforcement processes, and introducing out-of-court corporate restructuring mechanisms.

For instance, Malaysia undertook legal and judicial reforms to enhance efficiency in court-driven insolvency process. The Bankruptcy Law and the Foreclosure Law were amended a few times between 1988 and 2000. Judicial reforms included the introduction of a pretrial case management scheme intended to reduce unnecessary delay in court processes and the creation of new commercial courts and new civil courts to reduce the backlog of insolvency cases. In addition, the Thai government established the Corporate Debt Restructuring Committee to assist financial institutions with out-of-court corporate restructuring. A framework was established that provided regulatory and tax inducements to contractually bind debtors and creditors. Indonesia also amended the Bankruptcy Law to promote prompt and fair resolution of commercial disputes and to provide a framework to encourage out-of-court debt settlements. To facilitate the rapid disposal of NPLs, the Republic of Korea government adopted diverse NPL resolution measures, namely asset-backed securities and corporate restructuring vehicles. Legal foundations for these new measures were established and tax benefits were introduced to provide tools with tax neutrality.

It turned out that not only were AMCs helpful in resolving NPLs of the banking sector, but the legal and institutional environment created to facilitate the operation of these AMCs were also helpful in fostering NPL markets that did not exist before the Asian financial crisis. Operations of the AMCs also contributed to developing the NPL market ecosystem by creating business opportunities for NPL market service agencies such as debt servicing agencies, asset appraisers, credit rating agencies, lawyers, and brokers. Diverse NPL investors, including domestic private AMCs, private equity funds, and foreign investors, appeared and participated in their NPL markets, utilizing diverse tools of NPL resolution. The NPL markets and the ecosystems developed in these countries not only contributed to financial development but may also have helped these countries avoid massive NPL accumulation during periods of financial market turbulence. For example, as can be seen in Figure 8.2, Indonesia, Malaysia, the Republic of Korea, and Thailand, unlike other Asian countries, did not experience a hike in the NPL ratio during the global financial crisis and its aftermath.

#### **8.4.2 The People's Republic of China, Viet Nam, and Kazakhstan**

The PRC, Viet Nam, and Kazakhstan tried to build NPL resolution frameworks and NPL markets to deal with their own banking problems. They adopted public AMCs as the main component of their NPL resolution frameworks. But initially they failed to create active secondary NPL markets because of restrictions on the operation of AMCs, the absence of an enabling environment for AMCs and NPL investors, and inefficient legal and a judicial framework for debt enforcement. Realizing the limitations of the government bailout approach, the PRC and Viet Nam began adopting a more market-friendly approach, removing restrictions on the operation of AMCs and reforming the legal and judicial systems to create an enabling environment for NPL market development.

##### ***People's Republic of China***

The PRC established four public AMCs—Cinda, Huarong, Orient, and Great Wall—to resolve NPLs held by the four largest state-owned commercial banks. Though these AMCs were helpful in resolving NPLs held by state-owned commercial banks, resolution of the NPLs acquired by these AMCs was slow. This was because secondary NPL markets were not active, due to restrictions on the operation of these AMCs. For example, in the beginning, these AMCs had to acquire NPLs from their partner state-owned commercial bank at book values, making it difficult for them to recover

NPLs through sale to other investors. Besides, efforts to resolve NPLs by financial institutions and AMCs were hindered by inefficient insolvency resolution frameworks.

As the amount of NPLs of the Chinese banking system began growing rapidly from 2012, the PRC government stepped up its efforts to resolve NPLs. This time, however, the policy toward NPL resolution changed from the previous government bailout approach to the multipronged market-based approach. New measures were adopted to create and improve the NPL market environment. These measures included enhancing the role of AMCs, establishing a conducive legal system, and strengthening the regulation on NPL recognition and provisioning.

First, the role and number of AMCs were expanded. More provincial and local AMCs were established. As of October 2018, 174 AMCs including 53 local AMCs were in operation, serving as conduits between banks and NPL markets. Although NPL investors were still required to acquire NPLs through AMCs, restrictions on the operation of AMCs were removed so that these could recover NPLs by selling them to other NPL investors. NPL transfers from financial institutions to AMCs changed from acquisition at book value to auctions, allowing AMCs to acquire NPLs at market prices rather than book values.

The legal system for insolvency resolution and debt enforcement has continuously been improved through amendments and modifications to the related laws and the judicial system. As a result, the entire legal process to enforce NPLs now takes approximately 2 years, much shorter than the 5 years of a decade ago. Fanger (2018) states that predictability and enforceability pertaining to NPL resolution have improved significantly as the quality of legal practitioners has improved and as regulations provide clear protection of creditor rights.

The China Banking and Insurance Regulatory Commission<sup>6</sup> also stepped up regulatory efforts to enforce recognition and resolution of NPLs. For example, Circular 46 issued in April 2017 listed and prohibited over 50 accounting practices that financial institutions had used to understate their credit exposure and to warehouse their problem loans. Similar to the outcomes in Europe (Chapter 7), the regulatory efforts, together with

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<sup>6</sup> The China Banking Regulatory Commission and the China Insurance Regulatory Commission were merged into the China Banking and Insurance Regulatory Commission in March 2018.

extensive on-site examinations and heavier penalties, have increased the amount of NPLs recognized and have accelerated the flow of NPL supply to NPL markets.

### **Viet Nam**

The NPL resolution framework in Viet Nam before 2015 consisted of two public AMCs, Debt and Asset Trading Corporation and Vietnam Asset Management Company, and bank AMCs. The Debt and Asset Trading Corporation was established in 2003 to restructure state-owned enterprises, and later mandated also to resolve NPLs held by credit institutions. Although it contributed significantly to restructuring and equitizing state-owned enterprises, its debt purchases from banks have been very modest. The Vietnam Asset Management Company was established in 2013 by the State Bank of Viet Nam to deal with the NPL problem. In addition, bank-specific AMCs were introduced to deal with the NPL problem caused by the Asian financial crisis. These AMCs dealt with the NPLs of the parent bank only.

Before the global financial crisis, domestic credit in Viet Nam rapidly expanded, fueled by widespread policy lending. The economic downturn and the decline in real estate prices, however, resulted in rapid growth of NPLs. The Vietnam Asset Management Company purchased NPLs from banks in exchange for special Vietnam Asset Management Company bonds. These bonds could be used as collateral to borrow money from the State Bank of Viet Nam. All banks with an NPL ratio of above 3% were required to sell NPLs to the asset management company. However, the company was not allowed to purchase NPLs at market prices nor was it allowed to resell NPLs at a discount. Because of these restrictions, the NPL resolution efforts of the Vietnam Asset Management Company were limited to such activities as urging repayments, restructuring debts, and disposing of collateral.

Although 2 public AMCs and about 20 private AMCs were in operation, secondary market NPL transactions were not active in Viet Nam. This was because AMCs were not able to trade the NPLs they acquired due to restrictions that prohibited these AMCs from purchasing NPLs from banks at a discount from book value. The legal system for debt enforcement in Viet Nam was not favorable to NPL market development either. Enforcement of debt in Viet Nam used to demand a lengthy and costly court process to settle disputes. According to the World Bank's Doing Business Index in 2018, Viet Nam's bankruptcy procedures ranked 129th in the world. The insolvency process in Viet Nam took 5 years on average, compared with an average of 2.8 years in Southeast Asia.

Faced with a rapid buildup of NPLs in the financial sector, however, the Vietnamese government began taking a market-based approach to NPL resolution in 2015. To enhance the function of the Vietnam Asset Management Company, the government allowed it to purchase NPLs from financial institutions at market prices. This was expected to facilitate the sale of NPLs to foreign investors, activating secondary NPL markets. In addition, Resolution No. 42 introduced several measures to remove difficulties in dealing with NPLs, creating a favorable environment for NPL market development. These measures included allowing financial institutions and the Vietnam Asset Management Company to foreclose collateral to enforce debt, reducing the procedures to resolve disputes related to collateral by introducing a shortcut court procedure, and allowing banks and the Vietnam Asset Management Company to sell NPLs and distressed assets to organizations and individuals. These measures removed difficulties in dealing with NPLs and collateral by affirming the creditor rights of banks and the Vietnam Asset Management Company to seize collateral.

The market-based measures seem to have contributed to developing the NPL market in Viet Nam, which has grown in number and diversity of market participants. Yet, room for improvement still exists. Tuan (2018) argues that although Resolution No. 42 created the legal framework to induce debt trading business and to strengthen creditor rights, the development of NPL markets has been slow because regulations and decrees to support Resolution No. 42 are still incomplete and some of the measures are in conflict with existing laws and regulations.

For example, Tran (2019) points out that Resolution No. 42 specifically states that the Vietnam Asset Management Company, Debt and Asset Trading Corporation, and bank AMCs can seize collateral without court arbitration after a certain period. But it does not clearly state whether other investors can also seize collateral without a court process. In addition, enforcement of court decisions remains lengthy, taking up to 2 years.

### **Kazakhstan**

Kazakhstani authorities have taken policy measures to remove NPLs from the banking system since 2012. These measures include establishing AMCs such as the Fund of Problem Loans and OUSA (subsidiary established by commercial banks to manage NPLs), strengthening supervision of NPLs, and amending the tax code to encourage NPL resolution by banks. In 2015, the tax code was amended to eliminate tax barriers to NPL provisioning

and to encourage NPL divestment and write-off. Before the amendment, the tax code had strictly restricted the tax deduction effect from loan-loss provision.

These policy measures, however, have not been an effective solution to the NPL problem in Kazakhstan. Nor have they been effective in fostering NPL markets there. According to Chae (2015), the number of NPL transactions by the Fund of Problem Loans has been limited and the cooperation between banks and the fund has been passive. Banks' reluctance to sell NPLs, disagreement over price and acquisition structure, limitations on the types of collateral subject to acquisition, and inadequate Fund of Problem Loans capital are noted as the main reasons.<sup>7</sup> For instance, banks were required to share the risk of further asset impairment with the AMC and compensate potential losses when disagreement occurred between banks' ask price and the AMC's bid price, which made banks reluctant to sell NPLs to the fund. Besides high transfer prices, the limited scope of the AMC's activities is regarded as the reason why it has been ineffective in NPL resolution. The range of the Fund of Problem Loan's activities has been too narrow relative to the scope of the activities of AMCs in other economies and even compared to the range of OUSA activities. Lack of autonomy is also responsible for the unsatisfactory performance of the Fund of Problem Loans in NPL resolution. So far, all internal and external procedures and activities of the AMC have been fully controlled and supervised by the National Bank of Kazakhstan to maintain the safety of transactions and debt collection possibility.

### **8.4.3 Lessons**

Case studies of the Asian countries that attempted to establish NPL resolution frameworks demonstrate that a holistic approach is needed to develop NPL markets. The four countries directly hit by the Asian financial crisis—Indonesia, Malaysia, the Republic of Korea, and Thailand—had modest success in developing NPL markets because the establishment of public AMCs was accompanied by efforts to create an enabling legal and institutional environment to facilitate the operations of AMCs so that they could promptly recover NPLs. Other Asian countries' efforts to develop NPL markets were not so successful, because they did not add to such efforts to create an enabling environment. These countries even imposed restrictions on AMC operations, including restrictions on the prices at

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<sup>7</sup> In 2014, the Fund of Problem Loans was provided with additional capital of tenge 500 billion (about \$2.73 billion as of end-2014).

which they could acquire NPLs from banks. It was only when the PRC and Viet Nam adopted a market-based approach by removing restrictions on AMC operations and by reforming the legal system for debt and collateral enforcement that their NPL markets became active.

## **8.5 A Strategy to Develop Nonperforming Loan Markets and Resolution Frameworks**

### **8.5.1 Two Approaches to Nonperforming Loan Resolution**

Financial institutions and policy makers have adopted a variety of tools to cope with NPL problems. These tools reflect a debtor-focused approach and a bank-focused approach to NPL resolution. The debtor-focused approach supports NPL resolution by enhancing the repayment capacity of debtors and by preserving the value of the debtors' business. Debt restructuring by individual banks, a court-driven insolvency framework, and an out-of-court corporate workout mechanism belong to this approach. The bank-focused approach, on the other hand, focuses on removing NPLs from the balance sheet of banks. Debt write-offs, asset protection schemes, AMCs, securitization, and direct sales belong to this approach. Among these, debt write-offs and asset protection schemes resolve NPLs while these remain on banks' balance sheets. The other tools resolve NPLs by removing these from banks' balance sheets.

Baudino and Yun (2017) argue that the choice of the NPL resolution tool among a set of options should reflect the country-specific characteristics including macroeconomic conditions, fiscal space, legal and judicial constraints, and type of underlying assets. While the creation of centralized public AMCs is favored to deal with a sudden economic shock that rapidly and widely undermines the asset quality of the banking sector, debt restructuring and debt write-offs are suitable options if the NPL problem is driven by protracted slow growth that erodes asset quality gradually and repeatedly.<sup>8</sup> Table 8.5 elaborates on NPL resolution methods contingent on country-specific characteristics.

For countries with limited fiscal space, resolution tools that do not require heavy upfront government expenditure are recommended. An asset protection scheme is a good example, as governments do not disburse real resources in advance, but provide guarantees instead. It is only when the

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<sup>8</sup> An AMC is also a useful option in clearing up the legacy NPLs built up from a period of slow growth.

guarantees are called that governments need to disburse real resources. Legal and judicial constraints on debt enforcement not only make it difficult for banks to enforce debt and collateral, but also for NPL investors and AMCs. The composition of the assets underlying NPLs also matters for the choice of NPL resolution tools and policies. AMCs are known to be good in handling commercial real estate loans but not in handling household mortgages,<sup>9</sup> because of the high administrative costs required for managing these assets.

**Table 8.5: Country Characteristics and Resolution Methods**

		APS	Public AMCs	Securitization	Direct Sales	Debt Restructure	Out-of-Court Workout
Nature of shock	Slow growth			✓		✓	✓
	Crisis	✓	✓	✓	✓	✓	✓
Asset types	Mortgages			✓		✓	
	SME loans		✓	✓	✓	✓	✓
	Large corp. loans		✓		✓		✓
	Unsecured loan		✓	✓	✓	✓	
Fiscal space	Limited	✓	✓	✓	✓	✓	
Legal constraint	Strong						✓

AMC = asset management company, APS = asset protection scheme, SME = small and medium-sized enterprise.

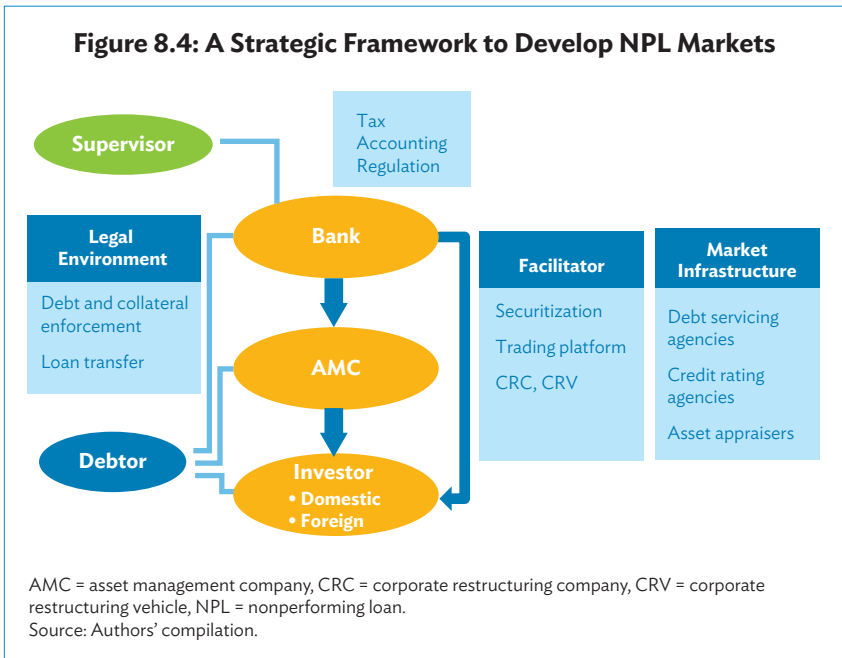
Source: Adopted from Baudino and Yun (2017) and modified by the authors.

NPL markets where banks and NPL investors including AMCs trade NPLs, if well developed, can help banks resolve NPLs through direct sales. The benefits from developing NPL markets, however, are not confined to enabling direct sales of NPLs. A wide and deep investor base formed by active NPL markets can also support NPL resolution through AMCs and securitization. In particular, active NPL markets allow AMCs to raise funds by disposing of the NPLs acquired from banks with which AMCs can acquire more NPLs from banks. The success of AMCs depends heavily on their ability to recover value from the NPLs they acquire. NPL markets can also complement other NPL resolution tools, such as debt write-off and debt restructuring, by allowing banks to dispose of NPLs before they grow to an amount large enough to become a threat to capital adequacy. Besides, they can help banks dispose of performing noncore assets, markets for which may also not always be developed.

<sup>9</sup> Public AMCs dealing with mortgages are quite problematic in Europe owing to the political sensitivity of governments managing residential mortgages, and possibly throwing voters out of their homes.



As was already mentioned, however, NPL markets are difficult to develop because of various impediments. Consequently, to develop NPL markets, carefully designed strategies and action plans to address these impediments are a must. The first step in developing the strategies and action plans is to identify the impediments that obstruct transactions between main participants in NPL markets. As Figure 8.4 shows, the main players in NPL markets are banks, AMCs, and NPL investors. In addition, there are other stakeholders such as debtors, service providers, financial supervisors, and other public authorities. The next step is to examine if NPL transactions between each of these participants can be made without difficulty. Transactions between each of these market participants may be impeded for various reasons, including information asymmetry, regulatory restrictions, legal and judicial constraints, economic costs, and inadequate tax rules and accounting principles. Identifying the impediments and taking reform measures to remove these impediments should be the natural next step.



Developing active NPL markets cannot be achieved by removing regulatory and legal constraints alone. Well-functioning market infrastructure and ecosystems are also needed for NPL markets to operate efficiently. First, NPL trading platforms are needed to reduce information asymmetry, as discussed in Chapter 7. And diverse means of NPL disposal should be

available to financial institutions including securitization and corporate restructuring. However, these means require a legal basis and financial expertise. In addition, NPL market participants need services from debt servicing agencies, credit rating agencies, and asset appraisers.

### **8.5.2 Strategic Framework for Developing NPL Markets**

Despite the potential benefits of NPL markets, most countries in Asia and the Pacific do not have a well-developed NPL market. One of the main reasons lies in the impediments to developing NPL markets discussed in section 8.4 as well as the fact that large stocks of NPLs mostly occur during crisis periods, while it may be costly to maintain adequate market infrastructure during times of low NPL incidence. In consequence, implementing a strategy designed to address these impediments is a must. This section suggests some of the elements of a strategy to develop NPL markets and NPL resolution frameworks.

#### ***Supervisory efforts for NPL recognition and resolution***

In general, bank managers are reluctant to recognize, make provisions for, and sell NPLs for fear that these will deteriorate their management performance. As a result, regulatory and supervisory efforts are needed to provide banks with incentives to engage in NPL resolution and debt restructuring. For example, several European countries, such as Ireland, have overlaid their accounting standards with guidelines on provisioning. Measures, such as imposing a higher capital charge on NPLs and adopting the European Union (EU) approach on calendar provisioning to introduce a time-limit on NPL write-offs, can also motivate banks to resolve their NPLs. Supervisory agencies may have to identify and prohibit the measures and the practices used by financial institutions to avoid recognition of NPLs.

Tightening supervisory guidelines on NPLs to force banks to resolve NPLs, however, will only end up penalizing banks unless they are accompanied by improvement in the legal, tax, and accounting environment for NPL resolution. To avoid penalizing banks, strengthening supervisory guidelines on NPLs and imposing time limits for NPL write-offs should be combined with a parallel strategy that addresses the length of judicial proceedings for debt and collateral enforcement. In addition to legal and judicial inefficiency, various kinds of impediments to NPL resolution exist, including tax and accounting rules that do not recognize the cost of NPL resolution in excess of the provisions. These impediments should be taken care of to improve

the environment for NPL resolution. For example, a cap on tax deductibility may make banks reluctant to make provisions for NPLs or write off NPLs. Raising the cap or allowing provisions and write-offs to be fully deductible in the same fiscal year will strengthen the incentive for provisioning and write-offs. The introduction of IFRS 9<sup>10</sup> and more forward-looking provisioning rules conducive to faster recognition of losses may also provide incentives for banks to quickly resolve NPLs.

Providing incentives to banks for NPL resolution and debt restructuring not only contributes to enhancing soundness of banks and their lending capacities, but also contributes to developing and maintaining NPL markets by maintaining a steady supply of NPLs to the market thereby helping maintain a domestic base of NPL investors. Without a steady supply of NPLs to the market, domestic NPL investors including AMC's will not be able to sustain their business. And without a domestic NPL investor base, NPL resolution should rely on large global NPL investors that are capable of searching for investment opportunities in the global NPL market. In times of crisis when a large amount of NPLs should be resolved at a large discount, a country without a domestic investor base must endure a huge loss of national wealth.

### ***Improving the legal and judicial system for debt enforcement***

It goes without saying that the legal and institutional environment should be addressed in designing a strategy to develop NPL markets and NPL resolution frameworks. Enhancement in structural inefficiency in debt and collateral enforcement allows financial institutions and NPL investors to promptly redeem their investment in NPLs with reasonable returns and improves NPL market liquidity by reducing bid-ask spreads.

Inefficiency in debt enforcement is usually caused by a legal system that requires several lengthy rounds of court decisions to enforce debt and makes debt enforcement through collateral disposal difficult and costly. Inefficient debt enforcement is also caused by limited court capacities delaying decisions, and even when court decisions are made, enforcing them may take a long time. As a result, it takes more than 5 years to enforce debt through the judicial process in some economies, as Table 8.4 shows. Enhancement of judicial system capacity and legal system reform are

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<sup>10</sup> International Financial Reporting Standards (IFRS) are the accounting standards issued by the IFRS Foundation and the International Accounting Standards Board. IFRS 9 addresses the accounting for financial instruments and covers classification and measurement of financial instruments, impairment of financial assets, and hedge accounting.

needed to strengthen creditor rights and improve efficiency in debt and collateral enforcement. A few countries tried to improve debt and collateral enforcement by introducing shorter court processes. Viet Nam introduced a shortcut procedure that allows financial institutions to seize collateral without court arbitration after a certain period, strengthening protection of the creditor rights of financial institutions (Tran 2010). In some cases, however, such a legal reform may be constrained by constitutional law considerations, or face opposition based on the need to protect debtors.

### ***Asset management companies***

Centralized public AMCs have proven useful in promptly resolving massive amounts of NPLs from the banking system during a systemic banking crisis as well as in resolving legacy NPLs accumulated on the balance sheet of banks through an extended period of lackluster growth. For example, the four Asian economies directly hit by the Asian financial crisis relied on centralized public AMCs to promptly remove NPLs from the banking system. The Indonesian Bank Restructuring Agency, the Korea Asset Management Corporation,<sup>11</sup> Danaharta (Malaysia), and the Thai Asset Management Corporation are representative cases. AMCs have also been used by a few European countries to cope with banking crises during the global financial crisis. Prominent cases include Ireland's National Asset Management Agency, SAREB in Spain, and Bank Assets Management Company in Slovenia. Recognizing the benefits of AMCs in NPL resolution, the EU Action Plan for NPL resolution also includes the AMC Blueprint as a core element.

An alternative to establishing public AMCs is to place NPLs with the internal restructuring unit of the originating bank in conjunction with appropriate recapitalization. However, AMCs have several advantages over such an alternative. First, asset support through an AMC delivers relief in time. A forced workout of NPLs, especially during a banking crisis, drives down the market price of assets and collateral. Consequently, distressed assets can be sold only at fire-sale prices, which in turn requires a larger amount of capital injection. Since AMCs in general have a longer time horizon for asset disposal, they can wait until market conditions improve. Public AMCs purchasing NPLs from banks at long-term economic values rather than current market prices enable banks to remove NPLs from their balance sheets without taking huge losses.

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<sup>11</sup> The Korea Asset Management Corporation was established by converting a public company in charge of managing government properties into an AMC.

Second, AMCs can provide banks with much-needed liquidity during times of distress. A large portfolio of non-paying illiquid claims implies reduced cash flows for banks that may lead to funding problems, particularly in the wholesale market. Third, banks may lack resources to work out large amounts of NPLs at the same time during a banking crisis. But AMCs can attract the needed skills and be more productive in management, workout, and sale of nonperforming assets. Fourth, if the internal workout process of banks is protracted owing to the leniency of banks toward their borrowers to protect business relationships or owing to the reluctance of bank management to materialize losses, AMCs can help speed up the process with more decisive action in the public interest.

Recent research tends to support the potential benefits of AMCs for banks, notably better access to funding and enhancement in lending capacities, but it also points to challenges. First, establishing and operating AMCs entail significant costs. Even though use of public AMCs can be justified by their role as a public good to deal with the negative externalities of financial crises, their mandate requires minimizing the burden to taxpayers. This implies that AMCs must have the expertise to extract the full value of NPLs transferred from banks and that the expertise should be available at a reasonable cost. If this is not the case, a lump-sum subsidy in the form of a capital injection may achieve the same result at a lower cost.

The ability of AMCs to extract the full value from NPLs at a reasonable cost also depends on the composition of assets they acquire from banks. Historically, AMCs have been most successful when tasked with resolving real assets, typically commercial real estate and land (Fell et al. 2016, p. 144). Such assets are relatively straightforward to value and as a result AMCs can manage them with relatively thin staffing. Real estate valuations are also likely to track macroeconomic trends, recovering value as the economy grows. It is somewhat unclear, however, that an AMC could efficiently resolve other assets such as household mortgages that burden AMCs with managing a large number of small-sized loans.

Governance is another critical issue for the success of public AMCs. Poor governance and political influence may force an AMC to be used as a tool to bail out banks or bank owners, causing them to end up as financial failures (see European Commission (2018) and Chapter 7 for further discussion). For example, the Mongolian Asset Realization Agency, established to deal with the NPLs of Mongolian banks during the 1996 banking crisis, ended up as a financial failure because of poor governance and political influence (Enoch, Gulde, and Hardy 2002).

AMCs also need an enabling legal and judicial environment for debt enforcement to promptly resolve NPLs. Otherwise, AMCs will be faced with the same difficulty banks have in recovering the value of the NPLs they acquire from banks and will end up as a warehouse for NPLs. This is why the Asian countries hit directly by the Asian financial crisis tried to improve the legal and judicial environment for debt enforcement when they established public AMCs. There were also cases in which AMCs were given special rights through special AMC laws to overcome an inefficient legal and judicial environment.

Besides removing toxic assets from banks, public AMCs can help foster NPL markets. AMCs create demand for NPL market services and thereby support market infrastructure and ecosystems. In addition, AMCs can help establish NPL information and validation standards, thereby reducing information asymmetry. As Box 8.1 discusses, the Republic of Korea did not have an NPL market before the Asian financial crisis and had to rely on the Korea Asset Management Corporation (KAMCO), a centralized public AMC, to remove NPLs from the banking sector when it was hit by the Asian financial crisis. In addition to removing NPLs from banks, KAMCO paved a way to develop NPL markets in the Republic of Korea. Now, private AMCs and private NPL investors actively participate in the Korean NPL market. Governments may even utilize public AMCs as a strategic tool to create and foster NPL markets. The impact of public AMCs on secondary NPL markets depends on the size of AMCs, restrictions on transfer prices, and asset disposal strategies of AMCs. Martin (2019), argues, however, that governments should not burden AMCs with secondary NPL market development, as this task is likely to create conflicting objectives. Instead, policy makers should design AMCs and their operations so that these could contribute to secondary market development.

### ***Nonperforming loan trading platforms to reduce information asymmetry***

Information asymmetry between banks and NPL investors has repeatedly been identified as a key impediment to NPL market development, and thus measures to address it should be taken. Fell et al. (2017) and Chapter 7 propose that such market failure can be overcome by introducing NPL trading platforms. An NPL trading platform, an electronic transaction platform combined with a data warehouse and a trade repository, is expected to resolve market failure arising from information asymmetry and coordination failure by providing transparent and validated information about the credit quality of NPLs to potential investors.

### Box 8.1: Korea Asset Management Corporation and NPL Market Development in the Republic of Korea

To help restructure the ailing banking sector by resolving nonperforming loans (NPLs) from financial institutions, the Government of the Republic of Korea converted the Korea Asset Management Corporation (KAMCO) into a public asset management company (AMC). Since the government had to achieve bank restructuring with limited amount of public funding, KAMCO had to resolve the NPLs acquired from banks as quickly as possible.

At the early stage of the Asian financial crisis, a domestic NPL market where KAMCO could dispose of the NPLs it acquired from banks did not exist. Nor was there a domestic investor base for NPLs. As a result, KAMCO tried to utilize diverse tools of NPL resolution, including international auctions to attract foreign investors, NPL securitization, and corporate restructuring. To facilitate rapid disposal of NPLs, the government took reform measures to improve the legal and institutional environment.

The measures taken to improve NPL resolution and to facilitate acquisition and disposal of NPLs not only facilitated the operations of KAMCO, but also contributed to developing NPL markets. Private AMCs such as UAMCO and Daishin F&I, and Hana F&I have emerged, specializing in NPL acquisition and disposal. Commercial banks use asset-backed securities issuance to dispose of their NPLs. The development of NPL markets seems to have facilitated NPL disposal by commercial banks and as a result helped maintain a stable NPL ratio, despite economic turbulence.

#### NPLs Resolution Tools Used by Republic of Korea Banks, 2007–2019 (%)

Tool	2007	2009	2011	2013	2015	2017	2019
Write-offs	24.6	32.0	30.9	35.2	33.6	27.1	26.7
Sales <sup>a</sup>	7.4	13.8	24.8	25.4	23.3	20.3	22.8
Asset-backed securities	14.8	12.8	...	...	...	...	...
Sale of collateral	31.1	19.5	23.8	22.5	22.9	34.3	22.8
Credit normalization	18.9	16.8	18.5	12.7	15.7	11.6	22.2
Others	3.3	4.7	2.0	4.1	3.6	6.8	5.6

AMC = asset management company, F&I = finance and insurance, NPL = nonperforming loan, UAMCO = United Asset Management Corporation.

Note:<sup>a</sup> From 2011, the resolution through issuing asset-backed securities is included in the sales category.

Source: Authors' calculations based on the press release of the Financial Supervisory Service.

To fully exploit its advantages, an NPL trading platform should perform the following functions: (i) collect and provide loan-level data; (ii) enhance comparability of NPL data across banks by harmonizing data templates for loan tapes; (iii) provide qualitative information such as the legal position of the lender vis-à-vis the borrower, the attitude of the borrower, the past history of interactions with the borrower, and qualitative information on collateral and act as a repository of key legal documents; and (iv) provide independent validation of the reported NPL data.

The European DataWarehouse GmbH, established by the European private sector as a part of the European Central Bank's asset-backed securities Loan Level Data Initiative, provides a possible benchmark for NPL trading platforms. It provides an open platform for users to access asset-backed securities data and is the first centralized data repository in Europe for collecting, validating, and making accessible specific loan-level data for asset-backed securities transactions. In addition, a few private ventures have recently begun providing NPL trading and data warehousing services based on electronic platforms.

Besides introducing NPL trading platforms, strengthening supervisory regulations to induce frequent asset quality reviews by financial institutions and to promptly report the results to shareholders and stakeholders can also help reduce information gaps between NPL investors and banks.

### **Securitization**

Securitization is a form of structured financing in which securities are issued through repackaging of a series of assets that generate cash flows in a way that separates these assets from the credit profile of the company that originally owned them. The credit assessment of asset-backed securities is made solely based on cash flows created by the underlying assets.

Securitization can take on a large variety of attributes depending on the structure, the underlying assets, the way underlying assets are managed, and the types of securities issued. Securities issued through securitizing loans as underlying assets are called collateralized loan obligations. NPLs as well as performing loans can be used as the underlying assets for collateralized loan obligations. Securitization would be useful in disposing of a large number of small-sized assets: NPLs from household loans, SME loans, and unsecured loans.



Collateralized loan obligations can be beneficial in resolving NPLs for several reasons. First, they reduce the overall credit risk of the pool of underlying assets by diversifying the idiosyncratic credit risk of each borrower. Second, securitization can expand the universe of distressed debt investors by creating securities whose credit risk profile is tailored to the risk preference of diverse investors. In particular, collateralized loan obligations with a higher credit rating than the average credit rating of the underlying assets can be issued by using senior/junior tranches. Generally, senior bonds can receive credit ratings higher than the average credit rating of the pool of collateralized assets, and hence can be more easily absorbed by the market. Third, in addition to utilizing senior/junior tranches, other credit enhancement methods such as credit guarantees, over-collateralization, spread accounts, cash collateral accounts, and credit swaps can be used to enhance the creditworthiness of the asset-backed securities and make them attractive to an even greater range of investors.

In addition, securitization provides governments with means to help banks resolve NPLs and develop NPL markets. Governments may provide guarantees on senior (as in GACS, Chapter 6) or junior tranches of NPL securitization. Securitization, with this sort of guarantee, can achieve results similar to asset protection schemes except that securitization removes NPLs from the balance sheet of originating banks, while in asset protection schemes NPLs remain on the balance sheet of originating banks. Instead of providing guarantees on securitization, governments can also facilitate NPL resolution through securitization by purchasing a certain portion of junior bonds.

Fell, Moldovan, and O'Brien (2017) point out that large-scale co-investment by governments in NPL securitization could not only facilitate NPL securitization deals but may help activate NPL sales by aligning the incentives of the government with those of private investors. While banks and private investors have little control over factors such as structural inefficiencies, frictions, and uncertainties that impede NPL workout, governments can use legislative measures on these factors that can have a consequential effect on the asset values.

Securitization requires enabling legal infrastructure. First, the true sale nature of the underlying assets should be guaranteed by the legal system and recognized by the accounting principle. Second, special purpose vehicles (SPVs) in which underlying assets are grouped together should be available without much extra cost. In common law jurisdictions, such a vehicle is

available in the form of trust and, as a result, no additional legislation is needed. In civil law jurisdictions, however, such a vehicle should be given legal foundation together with tax transparency. For example, the Republic of Korea enacted the Law on Asset Backed Securities in 2008 to facilitate resolution of NPLs through securitization.

In addition to legal infrastructure, securitization requires financial market infrastructure. For example, accurate pricing of the senior bonds and the mezzanine bonds depends on the capacity of credit rating agencies. Since different tranches of bonds with different credit ratings are issued based on diverse underlying assets, credit rating for securitization is more difficult than that for ordinary corporate bonds. That means credit rating agencies must have the capacity to evaluate and analyze securitization deals with diverse structures and underlying assets. In addition to credit rating agencies, a wide investor base with different preferences on risk-return profile should be available, which is not the case for many countries whose financial markets are at a nascent stage of development.

### ***Out-of-court corporate workouts***

Enhancing the repayment capacity of debtors through debt restructuring is also a tool banks use frequently. While debt restructuring is simple when there is a single creditor, it is difficult with multiple creditors who do not agree with others. Court-driven insolvency procedures can overcome this difficulty by binding interested parties to the court decision. Despite this advantage, court-driven corporate restructuring often faces limited capacity and limited specialty of courts, causing delays in decisions. Although improving the capacity of insolvency courts is the solution to this problem, it takes time and money to achieve this goal. And during a financial crisis when the number of insolvency cases soars, the burden on the judicial system becomes unbearable.

One way to speed up the process of corporate restructuring under limited court capacity is to utilize out-of-court corporate workouts, which are generally more time efficient, more flexible, and carry less stigma.<sup>12</sup> Initially, corporate workouts adopted the so-called London approach in which participation in the workout plan was voluntary. Later, to expedite corporate workouts, some countries made participation mandatory once the majority

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<sup>12</sup> Out-of-court corporate workouts are useful as a corporate restructuring tool in countries with efficient legal and judicial systems for debt enforcement as well. It is sometimes argued that out-of-court corporate workouts work better if there is a properly functioning legal system available as a 'threat' to ensure compliance.

of creditors had decided on a workout plan. In the Republic of Korea, for example, the Corporate Workout Law allows a majority rule of three-quarters of the credit amount to facilitate decision-making among creditors in the workout process. And the Thai government established the Corporate Debt Restructuring Committee to assist financial institutions with out-of-court corporate restructuring during the Asian financial crisis.

Debt restructuring can also be achieved by private equity funds that specialize in corporate restructuring. These funds acquire the majority of shares of the firm to be restructured by purchasing equities or by swapping debt into equities and turn the firm around through corporate restructuring. To facilitate corporate restructuring by private equity funds, corporate restructuring vehicles with tax transparency should be available.

### ***Regional strategies to establish regional framework for nonperforming loan resolution***

Most strategies suggested so far can be adopted as national strategies. In developing NPL markets, there is also room for regional strategies. In Europe, for example, EU-wide financial regulations and widespread use of cross-border loans made it necessary to introduce an EU-wide framework for NPL resolution. In Asia and the Pacific, region-wide financial regulations do not exist, and cross-border loans are not so common as in Europe, but room exists.

One reason regional strategies and frameworks are needed lies in the systemic importance of international banks and regional banks engaged in cross-border banking activities. Cross-border operations of these banks are conducted through local branches, local subsidiaries, or direct cross-border loans. A more important reason, however, is in the negative externalities associated with financial crises. As financial interconnectedness among countries in the region deepens, it is more likely that financial crisis in one country will spill over into another. To deal with such negative externalities, regional strategies and frameworks for NPL resolution are needed. Regional frameworks for NPL resolution thus serve as regional public goods, as noted in the introduction.

Supervision of regional systemically important financial institutions should be strengthened. The systemic importance of international banks and regional banks engaged in cross-border banking activities in Asia has been growing. For many host economies, these banks function as the main source

of external funding. Maintaining stable funding to the host economies through credit supply channels of these banks has thus become crucial to financial stability in the region. Since these regional, systemically important financial institutions conduct business in multiple countries, there is the risk of regulatory arbitrage by these cross-border banks, which cannot be properly supervised by a host economy alone. In this regard, supervisory colleges for regionally active banks can be an effective form of regional cooperation to strengthen cross-border supervision and to solidify regional financial safety nets. Supervisory colleges can contribute to resolving regional NPLs by strengthening supervisory guidelines to provide regional financial institutions of this nature with stronger incentives to recognize and resolve NPLs.

While strengthening supervisory efforts through supervisory colleges may help maintain the fiscal soundness of regional, systemically important regional financial institutions and prevent the accumulation of NPLs, it cannot completely prevent the occurrence of NPLs. As a result, regional frameworks to resolve NPLs should be discussed and developed. Efficient resolution of NPLs held by such regional institutions in different countries requires regional frameworks for NPL resolution. Regional multinational companies with loans from multiple regional banks are another reason a regional framework for NPL resolution is needed. In resolving and restructuring NPLs, these regional and international banks must deal with differences in the legal and regulatory environment as well as differences in the tax and accounting rules. Such a difference should be taken care of when developing a regional framework for NPL resolution. In this regard, the approach of the Vienna Initiative could be appropriate. This initiative was launched at the height of the first wave of the global financial crisis to provide a forum for decision-making and coordination to safeguard the financial stability of emerging Europe. It brought together all relevant public and private sector stakeholders of EU-based cross-border banks active in emerging Europe.

Fostering a regional NPL market in which regional NPL investors and global NPL investors participate and trade regional NPLs not only supports the development of domestic NPL markets in Asia and the Pacific but also can enhance operations of other tools of NPL resolution. Home bias in an investment portfolio is one reason for the need for regional NPL markets in which regional NPL investors actively participate. This bias was initially recognized by French and Poterba (1991) as home bias in equity investment. One explanation for home bias is in the informational advantage of home

investors that translates into lower costs and higher rates of return. Likewise, regional investors may have an information advantage over global investors for NPLs in the region. When this is the case, NPLs can be disposed of at more favorable terms if regional NPL markets are well developed. A regional NPL trading platform can be created by linking national NPL data warehouses or by establishing a separate entity. Reducing information asymmetries will help develop regional NPL markets for regional and global NPL investors.

The multilateral development banks should take part in regional efforts to build regional NPL markets and regional NPL resolution frameworks. They, together with international financial institutions, have been providing technical assistance and program loans to member economies to promote financial stability. In addition, they can serve as focal points for soliciting regional knowledge and experience. The International Public AMC Forum can also contribute to regional efforts to build up regional NPL resolution frameworks by sharing knowledge and expertise of member AMCs.

## **8.6 Conclusion**

The potential benefits of active NPL markets are huge. They help banks resolve NPLs through direct sales and complement other means of NPL resolution. Challenges to the development of NPL markets include information asymmetry, inadequate tax and accounting rules, inefficient debt and collateral enforcement system, and other structural impediments. To develop NPL markets, carefully designed policy strategies and action plans are a must to address these impediments. No one-size-fits-all strategy exists, however, so each country or territory should design and adopt strategies appropriate to local economic conditions and the nature of the NPL problem as well as subject to its legal and institutional environment and fiscal space.

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