
Toward Developing a Structured Approach to the Diagnosis and Resolution of Nonperforming Loans: The Case of China and India¹

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Abstract

This article addresses the issue of nonperforming loans (NPLs) from a public policy perspective. The focus is on three aspects of NPLs that we consider essential for a proper analysis: the degree of the NPL problem, the causes of NPLs and the solutions adopted to address an identified NPL issue. This research analyses the diverse definitions and measurements of an NPL. Further, it introduces the distinction between systemic and situational causes of NPLs. Arguing that different causes require different cures, this study emphasizes a mix of short-term and long-term remedial measures as judicious in dealing with the NPL problem. This framework is then applied to two case studies: China and India. The conclusion identifies future directions of research, such as the study of a threshold level beyond which NPLs may pose a barrier to a country's growth and productivity.

KEY WORDS: nonperforming loans, public policy, China, India, directed lending

Introduction

The 1997 Asian crisis made the term “nonperforming loan” (NPL) the dread of financial sectors around the world. Even large financial systems, such as China and India that maintained capital controls and shielded themselves from the Asian financial crisis, have been forced to deal with large amounts of NPLs during their transition to a more open and competitive economy. Although it is a core issue in the liberalization of the banking system, NPLs per se are not often discussed in the public policy literature.

This research treats the issue of NPLs from a public policy perspective. In this paper, we therefore focus on three aspects of NPLs that we consider essential for proper public policy analysis: the degree of the NPL problem, the causes of NPLs, and the solutions adopted to address an identified NPL issue. We look at the question of the precise point in which NPLs become a public policy concern. Further, this paper introduces the distinction between systematic and situational causes of NPLs. Arguing that different causes require different cures, this research then analyzes the policies commonly prescribed for NPLs in terms of their effectiveness both in the short term and over the long run.

For better insight into the accretion and evolution of an NPL problem and possible resolution measures, we apply this framework to two case studies: China and India. The choice was determined by our desire to compare the two largest developing countries that have faced or are still facing NPL problems while pursuing liberalization policies within the context of differential approach to economic growth. Moreover, India and China have attracted enormous attention from the economic policy and business arena during the last 20 years. There is an ongoing debate concerning which of these two countries' economic models better promotes sustainable development.

The existing literature and international practice do not agree on a single definition for the term “nonperforming loan”. There is also no consensus on how to measure NPLs, especially across countries. Empirical evidence is generally focused on the micro perspective, treating NPLs solely as a problem of bank assets quality. Empirical evidence at the macro level is generally provided only within the larger context of systemic crises.

Further, the three essential dimensions that we identify in an NPL remedial approach are aspects not specifically addressed in the public policy or finance literature. Given this shortcoming in the existing literature, these three aspects provide a comprehensive view on NPL issues and provide guidance for necessary policy measures. Further, the comparative evidence provided by the cases of India and China shows the utility and efficiency of employing this conceptual framework.

The paper proceeds as follows: The second section reviews the literature regarding NPLs. The third section outlines the key dimensions of the conceptual framework and discusses them in detail. The fourth section applies the three dimensions to the analysis of the two case studies, China and India. The findings of the case studies are analyzed in the fifth section. The sixth section concludes by providing a short summary of the paper, the limitations encountered and proposed future directions of research.

Literature Review

The informal international standard of an NPL is a loan with principal and interest 90 days or more overdue (Article 4.84 of International Monetary Fund [IMF] 2004; Asian Development Bank [ADB], 2004; Ernst & Young, 2004). An NPL is a nonperforming bank asset, be it within a private or a public bank; however, the term “nonperforming assets” (NPA) includes other nonearning bank assets besides loans, for example, nonperforming securities, interbank placements, derivative claims, equity participation, and off-balance sheet items (Central Bank of India, 2004). The literature also refers to NPLs as bad loans (Bonin & Huang, 2001), impaired past due loans (Basel Committee, 1999), and problem loans (Berger & DeYoung, 1997). While all agree that an NPL is an overdue loan, there is no clear time limit. The Basel Committee recommends that banks should define the term “past-due” based on “an aging analysis of past-due loans (30–89 days, 90–179 days, 180 days or more)” (Basel Committee, 1999, p. 35). Various countries have different criteria for determining if a loan is nonperforming. While Pakistan adopted the 90 days rule in 1992, India maintained 180 days until 2004. China changed from 180 to 90 days in 2002 (ADB, 2004).

It is difficult to agree upon a single measurement of NPLs or to compare NPL levels across countries. International banks usually report both the absolute value of NPLs and the NPL ratio, which is gross NPLs as a percentage of total lending (ADB, 2004; Kwack, 2000). International financial institutions also sometimes report NPLs as a percentage of gross domestic product (GDP) (Claessens, Djankov, & Ferri, 1999; Ernst & Young, 2002).

NPLs create problems for banks in two ways; first, they affect the asset side of a bank’s balance sheet by diminishing the value of assets, and second, they diminish

the bank's income as a result of the provisions for loan losses. A riskier asset portfolio and lower income make it more difficult for a bank to fulfill its lending function (ADB, 2004). Evidence from U.S. banks shows that NPLs precede reductions in cost efficiency (Berger & DeYoung, 1997). Banks have less funds available for lending and they are more cautious concerning investing in riskier businesses, such as start-ups. Berg, Forsund, and Jansen (1992), and Hughes and Mester (1993), use NPLs as a proxy for loan quality.

Elements of risk are inherent in the functioning of the market. Bad investment decisions, such as real estate bubbles or risky investment decisions might lead to NPLs without necessarily signaling a problem, but rather a change in behavioral investment patterns (Aspachs et al., 2007). Banks might decide to lower their short-term costs by not allocating sufficient resources to monitoring their loan portfolio. Further, banks with relatively low capital might endanger their loan portfolios, resulting in higher NPLs on average in the future (Berger & DeYoung, 1997).

NPLs present a significant risk not only to banks (Barr & Siems, 1994; Demirguc-Kunt, 1989; Whalen, 1991) but also to countries. Huge amounts of NPLs are associated with subsequent negative credit growth (Pasadilla & Terada-Hagiwara, 2005). In extreme cases, a high level of NPLs can pose a major risk and even lead to bank runs on deposits, a main characteristic of systemic crises (Claessens, Klingebiel, & Laeven, 2003). An analysis of the late 1990s Asian Financial Crisis shows that the NPL rate, as a percentage of total loans of commercial banks, was one of the significant factors leading to the crisis (Kwack, 2000). Between 1997–2003, Indonesia, Korea, Malaysia, the Philippines, and Thailand spent billions of dollars on liquidity support, from US\$9 billion to 24 billion, capital injection, from US\$8 billion to 45 billion, closures, establishment of asset management companies (AMCs) and purchases of NPLs (ADB, 2004, p. 34). In terms of economic distress, the costs were estimated to be between 16 to 50% of the GDP for these countries (Claessens, Djankov, & Klingebiel, 1999, November).

There is a disparity between how NPLs are treated in the academic literature and their actual significance for economic institutions. While international economic organizations, central banks, and international consultancies must deal with NPLs on a constant basis, the finance and economic policy literature tends to overlook the issue. NPLs are dealt with in the finance literature to the extent that they approximate loan quality, and empirical evidence is generally based on the experiences of developed countries. In the economic literature, NPLs are treated as a characteristic of systemic crises and the usual empirical evidence is the 1997 Asian Financial Crisis.

Although NPLs are a potential problem for any economy that is undergoing liberalization, there is not a clear public policy framework of analysis for NPLs in the literature. We have attempted to provide a framework that might facilitate the understanding of NPLs as a public policy phenomenon and not only as a financial outcome. Based on literature from the fields of finance, economics, political economy, and public policy, we delineate three aspects—degree, causes, and solutions—as comprehensive and necessary for the understanding of an NPL problem. The framework that these three dimensions form facilitates the analysis of NPLs within an economy and provides public policy guidance to an identified NPL issue.

Key Aspects in Dealing with Nonperforming Loans

A relatively high stock of NPLs on the balance sheet of banks does not necessarily present a problem at the national level. The threshold at which the NPLs become a danger to the national economy is still inconclusive in the literature. Countries differ substantially in their state of development and the institutional settings in which NPLs develop. Further, the policies adopted by countries to address an NPL problem cover a wide spectrum. In this section, we focus on the three aspects of NPLs that we consider essential for proper public policy analysis: the degree of the NPL problem, the causes of NPLs, and the solutions adopted to address an identified NPL issue.

There is no clear consensus concerning the point at which NPLs become a significant danger. It is clear that an NPL ratio close to zero is not a problem, but the tipping point is more difficult to establish. A 5% NPL ratio appears as the threshold in some studies (Bank Indonesia, cited in Caprio & Klingebiel, 2003; Ernst & Young, 2004). However, even a 5% NPL ratio can pose trouble, depending on the country. The Ernst and Young (2004) report suggested that Germany, with a 5% NPL ratio in 2004, was in the same NPL market category as China and India. The negative rating was a result of the expectation that significant amounts of new NPLs were being created by rising bankruptcies and relaxed lending following German unification in the early 1990s.

Additionally, a 5% NPL ratio in a developing country is not the same as a 5% NPL ratio in a developed economy, *ceteris paribus*. The amount of NPLs is usually higher in a developing country as a result of increased risk and the amount of total loans is usually lower as a result of a less developed financial system. Presumably a developed country would be better able to manage the same NPL ratio than a developing country, because a developed country has a more mature, flexible, and more transparent financial system and there would be higher amounts of government funds available for possible cash injection into banks.

Finally, the NPL ratio does not reveal the structural problems behind the number. A 5% NPL ratio can be a warning sign if the NPLs are concentrated in sectors with a high percentage of total outstanding loans. Such industries will probably not be able to pay the rest of their loans, leading to more NPLs. This has been the case in Japan, where real estate, construction, and wholesale and retail commerce accounted for 54% of total NPLs in 2001 and 33% of total outstanding loans in the banking system (Government of Japan, 2001).

In diagnosing an NPL problem, size per se is not sufficient. The level of development of the country and the status of its financial/banking system must be taken into account. Also, the source of origin of the NPLs and the importance of that source in the financial system are to be assessed. Further, it is important to determine whether the NPLs result from endogenous, systemic causes or if they are situational, as well as to assess the overall condition of the economic/legal/political environment in which the NPLs are occurring. The distinction between systemic and situational problems becomes crucial when one is attempting to prescribe solutions for excessive NPLs. If the problem is predominantly situational, short-term solutions, such as capital infusions from the government or the creation of AMCAs, may be sufficient. If, however, NPLs are primarily the result of systemic

causes, it is not enough to simply remove the old NPLs. Reforms must be initiated to prevent the creation of new stocks.

A systemic NPL problem is one that results from existing government, financial, legal, and/or banking institutions and practices.² It is beyond the scope of this paper to provide an exhaustive list of the systemic causes of NPLs, but one of the most common is corruption (Bonin & Huang, 2001; Wei & Shleifer, 2000). Definitions and measurements of corruption vary, but the abuse of public authority for personal gain (Sarkar & Hasan, 2001) is one of the leading causes of NPLs. Khwaja and Mian (2005) have found that loans made to politically connected firms by state-owned banks have 50% higher default rates than regular loans in Pakistan, costing between 0.3 to 1.9% of GDP every year. La Porta, Lopez-de-Silanes, and Shleifer (2002) find that related lending, or loans given to associates and family members of the bank's owners, is 33% more likely to default than regular loans. Corruption may also result from the lack of accountability/transparency within the banking industry, an independent judiciary, or a strong legal framework.

Directed lending policies, in which the government overtly requires or "strongly influences" state-owned banks to make loans as part of a larger economic strategy or to fund a fiscal deficit (ADB, 2004), often result in high levels of NPLs. Sapienza (2004, p. 358) finds that state-owned banks "serve as a mechanism to supply political patronage." Berger, et al. (2005) conclude that levels of NPLs are much higher in state-owned banks than in privately owned banks in Argentina.

Moral hazard resulting from state-provided deposit insurance is another major systemic cause of NPLs (Bonin & Huang, 2001). If banks know that they will be protected from the results of defaulted loans, they will be more likely to issue high-risk loans which, if successful, result in higher returns. Moral hazard may also result from the use of cash infusions to pay off NPLs. The question is how to combine the guarantee of a stable financial system with incentives to discourage the dispensation of excessively high-risk loans.

Institutional weaknesses in the legal sector (Claessens et al., 2003) are another systemic cause of NPLs: deficient bankruptcy and restructuring frameworks, an inefficient judiciary system, and poorly defined and/or weakly enforced equity and creditor rights. In addition, the lack of clearly defined accounting practices may contribute to the creation of NPLs (Summers, 2000).

Situational problems, on the other hand, arise from a new set of circumstances which disrupts the status quo. These situations are often exogenous to the country's systemic problems, and it is probable to be short-term in nature. World economic recession, a depression in the business cycle, the abrupt outflow of foreign investment as a result of contagion effects, currency depreciation, a rise in risk inclination of investors and plain bad luck are all instances of situational problems that may lead to the creation of NPLs. For example, during the Asian Financial Crisis, currency depreciation and the abrupt outflow of foreign investment led to the creation of substantial NPLs in many countries (Summers, 2000).

Of course, NPL diagnosis seldom falls precisely into one category or the other; the majority of NPLs are the result of both situational and systemic problems. Systemic problems may not even be problems per se, until a particular situation develops. In Indonesia, for example, the lack of strong capital controls was a

preexisting systemic *condition*, but was not perceived as a *problem* until the Asian Financial Crisis (Makin, 1999; Summers, 2000).

In addition to a thorough analysis of the causes of an NPL problem, it is also important to look at the solutions being adopted by national governments and creditors. There is extensive documentation of the remedial measures initiated by countries to deal with the NPL problem. These accounts are predominantly country-specific, as curative efforts have varied depending upon the causal factors of NPLs. The effectiveness of a particular NPL resolution measure will be guided by the institutional environment in which it is applied, even though the choice of a particular measure will determine the fiscal cost and the speed of recovery (Claessens, Klingebiel, & Laeven, 2003).

One must differentiate between short-term solutions, such as the transfer of NPLs into AMCs, and longer term reform measures, such as institutional restructuring that is implemented gradually over time. We therefore suggest that countries apply a mix of short-term measures along with systemic, institutional reform (Claessens, Klingebiel, & Laeven, 2003; Dziobek & Pazarbasioglu, 1998; Mukherjee, 2003). While the first item cannot stem the creation of new NPLs without appropriate institutional support, conversely, failing banks often need prompt intervention before a longer term process of restructuring can be initiated. An account of several short- and long-term approaches for resolving NPLs is provided in the following paragraphs.³

Financial restructuring to improve solvency can be applied to manage banks' existing stock of NPLs, enabling banks to survive the problem in the short term. Financial restructuring can be a combination of capital injection provided by the government or the central bank, transfer of bad loans to AMCs, the sale of NPLs to international investors, and other short-term measures (Dziobek & Pazarbasioglu, 1998; Mukherjee, 2003).

As a remedial measure, capital injection is usually employed by governments, when the financial risk to banks is both urgent and immediate and to avoid the social cost of bank closure and failing (Mukherjee, 2003). Notwithstanding, capital injection provides ambiguous results. On the one hand, it offers failing banks a fresh start, boosting capital adequacy and strengthening balance sheets, and ultimately enabling them to be listed on international stock markets with improved credit ratings. On the other hand, it perpetuates the cycle of moral hazard. Banks rely on government bail-out efforts, and borrowers may believe that once bad loans are written off or transferred to the government, the obligation towards payment can be evaded (China Economic Quarterly, 2004). Capital injection also depletes government funds and diminishes the ability to safeguard against future shocks. This measure, if not paired with banking-sector and institutional reforms, will ultimately be a drain on the economy with no real returns (Dziobek & Pazarbasioglu, 1998).

AMCs are another method that has been widely applied in the short-term resolution of NPLs. They are either directly funded by governments or funded through loans from the central bank, AMC bonds, or loans from other financial institutions. Klingebiel (2000) differentiates between those AMCs that collect NPLs from banks and those that assist in corporate restructuring. While the first AMC group has been largely successful in removing a substantial portion of NPLs from numerous banking systems, the second's performance in corporate and bank

restructuring has been deemed less successful (ADB, 2004; Fung et al., 2004; Klingebiel, 2000).

Like capital injections, AMCAs are a backward-looking measure that does not safeguard against further NPLs and which may perpetuate the cycle of moral hazard. AMCAs may lose money because of assets not being transferred at market value and lower returns on collected assets. This raises concerns over the solvency of these organizations. In such a scenario, the inability of AMCAs to repay or raise interest on bonds issued to banks may end up further jeopardizing banks as, over time, restructured loans may themselves turn into NPLs (Fung et al., 2004).

Moving bad loans from the banks to AMCAs is not a solution in itself. The selling, securitizing, and/or restructuring of those loans to return assets to the public or private sector must be the ultimate objective (Bonin & Huang, 2001; Mukherjee, 2003). The securitization of NPL portfolios and the sale of them to global investors is a viable alternative to transferring NPLs to AMCAs. An Ernst and Young (2002) report estimated that opportunity funds committed as much as US\$20 billion in equity to acquire nonperforming assets in Asia in 2001.

Additional short-term NPL resolution measures include permanent bank write-offs, good bank/bad bank disposition strategies,⁴ apportioning losses to depositors and creditors as well as to the banks and the state (Dziobek & Pazarbasioglu, 1998), merger or closure of banks, and asset restructuring and disposition through the London Approach. The London Approach is a nonstatutory corporate restructuring mechanism that creditors and borrowers can adopt as a substitute to legal insolvency proceedings to minimize losses. This approach is particularly useful when a number of banks have provided loans to the same corporation (Armour & Deakin, 2001).

To reduce NPLs resulting from systemic causes, governments have initiated restructuring of the banking sector, enabling these institutions to function with increasing autonomy according to market guidelines. In some cases, the privatization of failing state-owned banks was undertaken (Dziobek & Pazarbasioglu, 1998). Prudential norms have been adopted in many countries in accordance with the Basel Accords. Such norms generally relate to capital adequacy, income recognition, asset classification, and provisioning, as applicable to the country. Norms on corporate good governance have also been introduced by some countries to improve banks' efficiency and to minimize risk (Dziobek & Pazarbasioglu, 1998; Mukherjee, 2003). To improve profitability, banks in countries undertaking liberalization have moved toward a transparent lending procedure based on information of borrowers' credit history, business viability and ability to repay loans. Further the importance of efficient management of human resources in creating a productive work culture is being increasingly recognized by banking institutions (ADB, 2004).

Banking sector reforms have been complemented with increased protection of creditors' rights against defaulting borrowers. A strong legal framework and an independent judiciary system are also helpful in deterring those NPLs that arise from systemic corruption, and insider and collusive lending practices. Claessens, Klingebiel, and Laeven (2003) find that such institutional setups facilitate a quicker recovery of the financial health of a country.

Countries working toward NPL reduction are therefore advised to combine the transformation of the banking sector to shareholding corporations and toward

profit maximization, with the introduction of prudential norms to facilitate risk assessment and management, and a tighter regulatory framework to increase operative transparency. It is important to emphasize here that these institutional reforms should be introduced gradually to ensure that the financial and banking institutions have adequate time to adapt and thereby avoid political backlash. With benefits not apparent over the short term, strong political leadership and commitment is therefore crucial (Dziobek & Pazarbasioglu, 1998; Mukherjee, 2003).

Case Studies

China and India are the largest emerging markets, not only in Asia but also worldwide. The two neighbors' economies have soared over the last two decades while implementing different economic strategies. As Huang and Khanna (2003, p. 76) emphasize, "India is increasingly building from the ground up while China is still pursuing a top-down approach." Beyond the contrasting political systems, China and India have chosen different paths of economic development.

Gradually abandoning a tightly controlled command economy, China has embarked on a series of liberalization policies since the 1980s and the result has been decades of high economic growth. India, for its part, turned away from its socialist economic planning in the 1990s with highly praised results. While both countries are on the rise, their policies and sources of growth differ substantially. China opened its economy to foreign direct investment and used that, together with high domestic savings, to invest heavily in manufacturing and the development of infrastructure. With less hard infrastructure and little foreign investment, India has grown largely as a result of the success of domestic private firms in areas such as software, biotechnology, and producer services (Khanna, 2004, p. 112).

The two economic giants differ also in terms of financial systems. China's financial institutions are the result of the liberalization policies started in the 1980s. The roots of the Indian finance system may be tracked to the British colonial times. As Farrell and Lund (2006) suggest, while China has a deeper financial sector than India (China's financial assets equaled 220% of GDP in 2004 versus India's 160% of GDP), providing more and cheaper corporate credit, India's financial system is more balanced among the banking sector, equity market, and government bond market, and also has a booming equity sector.

Neither country was severely affected by the 1997 Asian Financial Crisis as a result of capital controls in the case of China and minimal foreign investment in the case of India. Even so, both countries have been forced to deal with the issue of NPLs. In this section, we employ the three key aspects of an NPL approach identified in Section 3 to the cases of China and India. Our interest lies in assessing the degree of the NPL issues in China and India, their potential causes and the policies that have been employed to remedy the respective problems.

China

The extent of the NPL problem in China remains uncertain and highly controversial. On May 3, 2006, Ernst and Young, (2006) released a report estimating that there is approximately \$911 billion in NPLs in China's banks.⁵ The Chinese

government disputed this figure, insisting that the actual amount of NPLs was closer to \$164 billion, and Ernst and Young quickly retracted their estimate.⁶

Consensus concerning the amount of NPLs remains elusive. One issue is that in 1999 the government took NPLs worth \$169 billion from state-owned banks and placed them into state-owned AMC's (Thomas & Ji, 2006). Such actions may give the appearance of reduced NPLs, but in fact they have merely been shuffled from one state-owned institution to another.

Additionally, in 1994 the Chinese government broke up the big four state-owned banks into separate components: commercial banks and corresponding policy banks (Thomas & Ji, 2006). By doing this, the banks were able to transfer the majority of their NPLs to their respective policy banks and the commercial banks were able to report lower NPL ratios. Again, in such an instance there is no actual reduction in NPLs or on their impact on the economy, but the Chinese government is able to report that their commercial banks have reduced the amount of NPLs.

Further, when measuring NPL ratios, expressed as the number of NPLs divided by the number of total loans, it is important to note movement of the denominator as well as the numerator. The past several years have been a time of tremendous loan growth in China, for example, China's banks experienced loan growth of roughly 13% in 2004 (Thomas & Ji, 2006). This has greatly increased the denominator which has created the illusion of a shrinking NPL problem. In reality, however, during times of rapid loan growth, it is quite common for a high percentage of those loans to be high risk. As a result, the growth in loans being made has not only helped to mask the extent of the NPL problem, it may actually worsen the problem in future years as hastily granted loans become due.

Finally, there is a lack of consensus concerning which loans are to be labeled as nonperforming. Fitch Ratings (2006) estimates that the total of actual NPLs may be double the amount given by the China Banking Regulatory Commission if one includes loans that have been labeled "precautionary" or "special mention". These terms are not consistently applied across all regions of the country. A recent report by Hope and Hu (2006) has noted that the five-category classification system adapted by China's banks in 2001 conforms much better to international norms than the previous system, but that "there is no way to determine how rigorously the standards are applied in practice or whether they are applied uniformly to all banks" (p. 48).

An article by Yiping Huang of Citibank and Salomon Smith Barney, Hong Kong, China (Huang, 2002) helps to demonstrate the degree of uncertainty surrounding the actual amount of NPLs in the Chinese banking system. Huang points out that while the official data for mid-2002 showed the average NPL ratio to be around 23%, Huang's company estimated the actual figure to be 35% because of the significant number of unrecognized bad assets. However, the ratio of 23–35% still excluded the 1.4 trillion yuan that had been transferred to the AMC's but which were still within the banking system. The final result, according to Huang, was that NPLs actually accounted for 40–50% of total outstanding loans in the banking system.

The primary causes of China's massive NPL problem are largely systemic. For the past 30 years, China's state-owned banks have been required by the government to

provide “policy-loans” (Lin, 2001; Fitch Ratings, 2006) to nearly 170,000 state-owned enterprises (SOEs) (Schmitt & Feiger, 2006). The purpose of these loans was to avoid the unemployment that would result if those SOEs were to go bankrupt (Gallagher, 2002). It was understood that this endless stream of bank loans would probably never be paid back. A vicious cycle has formed in which state banks have been forced to continue lending money to SOEs in order to avoid loan default. Even today, the practice continues to a large extent. Until recently, losses could be tolerated by Chinese banks because there was no competition in the financial sector and no pressure to make a profit or even to maintain a balance.

This system has ceased to be tenable, however, as the Chinese economy has gradually opened, and particularly since late 2001, when China gained entry into the World Trade Organization (WTO). In order to gain membership, China accepted several conditions aimed at opening its financial markets to the rest of the world; these agreements form the situational component of China’s NPL problem. This has been a gradual process, but China has been required to remove all restrictions on foreign banking by the end of 2006 and to permit foreign banks to set up branches throughout the country to conduct local currency business and provide retailing services (Lu, Thangavelu, & Hu, 2001). At present, China’s banks are ill-equipped for global competition (Bonin & Huang, 2001) and so the systemic problem, which had been dysfunctional but tolerable until recently, is no longer tenable.

The Chinese government has taken several short-term steps to deal with the immediate crisis. As mentioned previously, four AMC’s were created by the Chinese government in 1999 to remove NPLs from state-owned banks. According to Fitch Ratings (2006), since 1998, official financial support to China’s banks has totaled upwards of US\$400 billion, or roughly 18% of the 2005 GDP. While both of these responses have accomplished their immediate goals, each has its limitations. The AMC’s have been notoriously slow concerning selling off or resolving NPLs (Ernst & Young, 2004) so that the problem has, to a large extent, simply been shifted from one state-owned institution, the banks, to another, the AMC’s. The infusion of money is an effective short-term solution, but does nothing to address the systemic issues that are leading to the creation of new NPLs. Additionally, both of these solutions exacerbate the moral hazard problem. There is considerably less incentive for banks to impose painful reforms on themselves when they know that the government is prepared to pay off excessive NPLs.

China’s government is taking several steps to cope with excessive NPLs, including attempts at reform of the SOEs that are draining money from the banks (Li, 2000). Some of the most important reforms, however, have been within the banking sector itself. In 1995, the Central Bank Law was passed, granting the Central Bank a modest degree of independence which had not existed previously (Liu, 2002). Additionally, three policy banks were established in 1994 to facilitate the separation between policy loans and commercial banking (Liu, 2002). Indeed, 1993–97 was a period of significant reform as the People’s Congress passed and enacted four landmark laws, the Central Bank Law, the Commercial Bank Law, the Negotiable Instrument Law, and the Insurance Law, each of which was designed to provide a legal framework to regulate and supervise bank activities (Liu, 2002). It is necessary to note, however, that these new laws and reforms are only a beginning. Despite the

creation of policy banks, state-owned commercial banks continue to be subject to state interference.

The opening of the financial sector to international banks has also forced a degree of reform upon Chinese banks. By early 2000, foreign banks and financial institutions had set up 191 representative offices and subsidiaries throughout China, with total assets of \$36 billion (Lin, 2001). This new source of competition will force banks to reform or else lose depositors. Additionally, foreign institutions bring advanced management skills and business practices (Lin, 2001). Foreign investment in Chinese banks will necessitate increased transparency within the financial system.

Other long-term reforms have included the adoption of independent credit approval and of the international five-category loan evaluation system (Shih, 2004). It is unclear, however, just how successful the implementation of these reforms has been. A 2004 article by Victor Shih traced the abrupt and largely inconsistent changes in reported NPLs from 1999 to 2004, finally concluding that “the constant revisions by the PBOC (People’s Bank of China) partially reflect the government’s own uncertainty concerning the actual NPL level, especially during the transition towards the new five-category system to classify loans” (pp. 926–927).

If China’s banks are to become competitive, they must not only be relieved of their backlog of NPLs, but also freed of the obligation to make new, high-risk loans to SOEs (Lin, 2001). China’s economy is strong at the moment and so periodic cash infusions into the banks, though expensive, are a feasible short-term solution to the immediate problem. It is imperative, however that the Chinese government continues to pursue more long-term, institutional changes in the banking sector and to reform its SOEs.

India

The banking sector in India is the dominant component of the country’s financial system (Hanson, 2001; Roland, 2005; Shirai, 2002). The public sector banks (PSBs) play a leading role in the banking sector, commanding 83% of the industry in terms of deposits (Banerjee, Cole, & Duflo, 2004).⁷ Over the last two decades, a key problem faced by India’s banking institutions has been the alarmingly high proportion of NPLs, particularly in PSBs (Hanson, 2001). India adopted the 90-day overdue classification rule for denoting a loan as nonperforming in 2004 (ADB, 2004).

NPLs started surfacing in the banking sector in the 1980s. In the PSBs, they reached an acute ratio of 23.18% of gross lending during 1992–93 (Batra, 2003). Coupled with an astounding drop in GDP growth rate, the high rate of NPLs created a dire situation (ADB, 1999). Within a decade, NPL ratios in both the banking sector as a whole and in PSBs were reduced to half their original value. For the financial year 2005–06, the official estimate for absolute values of gross NPLs held by PSBs was US\$9.55 billion or 3.71% of total lending (Reserve Bank of India [RBI], 2006) (see Figure 1).⁸

Other than the pure commercial risk of operating a business, the root causes of NPLs in India have been widely recognized as largely systemic in nature, resulting from three converging factors: directed lending, deficient banking operations and

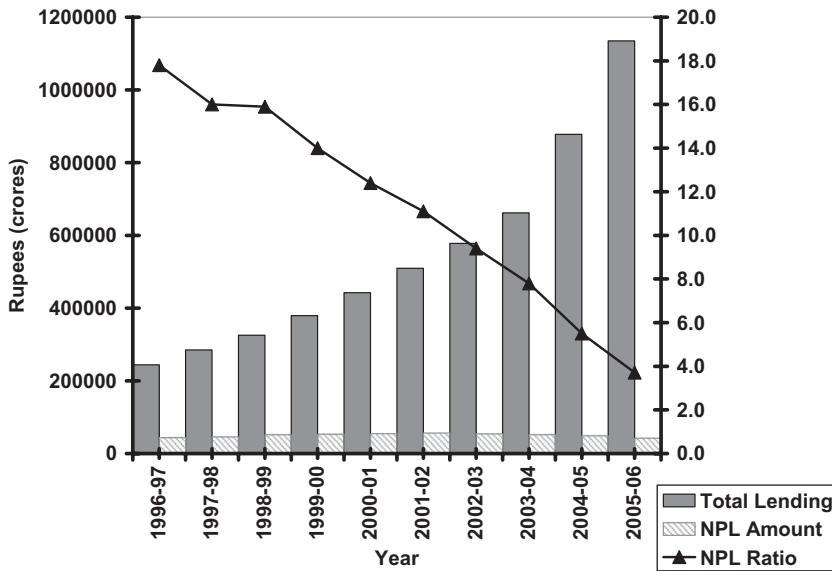


Figure 1. Total Lending, Gross Nonperforming loans (NPL) Amount, and Nonperforming loans (NPL) Ratio held by all Public Sector Banks (PSBs), 1996–2006 (Calculated by the authors with data from the Reserve Bank of India, 2006)

corruption (Batra, 2003; Hanson, 2001; Lahiri, 2002; Prime Minister’s Council on Trade and Industry, 2003; Roland, 2005) The Indian government has traditionally maintained high equity in the banking and financial institutions and the Ministry of Finance and the RBI have directed lending and investment operation in these organizations. Years of government intervention and the absence of prudential norms created inefficient modes of operations in banks and other financial institutions. Over the years banks financed fiscal deficit, crowding out private borrowing (Hanson, 2001). In addition to direct lending, government deficit was financed at controlled interest rates. By 1992–93, PSBs started experiencing severe capital inadequacy with negative profitability (Batra, 2003; Kannan, 2004).

Banks carried bad loans in their books as long as two quarters before they were considered NPLs. This practice, coupled with evergreening, saw banks suffering from a persisting NPL debacle. In addition, there was no corporate governance in the PSBs. Functional inefficiency thus stemmed from overstaffing and nonadoption of modern technology. Consequently, as the volume of credit grew rapidly, PSBs were not adequately equipped in terms of skills, management or oversight of diversified risks (Kannan, 2004).

Regulatory setup such as bankruptcy and foreclosure laws favored borrowers. Laws of secrecy on customer information prevented banks from maintaining a transparent accounting system or publishing the names of defaulters for the benefit of other lending institutions (Batra, 2003). An effective mechanism to gather and disseminate credit information on borrowers also did not exist. Finally, borrowers often sought refuge under the protection provided by the Board for Industrial and Financial Reconstruction (BIFR) (Batra, 2003).⁹ Such inefficiencies made it possible for corrupt businesses and unscrupulous bankers to collude and secure loans on considerations of personal bias, political clout and nepotism (Lahiri, 2002).

In, 1991 the country's foreign exchange reserves dwindled to a critical level, equal to only two weeks of imports. To remedy this crisis, the government, under the directive of the IMF, the World Bank, and the ADB, adopted a structural reform package to stabilize the economy (ADB, 1999). The resulting wide-ranging banking and financial sector liberalization has been seen as the critical component in resolving NPLs in India (ADB, 2004; Batra, 2003). Thus, while underlying systemic deficiencies were causing huge amount of NPLs in India's banking sector, it was not until the country was faced with a situational emergency, in the form of the Balance of Payment (BOP) crisis, that an NPL resolution strategy was formulated.

The NPL problem was addressed mainly through long term reforms, but with the help of short-term remedial measures. Such an NPL resolution strategy has been rated as largely successful, especially when compared to other Asian countries (ADB, 2004; Ernst & Young, 2004; Mukherjee, 2003). Despite the overall success in containing the NPL problem, however, some PSBs continue to suffer from a persisting NPL overhang, a large part of which has been attributed to internal operating inefficiencies within banks (Rajaraman & Vasishta, 2002).

The, 1991 Narasimham Committee Report provided the guidelines and recommendations for the initial phase of banking sector deregulation (Roland, 2005). A comprehensive discussion of the reform measures is beyond the scope of this paper. The main elements, however, were the immediate recapitalization of failing banks and subsequent efforts to establish asset reconstruction companies (ARCs), as short-term measures, and longer term measures including the partial privatization of the banking system, a reduction in directed lending and political intervention, the adoption of international standards for best practices in banking operations and a strengthening of the regulatory and supervisory framework (Batra, 2003; Hanson, 2001; Kannan, 2004; Roland, 2005; Shirai, 2002).

Concurrent to the BOP crisis, the NPL problem was increasingly recognized throughout India (Mukherjee, 2003). Following the BOP crisis, the ADB sanctioned US\$300 million as a loan, which was used by the government to increase the capital of selected PSBs (ADB, 1999). It is estimated that between 1991 and 1999, an average of 0.25% of GDP was spent yearly to recapitalize PSBs (Hanson, 2001, p. 17; Roland, 2005, p. 6).

To transfer old NPLs out of PSBs and to help these banks make a fresh start, the establishment of ARCs was recommended, particularly for PSBs with higher levels of NPLs in the 1998 Narasimhan Committee Report (Asset Reconstruction Company of India Limited [ARCIL], 2004; Kannan, 2004). ARCIL, the first ARC in India, became operational in 2003. However, the absence of a more mature NPL market and a loan portfolio that is predominantly industrial and therefore difficult to restructure, are viewed as limiting factors towards the potential of NPL resolution through ARCs (Ernst & Young, 2004; Mukherjee, 2003). Based on the experience of other Asian countries, in 2001 the Reserve Bank of India set up guidelines for a corporate debt restructuring mechanism which allows banks and institutions to restructure stressed loans (Ernst & Young, 2004; Kannan, 2004).

Since the BOP crisis, direct lending has been reduced by the government in order to limit crowding out and thereby increase the credit available to the private sector (Hanson, 2001).¹⁰ Project lending through development finance institutions has also been gradually phased out in favor of bank-led syndications. Banks have

shifted their focus toward large borrowers and reduced direct agricultural and small sector loans (Hanson, 2001).

A gradual phase of deregulation has freed PSBs from the control of the Ministry of Finance and the RBI. Banks can now operate according to market forces (Hanson, 2001). With the amendment of the Banking Regulation Act in 1994, PSBs are permitted to open up 49% of their shareholding equity to the public (Roland, 2005). In 1993, prudential norms in accordance with Basel Accord I were introduced for Indian banks. In addition, with a view to minimize risks and improve operational efficiency, norms on corporate good governance with regards to compliance, accountability, transparency, control and reporting, and auditing are being adopted (Batra, 2003). Reform in the banking sector is being accompanied by significant improvement in regulation and supervision. To aid banks with credit and background information of borrowers, the Credit Information Bureau (India) Ltd. was set up in 2000 (Batra, 2003).

The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act was enacted in 2002. The Act provides the legal basis for ARCs and gives lenders and ARCs the power to change management, enforce security interest, and sell the assets of the borrowing company without court intervention, and even to remove a company from the protection of the BIFR. The Securitization Act has strengthened the financial sector and increased loan recovery ("Bank stocks," 2004).

The case study on NPLs in India therefore showcases a longstanding systemic condition in the banking sector which was later acknowledged as a systemic problem as a result of the introduction of a situational factor, the 1991 BOP crisis. The NPL approach, thus adopted, was a mix of primarily longer term solutions, but with the additional help of short-term remedies. In essence, India's NPL resolution strategy is one of decentralized and bank-based restructuring, with somewhat less of an emphasis on ARCs (Mukherjee, 2003). Less than a decade after the crisis, such measures have had substantial positive impacts. While cash infusion by the government helped recapitalize banks, widespread structural reforms were successful in reducing the NPL ratio and improving the asset quality of banks (Ernst & Young, 2004). Some problems still persist, but India provides a demonstration of how proper reforms do work to remove old NPLs from the banking sector and to effectively limit the creation of new ones.

Despite India's success in containing the NPL problem and reducing its value, mainly as a percentage of total lending but also somewhat in terms of its absolute amount in the PSBs, there is still room for further restructuring of the banking industry to enhance overall efficiency and to reduce systemic risks (IMF, 2006; Roland, 2005). In this regard, some of the major policy areas identified are continued restructuring and further reduction in directed lending and privatization of the PSBs (Banerjee, Cole, & Duflo, 2004; Roland, 2005). Banks also need to streamline their activities. This calls for internal organizational restructuring, improvement in managerial efficiency, proper assessment of creditworthiness and a change in the attitude of the banks toward legal action (Banerjee, Cole, & Duflo, 2004; Batra, 2003). Finally, additional tightening of norms toward a uniform application of accounting standards will help banks to tackle remaining NPLs (Banerjee, Cole, & Duflo, 2004; Ernst & Young, 2004; Roland, 2005).

Case Studies: Analysis

As explained in the China case study, the actual value of the NPL ratio within China remains a controversial matter, particularly as regards the Chinese authorities. However, most of the international organizations and consultancies agree that the backlog of NPLs poses a major problem for the Chinese authorities. This is particularly true because of the agreements made by China to gain entry into the WTO in 2001. Given the requirement that they open their financial market to foreign competitors after 2006, the Chinese authorities understand that they must provide their major banks with a fresh start.

The event that triggered the cleaning of the Indian banking system of NPLs occurred much earlier, during the 1991 BOP crisis. The stocks of NPLs had been piling up in the Indian financial system throughout the 1980s and reached a high following the BOP crisis. The government tackled the NPL issue as part of the financial sector liberalization measures included in the stabilization structural reforms package agreed upon with the IMF and ADB.

India began solving its NPL situation earlier than China largely because the situational catalyst occurred ten years earlier in India than it did in China. While the Indian BOP crisis occurred with immediate short-term consequences, the opening of the Chinese financial markets to foreign competitors has acted as an impending threat and has given the Chinese government some time to prepare. There are two major issues here. First, the situational cause does not necessarily have to be a full-blown crisis, such as the 1997 Asian Financial Crisis. Second, identifying a situational catalyst before it occurs can provide a government with the opportunity to take early measures to deal with the crisis, hopefully minimizing the eventual impact on the overall economy.

As the case studies showed, both the Chinese and Indian NPL problems have common systemic causes: directed lending, corruption, and deficient banking operations. China and India directed significant amounts of capital to preserve jobs in unproductive sectors during their transition period. This was done to maintain social peace but ultimately created a backlog of NPLs. The policy, commonly used in planned economies, created the preexisting condition for an NPL problem within the liberalizing economies.

Both China and India have approached the NPL problem with a mix of short-term and long-term measures. The governments of the two countries employed similar short-term measures, such as asset management companies and capital injection. The Chinese government set up four public AMCs and transferred the NPLs from the state-owned banks to the newly created AMCs. Further, it has started a major capital injection operation since 1998. India, with the help of an ADB loan, has also recapitalized its failing public banks. While both countries initially employed capital injection as a short-term remedy, India was rather reluctant to establish ARCs. As the India case study showed, the first ARC in India became operational in 2003 and it is operated privately. The earlier establishment of AMCs in China may be explained by the immediate need to clean the major Chinese banks before public listing. India, on the other hand, was only interested in partially privatizing its public banks and was simultaneously implementing a number of long-term policies.

China and India differ more widely with regards to long-term measures. China has been focusing on its SOEs and initial public offerings for its major banks, while India has started to build the necessary institutional infrastructure in its banking system. Additionally, India began the process earlier than China and the long-term measures are more visibly implemented in the Indian case. The Chinese government has undertaken attempts at reform of the SOEs and changes in the corporate governance of the major SOEs. Further, it began listing the largest banks at the stock exchanges in Shanghai and Hong Kong in 2006, opening them for minority private shareholding. India, while maintaining a policy of closing its public banks to private investment, has reduced its directed lending measures. Further, the financial system in India has experienced an improvement in regulatory oversight, the deregulation of the public banks, the introduction of prudential norms in accordance with Basel Accord I, the establishment of a credit information bureau and the increased protection of creditors' rights.

The application of the conceptual framework devised in this article to the cases of China and India reveals that, while dissimilar in general economic models, both countries had to face an NPL problem determined by common systemic causes: directed lending, corruption, and inefficient banking operations. The situational catalysts that forced the governments to tackle the NPL problem had a major impact on the degree of the NPL issue and the resolution policies adopted. China adopted a series of short-term measures to reduce the NPLs in its major banks before the opening of its banking system to foreign banks in 2006. Following its policy of attracting foreign investment, the Chinese government focused on the rehabilitation of a number of banks that were planned for public listing. This strategy involved short-term measures that shuffled the NPLs from their respective banks to other state institutions, heavy capital injection into these banks and under-reporting of the existing stock of NPLs in the economy. In contrast, the Indian government approached the NPL problem after the 1991 BOP crisis. Therefore, the NPL resolution measures were part of a larger structural reform package and consequently, the implemented policies are rather comprehensive and long term in nature.

The mix of short-term and long-term strategies for dealing with NPLs that has been adopted by India has shown that, even in a banking system with extensive state ownership, the NPL problem can be effectively tackled. China has still to learn from India's experience that less directed lending and more long-term, institutional measures are necessary for an effective solution to the NPL problem. Moreover, the solution to the NPL issue is just one part of the larger question of how best to reform an underdeveloped financial system. While India has solved its NPL problem, its financial system is still seen as a barrier to the economic growth of the country (Farrell & Lund, 2006).

Conclusions

Significant NPL problems are being experienced in a number of developing countries, particularly in Asia. Understanding the underlying fundamentals of this problem is essential for policy makers in order to make informed policy judgments. Mired with technicalities, a basic framework for understanding NPLs, their causes,

and their cures is often neglected by the finance literature. For the benefit of policy makers, the purpose of this paper has been to address this inadequacy.

The three facets of the NPL problem that we highlighted in this paper as essential in understanding NPLs are: the degree of the affliction, the causes that give rise to them, and the types of solutions applied. Identifying a confounding lack of uniformity, in both theory and practice, with regard to how NPLs are defined and measured, we also find no clear consensus on a threshold level beyond which NPLs limit economic growth and the productivity of a country. We introduce the distinction, first, between systemic and situational causes of NPLs and then between short-term and longer-term remedies for NPL problems and argue that different causes require different cures.

To illustrate our argument further we have conducted case studies on China and India. In each of these two countries, we have contrasted both the causes of NPLs and the mix of short- and long-term solutions that has been applied, deriving important lessons from the results. We acknowledge that our endeavor, through the case studies, has not been to conduct a comprehensive analysis of every single cause or cure applied in these countries. Instead, we have focused on general trends, using the distinction between short-term relief measures and long-term reforms.

With respect to the three basic facets of the NPL problem, we have emphasized that a proper diagnosis of the degree of NPLs, and the causal factors behind NPLs is imperative because resolution mechanisms for NPLs can never be an all-purpose prescription, but must be attuned to appropriately address the unique settings defining each country's macro as well as microenvironment. In our case studies we identified a juxtaposition of both situational and systemic causes that caused the NPL problem and therefore required a proactive mix of backward-looking measures, with forward-looking and longer term institutional changes that are being gradually applied in both China and India.

Despite the fact that both countries, on the whole, had more or less comparable experiences on two of the three facets, the causes behind the NPL problem and the remedial measures applied, the gaping dissimilarity in the third, and the degree of the NPL problem and its extent, differentiate the Indian experience from that of the Chinese. Further, while China is still grappling with this last dimension of the NPL problem, in the case of India, more comprehensive long-term reform measures have enabled the country to successfully contain the NPL problem. We therefore emphasize the salience of the high points of the Indian NPL resolution mechanism: less government intervention in the banking industry, adoption of prudential norms throughout the banking industry, and a legal and political environment that provides the impetus for such reform measures.

Finally, we want to acknowledge that this paper is not without shortcomings. Beyond our adopted three-pronged framework of causes, cures, and solutions toward understanding an NPL problem, we do not explore whether there is any common threshold level beyond which NPLs may pose a barrier to a country's growth and productivity, nor do we assess the potential importance of sequencing a mix of short-term and long-term remedial measures rather than applying both simultaneously.

For a proactive policy stance, clarifying the first two dimensions that we do not explore in this paper is essential. We identified a current lack of uniformity in the

definition and measurement of NPLs. This variation poses severe limitations in comparing NPLs across countries. A part of the reason, beyond the constraints of our adopted focus in the paper, is this limitation: A threshold level must be investigated, leveling the future as well as a sequential versus simultaneous approach of policy mix. All of these are therefore important directions for future researchers of NPLs to consider.

Notes

- 1 An earlier version of this paper was delivered at the 2006 annual International Conference on Management Cases, December 4–5, Ghaziabad, India, hosted by the Institute of Management Technology, Ghaziabad. The authors wish to thank the panelists and audience participants for their useful comments on the earlier draft. In addition, they would like to thank two anonymous reviewers. The authors are grateful to Dr. Roger R Stough, NOVA Endowed Chair and Professor of Public Policy at George Mason University for funding the project and his constant review and support, and Dr John Petersen, Professor of Public Policy and Finance at George Mason University for review.
- 2 It is important to distinguish this use of the term “systemic” from that used by Claessens, Klingebiel, and Laeven (2003) in the paper “Resolving Systemic Crises: Policies and Institutions.” In their article, Claessens, Klingebiel, and Laeven (2003, p. 2) define the term “systemic crisis” as “a situation where an economy faces large-scale banking and corporate distress within a short period.” Our use of the term “systemic problem” more closely parallels what Claessens, Klingebiel, and Laeven refer to as “institutional weaknesses,” although the overlap is by no means complete.
- 3 To stay within the scope of this paper, the endeavor is to present a summary, rather than an in-depth analysis of each measure.
- 4 The good bank/bad bank disposition strategy works as a two-pronged approach. The good bank part of this strategy tightens up bank’s business both in the country as also overseas. The bad bank mechanism, on the other hand, works separately toward disposal and resolution of NPLs. (Ernst & Young, 2004; Philippine National Bank, 2004).
- 5 The actual NPL report no longer exists. It was referenced and retracted in a press release by Ernst and Young dated May 12, 2006.
- 6 The story was reported, among other places, in McGregor, May 15, 2006, *Financial Times* and in Schmitt and Feiger, June 19, 2006, *Weekly Standard*.
- 7 For a more detailed discussion of the evolution of the banking industry in India in the pre and postreform era see Hanson (2001), Roland (2005) and Banerjee, Cole and Dulfo (2004).
- 8 1 US\$ = 44.11 INR as of February 5, 2007.
- 9 Measures under BIFR are equivalent to U.S. Chapter 11 bankruptcy proceedings.
- 10 Priority Sector Credit, still at 40% of net bank credit was made less imposing by freeing rates in 1997. (Hanson, 2001).

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