

Distress in the banking system: a look back at the non-performing loans experience in the Republic of Kazakhstan

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ABSTRACT

In 2009, Kazakhstan's financial system faced a non-performing loan problem more than 18% of GDP. The economic crisis of 2008 triggered a massive number of loan defaults, and as a result, the economy ended up with banks having extensive non-performing loans on their books, leading to distress in the banking system and businesses struggling to restructure their loans and finance future projects and operations. Kazakhstan's restructuring strategies and reforms for resolving non-performing loans and the suggestions made to correct the problems to promote financial stability are examined and reviewed.

Keywords: Non-performing Loans, NPL, Bank Restructuring Strategies, Bank Reforms, Banking Crisis, Kazakhstan Banks



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INTRODUCTION

Kazakhstan's economy more than doubled in size from 2001 to 2007. Kazakhstan's growth rate was ranked in the top five growth economies in the world. Commercial banks were profiting from the credit boom and from the loans they made to finance this growth. However, banks faced a very high risk if these loans became non-performing in an economic slowdown. In 2008, economic problems developed and the economic conditions quickly deteriorated. The global economic crisis of 2008 resulted in an explosion of non-performing loans (NPL) in the Republic of Kazakhstan creating a lack of confidence by investors and instability in the credit markets. Financial institutions, corporations, and small businesses were all struggling to restructure their loans and finance future projects and operations. In addition, oil prices in 2008 collapsed from a high in July 2008 of 147 U.S. Dollars per barrel to a low in December 2008 of 32 U.S. Dollars per barrel. Furthermore, the National Bank significantly depreciated the Kazakhstan Tenge in early 2009 by a sizeable 22%. The depreciation of the Tenge followed a 35% depreciation of Russian's currency in the latter part of 2008 (Barisitz and Lahnsteiner, 2010). Kazakhstan banks borrowed excessively in foreign markets to finance loans for real estate, building, construction, and mortgages. Banks had made excessive foreign currency loans to local companies that were unable to pay after the depreciation of the Tenge (Barisitz and Lahnsteiner, 2010). Moreover, Kazakhstan exports to Russia accounted for about a third of Kazakhstan's GDP and approximately 70 percent of Kazakhstan's export revenue came from oil so these events had an enormous negative impact on the economy and the financial sector.

Three major Kazakhstan banks (Alliance Bank, BTA Bank, and Temir Bank) declared default in early 2009, spreading insolvency concerns, fear of bank runs and failures, and creating financial instability in Kazakhstan's banking system. As a result, the banking system equity was negative, the Kazakhstan government did not bail out the banks. Some government officials indicated that these three banks were so big that the government could not let them fail, and at the same time, the banks were so big that the government did not have the resources to save them (Laeven and Valencia, 2010).

When an economy's main form of financing is from commercial banks then non-performing loans severely impair economic growth (Aiyar and Monaghan, 2015). By 2009, NPL levels were approximately 30 percent of the total loan portfolio (the level of NPL before the crisis was negligible at around 4%). In 2009, the total NPL in Kazakhstan equaled approximately USD 20-30 billion against a gross banking market capitalization of USD 10 billion (post Alliance Bank, BTA Bank and Temir Bank restructuring). This was more than 18% of the nominal GDP of Kazakhstan in 2009.

In 2010, non-performing loans were approximately 19 billion USD. The main three banks had extremely high levels of non-performing loans. For example, 74% of loans at Alliance Bank and BTA were non-performing even after restructuring and JSC Termirbank had 48% non-performing loans after restructuring. In addition, 19% of loans at BTA Bank were considered doubtful, 12% of Alliance Bank's total loans were doubtful, and 9% of Temir Bank's total loans were considered doubtful (National Bank of Kazakhstan, Statistical Bulletin, 2010).

To overcome the NPL problem several bank restructuring programs were considered to position the Kazakhstan financial system for recovery so as to promote economic development and future growth. The restructuring strategies to resolve non-performing loans that were considered at the time are reviewed and analyzed.

Kazakhstan's initial reaction concentrated on restoring capital adequacy and

liquidity to specific banks and to the system at large. To succeed in the restructuring Kazakhstan needed to deal with the underlying business issues to make sure that the banking system was in a much stronger position going forward so that banks were prepared to deal with future economic down cycles.

One approach suggested at the time was focused on value maximization of bank loan portfolios. The suggestion was to focus on the loan portfolios of the major Kazakhstan banks. Banks first needed to identify their non-performing loans, once identified, then several options were available to resolve the problems and improve the situation. The NPL could be, on or off balance sheet; in-house managed or outsourced; book-managed or wound-down; book-held or sold to investors, possibly through a structured sale to retain some upside for the bank.

In 2009, the downturn in the Kazakhstan economy, and the resultant need for major bank restructuring, presented the most severe NPL phenomenon in Kazakhstan that had occurred since Kazakhstan's independence from the former Soviet Union in 1991. The non-performing loan situation and distress in the banking community was one that Kazakhstan had little experience dealing with and was a phenomenon that even the best experts in the modern banking community had limited experience to deal with. There was a non-performing loans problem in Kazakhstan that occurred in 1994, but the one in 1994 was not as severe as the one that began in 2008. In 1994, the Kazakhstan government created several debt resolution companies and transferred the NPL to those companies (IMF, 1998).

An analysis of non-performing loans must include an analysis of a bank's current structure and position, an analysis of a bank's objectives, and an evaluation of a bank's strategic plan. Analyzing these factors help to resolve the NPL issue and result in recoveries that are higher, faster, at lower risk, with reduced cost, and with less management distractions. It requires a comprehensive vision and understanding of legislative, tax, and regulatory issues.

NPL RESTRUCTURING: ISSUES AND OBSTACLES

In 2009, the major banks in Kazakhstan began to develop restructuring teams and approaches to address their non-performing loans. However, their efforts to adopt rigorous restructuring strategies with respect to either individual problem loans or entire portfolios were difficult to solve in the early stages of the NPL problem. A number of factors frustrated the Kazakhstan government in their efforts to solve the NPL problem. The main factor that exasperated their efforts to restructure non-performing loans was lack of experience. This was the first severe banking and financial crisis in Kazakhstan and the lack of experience restructuring resources in the country hindered their response to the problem. There was a concerted effort by the government and the banks to study how other countries handled such a situation and to learn from those cases. A summary of how other countries handled similar situations is presented in later in the paper.

A major factor that frustrated Kazakhstan banks in their efforts to solve the NPL issue was the loan's loss in value associated with taxes. Lenders were taxed on the effective write-back of previously taken provisions (Republic of Kazakhstan Tax Code, 2008). The NPL restructuring can be accomplished in different ways, for example, by way of a reduction of debt based on an indemnity agreement, a novation agreement, or a cession agreement could be used, such provisions should be reversed in proportion to the amount by which the loan has been reduced or written off. As a result, banks should recognize such reversals of bad debt provisions and recognize this bad debt reversal as income. However, this is something banks are reluctant to do because it reduces their net income.

Bad debt write-offs by banks were also a problem that frustrated the restructuring of

the NPL. In the event of selling NPL below nominal value, banks would incur a loss from the sale of NPL which, in Kazakhstan at the time, could not be deducted from a corporation's taxable income except in certain cases (e.g., liquidation of legal entity, death of an individual, bankruptcy of individual entrepreneur, or allowance based on court decision). In addition, uncertain rules existed for valuing NPL portfolios. The Kazakhstan regulatory authorities were very suspicious of non-arm's length dealing, which further limited the sale of the NPL. Therefore, banks were reluctant to sell the NPL below nominal value and incur the loss since the loss was not tax deductible. Some of the tax laws related to write-offs were changed in 2011 allowing banks to take write-offs for NPL and reducing the impediments when selling these loans (Republic of Kazakhstan Tax Code, 2008)..

Taxes on the difference between the fair market value and the nominal value hindered the ability of banks to dispose of their NPL. Since the purchasers of NPL were taxed on the difference between the fair market value and the nominal value of these investments, this tax frustrated banks in their efforts to solve the NPL issue. In Kazakhstan, when NPL are sold below their nominal value, the purchaser recognizes taxable income as the difference between the nominal amount of the loan and the value at which NPL were purchased (Republic of Kazakhstan Tax Code, 2008). This taxable income should be recognized in the period of acquisition. Therefore, purchasers of NPL were reluctant to buy the NPL below their nominal value and then incur the tax and this made it difficult to eliminate NPL from bank balance sheets.

The inability of NPL purchaser to create bad debt provisions and deduct the written-off claims was another major factor that frustrated bank efforts to solve the NPL issue. In Kazakhstan, doubtful and bad debt provisions may be created and deducted for tax purposes only by banks and organizations with a license to carry out banking operations. Therefore, a purchaser of NPL without a license would not be entitled to create bad debt provisions. The NPL purchaser would also not be able to deduct the written off debts, whereas the banks could deduct such debts in certain cases (e.g., bankruptcy or court decision). Both issues would discriminate the NPL purchaser in comparison with the banks and make it difficult to sell the NPL and therefore made it difficult to eliminate NPL from bank balance sheets.

Ring-fencing or carve-out banking, (also known as the bad-bank method), is commonly used to remove NPL from bank balance sheets. The ring-fencing method removes non-performing loans by creating a separate internal unit (called a special purpose vehicle or SPV) dedicated to reducing the bank's risk exposure. The special purpose vehicle has very restricted powers with a corporate charter that limits their activities. The special purpose vehicle is a subsidiary, but can separate risk from the parent company by having a separate balance sheet with its own assets and liabilities. However, regulatory obstacles to creating ring-fenced bad-banks frustrated Kazakhstan banks in their efforts to solve the NPL issue. Kazakhstan banking laws limited banks in the establishment of SPV for the management of NPL. Since, at that time, the establishment of the SPV to manage the NPL was not permitted, the risk from the NPL remained on banks' balance sheets and banks could not use the SPV for non-banking activities such as NPL work outs.

Tax Implications, Special Prohibitions, and Requirements

Several tax issues related to non-performing loans in Kazakhstan are important to review, all had some impact on the NPL problem. Kazakhstan prohibited banks from acquiring equity in non-banking companies, frustrating bank restructuring efforts and effectively prohibiting the use of debt to equity conversion to solve the NPL problems. Since the debt could not be converted into an equity, the NPL remained on the bank balance sheets. In addition, the Kazakhstan government requirement for 100% voting of bondholders to

approve a restructuring frustrated consensual restructuring deals. Furthermore, banking secrecy regulations in Kazakhstan prevented some types of NPL portfolio transfers. In addition, uncertain rules for the valuation of NPL portfolios, as well as regulators' suspicions of non-arm's length dealing, hampered the resolution of the NPL problem (Republic of Kazakhstan Tax Code, 2008).

Kazakhstan did not have a tested, predictable insolvency regime or any type of comprehensible rehabilitation process. There were problems and issues with existing laws and regulations (for example, qualification and standing of arbitration managers, quality and predictability of court decisions) that led to situations where insolvency was not an efficient tool either for maximizing returns for creditors, or for rescuing viable debtor businesses.

It should be noted that several recommended legislative, tax, and regulatory changes were either in place in other countries (and therefore available as guides and examples to assist in the immediate design and implementation of these changes) or there were near counterparts existing in Kazakhstan legal provisions and statutes. For example, a court ordered stay stopping creditor action on applications for rehabilitation and the cram-down of minority dissenting creditors in the bank restructuring legislation were already in place. Cram-down is the mandatory restructure of debt that is stipulated in bankruptcy, and that a bank is required to accept, even over creditor's opposition or objection to the debt restructuring plan (Republic of Kazakhstan Tax Code, 2008).

Corporate Income Tax Issues

If the Kazakhstan tax authorities had reversed provisions for corporate income tax purposes that are related to the disposal or restructuring of non-performing loans, then banks would have been able to create bad debt provisions for doubtful and bad loans in accordance with regulatory norms that exist in other countries. Upon the NPL restructuring, by way of the reduction of debt based on an indemnity agreement, a novation agreement, or a cession agreement such provision should be reversed in proportion to the amount by which the loan has been reduced/written off. As a result, banks could have recognized such reversal of bad debt provision as income for corporate income tax purposes. Allowing banks to create bad debt provisions would permit bad debt claims to be deductible for corporate income tax purposes. As a result, banks would willingly recognize such reversal of bad debt provision, and therefore claim in on their taxes as part of their corporate income (Republic of Kazakhstan Tax Code, 2008).

In addition, if the tax authorities had reversed provisions for bad debt write-off by banks, then this would have promoted the sale of NPL in the market. In Kazakhstan, the resulting loss from selling NPL below nominal value is not deductible from corporate income taxes, except for certain special cases. Allowing for bad debt write-off by banks would encourage banks to sell the NPL below their nominal value knowing that they could write-off these losses from their taxable income.

With NPL purchases, Kazakhstan tax authorities required the recognition of taxable income from the purchase of non-performing loans below nominal value. Upon NPL restructuring, banks usually sell their NPL at the value which is less than nominal and the acquirer should recognize taxable income as the positive difference between the nominal amount of loan and the value at which the loan was acquired. This taxable income should be recognized in the period of acquisition.

In Kazakhstan, the NPL acquirer cannot create bad debt provisions and deduct written-off claims. As a part of the NPL restructuring, NPL may be sold to an entity without a license for banking operations (Republic of Kazakhstan Tax Code, 2008). If those purchasing NPL had the ability to create bad debt provisions and deduct written off claims it

would promote more purchases of the NPL. However, in Kazakhstan, the doubtful and bad debt provisions may be created and deducted for tax purposes only by banks and organizations with the license to carry out banking operations. Therefore, the NPL acquirer without the license would not be entitled to create bad debt provisions. The NPL acquirer would also not be able to deduct written off debts, whereas the banks may deduct such debts in certain cases (for example, bankruptcy or court decision). Therefore this action would discriminate against the NPL acquirers in comparison with the banks.

The Kazakhstan government requires payment of a value added tax (VAT) on interest for the non-performing loan acquirer (unless the acquirer is licensed). Upon the NPL restructuring, the NPL can be sold to an entity which will continue to serve the loans and be entitled to receive interest income from the debtors. Generally, interest income is subject to VAT unless the entity has a license for banking operations. Assuming that the NPL acquirer does not have the license, it would not qualify for the above exemption and should issue invoices with VAT on interest. Accordingly, the application of VAT would result in additional cost for the debtor and an additional tax administration burden for the NPL acquirer, therefore impeding the purchase of NPL.

As a part of the NPL restructuring, the debtor may sell the collateral to the pledgee (i.e., the bank or the NPL acquirer) or to a third party. For value added tax purposes, taxable turnover for the sale of the collateral should not be less than the nominal amount of loan. In the event of a sale of the collateral whose actual cost as of the date of sales is lower than the nominal amount of loan received, the debtor should calculate VAT based on the nominal amount of the loan. Accordingly, such an approach increases the expense for the collateral purchaser and complicates the sale of the collateral. It is also unclear how the invoice should be issued if the actual cost of the collateral is lower than the taxable turnover.

The Kazakhstan government requires a withholding tax on interest payable by legal entities to the non-performing loan acquirer (unless the acquirer is licensed). After the assignment of the NPL from the bank to the NPL acquirer, as a part of the NPL restructuring, the debtor (legal entity) continues to pay interest to the NPL acquirer. Generally, the interest income should be taxable at its source. However, there is no withholding tax on the interest income received by a bank or an entity with a bank operating license. In the event that the NPL acquirer does not have the license, withholding tax on interest payable to the NPL acquirer should apply. The applied withholding tax results in an increase in the tax administration burden for the debtor. The NPL acquirer receives less cash as a result of the tax as compared to what a licensed bank would have received (Republic of Kazakhstan Tax Code, 2008)..

Personal Income Tax

Individuals are required to pay tax on income from the write-off of debt. Upon the NPL restructuring, the bank or the NPL acquirer, may write-off part or all of the debt (both principal and interest) to the debtor. In the event of write-off of the debt, the debtors (legal entities) should immediately recognize taxable income as property received free-of-charge in the period when the write-off occurs (Republic of Kazakhstan Tax Code, 2008). The debtors (individuals) should also recognize taxable income in the amount of write-off of the debt. However, it is not clear how personal income tax should be paid to the state budget (should the tax be withheld by the bank or the NPL acquirer or should the tax be paid by the individual).

As a part of the NPL restructuring, the debtor may sell/transfer the collateral to the bank or to the NPL acquirer. In the event of the transfer of ownership for the collateral from the debtor to the bank or to the NPL acquirer, the tax related to such collateral (for example,

property tax, vehicle tax, or land tax) would be payable by the bank or the NPL acquirer. Such an approach results in the increase in tax expenses and an additional administration burden for the bank or the NPL acquirer.

The development of a package of regulatory and legislative changes is needed that allows all engaged parties to be protected from an excessive tax burden during the loan restructuring process. The aim is an improvement of the financial system without creating additional taxable burdens.

NPL PORTFOLIO TRANSACTIONS

There have been many economic crisis in other countries that have led to a substantial number of non-performing loans, creating financial instability and banking failures. Following a financial crisis the NPL portfolios are often sold either to the government owned asset management companies or to special investors that specialize in distressed investments. Therefore, the NPL was removed from the bank, freeing up bank balance sheets to focus on future business as the economy and business cycle improved.

The solution to the NPL problem and the development of an NPL market is dependent on the resolution of the issues discussed in this paper, as well as a viable approach for the sale of retail loan portfolios to avoid any social distress caused by the purchase or sale of these loans.

A pilot transaction, to demonstrate to market participant's successful completion of an NPL deal, was recommended, but was never implemented in Kazakhstan. This would have entailed arranging a NPL transaction during which time the state would render support as necessary to make the transaction successful. The success of such a transaction would have sent a strong positive message to the market, giving comfort to the market players to initiate new transactions, and it would have proven that the market environment was ready to support NPL deals.

The pilot program could have been used together with a put option agreement included in the pilot transaction. With a put option, the banks would have the right to sell the loans back to the government if the transaction was not successful. By using the put option approach, the NPL market is expanded and the banks are able to sell more of these borderline loans in the NPL market. Other tools to promote the pilot transactions by banks could include put-backs (similar to a put option), repurchase agreements, credit linked notes, and credit default swaps. Additional, solutions such as government asset portfolio guarantees, also called asset protection schemes, can be used to protect the loss that banks incur from depreciating asset portfolios. This solution is effectively free insurance provided by the government to the bank so that they do not lose on their asset portfolios (however, this would create an incentive for the moral hazard problem to occur, leading to more bank risk).

The government could also guarantee bank loans against loss. In this case, there is a maximum loss amount covered by the guarantee. The guarantee is limited to a time period designated by the government, or the guarantee is good until the market recovers. Government funding is not immediately required and the bank continues to manage and control their loans and assets (Mesnard, Margerit, Power, and Magnus, 2016).

Given the extensive amount of lending, the number of NPL, and the state of the economy, and given some of the uncertainties that existed at the time, it is likely that the Kazakhstan government would have had to support all of the pilot transaction. At the time, foreign investors who invested in distressed debt showed little interest in the Kazakhstan NPL market. For the pilot program to have been successful the government and international funding institutions would have needed to participate in the pilot transaction(s) to make them viable and successful.

NPL Portfolio Transactions: The Need for Government Action

In view of significant legislative, taxation, and regulatory issues highlighted in this paper, government action to deal with the NPL problem in Kazakhstan was essential for success in stabilizing the banking and financial system. The lesson from previous economic down cycles that created significant non-performing loan problems in other countries was resolved through rapid and effective government intervention. Government action was the key to the recovery of the financial system and the improvement of the economy in these circumstances.

In the case of Kazakhstan, the government support of pilot transactions within commercial banks under state control would have led to the fastest and most efficient solution to the NPL problem. This would have quickly given confidence to the market and removed those NPL from bank balance sheets. The government and the National Bank could have actively encouraged the banking community to recognize the NPL issue and dealt with it quickly and effectively. The government needed to take specific and concrete measures to create incentives for banks to recognize non-performing loans at their fair market value. The government also needed to establish adequate bad debt provisions to eliminate the NPL from bank balance sheets. In addition, a more rigorous inspection, enhanced due diligence, and verification of bank quality and adequacy of the bad debt provisions are measures that would have been helpful. Another suggestion considered was the government making direct equity investments in prospective businesses, thus improving their capital adequacy ratios and supporting them in their efforts to restructure loans with commercial banks and to finance further operations and new projects.

MACRO LEVEL APPROACHES TO THE NPL PROBLEM

Several methods for solving the non-performing loan problem have been examined in the literature (Aiyar, Bergthaler, Garrido, Ilyina, Jobst, Kang, Kovtun, Liu, Monaghan, and Moretti, 2017; Fell, Grodzicki, Martin, and O'Brien, 2017; and De Haas, Markovic, and Plekhanov, 2017). Their examinations have included discussion of the internal bank work-out approach, the individual bad-bank/AMC approach, the sale to investor approach as well as other approaches such as an asset protection schemes, and NPL trading platforms. The bad-bank method, special purpose vehicle method, and asset management company method have all been suggested in the literature (Avgouleas and Goodhart, 2016; Lucchetta and Parigi, 2016; and Enria, 2017).

The International Monetary Fund (IMF) recommended the only real solution to the NPL issue is based on three pillars as stated by Ayar et al., (2015) and are listed here:

1. "Stricter supervisory rules."
2. "Legal reforms aimed at speeding enforcement procedures and enhancing insolvency regimes."
3. "The development of a secondary market for NPL enabling their fast removal from banks."

When formulating policies to decide how to handle non-performing loans, the government must consider where the NPL should be physically managed, that is, where the depository of the NPL is actually going to be located. The government must also decide how best to resolve them in the most efficient and least disruptive method to the system. Of course, there are many causes, including the types of NPL, the breadth and depth of the

market, the ability of the market to absorb the NPL, market failure, the social and political system and the strength of the economy.

Four approaches considered in Kazakhstan in 2009 to solve the non-performing loan problem included the national bad-bank approach, the individual bad-bank approach, the bank work-out approach, and sale to investor approach. A discussion of each approach follows.

National Bad-bank/asset Management Company Approach

The national bad-bank or asset management company (AMC) approach sets up a government asset management company which acts as a central agency to deal with the problem. The government or National Bank acquires the NPL through the AMC and the bank receives government bonds, government backed bonds, or cash. The purchase of the NPL for notes and bonds occurs at some percentage of book value from commercial banks. Once the government or National Bank acquires the NPL, there is a work-out process and eventual sale to the ultimate investor.

There are several advantages to this approach, most notably the government has the ability to control the process of NPL resolution through a centralized and streamlined approach (this could also be a negative because of government inefficiencies and the possibility of fraud). With the AMC approach the government can take immediate measures to remove the NPL burden off the bank's balance sheet, and to quickly strengthen the financial sector. The AMC approach also allows the government to relax capital requirements and reporting standards for bad-bank/AMC to help them overcome the NPL issues. However, the state ultimately has to pay for the losses and therefore the people are faced with higher taxes under the AMC approach.

The national bad-bank/asset management company approach requires a strong management control system. However, this kind of system suffers from many inefficiencies and abuses such as fraud, embezzlement, and theft. According to The Astana Times, the Chairman of one of Central Asia's largest lenders (BTA Bank in Kazakhstan) embezzled more than one trillion Tenge in 2009, yet the National Bank, responsible for bank oversight, failed to prevent the disappearance of these funds (Staff Report, The Astana Times, 10 February 2018). The same Astana Time's article sites other examples of fraud, embezzlement, and theft (for example, Delta Bank making 100% of its loans to shareholders). According to Forelle (2014) approximately 85% of banking fraud in Kazakhstan occurred at the senior bank official level. Corruption at this level would severely hinder the national bad-bank/asset management company approach so there would need to be a strong incentive scheme for AMC employees and senior bank officials to work in the best interest of the people.

Additionally, some studies have found the adverse agency problems from bank insiders exacerbates the NPL problem and leads to fraud, theft, and abuse. According to Gorton and Rosen (1995) there is a strong negative correlation between the amount of ownership held by bank managers and the level of bank risk taking. Their analysis indicates a low ownership level by any one manager results in a low level of highly risky loans and a higher level of safe loans, while a higher ownership level by any one manager leads to the managers making higher risk loans for the pursuit of higher profits.

According to Berger and DeYoung (1997) there is an negative correlation between bank capital requirements and non-performing loans, lower capital requirements leads to more NPL due to the presence of moral hazard in lending. A similar argument is made by Keeton and Morris (1987) as well as Salas and Saurina (2002). In the study by Keeton and Morris (1987) and the study by Salas and Saurina (2002), both of their studies found that

banks that have low capital make riskier loans leading to more NPLs, again the moral hazard in lending is evident. In a study by Boudriga, Taktak, and Jellouli (2009), they found that higher capital requirements increase loan quality and reduce NPL, but only in countries with an established legal system and strict enforcement.

In 2015, Kazakhstan's Criminal Code was strengthened. Kazakhstan's Parliament approved strong penalties for those engaged in any kind of bribery. The penalties imposed were for both giving bribes and accepting bribes. President Nazarbayev approved an anti-corruption law designed to reduce and to eliminate corruption and the practices and conditions that encourage and sustain them.

Examples of countries that have used the national bad-bank/asset management company approach include the United States, Sweden, China, and Korea.

Strengths:

- The government backs up the fund with state backed securities to provide for fund capitalization and issues state guarantees for additional capitalization.
- Deferred cash payments through issuance of bonds and promissory notes by the fund based on the state guarantee.
- The creation of one single institute that will deal with all NPL and absorb losses if necessary. Therefore, some economies of scale are possible with the national bad-bank strategy.
- Immediate improvement of the overall second tier banking system through the reduction of NPL.
- Advantage of having the administrative resources to resolve arising issues in a timely manner.
- Limits the deep discount sale of NPL.
- The approach includes social considerations.

Weaknesses:

- Fund may be difficult to manage because of its size, status, need for additional coordinating with the state regulating bodies and other government bureaucracy and legal requirements.
- The NPL work-out process may be less effective as compared with private AMC for a number of reasons, for example, a lack of qualified personal, and it requires an individual approach for each case.
- Inefficiencies and abuses such as fraud, embezzlement, and theft may occur.

Individual Bad-bank/AMC Approach

The individual asset management company approach allows banks to create their own bad-bank or AMC and transfer the NPL off their balance sheets to the asset management company. This is similar to ring-fencing as previously mentioned, but the AMC is established to take all of the NPL creating an individual bad-bank and removing all the NPL from the balance sheet of the good-bank so that the good-bank no longer has them. Private banks' fund the bad-bank. In this method, the government does not provide any funds. The creation of a good-bank stabilizes the economy as the good-bank can concentrate on their core business of domestic lending and promote investment and economic growth. The bad-bank/AMC can concentrate on NPL resolution strategies that are the least disruptive to the economy. The use of good-bank and bad-bank was popularized by the 1988 Mellon Bank (good-bank) and the Grant Street Bank (bad-bank) restructuring (Baldwin and Meerscham, 1992).

A major problem related to the transfer of the NPL to the bad-bank/AMC is that it is very difficult to resolve. To determine the value at which the transfer should take place is extremely problematic (Marinč and Vlahu, 2011). For example, should the NPL transfer be at book value or market value? Another problem is that the bad-bank/AMC will likely operate at a loss and therefore there must be some mechanism to cover the losses. Most likely the selling bank of the NPL would have to cover the losses unless the government were to step in to cover them.

Taiwan is an example of a country that used the individual bad-bank/AMC approach.

Strengths:

- Possibility to create different AMC subject to NPL profiles: AMC for residential mortgages, AMC for SME NPL, AMC for NPL in the real estate development sector with collateral in the form of lands for commercial and agricultural use.
- The profit oriented nature of AMC supports better performance.
- Purchases of NPL by AMC on a cash basis provide grounds for better composition and structure of NPL portfolio with subsequent better management and work-out.
- The opportunity to transform the AMC into the successful venture with strong management and greater cash flows from improved asset management programs.
- The opportunity to leverage and align investor and bank interests through the size of shares in the establishing AMC.

Weaknesses:

- The countries total NPL problem may not be completely resolved because of the profit oriented nature of AMC business (applies to the AMC because the majority of asset management companies are privately held by investors).
- The state may risk ending up with the worst NPL left on bank balance sheets.

Special Purpose Vehicle Model and the Run-off Institution Model Extension

Other bad-bank models have been developed. For example, in Germany, two different bad-bank models were established. The special purpose vehicle (SPV) model and the run-off institution model. In the SPV model banks can transfer problem assets into a special purpose vehicle entity for banking which is financed through state guaranteed bonds. In the run-off institution model banks can transfer problem assets and non-core business into the institution which, in Germany, is funded via the sovereign act of SOFFIN.

Structured products are transferred to the SPV, which is not consolidated. Since the SPV provides for the transfer of the NPL, the portfolio transfer reduces the Risk Weighted Assets (RWA) on bank balance sheets. The SPV Model provides new financing opportunities such as guaranteed bonds. The SPV model also provides for additional financing through new preferred stock shares. After expiration of the SPV the bank is liable for any losses not covered by yearly installments. This further affects the potential dividends that are paid to the shareholders.

The run-off institution model provides separation of good and bad assets. Identified NPL, bad assets, non-core business, and other risk positions are separated from the bank and transferred to a run-off institution. It provides for the recapitalization through the possibility to issue preferred shares. The institution does not have to follow with the same regulatory requirements with the run-off model, which might lead to reduced capital requirements in the bank and therefore a reduction in RWA.

Shareholders have to bear losses directly, but they are entitled to receive any liquidation proceeds and the shareholders have to honor the call for eligible assets in business units.

Bank Work-out Approach

Non-performing loans can be restructured by a bank's own work-out department. The work-out department can work with the borrower to restructure the debt themselves without going through the courts. The lender and borrower of the non-performing loan work together to arrange a workout plan that would restructure the loan so that it would be mutually beneficial to both the borrower and the bank. An advantage of the bank work-out approach is that the upside potential of value appreciation of the restructured loan remains with the bank. In addition, to maximize recovery, banks can choose from a wide range of disposition alternatives, including collection, enforcement of collateral, a negotiated settlement, discounted pay-off, and voluntary sale and/or refinancing. However, the bank work-out method is a long term solution that does not provide an immediate measure to solve the NPL problem.

Examples of countries that used the bank work-out approach include Germany and Russia.

Strengths:

- The opportunity to get the maximum recovery from NPL's work-out.
- Banks can employ a variety of measures to work-out NPL, for example, foreclosure on collateral, and discounted pay-off.
- The opportunity to get state financial aid through various investment tools.
- Maintain good customer relationship that can result in future business for the bank.

Weaknesses:

- Absorption of significant human and tangible resources for NPL management.
- Limited opportunities for asset management from NPL work-outs due to limitations in Kazakhstan banking laws (for instance, banks cannot hold and manage for more than one year the pledged majority or minority interest in a business).
- This is a long term solution that does not provide an immediate measure to solve the NPL problem.

Sale to Investor Approach

The sale to investor approach sells the NPL to investors at the best possible price. There is no government bail-out plan or public funding needed. This approach is a medium term solution to clean the bank's balance sheet. It provides for a joint venture structures to allow banks to sell their loans and still allow banks to participate in potential upside gains from any increase in loan values. However, if it is an outright sale then there is no participation in potential upside gains. Also, if it is a structured deal with profit/loss sharing, then usually there is no full disposal from bank's balance sheets and capital requirements still apply.

Examples of countries that used the Sale to Investor Approach include Japan and Germany.

Strengths:

- No state financing or support is necessary.
- Immediate cash receipt, immediate increase in bank liquidity, and improvement of the balance sheet are possible.
- Joint Venture (JV) structure may include participation of banks in the potential upside.
- The least burden of administrative and transactional pressure on the bank and the

seller of NPL.

Weaknesses:

- Losing the opportunity to seize AMC's margin of NPL work-out premium.
- Fewer chances to get rid of the total NPL portfolio because of the investor's selection preferences.
- Most NPL are sold at a price that is lower than their book value, thus, a large number of NPL sales would result in economic losses to the bank (and seriously deteriorate their capital ratios). This would make the bank look even worse than when they carried the NPL creating a strong reluctance by banks to sell the NPL at a loss (Gangeri, Lanotte, Della Corte, and Rinna, 2017).

GOVERNMENT BAILOUT MEASURES

Government bailout measures to strengthen the asset side include the establishment of bad-banks/AMCs that take over the NPL of distressed banks at book value as well as AMCs to work out distressed loans or dispose of the NPL underlying assets through sell or securitization to international or domestic investors. Both would allow the good-bank to concentrate on new lending to improve NPL ratio.

Government bailout measures to unburden the liability side include the injection of government funds to increase capital and to absorb losses from write-offs, government guarantees for bank bonds to support financing through the capital market, and the nationalization of failed banks. In addition, the government can assist bank mergers and the sale of banks to domestic or international investors.

Other indirect government bailout measures to support the banking sector are the relaxation of reporting standards for bad-banks/AMCs (for example, lower regulatory capital requirements and lower reporting standards) and the introduction of new regulation to compel banks to resolve their NPL problems.

PRIVATE SECTOR MEASURES

Let the banks resolve their NPL problem without government intervention through private sector measures. The introduction of tighter reporting standards to increase capital requirements to compel action by the banks to resolve their NPL is a significant measure that the government could take to force the private sector to deal with the NPL issue themselves. Banks could also improve their own workout of distressed loans and increase restructuring plans for distressed borrowers (e.g., debt-to-equity swap or recapitalization of companies). Once the workout is completed banks can sell off NPL portfolios or single NPL to international or domestic investors to get them off their balance sheets and cut their losses.

NON-PERFORMING LOANS AND LIQUIDITY ISSUES: THE KAZAKHSTAN GOVERNMENT RESPONSE

The Kazakhstan government established the Distressed Asset Fund (DAF) in November 2008. The primary purpose of DAF was the acquisition of non-performing loans and their related pledged collaterals from commercial banks within their principal asset management operations. Initially, DAF's charter capital was declared at about USD 813 million and subsequently paid in the amount of USD 467million (See International Monetary Fund 2011 and the Republic of Kazakhstan government anti-crisis program for 2009-2010 years).

In October 2009, the government issued Resolution Number 1553 that further

expanded DAF strategic priorities. The expanded resolution included the priority acquisition of NPL and related collateral from commercial banks in their principal asset management operations as well as to provide financing to lending institutions for further financing Small and Medium sized Enterprise (SME). With Resolution Number 1553 SME's could purchase equipment using finance lease schemes via banks and leasing companies based on the General Agreement on Financing of leasing transactions and investment projects in processing industries signed by DAF, Samruk-Kazyna fund, and Damu fund.

As a result of Resolution Number 1553, DAF became involved in lending to small and medium sized businesses in the processing industry. DAF was also heavily involved in lending to construction companies for the completion of large residential projects in Almaty and Astana through the placement of funds in commercial banks. In addition, DAF was involved with the acquisition and further completion of Tau Samal and other real estate residential projects in Almaty and Astana. According to Resolution Number 1553 DAF capitalization remained at the same US\$ 467 million. The rest of the money (\$346 million from the original \$813 million) was promised for DAF, but was budgeted by the government for other needs.

The government of Kazakhstan gave support to the largest commercial banks through direct equity investment and indirect lending that provided further financing for the economy. Kazakhstan's National Welfare Fund Samruk-Kazyna provided about USD 3.24 billion for stabilization of the financial system. The funds were allocated among 4 major banks: JSC BTA Bank, JSC Halyk Bank, JSC Kazkommertsbank, and JSC Alliance Bank. The Kazakhstan government also deposited surplus cash of government related companies with commercial banks (Tumenbayeva, 2012). Government related companies include joint stock companies, national companies, state companies and companies with state ownership. Also, government related companies include those state entities whose assets are managed by Kazakhstan's National Bank. In addition, the government decreased the minimum reserve requirements for deposits placed in Kazakhstani Tenge from 5% to 0%. However, the decrease was only effective for commercial banks going through the restructuring process.

The government together with the fund Samruk-Kazyna (SK) undertook measures to fix the lending interest rate for SMEs at 14%. Under the refinancing program of the SK fund, residential mortgage loans were refinanced at fixed interest rates of 9% to 11%, subject to the status of the borrower, depending on whether it was social or standard market credit. Social credit was given under the state supported program for young families and representatives of budget organizations (for example, schools and hospitals). The government also took measures to prevent banks from cross border transactions with offshore residents to limit the cash outflow from the country and the government restricted foreign currency borrowings from the local commercial banks.

The Problem Assets Fund was created in 2012. It replaced the Distressed Assets Fund. The Problem Assets Fund is a Joint Stock Company that is set up to purchase bad assets and problem loans from banks.

NON-PERFORMING LOAN ISSUES IN KAZAKHSTAN

In Kazakhstan, non-performing loans sold at a discount trigger government involvement. When banks sell their NPL at market derived discounts the relevant state and fiscal authorities subsequently investigate the sale and thoroughly examine the transaction. With such scrutiny bank management runs the risks of being misinterpreted in their motivations. Bank management is required to prove and substantiate the sale price and subsequently be subject to further investigation by authorities. Banks are reluctant to expose themselves to this kind of scrutiny and the additional audit it entails and this impedes the

NPL market.

Bankruptcy proceedings are difficult to complete in Kazakhstan. Lack of experience in bankruptcy proceedings creates a challenge for banks and regulators when estimating net cash proceeds to be received from NPL work-out as the bank debt is expected to be adjudicated in the third rank (if collateralized) or even fifth rank (if unsecured). The total amount to be paid to prioritized creditors, for example, tax due and employee compensation payments, are difficult to determine.

Banking secrecy provisions hinder resolution of NPL's in Kazakhstan. Large NPL sale transactions may be subject to banking secrecy requirements, as in the process of assignment of rights, in this case banks would have to disclose all the relevant debtor information to the buyer, including assignment of rights.

NPL Administration by commercial banks, the government, and the National Banks is inefficient, under-staffed, and under-funded. When banks establish separate bad-bank departments to deal with non-performing loans, these departments have limited functions and absorb significant bank resources (both human and tangible) for the NPL management. These resources are no longer available for the core banking functions since they are dedicated to NPL resolution.

Past banking laws of Kazakhstan limited banks in the establishment of SPV (so called carve-out operation) for the management of NPL. Because of this, banks found it very difficult to establish SPV for conducting non-banking activities (such as NPL work outs with further asset management). Also, in Kazakhstan, social issues are an important factor, not only for the government, but also for business as well as for banks. The government's laws and policies for financing and refinancing current mortgages are designed to support families and mitigate social tension in the country as a whole, so the government will provide financial institutions help to secure residential mortgage accounts.

The Republic of Kazakhstan 2011 Banking Amendments included Legislative Acts on the Regulation of Banking activity that allows banks to establish or acquire a SPV, which will then acquire the banks' bad assets.

In Kazakhstan, as well as other countries, the valuation of NPL is difficult to determine. NPL valuation is impeded by government regulation, incomplete information, poorly developed markets, and insufficient demand. In 2009, the NPL market of Kazakhstan demonstrated a lack of interest from foreign investors to purchase large NPL portfolios.

Banks, as well as NPL buyers, need reliable information and dependable NPL pricing methodology that would be acceptable for both parties. The results of such NPL pricing should be thoroughly supported and defended for possible current and future reviews, inspections, and examinations by government and fiscal authorities. Market failure occurs in the non-performing loan market as discussed by Fell, Grodzicki, Martin, and O'Brien (2016) and the NPL market exhibits the characteristics of a market for lemons (See Akerlof, 1970). Therefore, due to the asymmetric information problem that creates market failure with respect to price and value, the resolution of non-performing loans requires a solution with government involvement. Consequently, with market failure and absent government involvement in the market, the NPL that are offered to the market would be mispriced, and of the lowest quality or also known as lemons.

When trying to sell non-performing loans banks have an information advantage. The asymmetric information impedes the efficient operation of the secondary market, however, when the NPL price is higher than the underlying value then banks have a strong incentive to sell the NPL. According to Hauck, Neyer, and Vieten (2014) this phenomenon improves financial stability and argues in favor for the use of the bad-bank.

The NPL market can be made more efficient through the use of pilot transactions, put options, put-backs, credit linked notes, and repurchase agreements. The use of these methods

would significantly reduce the problem of lemons, and would substantially diminish the risk associated with asymmetric information, moral hazard, and adverse selection that exist with the sale of NPL. If the NPL does not meet the standards as described by the seller it can be automatically sold back, or simply returned back (put-back) to the seller. This would mitigate the uneven bargaining power that exist between the buyer and seller of the NPL as well as reduce the asymmetric information problem.

Some Kazakhstan banks have excess liquidity as a result of restructuring, state support, inflow of deposits, and the absence of new lending, such situations may cause banks to put off resolving NPL issues. Also, as mentioned previously, the problem of market failure occurs. Market failure severely hampers the buying and selling of NPL, thus creating a very illiquid and extremely limited non-performing loan market making it difficult for banks to liquidate their NPL.

Kazakhstan mortgage law has several shortcomings related to court and out-of-court foreclosure procedures. Out-of-court foreclosure procedures have specific issues in the administration of foreclosure notification delivery, acknowledgement of the receipt procedure by the defaulted party, and auction on the foreclosed property. Court foreclosure proceedings are also problematic as it takes at least a four-month period of time to process the initial claim of the creditor into a valid foreclosure process.

NPL ISSUES, SOLUTION, AND EXIT STRATEGIES IN OTHER COUNTRIES

Kazakhstan is not the only country that has had to deal with a serious non-performing loan problem. Many countries have had to deal with the problem of non-performing loans, including, but not limited to, China, Korea, Japan, Taiwan, the United States of America, Russia, Sweden, and Germany. A review of the issues, solutions, and exit strategies are discussed and examined for these countries in this section of the paper.

NPL Issues, Solutions, and Exit Strategies in China

China experienced severe financial problems due to the 1997 economic crisis in Asia. The economic slowdown created a significant amount of non-performing and defaulted loans. The NPL volume increased by more than 30% yet, at first, China's response was slow and inconsistent (Barth, Yago, and Tatom, 2009). In 1999, China began to aggressively restructure its banking sector, but not until 2001 was the first NPL sale to a foreign investor completed.

China was able to reduce the NPL on bank balance sheets, the NPL ratio in China was around 20% in 2003 (Barth, et al., 2009). State-owned commercial banks (SOCBs) still had total outstanding loans to GDP of around 1.47. The four large SOCBs together were under increasing pressure to dispose of their NPL's in anticipation of future economic growth in the economy.

China's government formed state-owned AMC's in 1999 to take over NPL portfolios from the large state-owned banks and to work-out the NPL or to sell the NPL to international investors and domestic buyers via auctions or bilateral negotiated transactions. The four AMC's were Cinda (CCB), Great Wall (ABC), Huarong (ICBC), and Orient (BOC). China's Banking Regulatory Commission provided more than USD 60 Billion into CCB, ICBC, and BOC. The injection of funds allowed the banks to write-off bad debts, therefore improving their capital adequacy ratios, and were also allowed to transfer their NPL to Asset

Management Companies. Later, some of the state-owned banks such as CCB started to dispose of their NPL directly without the AMC's as an intermediary.

In China, AMC's were expected to dispose of their entire NPL portfolios within 10 years upon their establishment and were supposed to transform themselves into commercial enterprises during this time period. Banks transferred NPL to AMC's for 50-100% of book value, with the AMC's issuing promissory notes and bonds to the banks (Economist Intelligence Unit, Country Finance China, 2004). However, AMC's recovered only 25% of book value, which caused problems rating the bonds on bank balance sheets as there was only an implicit state guarantee in place for these bonds. The government finally absorbed the losses to resolve the NPL problem and to clean bank balance sheets.

NPL Issues, Solutions, and Exit Strategies in Korea

In the aftermath of the 1997-1998 Asian economic crisis, the Korean government spent 30% of 2001 GDP in public funds to restructure the troubled financial sector (Kang, Liang, Ma, Richards, Chopra, and Karasulu, 2001). The Korean government provided for the recapitalization of troubled financial institutions, purchased bank bad debts, purchased other deteriorated assets from financial institutions, and paid depositors the full amount of their deposits at failed financial institutions. Korea exemplifies a successful government led program to aggressively purchase and remove NPL from the banking system.

In an attempt to solve the financial crisis and the NPL problem, the Korean government aggressively dealt with the problem by closing or merging banks and financial institutions, selling entire banks or majority stakes in banks or financial institutions to foreign investors, raising capital adequacy ratios for banks, strengthening asset classification standards for banks, and requiring banks to provision adequately for non-performing loans. Furthermore, the IMF imposed additional requirements on Korea such as opening the market to foreign investors and introduction to best practice accounting rules to comply with international accounting standards (Kang et al., 2001).

The state-owned Korea Asset Management Corporation (KAMCO) was established in 1997 with the task of selling and managing troubled debt transferred from Korean financial institutions. KAMCO was capitalized through the issuance of bonds. The Korean government and government entities bought and held the bonds to provide funds for KAMCO.

KAMCO took over the NPL from troubled banks at near book value and sold them together in bundled portfolios to international investors. Later private banks started to directly sell NPL portfolios using joint venture structures which instead of following KAMCO's auction sales approach pursued privately negotiated transactions. Additionally, the Korean government directly bailed out troubled financial institutions and nationalized failed banks (He, 2006).

KAMCO disposed of their NPL by portfolio sales to international investors via outright sale and joint venture structures. Furthermore, KAMCO resolved part of their NPL portfolio through assets backed securities issuances using NPL as underlying assets. KAMCO incurred losses due to the large gap between the book value at which they took over the NPL and market prices. The government ultimately funded the loss. With the aggressive disposition of their NPL portfolios, financial institutions significantly reduced their NPL ratios and improved asset quality, which resulted in a more stable Korean banking system.

NPL Issues, Solutions, and Exit Strategies in Japan

Since the bubble economy burst in the early 1990's, the Japanese government spent USD 1,000 billion on programs to stimulate the economy (Ohashi and Singh, 2004). The economy was mired in stagnation, which created a huge NPL problem, as the fragile financial system was struggling to provide capital to the ailing corporate sector and companies in need of restructuring. When the economy hit bottom at the beginning of 2002 it continued to be burdened by distressed and excess debt, but the NPL ratio decreased in the years to follow mainly due to the banks' increasing dispositions of NPL to international and domestic investors.

Under the Financial Reconstruction Program of the Japanese Financial Services Agency (FSA), the major banks were required to halve their NPL ratio within three years (this was called the Takanaka-Plan (named after the FSA minister who developed the plan). In order to dispose of their NPL's in time for the Takanaka Plan, the four mega banks of Japan applied several off-balance sheet strategies, such as the transfer of their NPL to the RCC in bulk, the establishment of separate collection entities in which to transfer their NPL, securitization of NPL using SPV structures and sales to Joint ventures with global opportunity funds. Within five years of the inception of the Takanaka-Plan, Japanese banks reduced their NPL ratio from an average 8.4% in the 2002-2003 period to 2.4% in 2006 (Callen and Ostry, 2003).

The Resolution and Collection Corporation (RCC) was created by the government in the early 1990's to resolve NPL and was later authorized to purchase NPL from banks in the open market on a competitive basis through bid or negotiated basis. The state-owned Industrial Revitalization Corporation of Japan (IRCJ) was established in 2003 to support debt restructuring of large corporations. It would further purchase debts from banks and dispose of them to third-party investors with three years. In addition to the takeover of NPL, the government applied other measures such as injection of public funds into a distressed bank, nationalization of failed banks and sale of two distressed banks to foreign investors (LTCB and Nippon Credit Bank).

Japan managed to substantially reduce their NPL's, mainly via the private sector, through bulk sales to international investors. The RCC and IRCJ only played a minor role in the resolution of the NPL problem. The major banks also received support for NPL reductions through an injection of public funds to absorb losses and an extraordinary low interest rate policy. The RCC purchased NPL from banks at book value and in some later deals shared future profits or losses with the selling bank. The RCC kept the majority of their NPL, with the intention of working out the loans with the borrowers, and only disposed of a limited number of NPL portfolios via the secondary market (Ohashi and Singh, 2004).

NPL Issues, Solutions, and Exit Strategies in Taiwan

Taiwan was able to escape relatively unharmed from much of the Asian economic crisis of the late 1990's, but experienced a plunge in economic growth in the wake of the decline of the global technology sector in 2002, which caused a steep increase in NPL. Lingering problems in the struggling real estate sector followed by an extended decline in property prices further increased the level of NPL on the banks' balance sheets. According to the Central Bank of Japan 30% of Taiwan's NPL were mortgage loans and 45% were loans to corporations (primarily manufacturing). Taiwan managed to resolve the NPL problem via the private sector without a government bailout of distressed banks.

Taiwan's NPL levels were increasing despite its efforts to reduce the high number of financial institutions and strengthen the financial system by merging smaller and weaker

banks. To support the financial reforms of the highly fragmented banking system, the Financial Institutions Mergers Law was passed to ease mergers of domestic banks as well as with foreign banks. In 2002, Taiwan's government presented its "2-5-8" Plan for financial sector recovery. Under the "2-5-8" Plan financial institutions had to achieve an NPL ratio below 5% and a capitalization of more than 8% within 2 years. Banks failing to meet this target were faced with government controls that restricted their investments and earning policies. In addition, fines were levied on banks with capital adequacy ratios of less than 8%.

The Financial Institutions Mergers Law legalized the establishment of private AMCs to purchase NPL and to liquidate collateralized assets. Only AMCs were allowed to purchase NPL from banks. International investors quickly embraced the opportunity and established their own AMCs to purchase NPL. Later, local banks also set up 100% owned AMCs, mainly in order to acquire NPL of the parent bank, but some also participated in the wider NPL auction market. While, during 2002-2005, banks very actively sold NPL portfolios to international distressed debt investors, banks became reluctant to sell to third parties as they could earn higher recoveries by disposing of assets to their related AMCs.

AMC shareholders, international investors and local banks, provided the sole source of funds to the AMCs. The government did not provide funding to the AMCs. Banks sold their NPL portfolios to the AMCs via auction processes with multiple participants at market prices. Hence, unlike in other Asian countries, Taiwanese banks had to absorb the loss when the purchase price was below book value. The AMCs worked out the NPL portfolios or disposed of them in secondary transactions.

NPL Issues, Solutions, and Exit Strategies in the United States

The collapse of the Savings and Loan institutions in early 1980 triggered a major financial crisis in the United States that had not been experienced in this magnitude since the Great Depression years of 1929 through 1933. Bank failures in the early to middle 1980's depleted the Federal Savings and Loan Insurance Corporation (FSLIC), the primary insurer of savings and loan customer deposits.

Massive numbers of Savings and Loan failed during the early 1980's. Over 1,600 federally insured S&L's were closed. The loss in asset value was well over \$600 billion. Some Savings and Loan institutions received assistance from the Federal Savings and Loan Insurance Corporation, but most S&L's were closed by the FSLIC or the RTC. These failed S&L's had more than 5% of all banking assets (FDIC, 1997, 1998).

To confront the crisis of the U.S. Savings and Loan Banks in the 1980's, the Resolution and Trust Corporation (RTC) was established in 1989 to seize and liquidate the assets of the failed financial institutions. The RTC successfully completed its mission and was closed in 1994 (FDIC, 1998).

The RTC was set up to resolve the S&L problem in the United States. The RTC was the designated agency responsible for taking over the failed S&L's and solving the problems in the best interest of the public. The RTC employed a number of resolution strategies to either resolve or liquidate the assets, including auctions, asset management contracts, and securitization and equity partnerships. The RTC was financed through the Resolution Funding Corporation (RefCorp), which issued state guaranteed long term zero coupon bonds. Repayment of these bonds was made from the sale of assets of the Savings and Loan Banks

as well as a government supported fund of USD 20 billion and another USD 20 billion from the Federal Home Loan Banks (FDIC Annual Report Highlights, 2007).

NPL Issues, Solutions, and Exit Strategies in Russia

Russia experienced an economic slowdown in the beginning of the 1990's and this led to a very serious banking crisis and instability in the financial sector. However, the Russian economy recovered in 1998 and financial sector stability returned. A major aim of the banking regulators was the improvement of asset recoveries from liquidated banks and to reestablish public trust and confidence in the banking and financial system.

Russia's reforms to improve the banking and financial system included improved supervision of banks, better reporting by financial institutions, and increased risk exposure management. These measures resulted in an improved financial system that experienced renewed stability and significant growth in financial institutions (over 1,300 credit institutions were operating with more than 2,600 branches). The three major banks in Russia are Sberbank, VTB, and Gazprom Bank. These three banks together dominated the Russian financial system (but, they were strictly controlled and supervised by the government) and had at least 36% of the total banking assets in 2007 (Anzoategui, Martinez, and Melecky, 2010).

The Bank of Russia was founded in 1999. At that time it developed a system for supervising and inspecting banks and financial institutions and instituted measures to improve efficiency and performance of the financial system. This created more liquidity for banks and financial institutions. To assist with the financial restructuring of banks the Russian government created a special purpose vehicle. The special purpose vehicle was given the name, Agency for Restructuring Credit Organizations (ARCO).

ARCO conducted diagnostic examinations to identify problems and determine a course of action to assist banks overcome their problems. ARCO helped to restructure bank balance sheets, problem loans, and problem assets. ARCO provide funds to the banks in an attempt to recapitalize the banks. In addition, ARCO prepared restructured banks for sale to investors, restructured and improved the management systems used by banks, and purchased bank's problem loans.

NPL Issues, Solutions, and Exit Strategies in Sweden

Sweden experienced a widespread financial and banking collapse in the 1990s after the burst of the real estate bubble. The problems began with a property boom, deregulation, and exposure to economic troubles in a much larger county in this case Russia.

The impact on the banking sector was severe. There were wide-scale bankruptcies of financial institutions and a steep increase in NPL within the banks' balance sheets. Foreign banks cut credit lines to troubled Swedish banks, which began calling in loans creating more economic shocks and instability in the financial system.

The Swedish government gave credit guarantees in return for a majority stake in troubled banks or took full control of failed banks. Two bad-banks, Securum and Retrlva, were created to take on the bad commercial property debts of nationalized banks. The Swedish government fully capitalized all of the bad-banks. The Swedish government allowed all private banks to create their own bad-bank and to transfer their NPL into the bad-bank (Van Suntum, and Ilgmann, 2013). The financial institutions were responsible for financing the bad-banks. No government support was offered to capitalize the bad-banks. However, to reestablish trust in the financial system, the Swedish government guaranteed all saving deposits at Swedish banks and expected shareholders of failed banks to absorb all losses.

Sweden had gone through a period of financial deregulation during the 1980's. The 1990's financial crisis prompted the Swedish government to reintroduce many new regulations to establish a stronger regulatory system to help control the financial sector (Steinmo, Bayram, and DeWit, 2014).

A valuation panel made up of government representatives, real estate experts, and financial authorities was established to determine the appropriate price to use to transfer the NPL into the bad-banks. The bad-banks were run relatively independent of the government. The bad-banks resolved the NPL within a fairly short period of time mainly by selling the underlying assets. 30-50% of the capital provided by the Swedish government was repaid through the resolution of real estate loans. The remaining capital was repaid via dividends as well as capital gains when the state sold their stake in nationalized banks via public offerings. The total costs of the bail-out by the Swedish government was estimated at 0.2% of GDP (Bergström, Englund, and Thorell, 2003).

NPL Issues, Solutions, and Exit Strategies in Germany

The 2000-2001 technology and dot.com bubble precipitated financial and economic problems and slowdown in the Germany economy and insolvencies, both corporate and private, increased significantly. At the same time, the housing market in Eastern Germany collapsed and caused a steep increase in default rates for mortgage loans. Banks experienced increasing NPL ratios and especially credit cooperatives and real estate banks saw an immediate need to resolve their NPL problem. The scale and size of Germany's NPL problem was huge. Germany's non-performing loans were estimated at €160-300 billion, depending on the definition of NPL (Schäfer, Speyer, and Kaiser, 2007).

Germany's banking system is composed of private commercial banks, public banks and cooperative banks. Germany's three tier banking system is very fragmented compared to the rest of Europe. The partially state-owned Savings Banks and Credit Cooperatives together had a market share of 70%, comprising 1,200 Credit Cooperatives and 450 Savings Banks. The Commercial Bank sector is comprised of four large banks (Deutsche Bank, Commerzbank, Dresdner Bank, and Hypo-Verelnsbank) as well as 270 other private banks.

The German Financial Services Authority (BaFin) did not publicly acknowledge the NPL problem. In order to reduce their NPL ratios, German banks started to sell NPL portfolios to international investors in auction sales and negotiated bilateral transactions. Germany had the most active market with over 60 NPL portfolio transactions with a total sales volume of over €40 billion between 2003 and 2007.

In the financial crisis, the government set up the Special Financial Market Stabilization Funds (SOFFIN) to support the struggling banks through state guarantees and recapitalization. In addition, two different bad-bank models were established. The special purpose vehicle model and the run-off institution model described earlier in the paper.

NON-PERFORMING LOANS IN KAZAKHSTAN

In 2010, the construction and trade sectors demonstrated the largest share of non-performing loans. Other sectors with large shares of non-performing loans include small and medium-sized enterprises, (SME), financial, business and social services such as banking, medical, real estate brokerage, and insurance companies (National Bank of the Republic of Kazakhstan, Statistical Bulletin, 2010).

Total loans outstanding for all sectors of the economy equaled approximately to 50 billion USD as of January 2010. The majority of funding was concentrated in construction and trade sectors. From mid-2007 to May 2010 residential real estate asking prices fell by

54%, 40%, and 29% in Almaty, Astana, and Karaganda respectively which considerably reduced the value of those loans (National Bank of the Republic of Kazakhstan, Statistical Bulletin, 2010).

RECENT EVENTS

In 2017, the National Bank of Kazakhstan implemented the “Program for Increasing Financial Soundness of the Banking Sector of the Republic of Kazakhstan.” This program is designed to resolve the problem of non-performing loans over a five-year period. The program will achieve its objective through the write-off (or waiver) of debt, capitalization of the banks, as well as other measures designed to improve bank assets. (Resolution of the Management Board of the National Bank of Kazakhstan as dated June 30, 2017 No.129).

Halyk Bank and Kazkommertsbank Bank (Kazakhstan’s two largest banks) merged together in 2017. Halyk acquired almost 97% of Kazkommertsbank’s shares. After the merger of these two big banks the Kazakhstan government and the National Bank announced the approval of a major support program for the banking sector in October 2017. The program totaling 410 billion Tenge is to be provided to four banks ATF Bank, Eurasian Bank, Tsesna Bank and Bank CenterCredit.

Kazakhstan’s non-performing loans ratio was very high from 2009-13, but the ratio has been dramatically reduced since then. In July 2012, the NPL ratio was at 30.8% (the highest observed in Kazakhstan) and the lowest was 4.6% in April 2008 (The World Bank). The NPL ratio was approximately 10 percent in March 2018. Figure 1 (Appendix) shows non-performing loans in Kazakhstan from 2010 to 2018.

CONCLUSION

The global economic crisis of 2008 followed by the sharp fall in oil prices in 2009 led to an explosion of non-performing loans in Kazakhstan. Still to this day, there exist a non-performing loan problem in Kazakhstan, though not nearly as serious a problem that existed from 2009 through 2014. Certainly efforts to resolve the NPL problem is an ongoing process. Significant progress has been made, but the NPL problem has still not yet been overcome. In 2009 Kazakhstan’s financial system faced a non-performing loans problem estimated above 18% of GDP with NPL levels approximately 30 percent of the total portfolio including the three main insolvent banks at the time (BTA Bank, Alliance Bank, Temirbank). The percentage of NPL was actually much higher for the largest banks. The NPL ratio was approximately 10 percent in March 2018, with restructured loans still approximately 24%. The reduction of the NPL ratio is a very significant improvement.

Kazakhstan’s attempted to handle the NPL issue by using the individual asset management company approach, (the good-bank-bad-bank approach). The Kazakhstan government and the National Bank created a good-bank-bad-bank from the bank with the highest level of NPL’s (BTA-KKB Bank). KKB became the good-bank and BTA became the bad-bank. Halyk Bank acquired KKB in 2017 and the Kazakhstan government provided billions of dollars in aid to support Halyk-KKB but even However, the Halyk-KKB bank was mismanaged and the reduction of the NPL problem is still an issue that requires constant monitoring to keep it from distressing Kazakhstan’s banking and financial system.

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APPENDIX

Figure 1. Dynamics of the loan portfolio, non-performing loans over 90 days in the banking sector of Kazakhstan. (Source: National Bank of Kazakhstan)

