

THE WORLD BANK GROUP



Nepal Contingency Planning Project

Final Report

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Executive Summary

While important progress has been made in strengthening the financial stability framework, additional refinements are warranted. Areas for strengthening include: (i) preconditions for effective crisis management; (ii) development of a crisis management framework; and (iii) preparation of a step-by-step plan for meeting the crisis.

Preconditions for Effective Crisis Management

Reforms are needed in the institutional and legal framework, facilities for liquidity provision, and bank resolution procedures.

Legal, Regulatory, and Supervisory Framework

Confirm capital levels: While reported capital levels appear adequate, there is a concern that those levels are overstated. A priority action for the NRB is to initiate a review of bank capital levels to ensure that reported capital levels are correct and appropriate.

Expand Prompt Corrective Framework: The current Prompt Corrective Action Framework (PCAF) refers only to required capital ratios. The NRB should have a PCAF for additional supervisory requirements that may prove to be better predictors of emerging banking distress, including liquidity ratios.

Strengthen supervisory reporting: Reporting by banks and financial institutions remains cumbersome. Moreover, the financial institution report with much longer lags and sometimes in inconsistent formats, making bank comparisons and peer analysis difficult and inefficient.

Forward looking bank assessments: The current emphasis on compliance based supervision, where the supervisors primarily focus on compliance with existing prudential norms, should be supplemented with a forward looking bank-by-bank assessment. The working group on stress testing should be expanded to include responsibility for developing methodologies for such forward looking assessments and then work with bank desks to conduct such diagnosis.

Reforms in the Emergency Liquidity Assistance Facilities

Confirm liquidity ratios: The liquidity ratios should be confirmed. Ratios may be overstated to the extent that pledged securities cannot be considered liquid.

Centralize information on NRB liquidity provision: The NRB would benefit from having a centralized office to coordinate the monitoring of liquidity uses of banks. A single office could collect information on each bank about its use of the repo facility, the refinance facility, the Standing Liquidity Facility (SLF), and request for outright purchases.

Confirm the NRB's policy of discounting government securities on demand. The liquidity ratios include government securities. Their inclusion assumes that the NRB will rediscount those securities on demand. That policy should be confirmed and publicized.

Forward looking liquidity monitoring: Liquidity gaps should be projected forward based on the current gap analysis framework. Discussions of possible liquidity stress should be discussed with the banks.

Emergency Liquidity Facility: Emergency liquidity facilities are not meant just to help the individual bank but more importantly to buy time for the NRB to resolve problems in the illiquid bank and protect the overall banking system. The Bank Rate Facility provides such a role but the rules and procedures should be formulated in regulation. Moreover, the Bank Rate Facility current performs dual function of providing an indicative market rate and emergency liquidity facility. Those two functions could be separated.

Liquidity triggers: Banks that consistently borrow from the NRB are probably facing severe liquidity constraints. The NRB needs the authority to require corrective actions or even intervene in the bank if borrowing from the NRB exceeds predetermined levels.

Reforms in Problem Bank Resolution Framework

Insolvent banks should be resolved quickly: The practice of allowing insolvent banks to remain in the system during stable periods should be stopped. Such banks undermine the authority of the NRB and can distort market conditions.

Treatment of shareholders: Shareholders should absorb the losses if their bank fails. In the event of undercapitalization or insolvency, supervisors should require full shareholder recapitalization, and, if not forthcoming quickly, supervisors should intervene in the bank and sell it to third parties. The bank should not be returned to original shareholders.

Strengthen management roster: The NRB staff should not manage banks under management contracts. The NRB should, therefore, identify a core group of potential bank managers that could include foreign managers and international management firms.

Develop alternative bank resolution options: The NRB has authority to engage in a variety of bank resolution options, but the mechanisms for implementing them remain undeveloped. Manuals should be developed for each option, together with step by step implementation plans.

Selection of resolution techniques: The Governor and the Board need to review the various alternatives and agree on the criteria for selecting among them. In stable times, the guiding principle could be that the resolution options should pose the least cost on the government. In crisis times, the criteria should be the return of stability to the system.

Specialized bank restructuring unit: A unit could be established that specializes in developing bank restructuring policies. This unit would support both the Bank Supervision Department and the Financial Institutions Supervision Department.

Public sector recapitalization program: In a systemic crisis, some failed banks may have to remain in the system because of their importance to financial intermediation or to maintain public confidence. If the original shareholders cannot recapitalize the banks, the government may have no choice but to recapitalize it with public money. The terms and conditions of such a program will need to be developed before the emergence of the crisis.

Legal Reforms

A number of reforms in the legal framework would strengthen the ability of the NRB to manage problem banks and financial crises more generally. These reform efforts will require time to achieve. Efforts should begin immediately but the results of such efforts should only be expected over the medium term.

Crisis Management Framework

Institutional Reforms for Crisis Management

A senior policy group should be formalized. The Minister of Finance, the NRB Governor and the Finance Secretary should form a Senior Policy Group (SPG) to give clarity on responsibilities in a crisis and provide the public with an understanding of who is responsible for policy development.

A technical committee for the Senior Policy Group should be established. This committee will coordinate the work of the NRB's departments. Collecting pertinent and updated information, conducting the preliminary analysis of the crisis, and preparing draft policy options.

Crises are data-intensive and arrangements should be made that allows the NRB to receive critical, up-to-date data from banks. The NRB currently receives a wide range of daily information from banks. That data set must be expanded, particularly in the case of Financial Institutions. Mechanisms for receiving this broader set of data must be quickly established.

Depositor payouts methods should be developed. Mechanisms for reimbursing depositors in failed banks must be developed and put in place. Once depositors are protected, they must be able to get their funds quickly.

Policy Preparation for Crisis Management

Before the crisis hits, the Senior Policy Group should agree on the broad policy outline for addressing the coming crisis. Policies are needed on the requirements for liquidity assistance and on policies for bank restructuring and rehabilitation. Such policies may be controversial and

a broad consensus should be sought before the pressures of the actual crisis result in policy making without adequate reflection and consensus building.

Options papers or policy papers should be written on alternatives for liquidity provision, depositor protection and bank restructuring. These policy papers should lay out the issues and the alternative policy options. The SPG could then develop a government position to guide the implementation of the crisis.

As part of the contingency planning, the technical secretariat should prepare preliminary contingency plans for weak bank. Such plans will identify the bank as being viable or nonviable (i.e., whether it is likely to become a profitable institution after the crisis), identify the level of shareholder support and interest by other private investors, identify the likely capital restructuring needs, and determine the priorities for any public capital support abilities, if depositors are fully protected.

Communication Strategy

In all crises, the one overlooked area is communications. Proper and effective communications with the public is critical to the successful containment of an emerging crisis. One high level spokesman should be appointed and only that spokesman should make announcements.

Draft press releases for critical decisions should be drafted in anticipation of the crisis. It will never be perfect but in the first days of a crisis numerous announcements will have to be made concerning: (i) depositor protection, (ii) failure of a bank, and (iii) major macroeconomic policy changes. Such press releases should present the policy stance in the most favorable way, explaining why the government thinks their actions will be successful. Drafts could be written now so that the emergency can be handled more effectively.

Action Plan

Crises are unpredictable but preparations can make their management more effective. While the specifics of the crisis will never be known before they are triggered, basic preparations will allow for a faster response.

In the Weeks before the Crisis

Liquidity stress is an early warning of a pending crisis. As pressures increase, liquidity monitoring must be intensified. The technical committee to the Senior Policy Group would coordinate all reporting.

Crises are data intensive. Policy makers will need a steady stream of updated data. Information from last month is useless and from last week is out of date and misleading. The demands for information about developments yesterday or over the last two or three days will be intense. The NRB should review and prepare ways of obtaining such high frequency data and have a system for processing and summarizing that data for policy makers.

The NRB should ensure adequate supply of cash. Bank cash holdings should be reviewed and the availability of cash to disburse should be reviewed.

Supervisors should review the diagnosis of the financial system. The diagnosis of the weakest banks should be updated and contingency plans for their resolution should be reviewed and revised as needed. Focus of the review should be on liquidity positions and financing needs.

First Day of the Crisis

The NRB will have to act immediately. The objectives of the first day are threefold: (i) understand the causes of the crisis, (ii) provide whatever liquidity is needed to limit panic, and (iii) take the first steps in getting an agreed government position of the steps needed to contain and then resolve the merging crisis.

The Governor of the NRB should inform immediately the Senior Policy Group. That meeting should review recent developments and ensure all policy makers have the same information. The Group must agree on an initial policy response and agree on a communications line for the press.

The spokesman should quickly announce that the Senior Policy Group has been convened and is analyzing the issues. A mid-day announcement can be made describing the developments thus far. At this stage, policies should not be announced piece meal. While there is an urgency to announce quickly, the announcements should be as comprehensive as possible.

The injection of liquidity will have to be offset with adequate open market policies. The NRB should use monetary policy instruments to absorb the injected cash. Interest rates will have to be increased to make holding of such instruments attractive.

Broad political support for the handling of the crisis would be extremely helpful. Private confidence would be enhanced if key political players would support the government in its crisis management.

First Week of the Crisis

The objective of the first week is to ensure the crisis is contained. Liquidity should be provided and open market operations intensified. Supervisors should contact and monitor all banks in the system. All banks should produce a plan for managing the crisis. At the end of the first week, the supervisors should present to the SPG preliminary results of the classification of the banks.

First Month of the Crisis

Once the crisis is contained, the evaluation and restructuring of the banks begins in earnest. The supervisors should begin discussions with all the banks on the development of a restructuring plan. Any forbearance must be explicit and approved for a limited time period.

Areas for Possible Support

The policy agenda for developing a crisis management framework is ambitious. The Action Plan contains difficult steps that must be taken very quickly. The NRB supervisory and regulatory staff has improved in recent years. However, they may not have the necessary background or information to meet the requirements for developing these policy options.

A number of specific areas where technical assistance could be helpful have been identified. Such assistance could be arranged through international donors, on bilateral basis from cooperating central banks, or private consultants. The most critical areas include: (i) developing the technical skills of the specialized analysis unit for confirming capital and liquidity ratios as well as forward looking bank assessments; (ii) drafting manuals and step-by-step implementation plans for problem bank resolution; (iii) implementation of the special bank restructuring unit; and (iv) communication strategy.

REVISED ACTION PLAN

Action	Start	Suggested Time to Completion	NRB Revised Date for Completion	Responsibility
Institutional Arrangements for Crisis Management				
NRB and Ministry of Finance form a Special Policy Group(SPG)	Aug 8		Aug 8	
SPG establishes the technical committee and nominates members	Aug 8		Aug 8	
Supervision and Liquidity				
Confirm capital levels <ul style="list-style-type: none"> Develop procedures Inspect banks Inspect FIs 	Aug 8 Sept 7 Sept 7	Sept 5 Dec 5 Feb 5	<i>Through regular process of Capital Review Desk (BSD) and Onsite review</i>	BSD
Confirm bank and FI liquidity levels <ul style="list-style-type: none"> Develop procedures Conduct gap analysis, interacting with banks Conduct gap analysis, interacting with FIs 	Aug 8 Aug 21 Aug 21	Aug 20 Nov 5 Dec 3	<ul style="list-style-type: none"> Oct 31 Dec 15 Jan 15 	BSD (Liquidity levels CB, National Dev. Banks & KTM based Fin. Co)
Introduce liquidity PCA <ul style="list-style-type: none"> Draft options paper on design of PCA including liquidity triggers Discuss options by SPG Approve criteria 	Aug 8 Sept 7	Sept 5 Oct 3 Oct 5	<ul style="list-style-type: none"> Jan 31 Feb 14 Feb 28 	BFIRD
Improve data collection framework (IT) <ul style="list-style-type: none"> Upgrade hardware/software Complete automation of operations Collect high frequency data for FIs 	Aug 8 Aug 8 Aug 8	Feb 28 June 30 Sept 15	<ul style="list-style-type: none"> - - Feb 28 	BSD/IT Dept. <i>(will be improved through NRB Procurement process)</i>
Specialized analytical unit <ul style="list-style-type: none"> Expand stress testing working group/unit to include forward looking assessment Develop methodology for assessment 	Aug 8	Aug 8 Sept 5	<i>Analysis unit is formed and conducting Stress Testing</i> <ul style="list-style-type: none"> Jan 30 	Working Group <i>(analysis will be based on past data)</i>
Implement forward looking assessment <ul style="list-style-type: none"> Assess banks Assess FIs 	Sept 5 Sept 5	Nov 3 Dec 5	<ul style="list-style-type: none"> Feb 15 Mar 15 	BSD
Present pilot diagnostic report to senior NRB officials <ul style="list-style-type: none"> Diagnosis of first set of banks (financial conditions and forward assessment) Forward looking assessment of first set of FI (financial conditions and forward assessment) Initiate second set of bank and FI 	Oct 5	Oct 3 Oct 3	<ul style="list-style-type: none"> Jan 15 Jan 15 	BSD

assessment				
Centralized monitoring and distribution of data on NRB liquidity provision <ul style="list-style-type: none"> Identify monitoring unit Produce and distribute data 	Aug 8 Aug 22	Aug 22 Sept 17	<ul style="list-style-type: none"> Oct 31 	
Reform liquidity provision framework <ul style="list-style-type: none"> Differentiate function of Bank Rate Facility (monetary policy function/ELA function) Develop approve instructions and procedures for ELA 	Aug 8 Aug 8	TBD Sept 13	<ul style="list-style-type: none"> Mar 15 	Working Group
Problem Bank Resolution Framework				
Strengthen management roster for management contracts <ul style="list-style-type: none"> Review list of local candidates Contact international management firms 	Aug 8 Sept 5	Sept 13 Nov 5	<i>Roaster of experts will be prepared after finalization of resolution framework</i>	BSD
Establish specialized unit for bank resolution	Aug 8		<i>Established in BSD</i>	
Develop manuals and procedures for bank resolution alternatives <ul style="list-style-type: none"> Obtain TA for developing manuals Draft complete manuals and procedures Present plans to Governor/Board 	Aug 8 Nov 7	Nov 5 May 8 May 10	<ul style="list-style-type: none"> Jan 15 July 15 July 31 	<i>Problem Bank Resolution Framework</i>
Determine criteria for selecting among bank resolution options <ul style="list-style-type: none"> Draft policy paper on bank resolution options SPG internal discussion SPG approves criteria for selecting among bank resolution options 	Aug 8 Oct 10	Oct 8 Jan 7 Jan 9	<i>Resolution Framework will govern</i>	<i>Problem Bank Resolution Framework</i>
Establish a public sector recapitalization facility <ul style="list-style-type: none"> Draft policy paper on bank resolution options and criteria SPG internal discussion Establish facility 	Oct 7 Dec 9	Dec 7 Feb 7 Feb 9	<i>Resolution Framework will govern</i>	<i>Problem Bank Resolution Framework</i>
Communication				
Decide on single spokesperson for the SPG		Aug 8	<i>TBD later based on Framework</i>	
Strengthen the public relations department in anticipation of a crisis	Aug 8	Nov 5	<i>TBD later based on Framework</i>	
Prepare draft press releases and market communications	Nov 7	Dec 5	<i>TBD later based on Framework</i>	

Financial Stability Framework

The Nepalese authorities have made important progress in strengthening the financial stability framework. This framework consists of provisions for liquidity support to banks, supervisory practices, and problem bank resolution mechanisms. Some liquidity facilities have been put in place, supervisory actions strengthened, and amendments to bank resolution laws have been passed that improved the ability of the Nepalese Government to manage the growing financial sector.

Notwithstanding this progress, some additional refinements are warranted. The banking sector is growing rapidly, with new entrants increasing the risk profile of the system. At the same time, the economic conditions of the country are less beneficial than in the past. Accordingly, some strengthening of the existing framework is advisable.

This report focuses on two aspects of contingency planning. First, a number of structural reforms are necessary to make the crisis management framework efficient. These preconditions for an effective crisis management framework may take time to implement but should be initiated immediately. If a crisis were to emerge before these reforms are completed, the NRB will have a more difficult time containing and resolving the crisis. Second, an Action Plan for dealing with the unfolding crisis is proposed. While the specifics will depend on the causes of the crisis and the particular path the crisis takes, principles for addressing the crisis will be discussed.

I. Preconditions for Effective Crisis Management

A number of structural reforms are needed as preconditions for effective crisis management. Reforms are needed in the institutional and legal framework, liquidity provision, and bank resolution procedures. Concerns about depositor protection must also be addressed.

A. Reforms in the Legal, Regulatory, and Supervisory Framework

Summary of existing practice

The NRB relies on compliance based supervision. They monitor compliance of regulatory ratios, based on both on-site and off-site inspections. These ratios are powerful supervisory tools that give the supervisors a legal basis for action. However, they only give a backward looking view of the financial position of the banks. The supervisors did not develop their own forward looking assessment of the risks facing the banks.

The supervisors face constant threat from shareholders that get court injunctions against the implementation of supervisory rules and regulations. This has happened, for example, in dealing with NDB and NBB.

Immediate Actions

1. **Confirm capital levels:** While reported capital levels appear adequate, there is a concern that those levels are overstated. Possible sources of such overstatement include evergreening of working capital funds, inappropriate provisioning practices, excessive single borrower exposure, and out-of-date collateral valuation. In addition, the rapid credit growth and large exposure to real estate have exposed banks to higher risks that merit capital buffers.

A priority action for the NRB is to initiate a review of bank capital levels to ensure that reported capital levels are correct and appropriate.

a. The Departments of Bank Supervision and Financial institutions Supervision should identify a methodology for evaluating the extent of any overvaluation of capital levels. Examples would include how to ensure that the banks are provisioning properly and that loans are not evergreened.

b. New supervisory practices, possibly supported by changes in regulation, may be necessary. For example, current provisioning levels are determined primarily by loan aging. Supervisors need authority to require provisioning in cases where the borrower is performing but distressed where borrower leverage is excessive, or where the supervisors doubt the repayment ability of the borrower. Supervisors also need authority to pursue possible cases of evergreening by requiring borrowers to provide all necessary information. This change may require modification of existing supervisory practices and manuals.

c. Special onsite inspections should be conducted in cases where capital levels appear to be overstated

d. Once the review is complete, the undercapitalization of banks will be resolved through the NRB's Prompt Corrective Action Framework.

2. Expand Prompt Corrective Action Framework: The current Prompt Corrective Action Framework refers only to deviations from required capital ratios. The NRB has a number of additional supervisory requirements that may prove to be better predictors of emerging banking distress. Examples would include minimum liquidity.

- a. Early remedial actions should be for these other key prudential norms. For example, supervisory inspections should be triggered when liquidity falls below a certain level.
- b. Some regulations such as those concerning real estate exposure limits were enacted when the supervisory staff knew that banks would not be able to comply within the specified period. This practice leads to pressures to relax the norms or makes remedial actions necessary the instant the norm is enacted. A more systemic effort to evaluate the impact of regulatory changes would be helpful.
- c. More broadly, if the supervisory staff becomes aware that a bank may not meet any regulation because of deteriorating conditions, they should not wait until the bank is in noncompliance. The bank should be informally contacted before they are noncompliant. The NRB and bank should agree on the series of steps to allow the bank to meet the regulation. Careful follow-up and closer contact with the banks would be helpful.

3. Supervisory reporting: Reporting by banks and financial institutions remains cumbersome and antiquated. Electronic data from banks must be entered by hand into the NRB database and information within the NRB is not widely shared.

- a. The existing information technology framework could result in critical lags for some data collection and analysis. Such deficiencies will become binding constraints in the midst of a banking crisis when information flow is critical.
- b. The NRB receives daily deposit information from banks but only has lagged access to deposit levels by financial institutions. The data collection mechanisms should be expanded to include all financial institutions. This increased data flow will put further pressures on the data management capabilities of the NRB.
- c. Under current procedures, banks may submit data in inconsistent formats, making bank comparisons and peer analysis difficult and inefficient.

Critical Structural Reforms

1 Forward looking bank assessment: The current emphasis on compliance based supervision, where the supervisors primarily focus on compliance with existing prudential norms, should be supplemented with a more forward looking bank-by-bank assessment. While enforcement

actions must necessarily continue to rely on meeting prudential norms included in regulation, a forward looking assessment gives the supervisors a strong early warning framework. Discussions with banks about the results of such a forward looking assessment could improve the supervisors' understanding of bank weaknesses and possibly prevent emergence of bank distress.

- a. Each banks desk, together with the Special Analysis Unit (see below) should develop a forward looking assessment. Elements to be included in such an assessment include, on the asset side: (i) future loan commitments; (ii) projected changes in reserves; (iii) trends in bank credit portfolios; and (iv) trends in NPL ratios. On the liability side such elements include (i) future debt payments, (ii) maturing time deposits, (iii) trend changes in deposits. The sum of projected future changes in assets and liabilities indicates a gap that must be filled.
- b. The Research Department will be asked to provide some standard assumptions or range of assumptions for macroeconomic developments, including GDP growth, inflation, and sectoral growth.
- c. The bank desk, together with the Special Analysis Unit, would supplement the forward looking assessment with stress tests. Stress methodologies, which have already been initiated by NRB, would supplement the forward looking diagnosis.
- d. The results of the forward looking assessment will then be presented to the banks. The objective will not be to require changes or impose penalties. Rather, the objective will be to discuss the possible risks (such risks could include the impact of a deterioration of housing or other asset prices, increases in NPLs, maturing debt obligations, or exposure to large single borrowers) and the range of options the banks might adopt in response.
- e. The supervisory staff would then identified potential risks facing the banks and discuss banks' plans to address such risks. Additionally, banks in the system have been encouraged to conduct their own stress tests as a diagnostic tool.

2. Special analysis unit: The bank desks are already stretched and struggling to meet the daily requirement of supervision. It would be inefficient to have each desk develop its own methodology for conducting forward looking assessments or for learning stress testing techniques. A special working group on stress testing already exists. The responsibilities of that working group could be expanded to include the development of a forward looking assessment methodology.

- a. The working group would support bank desks in both the Bank Supervision Department and the Financial institutions Department.
- b. The working group unit should be staffed with analytically strong staff. Staff from the Research Department could be seconded to work with the working group
- c. The working group would help the line supervisors conduct stress tests, collect and analyze forward looking data, and help identify possible risks.

B. Reforms in the Emergency Liquidity Assistance Facilities

Summary of existing practice

The NRB has four liquidity facilities. They are: (1) the repo facility for rediscounting government bonds (offered at the discretion of the NRB); (2) the Standing Liquidity Facility (requested by the banks, provided against bonds or collateral, for 5 days); (3) outright purchases of securities held by banks, and (4) the refinance facility (requested by the bank against collateral of good loans, for six months). The refinance facility, while not designed as a liquidity management facility does provide banks with a liquidity tool. The first three facilities are managed by the Public Debt Management Department and the last facility is managed by the BFI Department. Banks have relatively easy access to these facilities and, if they have the appropriate collateral, can quickly mobilize liquidity.

The NRB Act also specifies the Bank Rate Facility as an emergency liquidity facility mechanism. The Bank Rate Facility acts both as a NRB interest rate instrument for monetary policy purposes and the lender of last resort facility. That facility currently specifies the interest rate (7.0 percent, increased from 6.5 percent in July 2010) and that rate is fixed for a one year period. However, there are yet to be developed procedures for accessing the facility or restrictions on banks that use the facility.

Immediate Actions

- 1. Confirm liquidity ratios:** The liquidity ratios should be confirmed. Ratios may be overstated to the extent that pledged securities cannot be considered liquid. In addition, securities used in repos may be included in the liquidity calculation, duplicating cash received in the operation. In addition, supervisors should ensure that bonds used to meet liquidity ratios are not pledged as collateral.
- 2. Centralize information on NRB liquidity provision:** The NRB would benefit from having a centralized office to coordinate the monitoring of liquidity uses of banks. Liquidity is monitored by the Public Debt Management Office, the Bank Supervision Department, the Financial Institutions Supervision Department, the Research Department, and in the Liquidity Management and Forecasting Facility. There is little coordination among these offices and information is not completely shared. A single office could collect information on each bank about its use of the repo facility, the refinance facility, the Standing Liquidity Facility (SLF), and request for outright purchases. For consistency across the banking system, liquidity use should be measured both in absolute levels and with respect to bank capital, giving the NRB a view about the extent of liquidity being utilized by the banking system.
- 3. Confirm the NRB's policy of discounting government securities on demand:** The liquidity ratios include government securities. However, there is only a limited secondary market for these bonds and banks assume that the NRB will rediscount those securities on demand. That

policy should be confirmed and publicized. If the NRB imposes limitations on such rediscounting, then the government securities should not be fully counted in the banks' liquidity ratios.

Critical Structural Reforms

1. **Forward looking liquidity monitoring:** Liquidity shortfalls are the best early warning indicator of an impending financial crisis. NRB should expand its current gap analysis table of bank liquidity to get a better understanding of future liquidity pressures in the banks. That table currently is produced on a quarterly basis and identifies liquidity gaps going forward. The table should be produced on a monthly basis, projecting liquidity positions and the likely liquidity position of each bank over a one month, three month and six month period. It should be a central tool for analyzing the strength and liquidity position of the banks. Such projections are necessarily uncertain and would have to be updated on a regular basis and discussed with the banks. This will allow the NRB to identify likely liquidity gaps and work with the banks to meet them.

2. **Emergency Liquidity Facility:** Emergency liquidity facilities are not meant to help the individual bank so much as buy time for the NRB to resolve problems in the illiquid bank and protect the overall banking system. Accordingly, in a systemic crisis, such liquidity should be given easily but combined with strict rules on restructuring and with limits on bank activities. The current Bank Rate Facility serves the dual purpose of guiding domestic monetary conditions (similar to the US Federal Funds Rate) and providing emergency lender of last resort. The lender of last resort function, however, has not been formalized in regulation nor are there internal guidelines on its operation.

- a. While not needed except in true emergencies, the NRB cannot wait until a liquidity crisis erupts to regularize that facility. Specifically, the Bank Rate may not be the appropriate interest rate for emergency lending. Typically, lender of last resort facilities charge the highest rate in the market at the time the bank applies. In addition, the collateral requirements should be formalized. Banks requesting emergency lending have typically exhausted all other facilities and have limited collateral. The objective of the lender of last resort is to buy time for the NRB to implement corrective measures in the bank.
- b. While the use of such facility in stable times should be extremely limited (with illiquid banks intervened and resolved), in systemic crises, the NRB should be extremely liberal in providing such emergency lending. Currently the facility requires reserves, good loans or bonds as collateral. Such requirements can be eased and an even broader range of collateral accepted.
- c. Nevertheless, even in times of systemic distress, such lending must be combined with strict requirements on bank restructuring and imposing limits on bank activities (including repayment period, heightened supervision, limits on dividend payments).
- d. Rules and procedures for the Facility should be formulated and included in regulation.

- e. Option papers on the use of this facility should be written to guide senior management in decisions on the criteria for using the facility.

3. **Liquidity triggers:** Liquidity triggers could be considered. Banks that consistently borrow from the NRB are likely facing severe liquidity constraints. Even if capital ratios (tier I plus tier II capital) are adequate, high demand for liquidity should trigger supervisory actions. In international practice, such triggers are common. For example, if the provision of NRB liquidity from all liquidity facilities exceeds 50 percent of bank capital, a special on-sight inspection is held. If it increases to 100 percent, the central bank either places a representative on the Board of the bank or requires all transactions be approved by the central bank. If it increases to 200 percent of capital the bank should be intervened. The NRB should develop triggers that are appropriate in the Nepalese context.

C. Reforms in Problem Bank Resolution Framework

Summary of existing practice

While the NRB has a wide range of resolution options, it has relied almost exclusively on temporary intervention and placement of management teams in a weak bank. The view of the Board may be that financial stability is ensured if a bank does not fail.

The NRB places its own staff or outside staff to manage the bank. Once the management team resolves difficulties of the bank (often including provision of NRB refinancing), the bank is returned to private shareholders, often the original shareholders.

This practice does have significant disadvantages. It leaves the shareholders that caused the problems in charge of the banks and creates the impression that the NRB will always step in, fix the problems, and return the bank to original shareholders. Banking risks, therefore, are borne by the NRB, not the shareholders of the bank.

Immediate Actions

1. **Insolvent banks should be resolved quickly:** In stable times, insolvent banks should not be allowed to continue to operate in the banking system. Such banks undermine the authority of the NRB and can distort market conditions. Some banks have been insolvent for several years. Even though they are currently profitable, the policy resulted in high cost both in terms of inefficiencies in the market and the prestige of the NRB banking system.

2. **Treatment of shareholders:** The practice of the NRB restructuring the bank, injecting loans, and then giving back the bank to the shareholders has a large number of significant disadvantages, such as: (i) shareholders know that the cost of their mistakes gets passed on to the

NRB; and (ii) shareholders will accept higher than appropriate risk levels to get higher return because the downside risk is limited. International practice would suggest the following:

- a. Shareholders should absorb the first losses of any bank failure.
- b. Supervisors should evaluate the portfolio, write down the value of overstated assets, and reduce bank capital.
- c. Shareholders should either recapitalize their bank or lose their bank.
- d. A policy on the treatment of minority shareholders should be developed. Internationally, minority shareholders absorb losses of bank failure just as controlling shareholders. A government decision on their treatment should be made before it is needed.

3. **Strengthen management roster:** The NRB staff should not manage banks under management contracts. Like most central banks in the world, the NRB staff does not have the necessary background or experience to restructure and run a failing bank. In addition to a lack of experience in commercial banking, the NRB would face a number of limitations including: (i) liabilities incurred while managing the bank; and (ii) the perception that the NRB would be running the bank of its own policy objective.

- a. The NRB should, therefore, identify a core group of potential bank managers who are able to step into a bank at quick notice and/or establish relationships with international management firms that provide such service.
- b. The roster of qualified bank managers could be expanded to include foreign managers and international management firms. The pool of qualified local-banking experts available to manage failing banks may be limited.

Critical Structural Reforms

1. **Develop alternative bank resolution options:** The NRB has authority to engage in a variety of bank resolution options, but the mechanisms for implementing them remain undeveloped. As a result, the NRB relies on the use of management contracts in bank resolution. However, management contracts will be limited in a broad based financial crisis. Alternative mechanisms need to be developed and expanded. Therefore

- a. Manuals should be developed for each option, together with step by step implementation plans. Teams of supervisors and lawyers should develop manuals for each option.
- b. Option papers should be written to guide senior management in their deliberations on the pros and cons of each alternative.
- c. Once available, staff training should be given to line supervisors to explain these techniques.

2. **Selection of resolution techniques:** The Governor and the Board need to review the various alternatives (including good bank/bad bank split, bridge banks purchase and assumption transactions, and mergers) and agree on the criteria for selecting among alternative resolution

options. The guiding principle could be that the resolution options should pose the least cost on the government. In a systemic crisis, the technique chosen should pose the least cost on the economy, preventing deterioration in confidence. Among the principles to be followed in selecting among alternative approaches are:

- a. the supervisors must have the authority to require that all losses (bad loans, overvalued securities) be accurately reflected on the balance sheet and that capital be reduced by the losses in assets.
- b. losses must be imposed fully on the shareholders through a reduction in their equity holding.
- c. shareholders must return their bank to solvency immediately; if they cannot or will not, shareholders should lose their ownership rights
- d. if shareholders are unable or unwilling to recapitalize their bank, the NRB will resolve the bank, using techniques that impose least costs on the economy (Box 1). The cost of alternative resolution options should be estimated and then the best option, based on minimizing costs to the government, may be chosen.

3. Specialized bank restructuring unit A specialized unit could be established that specializes in developing bank restructuring policies. This unit would support both the Bank Supervision Department and the Financial Institutions Supervision Department. It would serve a number of critical functions.

First, it would work to develop and expand the NRB's policy tool kit used in bank restructuring. While the Banking Act permits a number of restructuring options, the unit would develop procedures for other resolution options. Specifically, this unit would develop operational guidelines and detailed instructions for the different resolution techniques and be responsible for developing manuals.

Second, the unit could be made responsible for overseeing banks under management contracts as well. As this unit will specialize in restructuring policies, it could learn to implement those techniques by restructuring the existing banks under NRB responsibility. Third, the unit would be responsible for any other banks facing financial distress.

Third, the unit would be a training ground for NRB staff. Technical expertise for the unit will initially come from outside experts. As those experts develop the necessary procedures, NRB staff could rotate through the unit to learn the application of such techniques.

4. Public sector recapitalization program: In a systemic crisis, some failed banks may have to remain in the system because of their importance to financial intermediation or to maintain public confidence. If the original shareholders cannot recapitalize the banks, the government may have no choice but to recapitalize it with public money (Box 2). The terms and conditions of such a program will need to be developed before the emergence of the crisis. Specifically:

- a. The Nepalese authorities prefer not to own problem banks. Procedures for investing in tier II capital (preferred, convertible shares) should be developed. The legal framework and the regulations for such investment in preferred shares would need to be developed.
- b. Such a public sector recapitalization plan could be available to assist either existing shareholders or new investors but would have to limit misuse. Design features should include: (i) charging a positive interest rate return for government injection of capital; (ii) a conversion clause so that if the shareholders misuse the funds or fail to restructure the bank, the bank reverts to government ownership; and (iii) an agreed timetable of operational restructuring to meet all prudential ratios.
- c. The government should aim at privatizing the bank as soon as economically feasible, recognizing that privatization in the midst of a crisis is difficult.

D. Reforms in Depositor Protection

Nepal does not have a deposit insurance system.¹ In periods of economic stability, such limited deposit insurance systems can be effective in stabilizing broad depositor confidence in the banking system in light of the failure of a single bank. If a single bank fails, depositors in other banks have no incentive to run preemptively in fear that their bank will also fail.

In a systemic crisis, however, limited deposit insurance (where only small scale depositors are protected) can be ineffective. As seen in the United Kingdom (the case of Northern Rock) limited deposit insurance only protects the small scale depositors, leaving the larger deposits and creditors to run. In the face of uncertainties and systemic crises, limited deposit insurance will not prevent bank runs from large depositors and creditors.

E. Legal Reforms

A number of reforms in the legal framework would strengthen the ability of the NRB to manage problem banks and financial crises more generally. These reform efforts will require time to achieve. Efforts should begin immediately but the results of such efforts should only be expected over the medium term. Preparation of legal amendments should begin immediately but the approval process can take a significant period of time.

1. Supervisory issues

- a. The legal framework needs to provide appropriate provisions so that the courts can intervene in the regulatory decision only on limited grounds (also see page 10). The court intervention should be limited to exceptional cases where: (i) regulators have not complied with procedures and if such noncompliance would materially change the outcome of the regulation; and (ii) in case there are apparent and sufficient grounds to believe that regulatory action is taken with malice of intentions.

¹ A deposit insurance system for microfinance institutions was announced in July 2010 and is under development.

- b. Consideration could be given to establishment of special courts or special benches within the existing court system to deal with financial matters. Nepal has already adopted the concept of commercial bench to decide commercial cases and a similar concept could be adopted to deal with financial matters.
- c. Special training for court judges in financial matters could be continued and encouraged as a continuous process.

2. Problem bank resolution issues

- a. There are inconsistencies between the BAFIA and the NRB Act. These two laws should be reviewed for consistency.
- b. There is duplication of legal provisions in relation to intervention by NRB in the BAFIA and NRB Act. All powers related to the NRB's intervention powers should be contained in a single legislation.
- c. Section 86C of the NRB Act should be amended:
 - There is duplication of legal provisions in relation to intervention by NRB in BAFIA and NRB Act. It is recommended that all the powers related to NRB's intervention powers be provided in a single legislation. Therefore, Section 54 of the BAFIA should be removed.
 - Section 86 of the NRB Act which is identical to Section 54 of the BAFIA is not consistent with provisions of Sections 86C and 86D. Section 86 seems to be irrelevant after Section 86A-86N has been incorporated after the First Amendment to NRB Act in 2006. Section 86 may be removed.
 - Asset sales. There is no clarity of how to value assets in a restructuring. Guidelines and regulations should be developed clarifying that in a resolution assets can be sold below book value, without the intervention of shareholders. If shareholders disagree, they can sue for damages but cannot stop or reverse the transaction.
 - Section 86G of the NRB Act should be amended to allow NRB to make an application to the court for liquidation of the troubled banks even without first taking the corrective action in limited circumstances in cases of (a) apparent fraud or (b) if necessary due to systemic risk concern.
 - Sections 86H and 86M can be amended to provide for judicial review against regulatory actions on limited grounds
 - The NRB Act provides powers to NRB to apply to the court for liquidation of troubled banks. However, the Insolvency Act 2006 (2063)

provides for a mechanism where the all insolvency related applications go through normal process for review where the court can either order for restructure or liquidation based on the report by the Investigation Officer appointed by the court. An express provision should be provided such that troubled banks against which NRB has taken regulatory action for liquidation is not subject to review for restructuring. This can be done by making amendments to the Insolvency Act or to the NRB Act.

II. Crisis Management Framework

In the immediate aftermath of the crisis outbreak, there is little time for addressing a crisis management framework or developing policy positions. The crises will have their own momentum and their own peculiarities that demand attention. The Nepalese authorities will be able to manage the crisis more effectively if adequate planning and preparation have been done.

Policies adopted in a systemic crisis differ from those in more stable periods. Systemic crises put the financial sector at risk. Protecting the financial system can require adopting temporarily policies that are inappropriate in good periods. For example, restrictions on liquidity support should be eased, some prudential rules may be eased, and the treatment of problem banks made more lenient. A critical issue in crisis management is easing those policies as the crisis unfolds and then returning to more traditional policies once the crisis is over.

A. Institutional Reforms for Crisis Management

Establish an institutional framework

Crisis policies will be determined by the Government's senior economic policy makers. This policy group, composed of the Minister of Finance, the NRB Governor and the Finance Secretary, will jointly determine the government's response to the crisis and ensure that all government agencies work together to resolve the crisis. This group could be formalized into a Senior Policy Group (SPG). Much as is done today, during stable period, the SPG would meet occasionally and monitor developments. In a crisis, the SPG will meet daily and guide the crisis response process.² Their first task will be to assign responsibility for ensuring up to date analysis of the emerging crisis. As information emerges, the Senior Policy Group will evaluate the information and set the policy direction for the government. This group should operate as follows:

- Meetings should be held regularly and should not be called on an ad hoc basis.
- Tasks and responsibilities must be clearly assigned.
- The Group will coordinate with involved agencies, ensuring consistent policy direction.

A technical committee for the Senior Policy Group should be established. This Secretariat could be composed of the Executive Director for Bank Supervision, the Executive Director of Financial Institution Supervision, the Executive Director for Bank and Financial Institution Regulation and the Executive Director of Research. This committee will coordinate the work of the NRB, collecting pertinent and updated information (see below) and conducting the preliminary analysis of the most recent developments. The committee will also prepare draft policy options for the Senior Policy Group.

² The purpose of formalizing the SPG is to give clarity on responsibilities in a crisis and avoid questions about who will lead the government's response efforts. It also provides the public with an understanding of who is in charge of the policy response

The technical committee should prepare for the Senior Policy Group an updated diagnosis of the banking system. The NRB has quarterly reports on the state of the banks, based on a combination of on-site and off-site inspections by their inspectors. However, policy makers will need to receive more up-to-date (daily or weekly) information, prepared in summary fashion. Of particular importance will be (i) deposit movements, (ii) forward looking projections of liquidity, (iii) movements in NPAs and (iv) recent capital ratios. This information will point to increasing pressures in individual banks and permit the Senior Policy Group to begin to develop an appropriate policy response to specific problems.

Crises are data intensive and arrangements should be made that allow the NRB to receive critical, up-to-date data from banks. The NRB currently receives a wide range of daily information from banks. That data set must be expanded (see below). Mechanism for receiving this broader set of data quickly must be established. For example, the bank desks could begin receiving a broader set of high frequency data on a weekly basis, establishing contacts with key individuals in banks. As the crisis intensifies, the provision of such data could be increased.

Mechanisms for reimbursing depositors in failed banks must be developed and put in place. Experience shows that deposits can run from banks as financial pressures increase. Even countries like the UK (in the case of Northern Rock) found that slow repayment of depositors or partial repayment can generate financial pressures. While NRB policy in the early stages of a crisis may not be to close banks, banks may fail. Once depositors are protected, they must be able to get their funds quickly. Mechanisms such as the use of special debit cards, transfers of deposits to other institutions, or direct payout by the NRB must be decided before the crisis hits.

B. Policy Preparation for Crisis Management

Before the crisis hits, the Senior Policy Group should agree on the broad policy outline for confronting the coming crisis. Policies are needed on the requirements for liquidity assistance and on policies for bank restructuring and rehabilitation. Such policies may be controversial and a broad consensus should be sought before the pressures of the actual crisis result in policy making without adequate reflection and consensus building.

Liquidity

Provision of liquidity assistance is the most critical policy in the early days of a crisis. Banks must be able to meet depositor demands for withdrawal. Illiquidity in any one bank could spread uncontrolled to other banks. For example, the banking crisis in the UK was triggered by illiquidity in one of the smallest banks in the system (Northern Rock). For that reason, there must be clarity on a number of critical policy questions:

- Mechanisms for emergency lending must be in place.
- All banks should have access to the liquidity window.
- While collateral is helpful, banks without collateral should have access.

- Liquidity triggers, discussed above, should be revisited and refined if needed.
- The NRB must also ensure that there is an adequate supply of currency in ATMs and banks.

Depositor protection

An additional containment policy is the treatment of depositors. More than any other policy, the objective of depositor protection changes between stable times and crisis times. In stable times, only small, unsophisticated depositors should be protected and that protection should be limited in size. In a generalized crisis, however, depositors in all banks believe their deposits are at risk and they will run at the slightest provocation. Depositor protection in a generalized confidence has two benefits: (i) depositor flight from sound banks is prevented; and (ii) the NRB can close a bank and resolve it without generating fears of loss of value in depositors. In the context of the current global crisis all affected countries (the US, UK, and all European Union countries) effectively guaranteed all deposits. Without such protection, restructuring and removal of undercapitalized and insolvent banks from the system is extremely difficult. The Senior Policy Group must decide if and how to ensure depositor protection as the crisis unfolds.

In the midst of a crisis, the bank restructuring process will be facilitated by full protection of depositors. Bank restructuring involves removal of insolvent banks and possibly temporary government ownership of others. Removing banks from the system will not cause undue stress in the system if depositors, and possibly other creditors, are fully protected. The costs of such protection can be high but may be less costly than the alternatives.

Bank diagnosis and restructuring

The provision of liquidity merely buys the NRB time; policies are needed on the bank restructuring framework. The NRB's approach to problem banks has largely been the placement of management teams in the bank and the eventual return of the bank to the original shareholders. In the midst of a widening banking crisis, following containment, the NRB may have to turn to a wider range of restructuring policies. The restructuring phase of a crisis management program may lead to removal of the weakest banks and some consolidation of the banking system. The policies governing such consolidation should be determined before the emergence of the crisis.

The collection and analysis of high frequency data and stress test should identify emerging problems that are discussed with bank owners. The Supervisory staff should use this data collection and analysis to meet on a frequent basis with the most vulnerable banks. That diagnosis should be complemented with stress tests and scenario analysis. Supervisors should stress test to identify weakest institutions and subject them to more intensive supervision. Those meetings should identify potential difficulties and agree on options to address them. Once a plan

is agreed on, the Supervisors will need to monitor regularly the remedial steps being taken by bank managers and evaluate the success of their policies.

Some standard features of bank resolution applied internationally may be considered. The Senior Policy Group will have to make decisions about key elements of the restructuring strategy. The main objective of the restructuring strategy is to restore individual banks and the system to profitability and solvency. The strategy should identify measures to strengthen viable banks, improve the operating environment for all banks, and resolve unviable banks. Such strategies requires the: (i) development of options to liquidate, merge, sell, or recapitalize banks; and (ii) restructuring and recovery of bank assets, operations, and procedures. Based on international practice, the following principles have been generally used: (i) all losses in the bank must be recognized so that the true value of the bank is known; ii) shareholders should absorb the first costs; (iii) if shareholder want to retain their bank, they recapitalize the bank; and (iv) if the original shareholder cannot, other private investors must be sought.

The Senior Policy Group must formulate a policy on public sector recapitalization. If the shareholders of an insolvent or deeply undercapitalized bank cannot recapitalize it, they should not retain ownership and control (see above). However, the closing and liquidation of the bank may undermine any progress in stabilizing the economy. The public sector may have to inject capital—either directly into the bank by injecting public capital or by providing Tier II capital in the form of preference shares. If preference shares are used, the shareholders must (i) agree to inject some capital (ii) subject to intensive supervisory monitoring and (iii) agree with the supervisors on a restructuring plan.

Bank-by-bank contingency plans

As part of the contingency planning, the technical secretariat (in this case the supervisors who are members of the secretariat) should prepare preliminary contingency plans for each weak bank. Such plans will identify the bank as being viable or nonviable (i.e., whether it is likely to become a profitable institution after the crisis), identify the level of shareholder support and interest by other private investors, identify the likely capital restructuring needs, and determine the priorities for any public capital support abilities, if depositors are fully protected.

- Identification of viability will require all banks to submit a multi-year business plan substantiating their viability and ability to comply with the minimum capital requirements within a prescribed period.
- The NRB will need to identify policies concerning the intervention of a bank if owners and managers are not fit and proper, or are unable or unwilling to recapitalize their bank.

C. Preparation of Communication Strategy

In all crises, the one overlooked area is communications. Proper and effective communications with the public is critical to the successful containment of an emerging crisis. Some principles have been identified from past crises:

- The government must speak with one voice. One high level spokesman should be appointed and only that spokesman should make announcements. Differences among speakers confuse and worsen the situation.
- Disagreements must be solved before announcements made. Those who did not win cannot be allowed to fight in public.
- Have frequent communication. A message can never be repeated too often. Moreover, seek different channels for communication. Do not rely on a press release or in a newspaper announcement. The public needs constant reassurance.
- Quickly clarify to the public the fate of the banks. If depositors are protected, say that they will not bear the costs of restructuring.
- For bank failures, clarify clearly and frequently critical issues such as when are depositors reimbursed and what is the mechanism.

Crises never proceed along expected lines. Unexpected turns and surprising developments occur. Policies have setbacks and new policies must be developed on the run. The government spokesman should acknowledge any set back and announce how the policy framework will be adjusted. Attempting to pretend that setbacks have not occurred will undermine the legitimacy of the government and raise questions in the public about the effectiveness of the stabilization policies.

Draft press releases for critical decisions should be drafted in anticipation of the crisis. It will never be perfect but in the first days of a crisis numerous announcements will have to be made concerning: (i) depositor protection, (ii) failure of a bank, (iii) major macroeconomic policy changes. Such press releases should present the policy stance in the most favorable way, explaining why the government thinks their actions will be successful. Announcements should be simple and not use technical terms, be brief, factually correct, but should provide as much information as possible with the media in order to create and maintain goodwill.

III. Step-by-Step Action Plan

A. Overview

The immediate priority as a crisis unfolds is to stop the deterioration of private sector expectations and confidence. Immediate policies must aim to halt the deterioration of private sector expectations and address the immediate causes of the crisis. Efforts are necessary to avoid long lines of frightened depositors, massive withdrawals from banks, and limit public discussions showing uncertainty and lack of coordination of public policy.

Sometimes the immediate steps at crisis management do not address the fundamental causes of the crisis. Crises emerge over time and are triggered by some often marginal event. The public must come to believe that the authorities are in charge, understand the problems, and are addressing the problems. Resolution of more fundamental sources of financial distress may have to wait until confidence is restored.

Liquidity management is the most important aspect of the early stages of crisis management. The NRB will have to ensure that banks do not become illiquid; as such illiquidity will prevent stabilization of private sector expectations. At the same time, however, the overall monetary policy must be tightened. As a result, the NRB will have to be careful to use open market operations in conjunction with its liquidity provision to ensure overall monetary aggregates remain within targets.

While the banking sector will require actions, such policies must be designed in the context of the broader macroeconomic policy stance. The key to successful banking crisis management is coordination with the overall macroeconomic framework. This note concentrates on banking system restructuring, but policymakers must incorporate banking sector policies in the broader policy context. Bank restructuring needs to be implemented in conjunction with supporting macroeconomic policies, including the government's fiscal stance, monetary policy stance and balance of payments developments, including movements in international reserves. This broader context is needed because measures to contain the crisis and restructure banks will have macroeconomic consequences that need to be considered when designing a stabilization strategy.

B. In the Weeks before the Crisis

Crises cannot be predicted but there are always signals that must be taken seriously. Crises are triggered by sometimes random events or events that appear, in the instant, to be insignificant. But the authorities are almost always aware of growing financial distress and deteriorating private sector confidence. As distress grows, extreme caution must be followed. Any small event can trigger massive loss of depositor confidence.

Data Preparation

Liquidity stress is an early warning of a pending crisis. While not all periods of liquidity stress result in crises, virtually all crises start with a liquidity strain. Accordingly, the channels put in place to collect liquidity information (see above) should be activated and reviewed.

Monitoring must be intensified. The regular reporting by banks must be supplemented by the collection of high-frequency data. The NRB needs to coordinate the different departments collecting information and ensure that information is shared. A special task force should be established: (i) to ensure that needed data is collected and tabulated; (ii) prepare summary statistics for management review; and (iii) work closely with the bank desks to ensure that supervisory data supplements the diagnosis of stress.

The technical committee to the Senior Policy Group would coordinate all reporting. It would report on a daily basis to the Executive Directors of Bank Supervision and Financial Institutions Supervision. As pressures intensify, reports will be made to the Governor. The task force should produce summary tables with collected information and prepare a one page summary of the salient developments. This daily report need not be forward looking but merely report the most pressing developments.

Crises are data intensive. Policy makers will need a steady stream of updated data. Information from last month is useless and from last week is out of date and misleading. The demands for information about developments yesterday or over the last two or three days will be intense. The NRB should review and prepare ways of obtaining such high frequency data and have a system for processing and summarizing that data for policy makers. Typically, policy makers will want updated information on the following:

Banking System

- Bank-by-bank data on stock of deposits (including currency and maturity breakdowns)
- Required reserve position, bank-by-bank
- Central bank liquidity support on a bank-by-bank basis.
- Schedule of bank credit lines by maturity, debt service
- Information on the interbank market (who are net providers of liquidity) and interbank credit line linkages

Central Bank Data

- Overall and bank-by-bank liquidity provision.
- International reserve position of the central bank and if unencumbered

- Central bank intervention in FX markets
- Maturity profile of central bank debt

Signs of contagion

- Interbank developments, giving an indication of liquidity pressures
- Flows between parents and branches/subsidiaries

The NRB should ensure adequate supply of cash. Bank cash holdings should be reviewed and the availability of cash to disburse should be reviewed. If there is evidence of possible cash shortages, all possible remediate steps should be taken. Supervisors should discuss with banks their procedures for keeping ATM machines stocked as well as procedures for getting cash supplies to the banks.

Preparations for bank resolution

Supervisors should review and update their diagnosis of the weakest banks in the system. Supervisory data is necessarily lagged and may be of limited value in assessing the likelihood of a crisis. But the analysis of bank weaknesses, the capacity of shareholders to support their bank, and a review of any contingency plans will be invaluable to NRB decision makers.

The Senior Policy Group should meet immediately to review the diagnosis of financial stability. As the financial situation deteriorates, policy direction must crystallize quickly. Public debates within the government and delays in implementation only worsen the situation and further undermine public confidence.

- a. The Senior Policy Group should review market developments and the supervisors' assessment of bank strengths. It should consider the range of possible developments and the likely response to each scenario.
- b. Public policies must be defined and/or reaffirmed. Delays in policy development and articulation will undermine the stabilization efforts. Such policies include (i) policies of liquidity support, (ii) the decision of whether to use public money in protecting the financial system, (iii) the degree of depositor protection, and (iv) the range of resolution techniques that will be addressed.
- c. Based on the diagnosis of the banking system (see above), the supervisors should classify banks into one of three categories: relatively sound, weak but viable, and nonviable banks. This grouping should be approved by the Senior Policy Group.

d. Policies on the procedures for dealing with these banks should be approved by the Senior Policy Group. Typically, such policies are:

- For weak but viable banks, (i) recapitalization by the shareholders, (ii) a time bound program for meeting minimum capital levels, (iii) identify conditions for any use of public money to support recapitalization efforts, (iv) identify targets for operational restructuring, including policies to improve profitability and stabilize financial conditions, and (v) identify penalties for banks not fulfilling their recapitalization and restructuring plans.
- For nonviable banks, identify options for resolution including some form of purchase and assumption or bridge bank activity (see annex).
- Any forbearance for meeting prudential regulations must be explicitly authorized by the Senior Policy Group. If needed an implementation timetable can be agreed but any bank not meeting all prudential requirements will have to face limitations, including suspension of dividends and bonuses.

e. The Policy Group must quickly determine the communication strategy to be followed. Who will be the spokesman for the government, how disagreements will be handled, the frequency of public announcements.

C. First Day of the Crisis

The objectives of the first day are threefold. The authorities will have to make a quick determination of the following tasks: (i) diagnosis the causes of the crisis, (ii) provide whatever liquidity is needed to limit panic, and (iii) ensure that adequate coordination among government officials takes place and an agreed position emerges. Although information is scarce, rapid action is needed. One of the lessons from crisis management is that waiting for full or perfect information will delay policy actions. Such delays will worsen private expectations.

The specifics of the policy actions will depend on the causes of the crisis. There can be broad patterns of crisis evolution.

- One arises when a small number of banks fail. The objective is then to calm all depositor fears and deal with the failing banks. Comprehensive depositor protection is a key ingredient of the crisis response so there is no contagion.
- Another pattern is a flight from all private banks, generated by fears that system is insolvent but the government has the tools to address it. In this case, depositors may run to state banks in expectation that such banks are safe. The objective is again to calm depositor fears and demonstrate an understanding of the need for broad financial reforms.

- The third and more difficult case is when there is a generalized run from the financial system generated by a loss of confidence in the government. In this case, depositor protection is essential but must be complemented with a comprehensive economic policy reform supported by all parties.

The Governor of the NRB should inform immediately the Senior Policy Group. That meeting should review recent developments and ensure all policy makers have the same information. The Group must agree on an initial policy response and agree on a communications line for the press.

A key issue for the Senior Policy Group will be the broad outlines of the policy response. The extent of depositor protection will be critical. Depositors must be reassured that their deposits are safe otherwise the collapse of the banking sector will accelerate. The extent and approach to such protection must be agreed on quickly and announced. If the crisis was triggered by a bank failure, the supervisory response must be determined (will the shareholders support the bank or will the bank be intervened). Reviews of the bank-by-bank contingency plans will provide key inputs. If the crisis was triggered by a macroeconomic event, the offsetting measures must be determined.

The spokesman should quickly announce that the Senior Policy Group has been convened and is analyzing the issues. A mid-day announcement can be made describing the developments thus far. At this stage, policies should not be announced piece meal. While there is an urgency to announce quickly, the announcements should be as comprehensive as possible. The issues to be discussed include:

- The triggers of the crisis and what is needed to contain the deteriorating expectations.
- The policy line on depositor protection.
- Agreement on the need to ensure liquidity support to prevent liquidity shortages in the market.
- The macropolicy stance must be reviewed.

Intensified monitoring should be initiated immediately. The technical committee should then initiate a series of emergency measures, including:

- intensified daily monitoring of deposits in all banks—this should include daily deposit balances.
- Immediate contacts with the weakest banks in the system and those most affected by the triggering event.
- Meeting with senior management of the large banks to ensure that the situation is fully understood and that the needs of the banking system are clear.
- Review contingency plans for each severely affected bank.

The Senior Policy Group should ensure that policies are in place providing adequate supply of cash to the market. Specifically:

- Contact banks for their daily liquidity needs.
- Ensure ATM machines are fully stocked and remain stocked.
- Review supply of cash notes.

The injection of liquidity will have to be offset with adequate open market policies. The NRB should use monetary policy instruments to absorb the injected cash. Even in a crisis, open market operations can be effective. If the securities carry attractive interest rates, banks will see such securities as the only instrument generating a return. Banks will approach key clients to seek liquidity for investing in securities. As large corporate clients or individuals begin to return to the banking system, other depositors will follow. However, open market operations will be successful only if such instruments carry an attractive yield. This use of open market instruments has a number of benefits. First, it absorbs liquidity and limits exchange rate pressures. Second, it gives the banks and high value individuals a profitable instrument to hold providing them incentives to help absorb liquidity.

By the end of the day, the Senior Policy Group must receive a report on progress to date.

The SPG should receive a report on: (i) the triggering event; (ii) deposit movements in the system; (iii) the condition of most affected banks; and (iv) any contingency plans already developed. An initial strategy for dealing with the crisis will then have to be developed

A public announcement must be made at the end of the first day. The spokesman for the Senior Policy Group should then make a clear public statement about the causes of the crisis and the government's plan for stabilizing the banking system. Announcements of the first phase of the stabilization policy should be announced;

- the spokesman should announce that all necessary measures will be taken to protect depositors
- liquidity support will be provided to banks
- any intervention of banks should be announced
- announce any temporary easing of prudential requirements to provide the banks time to stabilize their financial position.

Broad political support for the handling of the crisis would be extremely helpful. Private confidence would be enhanced by support for the government's program from all key political players. Such support should be developed over the course of the day. Political groups could be briefed on the government's thinking and on the severity of the crisis. The potential impact on broad economic conditions should be clearly explained and the limits to policy actions must be made clear. The broader the support of the government, the greater will be the stabilizing impact of public announcements.

D. First Week of the Crisis

The Senior Policy Group should meet every morning to review overnight developments and review policy options. As information comes in and as the diagnosis of the problems becomes clearer, the SPG can begin to differentiate between the immediate short term problems that must be solved immediately and the medium term issues that must be resolved if financial stability is to be returned.

Supervisors should contact and monitor all banks in the system . They should monitor developments and contact shareholders to understand their approach to resolving their bank's difficulties. The supervisors should have an assessment of the appropriateness of each bank's response and have a view about the viability of the banks going forward. In the weakest banks, intensive supervision should be initiated. Care must be taken for any signs of asset stripping in the banks.

All banks should produce a plan for managing the crisis. These plans will be reviewed and revised over the course of the crisis but should be implemented immediately. The supervisors can use previous diagnosis and stress tests to identify possible critical stress points for each bank. Discussions with each bank about their likely response should be developed.

At the end of the first week, the supervisors should present to the Senior Policy Group preliminary the results of the classification of banks. The banks' classification as sound, viable but weak, or unviable will have to be reviewed. Assessment of the ability of shareholders to support their banks must be made and a review of alternative resolution techniques for the failed banks must be developed. The Supervisors should also report on the possible liquidity needs that will be faced in the next several days and the possible range of actions that can be taken.

E. First Month of the Crisis

After the crisis is contained, the tasks of the first month focus on the evaluation and restructuring of the banks. The supervisors should begin discussions with all the banks on the development of a restructuring plan. The supervisors will need to know if the banks will be able to meet prudential norms and, if not, what steps will be taken. Banks will be expected to prepare detailed restructuring plans with quarterly, monitorable targets. The implementation of those plans will give the supervisors an idea of the strength of the business models and the ability of the banks to continue to function.

Any forbearance must be explicit and approved for a limited time period. Banks will need to implement their time bound plan of restructuring strategies. Some regulatory norms may be broken as the banks struggle to return to profitability., Supervisors may allow some noncompliance. However, such forbearance must be explicit, monitored, and for a limited period

of time. Corrections in the business model should be required if banks fail to meet their quarterly restructuring targets. Penalties should be assessed for banks consistently failing to meet targets.

IV Areas for Possible Support

The policy agenda for developing a crisis management framework is ambitious. The Action Plan contains difficult steps that must be taken very quickly. Reforms are needed in a large number of areas, including establishment of the analytical unit, development of problem bank resolution options, strengthening stress testing activities, and the development of a communication strategy. Such reforms must be quickly implemented before financial distress returns. The NRB supervisory and regulatory staff has improved in recent years. However, they may not have the necessary background or information to meet the requirements for developing these policy options.

A large number of countries have gone through crises and have experience in what works and does not work in crisis management frameworks. This international experience could be available to the NRB to assist in the rapid development and implementation of its crisis management framework. Countries that have experienced such crises have shown a willingness to assist those seeking to prevent and manage future crises.

A number of specific areas where technical assistance could be helpful have been identified. Such assistance could be arranged through international donors, on bilateral basis from cooperating central banks, or private consultants. The most critical areas include: (i) developing the technical skills of the specialized analysis unit for confirming capital and liquidity ratios as well as forward looking bank assessments; (ii) drafting manuals and step-by-step implementation plans for problem bank resolution; (iii) implementation of the special bank restructuring unit; and (iv) communication strategy.

Box 1. Least Cost Criteria for Bank Resolution

The resolution of problem banks should be guided by “least cost” criteria. In normal times, when dealing with an individual bank that does not have systemic implications, least cost is determined by evaluating all resolution alternatives and selecting that option that minimizes the cost to the deposit insurance fund (if one exists) and losses to uninsured depositors and other creditors. This method involves evaluating a number of variables including:

- the differences between the book value of assets and liabilities;
- the level of insured and uninsured deposits;
- losses on contingent claims;
- any premium paid by an acquirer; and
- the expected realized value of liquidated assets.

Determination of these variables in a systemic crisis is more complex as there is greater uncertainty about asset and liability valuation, asset recovery levels, and the medium term viability of banks. More importantly, a systemic crisis imposes additional constraints on decision makers, and governments frequently commit public funds to ensure that a functioning banking system remains to support financial intermediation and economic growth. Under these conditions, the costs to be considered should include not only the direct fiscal costs of alternative resolution strategies, but also the broader costs to the economy in terms of foregone future revenues and growth.

This broader criterion for evaluating costs is not easy to measure. Since steps to restore depositor confidence such as introduction of a blanket guarantee may be needed to contain a systemic crisis, the basis for the least cost criterion shifts from minimizing government expenditure to minimizing fiscal costs subject to the constraint of ensuring depositor protection. Hence, unlike periods of financial stability, a resolution option in a systemic crisis that better protects depositors, albeit at a higher cost, may be preferable to a cheaper option that would not provide the necessary stabilization of the financial system. While injection of enough equity can make any bank solvent, the authorities must also ensure only viable banks remain in the system and that the post crisis landscape is not populated with a large number of “banks” that only warehouse recapitalization bonds.

Balancing the fiscal impact of alternative resolution techniques against the benefits of faster and stronger reintermediation is as much a political as a technical issue, and should reflect the priorities of the government as well as any resource constraints.

If government has committed public funds, but resources are not sufficient to cover all deposits, least cost considerations are still important but the authorities will have to address the additional issue of how to allocate all losses in an equitable and transparent manner.

Box 2. Elements of the Public Recapitalization Program

Public sector recapitalization programs must be designed in light of specific circumstances and government policies. Not all programs will be alike. The availability of shareholder resources, the extent of recapitalization needed, and the legal structure will all affect program design.

Last resort. A public solvency support scheme should be viewed as a last option when there are no other alternatives available.

Private participation. For a bank to be eligible for public support, existing shareholders or new private investors must be willing to inject at least half of the Tier 1 capital needed.

Operational restructuring. To qualify for support, banks must present an acceptable operational restructuring plan, including measures to strengthen internal control, risk management, increase revenues, and cut costs and to deal with NPLs.

No bailout of existing shareholders. Capital needs in banks must be thoroughly assessed and all losses imposed on existing shareholders before public funds are injected. The assessment of capital needs should be verified by a third party. Preferably, the shares held by the government should have preferred status to shares held by the old shareholders. Thus, if there are additional losses over a given period of time, say six months, those losses should be absorbed by the old shareholders.

Shareholders' rights. The government should have the right to appoint at least one board member irrespective of its capital contribution. Such board member(s), who should have documented experience in banking, should have veto powers on matters material to the soundness of the bank.

Price. The government should pay net book value for the shares.

Buy backs. When the government wants to sell its shares, existing shareholders should have the right of first refusal for a given period, say two years. The price should be whichever is highest of (a) the government's investment cost (principal and interest); (b) net book value; and (c) market price (including third party offers).

Pledge. To protect the public investment, majority shareholders in the bank should be required to pledge as collateral to the government shares held in the bank equal to the government's capital contribution. The shares will be used as collateral in the event the government faces losses when it sells its shares in the bank.

Payment. The government should pay for the shares in tradable government bonds issued on market terms.

Convertibility. If the government provides Tier 2 capital, it should automatically be converted into Tier 1 capital if the CAR falls below a certain ratio, say 8 percent, and the private shareholders do not immediately bring it up to above 8 percent.

Annex I: Managing the Bank Restructuring Process³

Diagnosing banks

The bank restructuring strategy begins with a diagnosis of the financial condition of individual banks. The first task is to identify the size and distribution of bank losses. As supervisory data may be outdated and may not reflect the full economic impact of the crisis, supervisors may attempt to update available information based on uniform valuation criteria. The supervisors will also examine information on banks' ownership structures (public or private, foreign or domestic, concentrated or dispersed) to help determine the scope for upfront support from existing or potential new private owners.

As quickly as possible, banks should be classified using uniform indicators. A frequently used measure of solvency is the risk-weighted Basel CAR. However, in a crisis, the accurate measurement of capital is usually limited by problems with loan valuation, and classification and weak provisioning rules. International accounting or prudential rules provide little operational guidance. Other indicators may be used, including gearing ratios or banks' reliance on central bank credit.

When data limitations delay bank evaluation, supervisors have to develop the needed information to determine bank viability. As described earlier, a bank is viable (1) if it can remain profitable and earn a competitive return on equity over the medium term; and (2) if the shareholders are committed and able to support the bank. Supervisors may require banks to produce forward-looking business plans based on common assumptions and worst case scenario analyses. Viability may need to be confirmed with (a) simple stress-testing of banks' loan portfolios and balance sheets under different exchange rate, interest rate, and economic growth assumptions; and (b) simulations of banks' core profitability after excluding credit and other losses directly related to the crisis. Supervisors will also have to examine the viability of individual banks in the context of expected future volume of activity that the overall economy can absorb.

Supervisors may use special audits by independent external auditors to ensure uniformity and impartiality. Such audits may be warranted where insider lending or government directed lending has been prevalent or when the supervisors cannot meet the sudden demand for on-site inspections. Clear and uniform guidelines are needed to protect the auditing process from excessive bias toward caution as auditors tend to use "liquidation" rather than "going concern" values in order to protect their own reputations. Special audits are more useful later than early in

³ From Hoelscher, David and Marc Quintyn Managing Systemic Crises, Occasional Paper 224, 2004.

a crisis, as the audits ensure uniformity and impartially but not timely information. Ideally, they should be verified through second opinions.

The appropriate valuation of government bonds held by banks has become an important element in assessing the financial conditions of banks. Banks in emerging market countries often hold significant amounts of government bonds. As the financial condition of the government deteriorates, the market value of the bonds may also deteriorate. When government bonds sell at deep discounts in the market, marking-to-market such bonds could make the banking system insolvent and recapitalization costly. The private sector may not have sufficient resources to offset the value loss from the deterioration in the value of government bonds. On the other hand, the government finances may not be able to support issuance of additional bonds for bank recapitalization. The alternatives are not attractive. A significant portion of the banking system could be closed and liquidated. Alternatively, government bonds could be placed in the investment account of the banks and held at face value. A third option could be to distinguish between existing bond holdings, which could be marked to market, and new bonds issued to recapitalize banks to be held at face value. Finally, the requirement to mark-to-market securities could be phased in over a long period (i.e., 5 years) to allow shareholders time to recapitalize their bank. Whatever the solution, the valuation of government bonds should be uniform and transparent.

Once the diagnosis is complete, banks can be classified into three main categories based on their CARs, their viability or by their liquidity shortfalls and other supervisory data. The three categories typically are banks that are: (i) viable and meeting their legal CAR and other regulatory requirements; (ii) nonviable and insolvent; and (iii) viable but undercapitalized. In the latter classification, an additional assessment will be needed on the ability of the existing shareholders to recapitalize their bank within an acceptable period or if public funding should be considered. This classification is highly sensitive and should not be announced to the public but, rather, used by the supervisory authorities in designing restructuring options.

Dealing with viable but undercapitalized banks

All solvent but undercapitalized banks should be required to present time-bound restructuring plans (showing how they intend to remain profitable and solvent) and should be subject to intensive reporting and monitoring. If bankers are not able to present such plans, fail to comply with them, or if the bank becomes insolvent, the bank should be intervened. While all banks should be required to meet prudential requirements, shareholders may not be able to recapitalize their bank immediately. In this case, the recapitalization schedule could be phased in. Banks operating in this fashion should be required to suspend dividend and profit distributions until the required level of capital has been restored.

Private banks should be required to recapitalize from private sources according to uniform rules. Prudential rules could either call for gradual implementation of loan loss provisions or a

temporary acceptance of reduced capital ratios. Phasing in capital allows for a more transparent and public evaluation of the banking system. Rules on recapitalization should also identify acceptable instruments of capital, eligible investors, and the timetable for the contributions. The recapitalization timetable must consider the reality that a very limited pool of capital may be immediately available for equity investment. Whether the authorities opt to phase in capital or provisioning requirements, the policies must be fully transparent and announced to the market.

Box 3: Difficulties in the Identification of Bank Solvency

- *Identifying the size and distribution of bank losses is critical for developing a crisis response and a bank restructuring strategy.* A banking crisis involves losses and erosion of capital for individual banks. The identification of bank losses is extremely difficult, especially early on in a crisis as valuation procedures may be weak and bankers may have strong incentives to cover up losses.
- *Bank liabilities are normally relatively easy to value.* But there may be liabilities held off banks' balance sheets, and liabilities of branches or subsidiaries at home and abroad that may have to be included. There may also be liabilities that are unrecorded.
- *The valuation of loan portfolios is particularly difficult.* There are no market prices for loans, especially for NPLs. Loan valuation is typically based on loan classification and provisioning rules, which tend to capture values with a lag—there is no “true” value of a NPL.
- *Loan classification and provisioning rules often are inadequate, and need to be reformed.* But reforms will take time to become effective, as the data is collected by banks, which will need time to change their accounting and internal controls systems.
- *There is typically widespread denial of the severity of the situation.* It is difficult for bankers and officials alike to accept the full scope and speed of deterioration in a banking crisis, as everyone involved first assumes that the problems are temporary. This leads to under provisioning
- *The value of a bank and its capital adequacy is difficult to establish.* Lags in the valuation of banks' loan portfolios (as underlying economic conditions deteriorate) lead to overvaluation of capital. Low quality assets and creative accounting may further inflate capital numbers and adequacy ratios.
- *Policy decisions typically have to be based on whatever data is available to supervisors.* The supervisors are typically the only ones with data on individual banks and an overall view of the financial condition of the system.
- *Bankers and external auditors may have strong incentives to obscure and delay the process.* Bankers because they may lose their bank and have irregularities to conceal. External auditors because their analysis is based on historical data and they may be defensive of numbers that they have certified.

Dealing with insolvent and nonviable banks

All insolvent and nonviable banks should be intervened and resolved as soon as possible to stop their losses. If insolvent banks stay open without financial and operational restructuring, losses are likely to grow. Allowing insolvent banks to continue operations can distort competition, result in perverse incentives for other banks, and increase the eventual cost of restructuring.

Intervened banks should be passed to the agency responsible for bank resolution, which will decide on resolution options. Options include whether to close a bank or to keep it open. If the bank is closed, decisions need to be made on how to manage or sell assets and liabilities. If the bank is kept open, the restructuring agency must decide on a range of alternatives, including whether (i) to recapitalize the bank with public funds, (ii) to offer it for immediate sale “as is,” possibly with government guarantees on certain assets values; or (iii) to merge it with another sound public bank.

The choice of resolution options will depend, in part, on the availability of resources and should be guided by “least cost” criteria for the economy. The government should assess the likely costs of different options and choose the combination of options with the lowest present value costs. Cost estimates, however, should be evaluated in a medium-term perspective and include an estimate of the impact of any government-financed efforts on the sustainability of government debt. The appropriate level of publicly financed recapitalization will have to be evaluated in the context of the country’s sustainable level of public debt.

Intervened banks may be subject to operational restructuring to reduce their expenses and losses. The authorities must recognize that intervening a bank will not stop losses so any intervention must be accompanied with measures to control the loss-making activities.

Management and senior staff may have to be changed, risk management systems improved, branches closed, specialized functions and subsidiaries spun off, and staff size substantially reduced. At the same time, bank assets must be managed as efficiently as possible so as to minimize credit losses; for this, the best staff must be retained and, if needed, new specialist staff hired. The aim should be to bring the bank back to profitability as soon as possible.

Deposits in closed banks should be transferred to remaining sound banks (public or private). Even if a blanket guarantee is in place, depositor pay out could be limited so that depositors suffer little, if any, disruption of their financial services. Transferred liabilities need to be accompanied by assets of equivalent value, often government bonds, given the likely shortfall of good quality bank assets relative to deposits. The assets also need to generate sufficient yield to enable an acquiring bank to make interest payments on the transferred deposits.

Recapitalization of banks with public funds

Public capital support of private banks may be justified in some situations. While public capital, in principle, should not be used to support private banks, the authorities may help private owners achieve a least cost resolution. In this case, injection of new funds by the shareholders could be supplemented with public funds. Public participation in the recapitalization could be justified in cases where the worst private banks already have been intervened and the remaining system does not have access to sufficient capital. Under these circumstances, the shareholders and managers must be fit and proper and not the cause of the banking problems. Public funds may also be justified when the public sector causes the banking problems through policies directly affecting the bank such as sovereign debt restructuring or imposition of contract modifications. In this case, issuance of bonds to compensate banks for the loss could be considered.

A successful public solvency support scheme should be uniform and transparent. Such a scheme should not be considered early in the restructuring process but, rather, as a last resort when it becomes clear that restoration of confidence and viability in the banking system will not be achieved without such support from the government or across-the-board nationalization.

A public solvency support scheme should be available to all banks and should be designed to provide bank owners with incentives to raise private capital before turning to government funds. Government equity could be contingent on such factors as (i) new private equity in a set proportion; (ii) government having preferential shares; (iii) government having representation on banks' boards; (iv) government approval of bank's management; and (v) veto rights on certain decisions. Such schemes have been successful in Thailand in mid-1998 and in Turkey in early 2002.

Once a decision is made to recapitalize a bank with public funds, the appropriate instruments must be designed. An increase in paid-in capital (Tier I capital) is preferred as it both improves capital ratios and provides income. The government may not wish to have an ownership stake in the banks, however, and may opt to inject Tier II capital or purchase subordinated debt of the bank. If the government does not take an ownership share in the bank, however, it should hold shares that convert to ownership if the bank fails to implement its restructuring plan or if the bank's financial position sharply deteriorates.

Annex II: Bank Resolution Options

A. Management Contracts

In some countries, a conservator is appointed to determine if the bank is insolvent and whether it can be rehabilitated. The conservator takes over the management and voting rights of shareholders, but not their economic rights. In other countries, the role of the conservator is performed when banks are intervened (by an intervener) and frequently these responsibilities are carried out by the supervisory agency. Conservatorship can be used as an alternative to the forms of intervention that involve suspending the activities of a bank.

Conservatorships can also be a form of intervention that is appropriate to deal with management problems. For example, if it is discovered that the owners/managers of the bank are engaging in fraudulent transactions, the appointment of a conservator is a way of stopping the fraud until its magnitude is discovered. It is useful in cases where a bank's capital is greater than zero but less than that required by the supervisor. A conservator can replace management and address the problems in the bank if the shareholders were unwilling to. Lastly, as was done for savings and loans in the United States, conservatorship powers can be used to take control of a bank while the authorities are arranging a resolution.

While common in Nepal, there are several drawbacks to the use of conservatorships. They can unnecessarily delay bank resolutions and increase the cost of the ultimate resolution. Public uncertainty may increase after the announcement that a bank has been placed into conservatorship, and this could lead to deposit runs. Depending on weaknesses in the legal framework or corruption in the judiciary, shareholders may be able to interfere in the operation of the bank, despite its being under conservatorship. Moreover, efforts to defend against interference take away from efforts to deal with problems in the bank.

B. Purchase and Assumption Transaction

A P&A is a transaction in which a healthy bank (the acquirer) purchases some or all of the assets of a failed bank and assumes the insured deposits. To gain entry to a new market or to increase market share, an acquirer will often pay a premium for this transaction. When the amount of insured deposits assumed exceeds the value of the premium plus assets purchased, an acquirer may receive assistance.

The goal of a purchase and assumption transaction (P&A) is to have the insolvent bank cease to exist but avoid the disruptive effects of a straight liquidation. To utilize this resolution technique, another bank will acquire all or part of the business of the insolvent bank. The basic structure is for the acquiring bank to purchase the good assets of the failed bank and assume its deposit liabilities. The deposit insurer or the government provides cash or government paper to make up for the difference between the good assets purchased and the liabilities assumed.

With a P&A transaction, the supervisory authority staff or other experts should first estimate the worth of a bank's assets using valuation models. Because time is of the essence, there is not enough time to appraise every asset, so the models will provide statistical sampling. Assets can be divided into categories, identify a sample, and carefully review the assets to establish a liquidation value for each asset. The assets will be disposed of at their determined value (their book value if correctly carried in the bank portfolio) and packaged with an offsetting amount of liabilities.

The liquidator will subsequently dispose of the "bad" assets, either through sale or by managing them. In the event there is more than one potential acquirer, the choice of acquirer is made based on choosing the bidder willing to pay the highest premium. This premium reduces the amount of cash needed to fill the shortfall between assets purchased and liabilities assumed.⁴

Resolution preparation involves the following tasks: (i) compiling Initial Information about the bank, (ii) asset valuation, (iii) completion of a financial information package for bidders and (iv) marketing strategies. Regardless of whether the bank is operating or closed, experienced and qualified personnel should complete the Asset Valuation. If the bank is in Conservatorship, bank staff can prepare the Bid Package, under the direction of the Conservator.

The information needed to attract investors relates to the key aspects of the banks. Specifically, information will be needed to be collected on the following:

- Bank premises and owned property
- Loans, the number and value of loans at each location
- Deposits (including Debtor/depositor relationships in case of offsets)
- Borrowings – secured or unsecured
- Subsidiaries
- Contingent liabilities
- Trust Department activities
- Ownership structure
- Enforcement actions pending
- Litigation
- Other – leases, contracts, etc.

⁴ Potential acquirers should be pre-approved by the supervisor based on their financial and managerial capacity to undertake the transaction.

To illustrate a P&A transaction, let us assume that after the supervisor has determined that Failed Bank is insolvent, and restated its books, its balance sheet is shown in Table 3.

Table 3. Failed Banks

Assets		Liabilities	
Cash and securities	10	Deposits	100
Performing loans	50		
NPLs	50	Total liabilities	100
Less provisions	20	Total equity	-10
Total assets	90	Total	90

Several banks have expressed interest in undertaking a P&A transaction for Failed bank. The transaction would involve the shaded assets and liabilities of the bank. After undertaking a bidding process, the bank resolution agency chooses “Acquiring Bank” who has bid a premium of 2 percent of deposits. Acquiring Bank’s balance sheet is shown in Table 4.

Table 4. Acquiring Banks

Assets		Liabilities	
Cash and securities	50	Deposits	325
Performing loans	300		
NPLs	50	Total liabilities	325
Less provisions	-25	Total equity	50
Total assets	375	Total	375

The transaction involves the acquirer purchasing the cash and securities and the performing loans and assuming all the deposits of Failed Bank. Since the deposits equal 100 but the good assets are only 60, the shortfall, net of the premium, will be made-up by the government or the deposit insurer. Since the premium paid by the acquiring bank is 2 the government reduces the amount of cash it injects, and the size of its subrogated claim against the liquidation. The following T – accounts for the acquirer and the failed bank liquidation reflect the transaction (Table 5).

Table 5. Acquiring Banks and Liquidation**Acquiring Bank**

Change in Assets		Change in Liabilities	
Cash and securities	+10	Deposits	+100
Performing loans	+50	Equity	-2
Cash and Securities from government	+38		
Total assets	+98	Total liabilities and equity	+98

Liquidation

Change in Assets		Change in Liabilities	
Cash and securities	-10	Deposits	-100
Performing loans	-50	Government claim	+38
Total assets	-60	Total liabilities	-62

If the acquiring bank had not had excess capital it would have had to raise additional capital to cover the transaction. Assuming, a 10 percent risk weighted CAR the acquirer would have needed to raise an additional 5 in equity.

As a result of this transaction Acquiring Bank and the Liquidation will have the following balance sheets, as seen in Table 6.

Table 6. Acquiring Bank and Failed Bank Liquidation**Acquiring Bank**

Assets		Liabilities	
Cash and securities	98	Deposits	425
Performing loans	350	Total liabilities	425
NPLs	50	Equity	48
Less provisions	-25		
Total assets	473	Total liabilities and equity	473

Failed Bank Liquidation

Assets		Liabilities	
NPLs	50	Claims of the government	38
Less provisions	-20		
Total assets	30		

If the recoveries on the assets remaining in the liquidation turn out to be 19 (38 percent of the gross claim against the borrowers) the loss suffered by the government/deposit insurer on its claim will be 19, or a 50 percent loss. Since the acquiring bank paid a premium of 2, this reduced the loss to the government/deposit insurer by about 5 percent.

Advantages of Purchase and Assumption Transactions

Operational issues are among the greatest difficulties in undertaking bank resolutions. While still operationally complex, a major advantage of P&A transactions is that they can be executed quickly. In the United States these transactions are typically accomplished over a weekend. Speed is important since it is a critical factor in maintaining public confidence. Moreover, it is a relatively easy transaction to explain to depositors since, as far as they are concerned, nothing more has happened than their accounts have been transferred to a new bank.

Since one of the goals for a government may be to retain banking services in a sparsely served area, a P&A transaction potentially meet this goal. The acquiring bank initially will take on most of the branches of the failed bank and continues to provide services in the geographic markets served by the failed bank. However, if over time, these services cannot be provided profitably it is reasonable to expect a prudent banker to reduce its presence in the market.

If there are several potential buyers, the transaction allows the government, or the deposit insurer, to capture the franchise value of the failed bank for the benefit its creditors, including the

government. This helps reduce the ultimate fiscal cost of the transaction as well as the immediate fiscal outlay.

While the P&A transaction meets the objective of forcing shareholders to suffer the first loss and results in an inefficient bank leaving the system, its biggest benefit is that it avoids the disruption that can accompany a straight liquidation. Specifically, all depositors avoid the liquidity implications of loss of access to their funds since they have almost immediate access. Current borrowers continue a banking relationship with the acquiring bank, and there is minimum disruption to the payment system since the acquiring bank takes over the obligations of the failed bank and its role in the payment system.

Additionally, when there are several potential bidders, the failed bank's franchise value can be captured, to the benefit of the creditors, reducing the final cost of the failure. Using assets in a P&A to fund deposits has two added benefits: i) keeping assets in the private sector, and, ii) reducing the financial outlay that a DIA must provide to repay insured deposits.

Disadvantages of Purchase and Assumption transactions

The major drawback to these transactions is that all depositors of the failed bank are protected, including the large sophisticated ones who are not supposed to be protected under deposit insurance schemes. Therefore, if depositors believe that bank resolutions will be handled using P&A transactions, market discipline will be eroded. In response to this concern, variations of the P&A transaction have been developed that result in uninsured depositors receiving the same treatment as in a straight liquidation. This is discussed below, however, it must be recognized that such transactions are a bit more operationally complex to execute.

If a failed bank is allowed to operate for an extended period of insolvency, it is likely that the negative equity will grow and may be quite large relative to the size of the bank. If this is the case, a P&A transaction requires a significant contribution from the government/deposit insurer to fill the gap between total deposits and the assets purchased. Similarly, in countries where banks are suspended while being intervened prior to being placed into liquidation, there likely will be a serious deterioration in the performing loan portfolio that will increase the cost of a future resolution.

Whole Bank Transaction

A whole bank P&A is the same as the traditional one *except* that the acquirer purchases all of the assets of the failed bank. The good assets are typically purchased at book value or a market value, if one exists, and the bad assets are priced on a bid basis. In practice, rather than asking bidders to bid a premium for the bank, they are requested to bid on the bad assets and the winning bidder is selected based on the price that is offered. As in the traditional P&A the government or the deposit insurer fills in the difference with cash or government securities.

Potential acquiring banks have the ability, interest, and financial to purchase and manage a portfolio of NPLs for this strategy to be successful.

C. Bridge Bank

Similar to a P&A transaction, a bridge bank (or De Novo Bank) is a temporary financial institution established to receive the deposits⁵ and good assets of one or several failed institutions. A bridge bank is a type of P&A where the government (or the restructuring agency) itself temporarily acts as the acquirer until the time that the institution is ready for a sale. The bridge bank may be allowed to undertake all or only some banking business such as providing new credit and rolling over existing credit. Bad assets are liquidated or transferred to an AMC. If it is expected that the bridge bank will be sold quickly to a solvent bank, the government may opt not to inject any capital in the bridge bank, which makes the bridge bank arrangement potentially a cheap arrangement for the government.

Frequently, authorities wish to resolve an insolvent bank but are afraid of the disruptive effects of liquidation, even if a blanket guarantee is in effect that would require the government to make payments to depositors and creditors. A P&A transaction is the ideal solution, however it requires that there be an acquiring bank.

If there is no ready acquiring bank, a bridge bank can be used to gain the benefits of a traditional P&A. Under this variation a new bank is created and it assumes the liabilities and acquires assets in the same manner as an existing acquiring bank. The net transaction is the same as that outlined above. The new bank can be privately owned and created by private investors (who have met the fit and proper requirements of the bank supervisor) or the government can create the bank. If the government creates the bank, its outlay is increased by the initial capitalization of the bank sufficient to meet all prudential requirements. However, in the future the government should recover this outlay by selling its shares to the public or to a strategic investor.

The advantage of a bridge bank resolution is that it avoids losing a bank in a community. This may be crucial to maintaining confidence after a crisis or for protecting jobs of bank employees that would be lost if the bank were liquidated. Banking services will be maintained and there will be minimal disruption for borrowers and depositors. In addition, the establishment of a bridge bank leaves in the old shell off balance sheet items and contingent liabilities. Pending law suits may also remain in the old bank. As a result, the new bank may operate unencumbered with such costs and it may be easier to attract buyers.

The only downside is the increase in the government's outlay and all of the political drawbacks associated with nationalized banks (see above).

⁵ Generally in a P&A, only insured deposits transfer to an assuming institution. In a "bridge" bank situation, however, insured only or all deposits may be transferred, depending on potential systemic impact.

D. Good Bank – Bad Bank

When a large bank becomes insolvent it frequently has a large portfolio of NPLs. Splitting the failed bank into two banks, one with good assets and the other with the “bad” ones may facilitate the resolution of the bank and minimize some of the disruptions typically associated with the insolvency of large banks. This technique can be used in conjunction with the nationalization of a large bank or when the bank is being purchased by a private party or another bank. The good bank – bad bank technique entails separating the bad assets from the bank and funding them with deposits or government paper.

This technique can also be used to facilitate a resolution of a seriously troubled, but still solvent, problem bank. If new investors (or another bank) are interested in taking over the troubled bank, but are unwilling to take on the risk associated with a large portfolio of NPLs, a solution might be to separate the bank into two banks: a good bank, that only has the good assets, and a bad one that holds the NPLs. The shareholders of the troubled bank will receive the ownership of the bad bank and the new investors capitalize the good bank. If the volume of NPLs is so large that all creditors cannot remain in the good bank, subordinated creditors will have to become creditors of the bad bank. Beyond this, if the volume of NPLs is too great, the bank will have to be closed or government funds used to protect creditors.

The primary benefit of this type of resolution is that it allows the “good bank” to solely focus on the business of banking, including developing the franchise, rather than dealing with the NPLs. The management of NPLs requires specialized expertise and frequently banks that became insolvent also have numerous other management problems, including weak credit policies and internal control weaknesses that require the full attention of senior management.

Within the context of a nationalization of a large bank, the Continental Illinois bank resolution was the first to use the good bank – bad bank framework. The FDIC pulled out the bad assets and put them into a separate pool managed by a special group within the bank. This “bad bank” was owned by the former shareholders of Continental Illinois and funded with liabilities to the Federal Reserve (but fully guaranteed by the FDIC), while the good bank was owned by the FDIC.

A more recent example of a Good Bank – Bad Bank resolution is the strategy used by the government of Uruguay to address problems in its large state bank, Banco de Republica Oriental de Uruguay. This bank had a significant portfolio of NPLs and high operating costs. A special vehicle in the form of a trust was created to purchase the NPLs from the bank. In return for the NPLs it sold to the trust, the bank received a note from the trust, guaranteed by the government for the net book value of the transferred assets. An asset management company was established, with incentive compensation schemes, to manage the assets and assure the trust made timely payments on the note. The benefit of this resolution strategy was that the balance sheet of the

bank was cleaned up and the bank fully capitalized. Moreover the management of the state bank was able to focus its efforts on cost cutting strategies and refocusing the business plan of the bank. Collection efforts were handled by experts, with the result that borrowers recognized that they were no longer dealing with the bank that had, in effect been giving forbearance by making no collection efforts. The result one year into the transaction has been quite positive.

E. State Banks

State banks are particularly difficult from both a supervisory and a resolution perspective. Since the government is the owner of the bank, supervisors often feel constrained in their approach to the bank. In some countries, the powers of the supervisor are constrained if the bank is directly or indirectly a constitutional entity. For example, only the President, and/ or possibly the legislature can remove senior management of the bank. Moreover, wiping out shareholder interests and closing the bank may not be viable options should the bank become insolvent. Nevertheless, steps must be taken to assure that bank operates in a safe and sound manner and if it does not that the problems are corrected promptly. From international experiences several observations can be made:

- State banks should be supervised in the same manner as all other banks. These banks should be subject to the same capital standards, examination frequencies, prudential norms and other measures as all other banks. This is critical to minimize the adverse financial effects of directed lending and political interference inherent in state banks. Moreover, it is necessary to minimize the cost to the taxpayers associated with poor management and lax lending practices.
- The resolution of an insolvent state bank will require the government to recapitalize the bank. An insolvent state bank should not be allowed to operate. Doing so will lead to a loss in confidence in the banking sector and undermine the competitive position of solvent private banks. Either the government must recapitalize the bank with cash and/or government paper or it should privatize the bank.
- Unless problem loan and operational issues are dealt with the bank will continue to be a problem. It is insufficient to just recapitalize a state bank that has become insolvent or undercapitalized without addressing the problems that led to its financial condition. An analysis of the financial condition of the bank must be undertaken and various stress tests performed to identify the steps that need to be taken. Absent addressing the bank's underlying problems, it will need to be recapitalized continuously.
- Governance issues must be addressed! Frequently the problems at state banks result from weak governance, either in the form of poor management appointed through a political process that ignores banking knowledge in favor of political rewards, a board that is

purely political, or weak approval processes. A state bank needs senior management and a board of directors who are knowledgeable in banking and financial matters and who can assure that proper procedures and controls are in place. The role of the state bank should be to generate dividends to the government and not serve as a vehicle for politically directed lending that becomes a drain on the country's treasury.

D. Asset Management Companies

Proper management and disposition of nonperforming assets is a critical element in the resolution of problem banks. Without a capacity within the system to handle NPLs, bank resolutions become excessively difficult. NPL management can be performed by a state entity, such as a national asset management company (AMC) or the deposit insurer, commercial banks, or private firms. Absent dealing with problem assets, any resolution is doomed to failure and will likely need to be repeated.

How well the nonperforming assets are handled has a direct implication for the cost of a bank resolution. In the examples above, one can see that the recovery rate on NPLs bears a direct relationship to the cost to the government of the resolution.

If the volume of NPLs in the banking sector reaches a certain size the way they are handled can have systemic implications. As mentioned earlier, one of the externalities of bank insolvencies is the implications for economic activity in the real sector. This not only comes from the consumption behavior of depositors but also from business borrowers. Strategies to maximize recoveries on NPLs must take into account economic realities. Consequently, there are times when litigation and foreclosure are the best option and others when financial restructuring of a business borrower is best. These decisions require experienced management and accountability that can only be found in asset management companies.

Asset management companies can become vehicles to promote corporate restructuring. Typically one thinks of debt restructuring as a tool of an AMC; however, it can also use debt for equity swaps as a means to force true corporate restructuring that addresses issues of operating expense, governance, and business practices.