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BANK RESTRUCTURING IN PRACTICE

BANK FOR INTERNATIONAL SETTLEMENTS
Monetary and Economic Department
Basel, Switzerland

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Glossary

ADE	Mexico's support programme for bank debtors
AMC/AMU	Asset Management Corporation/Unit
APLMA	Asian Pacific Loan Market Association
AI	Hong Kong's Authorised Institutions: a broad definition of banks
BCB	Central Bank of Brazil
BCCHK	BCCI's Hong Kong subsidiary
BCCI	Bank of Credit and Commerce International
BI	Bank Indonesia
BNM	Bank Negara Malaysia
BoT	Bank of Thailand
BPPN	see IBRA
CAMEL/S	Supervisory criteria covering Capital, Earnings, Management, Asset quality, Liquidity (and Sensitivity to market risk)
CDRAC	Thailand's Corporate Debt Restructuring Advisory Committee
CDRC	Malaysia's Corporate Debt Restructuring Committee
CEF	Brazil's main savings and loan institution
CNBV	Mexico's bank supervisor
CRCC	Korea's Corporate Restructuring Coordinating Committee
Danaharta	Malaysia's asset management corporation
Danamodal	Malaysia's agency for recapitalising banks
DTC	Hong Kong's Deposit-Taking Companies; quasi-banks
FCVS	Brazil's government-subsidised mortgage bonds
FDIC	United States Federal Deposit Insurance Corporation
FDICIA	US FDIC Improvement Act setting progressive supervisory responses to falling bank capital
FGC	Brazil's deposit insurance agency
FGD	Argentina's deposit insurance agency
FICORCA	Mexico's former body to assist corporate restructuring

FIDF	Thailand's Financial Institutions Development Fund
FOBAPROA	Mexico's former agency to protect depositors' savings
FOGADE	Venezuela's deposit insurance corporation
FOGAFIN	Colombia's deposit insurance corporation
FRA	Thailand's Financial Sector Restructuring Agency, an AMC for finance companies
FRAC	Thailand's Financial Restructuring Advisory Committee
FSC	Korea's Financial Supervisory Commission
FSS	Korea's Financial Supervisory Service
GITIC	China's Guangdong International and Investment Company, a failed ITIC
Herstatt	a failed bank which highlighted dangers of international payments exposures
HKMA	Hong Kong Monetary Authority
HLAC	Japan's Housing Loan Administration Corporation, an AMC for jusen
HSBC	Hongkong & Shanghai Bank, a large international commercial bank
IBRA	Indonesian Bank Restructuring Agency
IDR	Indonesian rupiah: at end-1998 1 trillion IDR = $US 125 million = € 107 million
IFI	International Financial Institutions e.g. IMF, World Bank
INDRA	Indonesian Debt Restructuring Agency
IPAB	Mexico's new deposit insurance corporation
ITICs	China's International Trust and Investment Corporations
KAMCO	Korean Asset Management Corporation
KDIC	Korean Deposit Insurance Corporation
KEB	Korea Exchange Bank
KTT	finance company subsidiary of Thailand's state-owned Krung Thai Bank
MAS	Monetary Authority of Singapore
MOU	Memorandum Of Understanding
MYR	Malaysian ringgit: at end-1998 1 billion MYR = $US 263 million = € 225 million
NAFTA	North American Free Trade Agreement
NPLs	Non-Performing Loans
PIF	Saudi Arabia's Public Investment Fund

PROCAPTE	Mexico's temporary capitalisation programme
PROER	Brazil's Programme of Incentives for Restructuring and Strengthening National Financial System
PROES	Brazil's Programme of Incentives for Restructuring and Strengthening the State Public Financial System
RAET	Brazil's special temporary system of administration
RCO	Japan's Resolution and Collection Organization, an AMC for banks
RTC	United States AMC for S&Ls
RTGS	Real Time Gross Settlement in payment systems
SAMA	Saudi Arabian Monetary Agency
SEDESA	Argentina's trustee for deposit insurance system
S&Ls	Savings and Loan associations in the United States
SOBs	State-owned banks
SR	Saudi riyal: at end-1998 1 billion SR = $US 267 million = € 228 million
SWIFT	Society for Worldwide International Financial Telecommunications, an international payments system
THB	Thai baht: at end-1998 1 billion THB = $US 27 million = € 23 million
UDI	Mexico's inflation indexed unit of account
VVA	AMC subsidiary of Mexico's FOBAPROA

Bank restructuring in practice: an overview

John Hawkins and Philip Turner

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Introduction*

Managing a banking crisis is one of the most difficult tasks to confront a policymaker. Often measures must be decided quickly, sometimes in the eye of a crisis. Almost inevitably, decisions will be guided by imperfect information. This is an intrinsic problem because the very business of banking is built on the possession of information not available to others. Moreover, the various actors may well have an incentive to distort the facts. Because banks lie at the centre of modern economies, policies can have far-reaching implications, political as well as economic. This is particularly true at the present time when so many emerging market economies are simultaneously grappling with banking crises.

These issues were discussed by a small group of senior central bankers at the BIS in December 1998. Two days of discussion highlighted the extent of the challenges and the diversity of approaches to the problems. The country papers that follow highlight the main experiences of specific economies. This paper provides an overview of the main issues.

The paper begins by sketching the structure and recent performance of the banking systems in 23 emerging economies, reviewing the scale of the problems faced and some of the causes. Establishing the true magnitude of the likely losses from bad loans is far from straightforward. This is partly because eventual losses depend significantly on collateral and corporate bankruptcy arrangements. Bank restructuring often has

* This overview has benefited greatly from the cooperation, comments and statistical input of the central banks invited to the meeting. Special thanks also go to Jozef Van 't dack who wrote Annex A, Marc Klau for assistance with the statistical tables, Liliana Morandini for preparing the diagrams in Annex B, and Stephan Arthur for overseeing the publication. Quyen Thai and Emma Warrack kept track of successive drafts of this paper and of the central bank papers. Important contributions were made by Pablo Graf, Elmar Koch, Geraldo Maia, Robert McCauley and YK Mo. Helpful comments were also received from Peter Hayward, Nigel Hulbert, Zenta Nakajima and Bill White.

to be accompanied by corporate debt restructuring, which is discussed in the following section. Assistance to banks, which involves balancing short-term concerns about avoiding bank runs and a credit crunch with medium-term concerns about limiting moral hazard and fostering a robust banking system, is then discussed. Deposit insurance, a key instrument to maintain confidence, is examined in some detail. (Other important preventive measures such as supervisory and disclosure requirements are outlined in Annex A.) The first response is often some form of assistance that does not attempt to change the ownership structure: one important issue concerns how various degrees of official intervention should be triggered.

The next section examines the institutional arrangements needed to manage impaired assets. Approaches involving changing ownership – domestic mergers, foreign takeovers and taking banks into state ownership – are then reviewed in turn before the concluding remarks.

Diagnosis

Structure of the banking system

The banking systems in the 23 emerging economies this paper covers account for almost a fifth of the world's top 1,000 banks. But only a handful, mostly in Hong Kong and Singapore, were, by end-1998, rated as being inherently very healthy (see the final column of Table 1).[1] This weakness is both a reflection of and a contributor to the recent macroeconomic problems (Table 2).

Yet widespread recognition that banks in most emerging markets were relatively weak did not prevent them from rapidly *expanding domestic lending*. While credit growth somewhat faster than GDP growth is part of the normal process of financial deepening, in many emerging economies the rates of growth of lending to the private sector during the 1990s were unsustainably high (Table 3). The poor standard of loans

[1] Goodhart et al (1998, Tables A1.1 and A1.3) summarise the experience of developing economies' banking systems since the 1980s: almost a quarter have had a banking crisis and over half had significant banking problems short of a crisis. See also Frydl (1999).

Table 1

Structure of the banking industry

As at end-1998 (unless otherwise indicated)

	Number of large and medium domestic banks[1]	Concentration in the banking industry[2]	Bank claims on government[3]	Share of bank assets in total financial sector assets[4]	Share of state-owned banks[5]	Share of foreign-owned banks[5]	Median BFSR Rating[6]
		in percentages					
China	7	70[7]	2	78	99	0	E+
India	11	42	32	64	82	8	D
Hong Kong	21	29	7	..	0	77	C
Indonesia	..	..	3	91	85[8]	..	E
Korea	14	50	3	38	28	6	E+
Malaysia	15	40	7	78	7	20	D
Philippines	14	60	23	..	..	..	D+
Singapore	5	39	17	71	0	..	C+
Thailand	9	62	0	77	29	13	E
Argentina	8	38	32	98	30	30	D
Brazil	22	52	57	80	47	14	D
Chile	7	47	2	62	13	32	C
Colombia	1	53	20	56	19	31	C
Mexico	6	68	4	66	0	18	E+
Peru	4	67	6	91	3	22	D+
Venezuela	2	56	11	90	..	..	D
Czech Republic	4	66	14	..	19	25	D
Hungary	2	57	42[7]	91	..	..	D
Poland	7	43[9]	37	..	46	17	D
Russia	5	42	59	..	36[10]	14	E
Israel	5	87	25	65	..	..	D+
Saudi Arabia	11	66	37	61	0	0	D+
South Africa	6	81	4	..	2	5	C
Memorandum:							
Australia	*7*	*69*	*6*	*49*	*0*	*17*	*C*
Germany	*87*	*17*	*44*	*77*	*47*	*6*	*C*
Japan	*116*	*22*	*11*	*48*	*15*	*2*	*D*
United States	*182*	*35*	*15*	*23*	*0*	*20*	*C+*

[1] Number of banks ranked in world's top 1,000. Mostly compiled from end-1998 balance sheets. Source: *The Banker* July 1999. [2] Five largest banks' assets as a percentage of total assets. Sources: central banks; Fitch IBCA Ltd. For Singapore, Argentina, Chile, Venezuela and Hungary, data is from Kamin, Turner and Van 't dack (1998) and refers to 1994–96. [3] Banks' holdings of government paper as a percentage of banks' deposits. Source: IMF *International Financial Statistics* lines 22a, 22b, 24 and 25. [4] Banks' assets as a percentage of assets of banks and non-bank financial institutions. Sources: Kamin, Turner and Van 't dack (1996); central banks.

Table 1 (cont.)

[5] As a percentage of total bank assets; Source: Table 21. [6] Note: Moody's Bank Financial Strength Ratings measure the likelihood that financial institutions will require financial assistance from third parties; it does not incorporate the probability that such support will be forthcoming. Hence a bank with a low BFSR may have a higher credit rating if third party support is expected to be available. Note that some banks may have been evaluated more recently than others and some ratings are unsolicited and hence based only on public information. Source: Moody's Investors Service *Bank Credit Research Service Monthly Ratings Lists* January 1999. [7] Four largest banks. [8] June 1999. [9] Rose to 51% on 1 January 1999. [10] Three largest SOBs.

in many countries is a legacy of very weak credit assessment by banks, particularly where loans were made to related companies or state-owned enterprises. Excessive lending to rapidly expanding manufacturing companies and speculative property developers were common causes of trouble. Booming output and rapidly rising collateral values gave banks a false sense of security and allowed firms to become highly leveraged. Financial deregulation meant banks moved from being credit rationers to credit marketers: the implications of this for the risks they faced were often underestimated.

Moreover, major *international banks in the industrial world were all too ready to extend loans* to poorly rated banks in the emerging markets, permitting them to fund an increasing fraction of their domestic assets by foreign borrowing. One approximate indicator of this is the ratio of domestic banks' borrowing from international banks (as reported in BIS statistics) to domestic bank credit (from national data) (Table 4). In general, the dependence of Asian banks on foreign credit increased sharply in the first half of the 1990s. For instance, borrowing by banks based in Thailand from foreign banks rose from 17% of domestic credit in 1990 to 46% just before the July 1997 crisis.

Exchange rate risk in such overseas borrowing was often ignored. While banks' direct exposure to foreign exchange risk was limited by supervisory regulations (see Table A4), banks allowed their customers to become exposed to such risks. Hence banks were in effect faced with credit risk when large devaluations weakened their customers' ability to service foreign currency-denominated loans. Moreover, much of the borrowing was short-term and therefore required frequent rolling over, leaving banks vulnerable to swings in confidence by overseas lenders. The final column in Table 4 shows the sharp declines in funding

Table 2

Macroeconomic background

	Real GDP growth[1]	Exchange rate[2]	Equity prices[3]	Bond spreads[4]	Real interest rates[5]
	Average 1998–99	% change from end-June 1997 to end-Dec 1998		Change from end-June 1997 to end-Dec 1998; percentage points	
China	8	0	–67	2	0
India	6	–16	–29	..	1
Hong Kong	–3	0	–32	1	6
Indonesia	–8	–68	–42	8	–32
Korea	0	–26	–19	4	– 4
Malaysia	–3	–34	–53	9	– 5
Philippines	1	–32	–26	3	– 2
Singapore	2	–14	–22	..	1
Thailand	–4	–30	–43	1[6]	– 7
Argentina	1	0	–33	4	1
Brazil	0	–11	–53	6[6]	14
Chile	2	–12	–38	2	1
Colombia	0	–28	–27	4[6]	11
Mexico	4	–19	–17	2[6]	12
Peru	2	–16	–40	3[6]	5
Venezuela	–3	–14	–51	8	22
Czech Republic	–2	8	–22	1	–11
Hungary	4	–13	10	1	5
Poland	4	– 6	–16	1[6]	0
Russia	–4	–72	–40	36	–27
Israel	2	–17	3	..	– 1
Saudi Arabia	–1	0	–13	..	2
South Africa	1	–24	–32	5[6]	2
Memorandum:					
Australia	*4*	*–18*	*3*	*0*	*– 2*
Germany	*2*	*3*	*29*	*0*	*1*
Japan	*–2*	*– 3*	*–33*	*1*	*2*
United States	*4*	..	*39*	..	*0*

[1] Based on June 1999 *Consensus Forecasts*. [2] US dollars per local currency. [3] In local currency. [4] US dollar-denominated bonds relative to US Treasury bonds of appropriate maturity; monthly average. [5] 3-month interest rate (except for Brazil and Russia: overnight rate) deflated by annual rate of inflation. [6] Starting point is August 1997 for Peru, Poland and South Africa, January 1998 for Colombia, March 1998 for Mexico and April 1998 for Brazil.

Sources: IMF; national data.

Table 3

Bank credit to the private sector

	Real bank credit growth[1]				Memo: Domestic bank credit as a % of GDP in 1997
	Average 1990–95	1996	1997	1998[2]	
China[3]	12	17	19	18	103
India	4	8	5	– 5	23
Hong Kong	6	7	17	– 8	165
Indonesia	19	12	20	–26	61
Korea	11	12	15	– 7	71
Malaysia	14	24	21	– 1	104
Philippines	13	40	27	–12	60
Singapore	13	15	11	0	110
Thailand	20	12	9	–12	116
Argentina	3	3	13	10	20
Brazil	4	– 3	– 2	10	26
Chile	10	18	9	4	58
Colombia	10	6	8	8	24
Mexico	21	–39	–26	– 6	12
Peru	26	33	26	15	23
Venezuela	–15	–16	52	–17	12
Czech Republic	3[4]	5	3	– 7	77
Hungary	– 6[4]	– 6	13	7	26
Poland	– 2[5]	13	26	18	24
Russia	–12	–13	14	–22	9
Israel	10	7	8	11	75
Saudi Arabia	6	1	6	20	24
South Africa	2	10	7	9	71
Memorandum:					
Australia	*5*	*8*	*9*	*10*	*81*
Germany	*6*	*6*	*5*	*8*	*108*
Japan	*2*	*1*	*– 1*	*– 1*	*114*
United States	*– 1*	*3*	*5*	*10*	*67*

[1] Annual growth rate of domestic bank credit to the private sector deflated by the consumer price index. [2] Partly estimated. [3] Credit other than to the central government. [4] 1994–95. [5] 1993–95.
Source: IMF.

faced by many Asian economies since mid-1997: the total decline in international credit to Indonesia, Korea, Malaysia and Thailand since the crisis is around $90 billion.

Table 4

Bank borrowing from foreign banks[1]

	As a percentage of domestic credit			Changes in billions of US$ at an annual rate		
	1990[2]	1997 Q2	1998 Q4	1995 Q1–1996 Q3	1996 Q4–1997 Q2	1997 Q3–1998 Q4
China	5	8	6	11	10	– 1
India	7	10	12	1	1	1
Indonesia	11	18	27	2	5	– 5
Korea	16	30	23	19	17	–23
Malaysia	14	24	24	5	8	– 5
Philippines	70	25	27	2	5	– 1
Thailand	17	46	31	24	3	–26
Argentina	90	23	21	1	3	1
Brazil	37	25	25	12	8	0
Chile	32	10	10	–1	0	0
Colombia	18	22	16	1	1	0
Mexico	40	40	42	–4	2	0
Peru	100	25	23	1	0	0
Venezuela	61	30	25	0	1	0
Czech Republic	1	19	18	2	2	0
Hungary	66	50	68	0	0	2
Poland	50	11	12	0	2	1
Russia	..	92	198	0	0	– 2
Israel	7	2	3	0	1	0
Saudi Arabia	40	24	12	1	–1	– 2
South Africa	9	11	12	0	3	0

[1] Measured by assets of BIS reporting banks. [2] For the Czech Republic, first quarter 1993; for Hungary, fourth quarter 1992; for Poland, fourth quarter 1991.
Sources: IMF; national data; BIS.

The degree of financial development differs considerably across economies. Credit provided to the private sector by the banks represents a similar proportion to GDP in Malaysia and Thailand as in the G10 economies. However, bank lending is proportionately much smaller in Hungary, India, Poland, Russia, Saudi Arabia and most of Latin America (Table 3). Banks in these countries tend to invest in government paper rather than loans to the private sector. Bank claims on government exceed 30% of total bank deposits in Argentina, Brazil, Hungary, India, Poland, Russia and Saudi Arabia (Table 1). This clearly limits banks' overall

exposure to credit risk[2]; by the same token, however, banks are less useful in meeting the borrowing needs of domestic business. In some cases, a reduction in government deficits meant banks that were used to investing a substantial proportion of their assets in government bonds had to expand lending to the private sector and thus assume greater credit risks.

The degree of concentration in the banking industry also varies considerably. In some emerging market economies, the five largest (usually domestic) banks account for over two-thirds of bank assets. In China and India, state-owned banks still predominate. In several markets, however, a large and growing presence of foreign banks (including minority stakes not captured in Tables 1 and 21) probably makes competition in the industry more vigorous than figures on domestic concentration might suggest.

Banks' published accounts suggest substantial differences in efficiency and profitability across economies (Table 5). Overheads (operating costs in the table) have been particularly high (albeit gradually diminishing) in most Latin American economies, and have generally led to higher interest margins. "Other income" appears to be a high proportion of earnings in the accounts of most Latin American banks; this may reflect interest on their relatively large holdings of government bonds, which is sometimes included in this item rather than in interest income. Loan losses have been particularly high in the eastern European economies due to their inheritance of loans to uncompetitive state-owned enterprises. The net result of these features is an apparently greater variation in profitability across the emerging markets' banking industries and over time than is observed in the advanced economies. The profitability of banks deteriorated sharply in the late 1990s, especially in East Asia.

Most Asian countries are in the middle of a major process of bank restructuring. A comparison of the different responses to the two most serious banking crises in the industrialised world in recent years – Japan versus Scandinavia – suggests that quick and decisive action would give these countries the best chance of promoting an early recovery. In both cases, the crisis was preceded by many years of bank credit expansion

[2] However the recent Russian experience shows there can still be some credit risk in holding government paper.

Table 5

Banking sector performance

As a percentage of assets

	East Asia[1]		Latin America[2]		Eastern Europe[3]		G3[4]	
	1990–96	1997	1990–96	1997	1990–96	1997	1990–96	1997
Net interest	3.4	2.4	6.6	5.6	5.1	3.3	2.2	2.0
Other income	1.6	0.9	3.5	2.9	1.9	1.3	1.2	1.2
Operating costs	2.7	1.7	7.5	5.7	3.0	2.9	2.3	2.1
Loan losses	0.5	1.1	1.3	1.2	1.9	0.9	0.4	0.4
Pre-tax profits	1.8	0.4	1.9	1.5	1.8	0.9	0.8	0.8

[1] Simple average of Indonesia, Korea, Malaysia, Philippines and Thailand. [2] Simple average of Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. [3] Simple average of Czech Republic, Hungary and Poland. [4] Simple average of Germany, Japan and the United States.

Source: Fitch IBCA Ltd. (October 1998; only includes those banks for which a run of income data is available).

well in excess of GDP growth (see Graph 1). In Scandinavia, effective bank restructuring policies and a period of strong growth have contributed to bringing the bank credit/GDP ratio back to earlier levels. In Japan, however, this ratio has remained high: it has become clear that earlier hopes that the economy could "grow out" of its non-performing loans were unrealistic. Large-scale measures to address the problem have been implemented only recently. The latest data suggest that the crisis-hit Asian economies are following the path of the Nordic countries, rather than that of Japan. In most cases, prudential rules have been tightened and bank credit is being sharply scaled back.

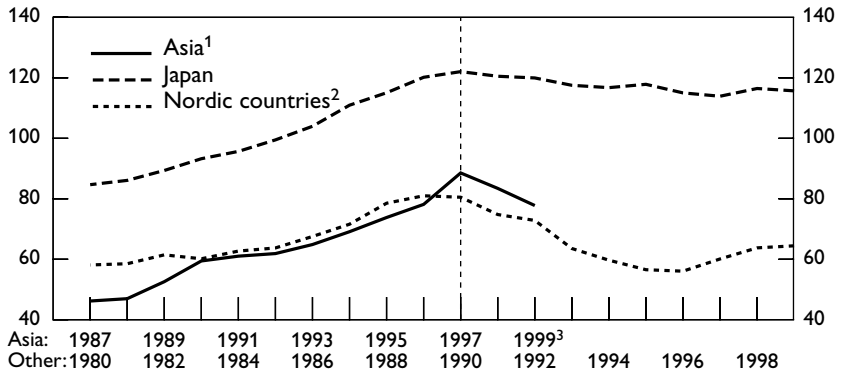
Identifying the causes

Identifying the causes of unfolding banking difficulties is important because it may have a bearing on the appropriateness of competing solutions. Although usually mixed in practice, several distinct causes can be identified, at least in theory.[3]

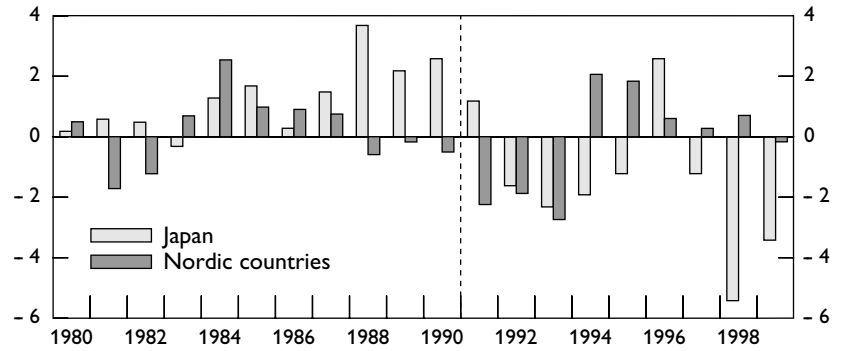
[3] For a more detailed discussion of the causes of banking crises, see Goldstein and Turner (1996) pp. 9–32, The Economist (1997), and Klingebiel and Caprio (1996). The latter authors suggest that while some studies regard fraud as the major cause of US banking collapses, it generally occurs after other causes have driven a bank to insolvency. There is also a generational aspect: bankers who survive a crisis tend to be more conservative, but their successors gradually seek more risk.

Graph 1

Bank credit/GDP before and after banking crises



GDP growth relative to trend[4]



[1] Simple average of Indonesia, Korea, Malaysia and Thailand. [2] Weighted average of Norway and Sweden. [3] Based on first quarter 1999 domestic credit data with an 1999 GDP estimate. age GDP growth rate over the period 1980–99 (for Japan 2.6%, for the Nordic countries 2.0%).

The first set of causes is *microeconomic*. The literature on banking crises has tended to focus on poor banking practices, notably inadequate capital and failures of loan policy: inadequate assessment of credit risks; an insufficiently diversified loan book (with specialist banks overdependent on the particular region/sector served); lending to connected enterprises; or excessive maturity and currency mismatches. However other

microeconomic shortcomings may be equally important. Principal-agent incentive problems have been significant, notably when loan officers are rewarded on the basis of the volume of loans extended without adequate attention to the risks to which the bank is thereby exposed. Overstaffing has often been a chronic problem, particularly in state-owned banks. Restrictive labour practices often impede the adoption of new technology which may reduce employment (or radically alter its character). In one developing country, trade unions actually succeeded in delaying banks computerising their operations.

The second major cause is *macroeconomic*. This does not of course refer to changes in macroeconomic variables that are within the range of "normal" experience. Prudent banks should provide themselves with enough of a cushion to be able to cope with cyclical downturns, exchange rate depreciation, declines in asset prices and similar manifestations of normal cyclical movements. Moreover, what is normal for one country may not be in another: banks in emerging market countries, for instance, have had to cope with much greater macroeconomic volatility than banks in the industrial world. Banks should plan to cope with the degree of volatility that is usual in their market. In practice, however, bankers may be tempted not to take sufficient precautions against macroeconomic crisis: they follow the crowd because they are loath to lose market share to banks taking greater risks. For this reason, macroeconomic crises should not be seen as absolving banks of their responsibilities. Nevertheless, macroeconomic shocks of an unprecedented magnitude can strain even those banks that *have* taken proper precautions. Examples include the oil shocks in the 1970s, the loss of confidence in Latin America in the aftermath of the debt crisis in the early 1980s and, more recently, the fallout from the succession of crises in the emerging markets (Table 2). By creating difficulties for *all* bank debtors, a severe macroeconomic crisis can make it harder for individual banks to identify the long-term-viable clients.

The third is *system-related* in the sense that the environment is not conducive to the development of an efficient banking industry. There have been several important examples of this:

- A large state-owned banking sector can distort the banking industry, both in the extension of loans and in the collection of deposits. Special quasi-state banks enjoying special privileges may also distort competition and limit banks' diversification possibilities.

- Government direction of credit may prevent banks from developing loan assessment skills.
- An inadequate legal framework may limit the effectiveness of the banking system.
- An underdeveloped securities market, especially the absence of a market for long-term securities, which means that all long-term lending has to be done by the banks. This may concentrate too much risk on the banks, although several countries have managed to develop rapidly relying almost exclusively on banks.
- An inadequate regulatory or supervisory regime has often been a major source of trouble.

Banking crises may result after rapid changes in the environment in which banks operate. These "regime changes" make the system more vulnerable, but do not necessarily doom it to a crisis.[4] Gil-Díaz (1998), for instance, documents how some of these changes took place in Mexico. A rapid privatisation of the commercial banks in the early 1990s (with some of the banks acquired by investors with no previous banking experience), coupled with financial liberalisation measures and the sudden reduction of the borrowing requirements of the public sector, constituted a completely new regime for banks. The rapid expansion of credit that followed these changes and the weak supervisory capacity led to mounting problems well before the 1994 devaluation.

The nature of the underlying causes may have an important bearing on the optimal official response. Where the underlying cause is bad banking practices in a few specific banks, the case for official intervention in the management is much stronger. And it is necessary that bank shareholders suffer losses. But when the difficulties are due to extreme, or unexpected, movements in macroeconomic variables that affect all or most banks (e.g. a collapse in the exchange rate or very high interest rates), there may be a case for more lenient treatment. The moral hazard risks from rescuing banks in difficulties through relatively little fault of their own may be very small. This obviously has a bearing on the question of how far penalties should be imposed on the existing owners or management as a condition for rescue.

[4] Honohan (1997) provides several examples of these "regime changes".

There may even be a tactical case for regulatory forbearance. This can be *transparent* (i.e. an open relaxation of normal regulatory standards) or *disguised* (i.e. official collusion with the banks to conceal the magnitude of the problem). It can avoid the costs of long-term dislocation and buy time until a better climate has emerged. One example of this was the lenient regulatory treatment of a number of major money centre banks whose loans to heavily indebted countries exceeded their capital in the early 1980s. There have been several other examples, notably in cases of banks having to cope with extreme macroeconomic misalignments or shocks that are likely to be temporary. In such cases, there can be a case for giving banks a breathing space until a return to normal conditions allows banks that are fundamentally sound to improve their income and balance sheet statements.

The biggest danger with disguised regulatory forbearance is that the market may see through it so that it becomes ineffective. Moreover, once the authorities have been "caught out" understating problems in the banking system, future assurances may not be believed even when they are true. Because of this risk of damaging official credibility, regulatory forbearance should be used very sparingly and should ideally be combined with visible progress towards stronger standards in the medium term.

Addressing problems that occur in a poor competitive environment gives rise to similar dilemmas. It takes time to change the environment and institutions take time to adjust to a new environment. How far are present problems a legacy of an old environment that is now changing and how far do they reflect intrinsically poor management? What can be done to improve the signals governing banks' reactions? These questions have no easy answers.

Scale of non-performing loans (NPLs)

The proportion of loans that have become impaired during banking crises in emerging markets has generally been much greater than that in the industrial world (Tables 6 and 7).[5] At the crisis-year peaks, NPLs in

[5] Frydl (1999) shows there are varying estimates of the timing and resolution costs of banking crises; Table 6 should be considered as giving a general impression of orders of magnitude rather than precise figures.

the Nordic countries were around 10% of total loans; in the United States it was much less.

It is now conceded that over one-quarter of loans are non-performing in China, Indonesia, Thailand and the Czech Republic. In many emerging economies, the proportion is still rising. While part of the reported rise may reflect the more accurate classification of loans, a disturbing lesson from the Asian financial crisis is how rapidly NPLs can increase as economic conditions deteriorate. Even so, many private sector analysts believe that NPLs in many countries continue to be understated. In contrast, NPLs in some eastern European economies have fallen from the peak of around a third of loans seen in the early 1990s.

Impact on the economy

The impact of a banking crisis on the real economy will depend on the size of the financial system. The credit/GDP ratios given in Table 3 suggest the impact would be much larger in Asia than in most of Latin America and eastern Europe. The large volume of NPLs has

Table 6

Banking crises

	Crisis period	Peak non-performing loans financial sector	Cost of restructuring
		as a percentage of total loans	as a percentage of GDP
Chile	1981–85	16	19–41
Colombia	1982–87	25	5–6
Finland	1991–93	9	8–10
Malaysia	1985–88	33	5
Mexico	1995–97	13	14
Norway	1988–92	9	4
Sri Lanka	1989–93	35	9
Sweden	1991–93	11	4–5
Thailand	1983–87	15	1
United States	1984–91	4	5–7

Note: See Table 7 for estimates of non-performing loans in current crises.

Sources: IMF (1998a); Banco de México.

Table 7

Non-performing loans (NPLs)

National definition

	NPLs as % of loans (1)	Capital as % of loans (2)	Provisions as % of NPLs (3)	NPLs less provisions as % of capital (4)	As at (1998)	NPLs as % of loans: 1995
China	25	4	..	..	Dec	20[1]
India	8	..	..	..	Dec	20
Hong Kong	5	19	65	8	Dec	3
Indonesia	36	2	33	1,430	Aug	10
Korea	7	5	..	..	Dec	5
Malaysia	9[2]	13	56	47	Dec	6
Philippines	11	..	28	..	Aug	..
Singapore	8	12	54	32	Dec	..
Thailand	48	10	24	370	Dec	7
Argentina	9	..	65	..	Aug	12
Brazil	11	30	120	0	Dec	8
Chile	1	10	129	0	June	1
Colombia	7	12	58	23	Dec	4
Mexico	11	12	66	32	Dec	7
Peru	7	14	92	4	Dec	5
Czech Republic[3]	27	13	33	126	Dec	33
Hungary[4]	3	26	..	..	June	
Poland	10	12	47	30	Dec	20
Russia	11	13	54	38	Dec	3
Saudi Arabia	9	29	82	6	Jan	..
South Africa	4	8	61	16	Dec	..

Column4 = Column1 * (100-Column3)/Column2.

[1] 1993. [2] On 'three-month-overdue' basis, NPLs are 13% of loans. [3] Excludes Konsolidační Banka. [4] Hungary excludes 'substandard' loans from NPLs. Including them, NPLs are 5% of loans and 18% of capital.

Sources: Central banks; BIS, *67th Annual Report 1997*, Table VI.5; Kamin, Turner and Van 't dack (1998).

been the financial counterpart of overinvestment in real assets during the boom years. The excess capacity that resulted is the main factor depressing demand: even if the banking system were healthy, bank credit would decline because of the lack of investment opportunities. The

weakening of the banking system, however, may exacerbate this *credit contraction.*[6] If banks are closed, even solvent borrowers will lose "their" bank and will usually find that access to credit from other banks will be limited. If banks are kept afloat, they will apply stiffer loan standards and reduce lending. The cumulative effect can be very great as a first-round contraction of bank credit weakens aggregate demand, causing further problems for all borrowers and banks. A vicious circle may ensue of sharp declines in asset prices, rises in delinquent loans and further credit contraction. Following earlier banking crises, real bank credit in Mexico halved in two years, while that in Finland and Sweden contracted by over one-third. Real bank credit contracted during 1998 in Indonesia, Korea, Malaysia, Mexico, the Philippines, Russia and Thailand (Table 3); as well as in several other economies that have not had overt banking crises.

Compounding this credit crunch is the credit rationing effect first highlighted by Stiglitz and Weiss (1981). Because of adverse selection (as only higher risk borrowers are still willing to borrow at very high rates), there may be a level of interest rate at which banks will find further increases self-defeating, and they will then resort to credit rationing. The refusal to extend credit at any interest rate because of an excessive risk-aversion on the part of the banks in a crisis may amount to a market failure. Very high interest rates and credit rationing may encourage the larger enterprises either to borrow abroad or to take out foreign currency loans – thus increasing corporate vulnerability to exchange rate changes.

The second adverse result is the *very large fiscal burden* (Table 6). As a rule-of-thumb, it seems that less than half the value of NPLs is recovered from the sale of the underlying collateral and governments usually end up meeting most of this shortfall. In November 1998 the IMF estimated the total cost of bank restructuring in the current crises at about 30% of GDP in Thailand and Indonesia and almost 20% in Korea and Malaysia.[7] Allowing not only for recapitalisation costs but also for the

[6] The concern about the danger of a credit crunch is well placed. US studies, such as Bernanke and Lown (1991), have found that lower bank lending does exert an effect on activity that is independent of interest rates. Other studies, such as Bank of Japan (1996) and Gertler and Gilchrist (1994), have established a similar effect for Japan. In both countries, it is investment by small and medium-sized enterprises that is hardest hit.

[7] IMF (1998c), some similar private sector estimates are given in Keenan et al (1998). A more recent study by Armstrong and Spencer (1999) has much higher estimates for Indonesia.

lost output during the economic disruption, the total cost will be much higher.

Policymakers designing bank restructuring programmes have the task of minimising the immediate damage to the domestic economy while putting in place a more robust banking system in the medium term. This job is made all the more difficult when bank restructuring has to be carried out in an adverse macroeconomic situation. And restructuring almost always has to take place in such circumstances, because macroeconomic shocks often provide the trigger for the onset of banking crises. Many emerging markets have recently had to face falling real income, depreciating exchange rates, much wider risk premia in international markets, higher (nominal and real) interest rates and reduced availability of external financing (Tables 2 and 4). These have contributed to a major deterioration in the quality of bank assets and a shortening of maturity of bank liabilities.

Classification of loans

An essential early step in any bank restructuring programme is to *measure correctly how far loans are impaired.* Since practices of loan classification have often been rather lax,[8] and the quality of loans itself varies with the economic environment, this is a major task. This section reviews loan classification procedures at present in place.

Table 7 shows the proportion of loans currently non-performing, according to the criterion used by each supervisory authority. Even after subtracting provisions, NPLs are in many cases substantial relative to banks' capital.

Supervisors now generally require banks to distinguish three types of NPLs: substandard, doubtful and loss. In line with general G10 practice and recommendations of the Basle Committee on Banking Supervision there is a growing tendency to define loans that are more than three months overdue as "substandard". Some supervisors in emerging markets have even adopted a very strict standard of one month. An exception to this convergence is Malaysia, which has reverted

[8] Borish et al (1995) report that in transition economies banks often carry on their loans to former state-owned enterprises which have been privatised but with neither the old nor the new owners assuming responsibility for the loan.

from a three-month definition to six months, apparently because of poor macroeconomic conditions.[9]

Yet formal adherence to mechanical rules on overdue payments (as compared in Table 8) does not by itself guarantee that loans are being properly classified. Overdue payments should be regarded as a sufficient but not necessary condition for classifying a loan as doubtful. Regard should also be paid to the debtor's financial status and credit rating, its future prospects, a realistic (and realisible) valuation of collateral and the likelihood of support from guarantors or related companies if it faces difficulties. One common trick against which supervisors need to guard is "evergreening"; that is, a debtor being advanced new loans to meet repayments or interest on old loans just to keep it technically out of arrears. A bank may then argue that no bad debt recognition or provisioning is required. The authorities in several countries specifically underline the importance of checking for these practices during on-site inspections.

The proper recognition of, and provisioning for, NPLs is important for supervisors, potential investors, depositors and their advisers. The Basle Committee on Banking Supervision recommends greater disclosure of NPLs and the basis of their calculation; however, some argue that publication will make banks more reluctant to make realistic assessments.

Moreover, applying the general rule that bank loans should be "marked-to-market" is difficult because markets for bank assets usually do not exist. This problem is often acute in emerging market economies where markets are less developed and often dry up (especially during turbulent times when values may be falling sharply). The supervisory authority in Argentina has tried to address this problem by comparing the treatment of loans to large firms by different banks. If a couple of large banks rate the chances of being repaid by a firm as low, then other banks will also be required to classify loans to that firm in the same way.

These difficulties make it all the more important that there is *adequate general provisioning for NPLs as well as specific provisions for*

[9] In addition, the adoption of more lax standards is probably an important plank of the government's policy of inducing banks to expand loans. The banks were told that the value of their loans outstanding at end-1998 should be at least 8% higher than at end-1997 and (despite this not being achieved) a similar guideline is in place for 1999.

Table 8

NPLs classification

Period overdue

	Substandard	Doubtful	Loss
China	overdue		
India	7 M	25 M (19 M from March 2001)	loss identified but not written off; no collateral; fraud
Hong Kong	borrowers displaying definable weakness likely to jeopardise repayment (3 M used for statistics)	collection in full is improbable	uncollectible
Indonesia	3 M	6 M	9 M
Korea	cut from 6 M to 3 M in July 1998	"expected to be loss"	
Malaysia	cut from 6 M to 3 M in Jan 1998; now back to 6 M	cut from 12 M to 6 M in Jan 1998; now 9 M	cut from 24 M to 12 M in Jan 1998
Philippines	3 M or under litigation		
Singapore	3 M or borrower in weak financial situation	full liquidation of debt appears questionable	debts uncollectable
Thailand	3 M	6 M	12 M
Argentina	3 M	6 M	12 M
Brazil	2 M	6 M	12 M
Chile	1 M (mortgage) 2 M (consumer)	7 M (mortgage) 4 M (consumer)	5 M (consumer)
Colombia	4 M (housing) 1 M (other)	6 M (housing) 4 M (commercial) 3 M (other)	12 M (housing, commercial) 6 M (other)
Mexico	6 M (mortgage) 3 M (other)		
Peru	3 M (mortgage) 1 M (consumer) 2 M (commercial)	4 M (mortgage) 3 M (consumer) 4 M (commercial)	12 M (mortgage) 4 M (consumer) 12 M (commercial)
Venezuela	"past due" = 1 M		
Czech Republic	3 M	6 M	12 M
Hungary	"in line with international standards"	"in line with international standards"	"in line with international standards"
Poland	1 M or borrower in poor state	3 M	6 M; borrower subject to bankruptcy etc.
Israel	"in arrears"		
Saudi Arabia	1 M	3–6 M	
South Africa	4 M		

M = month(s).

Source: Central banks.

individual loans known to be at great risk.[10] The mix between the two varies across countries reflecting national legislation and the nature of the loan book; see Basle Committee (1998). Specific provisioning may be more suited to large commercial loans and general provisioning (using appropriate statistical models) for small homogenous household loans. General allowances are sometimes used as an interim step pending the identification of losses on individual impaired loans, but should not be regarded as a substitute for the establishment of adequate specific allowances or the recording of appropriate charge-offs. In recent years, there seems to have been a trend towards increased specific provisioning, but this does not of course obviate the need for general provisioning because no loan is entirely risk-free and exposure to macroeconomic fluctuations cannot be readily diversified away.

Supervisors require minimum provisions to be made against each of the loan categories given in Table 8. The most common requirements are a small amount for performing loans, 20% for substandard loans, 50% for doubtful loans and 100% for losses. The requirements set in each economy are given in Table 9. The proportion of NPLs covered by some kind of provision varies from as little as a quarter to all (Table 7).

Supervisors generally follow the Basle Committee recommendation that "when a loan is identified as impaired, a bank should either cease the accrual of interest or continue to accrue the interest but set aside a specific allowance for the full amount of interest being accrued". Another influence on banks' provisioning will be the extent to which it is allowed as a deduction from taxable income. In some jurisdictions, the tax authorities refuse to allow banks to deduct provisions until the loan has been written off: their motive is to prevent the banks accumulating tax-free profits. In other jurisdictions, the tax authorities go further and insist on the formal bankruptcy of the borrower before a loan can be written off: the motive in this case is often to guard against the write-off of loans to connected parties (especially bank directors).

While there is general agreement on the need for rigorous loan classification rules, there is some controversy about the timing of measures to tighten these rules. It has been argued that regulatory rules should not be tightened when macroeconomic conditions are adverse

[10] The terms "provisions" and "allowances" are used interchangeably in this paper. They are sometimes referred to as "reserves" but this usage may be misleading.

Table 9

NPLs provisioning requirements

As a percentage of original loan value

	Performing	Substandard	Doubtful	Loss
China	general 1			
India	general 0.25 from March 2000	10	20–50 (coll.) 100 (uncoll.)	100
Hong Kong		20	50	100
Indonesia	general 1 special mention 5	15	50	100
Korea	normal 0.5; precautionary 2	20	75	100
Malaysia	general 1.5	20	50	100
Philippines	general 1 (2 by Oct 1999) specific mention 2	25	50	100
Singapore		10 (of unsecured portion)	50	100
Thailand	pass 1 special mention 2	25	50	100
Argentina		25		
Brazil		20 (coll.) 50 (not coll.)	50 (coll.) 100 (not coll.)	100
Chile	potential risk 1; expected loss 20	60	90	100
Colombia	subnormal 1 deficient 20	20	50	100
Mexico	low risk 1	20 (medium risk)	60 (high risk)	100 (irrecoverable)
Peru	generic 0.6 special mention 1.5	8 (with guarantees) 30 (without guarantees)	28 (with guarantees) 60 (without guarantees)	54 (with guarantees) 100 (without guarantees)
Venezuela	generic 2			
Czech Republic	watch 5	20	50	100
Hungary	watch 0–10	11–30	31–70	71–100
Poland		20	50	100

coll = collateralised.

Sources: Central banks; Caprio (1998); World Bank (1998).

because the very sharp change in reported bad loans that would result might undermine confidence. However, market suspicions that something is being hidden can hurt confidence much more than telling the truth. Only in exceptional cases, therefore, should the application of rigorous standards be postponed and any postponement should be of relatively short duration.

Valuation of collateral

A second major area of fact-finding that will need to be undertaken when a bank runs into difficulties concerns the *valuation of collateral.* In theory, most (large) bank loans are collateralised, and this should provide a means by which a bank, or a restructuring agency taking over its affairs, can recoup the value of a loan from a delinquent borrower. In practice, however, the collateral is often worth considerably less than its book value (particularly when asset prices have been depressed by the crisis). Moreover, the underlying value of the collateral can be recovered only if bankruptcy procedures operate efficiently.[11]

Collateral takes many forms and the valuation rules that apply should reflect this. The most common collateral for commercial or housing loans is real estate. Because property prices are variable, many supervisors (Chile, Korea, Poland) issue guidelines on the ratio of loan value to collateral. For example, several supervisory authorities limit mortgage loans to around 70% of valuation (Hong Kong, Hungary, India). In some countries, guarantees by third parties also play an important role (Mexico, Poland, Venezuela). In Hong Kong, Malaysia and Singapore, bonds and shares are widely used as collateral. In countries where securities are permitted as collateral, more rigorous and specific guidelines (often mark-to-market rules with accompanying calls for margin payments) are generally in place. This is appropriate as capital markets may be thin (indeed 'locking-in' securities as collateral will make markets thinner). For consumer loans, the object of the loan usually serves as collateral.

As aggregate demand weakens during banking crises, collateral values often drop steeply. Moreover, a large number of simultaneous "fire sales"

[11] Chapter 6 of World Bank (1989) discusses how bankruptcy law and collateral rules evolved with the development of banking and limited liability companies.

caused by banks or restructuring agencies realising collateral from bad loans would magnify the falls in asset prices. This raises the question of how long restructuring agencies should hold assets (this is addressed below).

The credibility of measures to realise collateral or other steps to enforce repayment of loans depends on an efficient, rapid and transparent legal process. Bankers in Argentina, Brazil, Malaysia and Thailand have often noted that deficiencies in their legal systems have created a culture of non-repayment, rendering threats of legal action against delinquents ineffective. Long cases are expensive, and justice delayed is justice denied. Realising pledged assets through the courts has often taken years in eastern Europe, India, Mexico, Peru and Thailand,

Table 10

Bankruptcy procedures

	Typical length of time	Priority of banks' secured loans	Priority of banks' unsecured loans
China		after BF, W, T	after BF, W, T
India	a few years		
Hong Kong	4–6 months	first claim	after SC, BF, W, T
Indonesia		high	n.a.
Korea	6–8 months	after BF, W, T	after BF, W, T, SC
Philippines	within a year	after T, W	after T, W, SC
Singapore	under 3 months		after SC, W, T
Thailand	years		
Brazil	6–12 months	after BF, W, T	after W, T, BF, SC
Chile	2–3 years	after BF, W, T	after BF, W, T, SC
Colombia			after BF, W, T, SC
Mexico	1–7 years	after W	after W, SC, T
Peru	2–12 months	first claim	after SC, W
Venezuela	lengthy		
Czech Republic	a few years	after BF, T, W	after BF, T, W, SC
Hungary	2 years		
Poland		after BF, W	after BF, W, SC, T
Saudi Arabia	6–12 months	first claim	after SC, BF, T
South Africa	6–12 months	after BF, T, W	after BF, T, W, SC

BF = bankruptcy fees; W = wages; T = taxes; SC = secured claims.

Source: Central banks.

although recent legislation in several countries should improve this. By contrast, proceedings take about half a year in Hong Kong and Korea and even less in Singapore. A weak legal system exacerbated banking problems in Saudi Arabia in the 1980s, but the system is now much improved.

The law may set priorities in the distribution of assets among unsecured claims. Even in the jurisdictions without explicit rules, however, it is usual to give priority for the administrative expenses of the bankruptcy proceedings, generally followed by employee and government claims (Table 10).

Corporate debt restructuring

Most of the NPLs of a banking system in trouble are usually loans to non-financial enterprises which are no longer able to service their debts. Policies to deal with these NPLs will depend also on policies to deal with corporate debts.

Supporting viable companies

During crisis periods, firms with reasonable longer-term prospects faced with recession and exceptionally high interest rates may find that they are temporarily unable to service their debts. Although such firms are technically insolvent, it is often desirable to ensure that a distressed firm can continue as a going concern. Not only would this reduce disruption in the real economy, but it may also result in banks and other creditors recouping more than they would by closing the firm (and scrapping its assets or selling them immediately at a very low price). Such arrangements should not of course impede the liquidation of companies with no long-term future.

Arrangements for helping corporations through temporary difficulties vary from country to country, depending on history and the structure of financial systems. In the United States, for instance, "Chapter 11" proceedings[12] involve a firm filing for bankruptcy but continuing to

[12] After Chapter 11 of the Bankruptcy Reform Act, 1978, which relaxed the old absolute priority rule that gave creditor claims categorical precedence over ownership claims.

operate under the same management. Managers specify how to compensate creditors in a reorganisation plan which then requires ratification by a majority of each class of creditor and shareholder. Provisions may also be made for additional loans to the debtor; such loans typically enjoy seniority. (If such support is not forthcoming, the firm is liquidated.) In Japan and Germany, by contrast, each firm usually has a single bank for most of its business; this bank will normally help resolve financial difficulties.

In the United Kingdom, an informal mechanism known as the "London Approach" has developed. Under this, a voluntary agreement among lenders to abstain from putting firms into receivership is sought. Lenders then share information and try to agree on a workout involving a sharing of losses. Unusually among advanced economies, the central bank has often been involved in these procedures, albeit in ways that have changed over the years. In the 1970s and early 1980s, the Bank of England frequently suggested possible terms for refinancing and persuaded lending banks that they should accept them. By the 1990s, the Bank had come to see itself more as a mediator or "honest broker". The Bank of England participated in discussions concerning 160 workouts in the early 1990s recession.[13]

Some have suggested the Approach has become less workable over the years. The Bank may have less influence now that it is no longer the supervisor of banks. Furthermore, the negotiations are becoming much more complicated as firms increasingly borrow across national borders and debts are securitised. This has led to calls for standard clauses governing any future workout arrangements to be included in initial loan agreements.

Key issues in putting together arrangements for corporate debt workouts include:

- Should the talks be co-ordinated by any neutral (probably public sector) party?
- Is agreement among holders of what percentage of debt sufficient to bind the minority debt holders?
- Is there any arbitration process?

[13] Smith (1996) describes the London Approach in more detail.

- Does any interim new financing to keep the business going have priority over existing debt?
- Will any government funding be provided as part of the process?

Some emerging market economies have addressed these issues and introduced procedures along the lines of the London Approach. A so-called Bangkok Approach to corporate debt restructuring was developed in Thailand during 1998. It calls for creditors to agree on a standstill, and perhaps provide new money senior to existing debt, while the firm and its advisers propose a restructuring plan. The most important principles

Table 11

General principles for corporate debt restructuring

1. To further the long-term viability of the debtor, the plan should achieve a business, rather than just a financial, restructuring.
2. If the debtor's management is providing full and accurate information and participating in all creditor committee meetings, creditors should "stand still" for a defined (e.g. 60 days) and extendable period. Restructuring should not be used to hide NPLs.
3. Debt forgiveness should only be used as a last resort and only in exchange for stocks and warrants.
4. A lead creditor institution (and within it, a specified individual) must be appointed early in the restructuring process to co-ordinate according to defined objectives and fixed deadlines. In major multicreditor cases, a steering committee which is of a manageable size while representative of all creditors, should be appointed.
5. Decisions should be made on information that has been independently verified.
6. Creditors' existing collateral rights must continue.
7. New credit extended on reasonable terms to help the debtor continue operations must receive priority status.
8. Lenders should seek to lower their risk (e.g. through improved loan collateral), rather than to increase returns (e.g. by raising interest rates).
9. Any creditor that sells his debt claim should ensure the buyer does not impede the restructuring process.
10. Creditors should take account of the impact of any action on other creditors and on potentially viable debtors.

Source: Drawn from *A framework for corporate debt restructuring in Thailand.* Published by the Board of Trade of Thailand, the Federation of Thai Industries, the Thai Bankers' Association, the Association of Finance Companies and the Foreign Banks' Association.

are summarised in Table 11: many of these principles apply to other schemes, such as those in Malaysia and Indonesia.[14]

Around 200 Korean financial institutions have agreed to follow the guidelines set out in the Corporate Restructuring Agreement and be subject to binding arbitration by the *Corporate Restructuring Coordinating Committee* (CRCC). Under the guidelines, a meeting can be convened by a major bank or an institution holding more than a quarter of the company's debt. There is then a standstill on debt repayments while the creditors decide how to work out the debt or whether to liquidate the company. The plan could cover extending the maturity of short-term loans, grace periods on servicing requirements and debt for equity swaps. The approval of holders of 75% of the debt is needed for a decision. If this is not obtained, the matter is arbitrated by the CRCC. The lead bank then works with the company on behalf of the creditors, with any problems arbitrated by the CRCC.

In Hong Kong, the Association of Banks released "Guidelines on Corporate Difficulties" based on the London Approach, in April 1998, with the support of the HKMA. The present scheme has been quite successful, although the need for unanimous support and the sheer number of cases means that the workout process can be protracted. In about ten cases the HKMA has become involved, persuading minority banks to agree to a reasonable proposal.[15]

In some cases, Asian banks have incorporated swaps of equity for some debt in corporate debt restructuring. This has the advantages of easing some pressure on the corporate borrower and allowing the bank to share in any profit recovery in exchange for continuing its risky exposure. But, supervisors need to be wary of banks taking equity positions in firms because of the risk of exposure to non-banking risks; if exceptions are made during severe cyclical downturns, supervisors will need to verify that the bank has taken proper precautions.

In Mexico, informal solutions between debtors and creditors are usually sought due to the time and cost involved in bankruptcy proceedings. Hungarian law tends to encourage the financial reorganisation of insolvent industrial enterprises, rather than liquidation. By

[14] The schemes in these three economies are described in more detail in the paper on "Bank restructuring in South East Asia" in this volume and in Stone (1998).

[15] Carse (1999) gives more details.

contrast, laws in the Czech Republic tilt more towards liquidation of enterprises when their current liabilities cannot be met, regardless of their longer-term prospects. Poland included debt workouts in its bank restructuring programme of 1993. The large commercial banks were only recapitalised if they adopted "conciliation agreements" with their corporate debtors deemed appropriate by the finance ministry.[16] These agreements involved banks negotiating a workout on behalf of all creditors subject to the agreement of holders of at least half the debt. In practice the number of debt/equity swaps was lower than had been initially expected. Wijnbergen (1998) attributes this to a combination of bureaucratic resistance and tax laws.

Official assistance

Where problems in the corporate sector are very widespread, governments may need to be more actively involved. In 1983 the Mexican government established FICORCA, a trust fund overseen by the central bank, to provide firms with a more stable environment in which to negotiate a restructuring of their debts. Around 2,000 corporations were assisted under the scheme to restructure over $12 billion in debt. They were able to swap their foreign debt for pesodenominated debt under a fixed government-guaranteed exchange rate and the maturity of the debt could be extended to eight years or more with a four year grace period. This meant the government assumed the foreign exchange risk, but was able to borrow on better terms than the individual firms.

A similar approach has recently been adopted in Indonesia. The *Indonesian Debt Restructuring Agency* (INDRA) was established in July 1998 to help Indonesian debtors repay their foreign currency obligations to foreign creditors (including Indonesian branches of foreign banks). It

[16] Borish et al (1995) report that policymakers in the transition economies thought banks could be the lead restructuring agents as they knew more about the condition of borrower enterprises than did other agents. This assumed that for viable enterprises banks would take the lead in the financial (debt), physical (property, plant, equipment, inventories) and operational (governance) restructuring and for nonviable firms would coordinate their liquidation. However, banks, being generally inexperienced in corporate restructuring techniques, were not able to fulfil this ambitious agenda and governments had to be involved.

intermediates between the domestic debtor and the foreign creditor in servicing renegotiated debt. A condition of INDRA's participation is that creditor and debtor agree to restructure the loan so that repayments are spread over eight years or more with only interest paid for the first three years. Debt service payments are made to it in rupiah at a set exchange rate. The set rate in nominal terms is derived from the best 20-day average rate since August 1998. It is then adjusted to be stable in real terms. INDRA then pays the foreign creditor the agreed amount of dollars.

In the 1980s the Central Bank of Chile subsidised the banks to reschedule corporate and mortgage debt to give both a longer maturity and grace periods of one year for interest and five years for principal. Additionally, the central bank subsidised the rescheduling of banks' dollar denominated assets after successive devaluations, so that borrowers did not bear the full increase of the peso-denominated loan. This was an expensive exercise for the central bank.

In some emerging markets, problems in the corporate sector are so deep-seated that measures in addition to arrangements to work out their current debt are required. The governance structure of firms may need to be reformed to prevent banks that lend to them getting into further difficulties. In Korea, the government is strongly encouraging restructuring within the "chaebol", the large conglomerates that dominate the economy. Similarly, putting the banks in China on a sound footing is likely to require the government reforming the state-owned enterprises.

Secondary debt markets

A secondary market in corporate debt is developing in Asia. The *Asia Pacific Loan Market Association* (APLMA) was established to develop standardised loan documents, facilitating sales of loans, and to compile data on them. Most sales have been of better quality loans by Japanese banks to European and US banks. While the development of a secondary market in distressed corporate debt may help some troubled banks, there is concern that it could complicate London Approach-type negotiations if it means different faces at the table at each stage of the negotiations and cause complications with insider-trading restrictions.

Assisting banks: avoiding moral hazard versus pragmatic rebuilding

Bank liquidation: a last resort?

Part of the normal competitive process in any industry is that individual firms should be allowed to fail. Allowing the weakest to exit increases the overall efficiency of the industry; conversely, maintaining over-capacity creates a more difficult environment for the stronger firms. This rationale applies also to the banking industry. As Bagehot put it, "any aid to a present bad bank is the surest mode of preventing the establishment of a future good bank". For this reason, the European Union has sought to establish a mechanism whereby strong banks or others have some form of legal redress against government aid to competitor banks in difficulties.

Yet medium-sized or large banks are in practice rarely closed: throughout history, governments have tried to keep banks afloat.[17] Indeed, a large number of countries follow a more-or-less explicit policy of not letting any bank go bankrupt. In both industrial and emerging economies, bank rescues and mergers are far more common than outright closure of the bank. Moreover, almost all countries' legal systems distinguish between enterprise bankruptcy and bank bankruptcy. An important reason appears to be that a bankruptcy suit brought by creditors, even if the suit proves unjustified, may terminally damage confidence in a bank. Hence there is a consensus that the initiation of insolvency proceedings against a bank should be left only to the supervisor or other government agencies. Most agree that supervisors should have the power to initiate the bankruptcy process and restrict the bank's business pending the court's decision.

What are the main motives behind the marked reluctance to liquidate banks? Three main reasons appear to be important: the systemic threat to the financial system; the disruption of credit relations between a bank and specific borrowers; and the danger of a "credit crunch".

[17] The emperor Tiberius halted a bank run in Rome in 33 AD by transferring funds from the Treasury to the banks for them to lend on concessional terms (see Calomiris (1989) pp. 26–27). The most famous banking crisis is probably that of the 1930s in the United States – the policy lessons from it are still being debated. For a list of post-war banking crises, see Caprio and Klingebiel (1996) and the Annex in World Bank (forthcoming).

The *systemic threat* is that a bank failure may infect other, healthy banks and financial markets more generally. There are several mechanisms of infection. One is through the payments system, where one failure may provoke a chain reaction of non-payment by other participants. This was the key focus of Bagehot's (1873) classic study. How serious this is nowadays depends in part on the speed and efficiency of national payments systems. The experience of industrial countries is that Real Time Gross Settlement in domestic markets and better international netting arrangements have greatly reduced this risk. Another mechanism of infection is through interbank loans. However, it is not clear how far public money should make good losses by banks, which should be in a better-than-average position to monitor the health of other banks.

A final mechanism of infection works through the bank deposit market. The danger is that one failure may undermine the public's confidence in banks generally, provoking a generalised bank run. This risk is probably particularly present in countries with a recent history of bank failure – many Latin American countries are in this category – and in countries without a credible deposit insurance scheme. The potential size of a bank run is illustrated by the Argentine experience of early 1995, when 18% of deposits were withdrawn in three months (although in this instance macroeconomic factors rather than a bank failure triggered the run). Similarly, the invasion of Kuwait led to Saudi residents withdrawing 11% of local bank deposits in August 1990.

On the other hand, where there is a long tradition of confidence in the banking system, a single bank failure is likely to prompt depositors not to withdraw from all banks in an indiscriminate way, but rather to move their funds from weak to strong banks. Hence the result would be a flight to quality, not a generalised run. The Argentine experience in 1995 is again instructive: the deposits returned to the banking system after the crisis were concentrated in larger and foreign banks. Some smaller and regional banks continued to experience difficulties and were eventually merged or liquidated.

Other reasons for not closing banks are the *fear of disrupting credit relations and causing a "credit crunch"*; a marked widening in interest rate spreads as well as a reduction in the availability of credit. Such effects have been evident in some emerging economies recently (as discussed above and shown in Table 3).

In conclusion, then, there are good reasons to hesitate before liquidating a bank. Yet it is also true that the failure to liquidate has left many countries "overbanked" or has involved large fiscal expenditure that could have been better deployed elsewhere. The authorities in Hong Kong rescued some banks in the 1980s due to systemic concerns but, when BCCI got into difficulties, the absence of such systemic implications led the authorities to allow its local offices to be liquidated. But, as they comment, "the process was nevertheless not a painless one. There were demonstrations from depositors, rumours were widespread and [short-lived] bank runs started on several other banks".[18]

Finally, it might be noted that there are no international laws covering closure of banks, leaving the applicable law that of the country where the core assets reside. In the Herstatt case in 1974 bankruptcy proceedings were filed in Germany as well as in the United States. The disentanglement of branches and subsidiaries abroad and the treatment of international financial claims appear subject to ad hoc agreements.

Coordinating responses

Bank restructuring seeks to achieve many (often conflicting) goals: preventing bank runs, avoiding a credit crunch, improving the efficiency of the financial intermediation process and attracting new equity into the banking industry to economise on claims on the public finances. It is therefore not surprising that there is no unique or optimal blueprint.[19]

There are, however, some general lessons from successful restructuring exercises. Goodhart et al (1998, p. 18) distill three basic principles: "ensure that parties that have benefitted from risk taking bear a large portion of the cost… take action to prevent problem institutions from extending credit to highly risky borrowers… muster the political will

[18] The paper in this volume on "Banking problems: Hong Kong's experience in the 1980s."

[19] As Dziobek (1998) notes, the style of response has changed over time. In the 1930s, the most typical responses to banking crises were the introduction of additional controls and limits on competition. Now "market-based" techniques are more commonly employed. However, the degree of recent innovation should not be overstated. Government equity injections, the establishment of an asset management corporation and domestic mergers were all used in the Austrian banking crises of the early 1930s, for example.

to make bank restructuring a priority by allocating public funds while avoiding sharp increases in inflation".[20] Many senior officials involved in thoroughgoing restructuring affecting banks emphasise the importance of a political consensus for dealing effectively with banking crises. In Sweden the opposition political parties were represented on the board of the Bank Restructuring Agency. A plan to deal with a widespread banking crisis will need to be bold and comprehensive if it is to carry conviction. A series of piecemeal steps – often taken at the last moment without any sure grasp of the true magnitude of the problems – may not have a credible effect on expectations, and thus may prolong the difficulties. A plan should be transparent and action should not be delayed unduly.[21]

Moreover, the plan needs to address both "stock" and "flow" problems.[22] The "stock" problem is dealing with the banks' current balance sheets; raising capital and removing NPLs. The "flow" problem is improving the quality of banks' earnings so the balance sheet does not quickly deteriorate again. This usually involves operational restructuring to improve efficiency, which encompasses improved credit assessment, specialisation, better information systems and cost cutting.

The diversity of possible approaches to restructuring (Table 12) creates the risk that piecemeal action will be taken in an uncoordinated fashion. To guard against this, some countries have established an agency

[20] There have recently been some empirical studies seeking the most effective forms of bank restructuring. Klingebiel and Caprio (1996) judge the performance of 64 recapitalisation schemes on whether they led to financial deepening, moderate growth in real credit, moderate positive real interest rates and no subsequent banking crisis. On this basis, they conclude there have been few clear successes (Chile (1981–83) and Malaysia (1985–88) and to a lesser extent Philippines (1981–87) and Thailand (1983–87) were the best among the emerging economies) but the better outcomes have been when restructuring is accompanied by successful macro-reform, performance monitoring by outside auditors, tougher (and enforced) accounting and capital standards, lending halted to defaulting borrowers, and replacement of senior managers. In a similar vein, Dziobek and Pazarbaiolu (1997) suggest that progress in bank restructuring has been greater when separate loan-workout agencies are established (so long as there are enough skilled personnel to staff them) and reliance on central bank liquidity support is limited. Mergers and privatisations feature more heavily among economies making more progress.

[21] Sweden is often taken as a model. Ingves and Lind (1996), who were closely involved in the process, say that "it was a matter of priority to start the active support measures as soon as possible … there was no time to build a large organisation so the Bank Support Authority started with a small number of employees but instead hired many outside – mainly from abroad – consultants to benefit from their experience in other crisis situations and thus gaining valuable time."

[22] Sheng (1996).

Table 12

Restructuring methods

	Government capital injection	Asset management corporation(s)	Domestic bank merger	Foreign bank takeover
China	✓	✓	✓	
India	✓	under examination	✓	allowed
Hong Kong (in 1980s)	✓		✓	
Indonesia	✓	✓	✓	proposed
Korea	✓	✓	✓	allowed
Malaysia	✓	✓	✓	
Philippines (in 1980s)		✓	✓	✓
Thailand	✓	✓	✓	✓
Argentina			✓	✓
Brazil			✓	✓
Chile (in 1980s)	✓	✓	✓	
Colombia	✓	✓	✓	allowed
Mexico	✓	✓	✓	✓
Venezuela	✓	✓		
Czech Republic		✓	✓	allowed
Hungary	✓	✓	✓	
Poland	✓		✓	allowed
Russia	✓		✓	
Saudi Arabia (1970s & 80s)	✓		✓	
Memorandum:				
Finland (early 1990s)	✓	✓	✓	
Norway (1988–93)	✓		✓	
Sweden (early 1990s)	✓	✓		
Japan	✓	✓		

Source: Central banks.

or committee specifically charged with coordinating the parties involved in bank restructuring. For example, Thailand's government is advised by the Financial Restructuring Advisory Committee, which includes officials from the central bank and finance ministry as well as some outsiders. In Malaysia, the central bank coordinates the organisations charged with managing bad debts and injecting capital into banks.

Moral hazard: shareholders and managers

Any government rescue can weaken a private institution's sense of responsibility for its own actions.[23] It is therefore important that the terms of any rescue or bailout should not encourage irresponsible behaviour in the future: for this reason those who stood to benefit from the excessive risk-taking that led to the difficulties should pay the price. The *existing shareholders* should clearly bear a loss. In Korea, banks have been required to write down capital as a condition of assistance. Mexico took over bad loans only if fresh capital was injected by existing shareholders.

Under some much earlier arrangements, shareholders were exposed to double-liability if "their" institutions failed (i.e. they had to contribute an additional amount equal to their initial capital subscription). In a similar vein, supervisory authorities in Brazil and India have forced shareholders to put up additional capital. It is entirely appropriate for shareholders to lose more than their capital if they have been directing bank lending towards companies with which they are associated.

But not all shareholders can be held equally responsible. One example would be when losses have resulted from loans made at the behest of the government. It must also be remembered that transparency of the published accounts is essential to allow non-managing shareholders to detect signs of trouble early. Hence the importance of publishing frequent and accurate balance sheet information. In theory, the stock market might be expected to exert some automatic discipline, with the share prices of poorly managed banks falling. In practice, however, the evidence from industrial countries of the stock market's ability to detect in advance banks' problems is at best mixed. This is perhaps not surprising: the financial accounts of banks are difficult to read and the scope for misleading reporting is greater than with industrial companies. For example, until a few years ago banks in Hong Kong were allowed to use transfers to and from hidden reserves to smooth reported profits. Because the accounts are difficult to read,

[23] Following a discussion of the Barings collapse, Goodhart et al (1998, p. 140) comment "Effective control of risk, in the end, requires that it be in the economic interest of financial institution owners, managers and major liability holders. Experience shows that there is no substitute for an occasional bankruptcy to drive this point home".

credit ratings agencies, which can probe more deeply into such matters, could play an important role in informing market participants and some supervisors have incorporated them into supervisory arrangements. Argentina recently required banks to be rated by them, with ratings to be prominently displayed.

One key dilemma arises from the fact that forcing shareholders to accept the full amount of losses incurred may well mean that the shareholders are forced to give up their ownership of the bank. In practice, this will mean that the bank will become de facto state-owned. In countries with efficient state institutions that are not susceptible to corruption and with a well-established tradition of keeping economic activity in the private sector, a temporary state takeover of a private bank may work well (as in Sweden, for example). But in countries where these preconditions are not satisfied, it may be better to leave the bank with the original owners who may be more likely than government-appointed administrators to implement the necessary restructuring, ensure that loans are extended on commercial criteria and keep up the pressure to collect on bad loans.

Political considerations also enter the calculation in other ways. Bank shareholders and managers are not usually poor, and the electorate will often suspect that they work hand-in-glove with the ruling elite. A treatment of them that is seen as too favourable will often provoke a political reaction that delays effective resolution. This has been a significant constraint in Mexico and Japan. Those who have had an effective voice in management should, in particular, be held to account and may, for example, be required to surrender their shares. Under recent restructuring exercises, several Latin American authorities have made official aid dependent on a complete change of bank ownership. In contrast, much of the criticism about bank restructuring in Mexico has centred on allegations that the treatment of bank owners was too lenient, even though some of them lost their capital and control of their institutions. In part, this was because the authorities elected for arrangements that gave existing owners some incentives to put in *additional capital.*

Supervisors will need to monitor very closely indeed the quality of new capital raised by a bank in distress. Equity capital must form the key element of new capital raised because equity provides the cushion to support bank losses and is a key element of a bank's ability to compete.

However, the existing owners may be reluctant to issue ordinary equity that would dilute their control, perhaps in a significant way when equity prices are depressed. Hence there may be a certain temptation to look for other types of capital. The Basle Committee's capital standards have laid down certain important conditions for the legitimate constituents of a bank's capital base. These are summarised in Table A2.

Another approach is to allow banks a transitional period during which the owners are allowed to raise additional capital. In Thailand, for example, tighter requirements for loan-loss provisioning are being phased in over a two-to-three year transitional period. As each deadline during this period is reached, additional capital can be required. At the same time, the government offered to inject tier 1 capital; but this was subject to the condition that any bank taking up this offer would have to satisfy certain stringent conditions including meeting stricter requirements for loan-loss provisioning immediately (i.e. without a transitional period). This stance ensures that government capital is provided only when existing shareholders have lost most, if not all, of their capital. The drawback is that some banks, which need an injection of state capital, may be tempted to delay application for such assistance, thus prolonging uncertainty about the banking system.

Managers should clearly lose their "fit and proper" status in cases of localised bank failure reflecting individual or bank-specific errors. In the case of fraud they should be more harshly treated. But victims of a generalised crisis may – but not necessarily – be treated more leniently. The replacement of the bank's head, and perhaps the deputies, may be necessary to restore confidence; but this may not apply to the next level of senior management. In any case, managers can be replaced only if there are enough capable and honest people to put in place of departed managers.

In discussing the replacement of failed managers in banks, De Juan (1998) distinguishes between what he calls "war generals" and "peace generals". He suggests initially appointing on short-term contracts tough managers skilled in restructuring companies (to close subsidiaries, shrink operations and cut costs) and later appointing more conventional bankers to operate the banks.

Moral hazard: depositors

The treatment of *depositors* – both local and foreign – is much more contentious. In practice, most bank deposits are usually guaranteed because fears of a bank run at home tend to weigh more heavily with policymakers than concerns about moral hazard. Moreover, once depositors of large banks are protected (for systemic reasons), it can be seen as inequitable to deny similar protection to depositors in small banks.

But guaranteed returns may tempt depositors to put their money in high-risk, high-return banks. In the early 1980s, for instance, deposit insurance (covering not only principal but also accrued interest) allowed depositors in Argentina to seek out the weakest financial institutions as these offered the highest interest rates. This further aggravated the weakness of the overall financial system and magnified the cost of potential future restructuring efforts. It was also an important ingredient in the S&L crisis in the United States. This has led some to argue that guarantees should be limited, such limitations being announced in advance. This may take the form of explicit deposit insurance schemes (see below) or priority payment for small depositors during bank liquidations, as in Australia, Hong Kong and Malaysia.

Occasionally depositors have been forced to share some of the cost by having (part of) their deposits forcibly converted into equity or long-term debt.[24] It might be argued that this is justified to the extent that depositors benefited from interest payments or other services provided by a bank that could really not afford to do so.[25] But such action is very uncommon as it leads to many of the same problems as an outright default.

Governments may sometimes discriminate between different classes of creditors on political grounds or because of contagion fears. When the Japanese jusen were liquidated, banks lost all their loans to them but

[24] Sundararajan and Baliño (1991) cite instances in Malaysia and Uruguay of conversion to equity and in Thailand of conversions to long-term debt.

[25] A number of types of culpable depositors are listed by Glaessner and Mas (1995, p. 69); "bank insiders and related parties who may have benefited from excessive lending or preferential treatment; clients with deposit balances and overdue loans; official or institutional depositors that influenced lending decisions (because they had a stake in the activities in which the distressed institution concentrated its portfolio); recent depositors attracted by high interest rates, who should accept the risks implicit in those returns; or very large, informed depositors who should have exercised some market discipline." But as a practical matter, it is hard to apply such distinctions in a crisis.

the agricultural cooperatives only lost a tenth of their loans, even though this then required public funds to meet the remaining shortfall. Milhaupt (1999) ascribes this favourable treatment to fears of causing the cooperatives to fail and the disproportionate political strength of farmers.

The treatment of *foreign bank creditors* turns in part on the need to maintain access to international capital markets. For this reason, the Norwegian and Swedish authorities both protected the holders of foreign currency deposits and subordinated debt, largely international banks; the Korean government likewise assumed responsibility for banks' debt. Governments of other countries, such as Chile and Mexico, also supported the domestic banks to meet their foreign obligations. Such action can contribute to a restoration of confidence (and may be useful in persuading creditor banks to extend loan maturities). But it does raise a major risk of moral hazard. In contrast, the Chinese authorities recently decided not to guarantee automatically the foreign liabilities of certain financial institutions (notably the ITICs). While this may have contributed to the downgrading of some Chinese banks' credit ratings in late 1998, it had the advantage of forcing lenders to monitor the intrinsic quality of investments.

To some extent, *future customers* may meet the cost of bank restructuring. One way of recapitalising banks is to engineer wider interest margins. Easier monetary policy restoring an upward-sloping yield curve would help here, as would less pressure on banks to lower loan rates. In addition, banks are likely to pass onto customers some of any increase in deposit insurance premia or taxes. However, this cannot be pressed too far as higher interest rates for smaller or newer businesses may damp any recovery.

Forestalling bank runs: deposit insurance

In many cases, financial crisis has accelerated moves to introduce and strengthen *formal schemes for protecting depositors*. The US scheme, for instance, dates back to the bank runs of the 1930s. Colombia established its scheme in 1985 after a banking crisis. The Tequila crisis forced Argentina to establish a new deposit insurance scheme in April 1995, just three years after the authorities had decided to abolish deposit insurance in favour of arrangements which gave small depositors

preference over bank assets in cases of bank liquidation. Brazil also introduced a deposit insurance scheme encompassing all financial institutions subject to liquidation or intervention following the adoption of the *Real* Plan. The increased incidence of banking crises has been associated with a rapid rise in explicit deposit insurance arrangements. Of 68 such schemes identified by Garcia (1999), 52 have been established since 1980 (and 18 extensively modified during this period).

The existence of guarantees for banks' deposits helps the process of bank restructuring in at least two ways. Firstly, it defuses political pressure for delays in resolving the banking problems which depositors might otherwise exert. A system-wide deposit insurance scheme also means that depositors in different failed banks are treated similarly, which leads to public support for resolution measures. This had been a problem in the Venezuelan banking crisis of 1994. Second, it could prevent an avalanche of lawsuits from depositors, which could unnecessarily delay or even block the resolution of a bank crisis. This was one reason why the Hong Kong authorities introduced in 1995 a scheme to ensure that small depositors receive priority payment in the case of the liquidation of a licensed bank.

There are, of course, other reasons for introducing a system of deposit insurance. One is to protect small depositors who cannot be expected to monitor the soundness of their bank's asset portfolio. Another is to promote savings and better exploit the benefits of a large-scale payments system. Level-playing-field considerations may also argue in favour of an explicit deposit insurance scheme. Where such a scheme does not exist, depositors may uncritically avoid smaller financial institutions in favour of state-owned banks (which enjoy implicit protection), large banks (which may be considered too-big-to-fail) or foreign banks (which may be able to rely on financial backing in their home countries).

Any assessment of the merits of deposit insurance depends on the trade-off between the greater financial stability today that insurance provides and the potential problems of bank fragility tomorrow that moral hazard risks may create. This trade-off depends to a large extent on the conditions on which deposit insurance is provided and financed (Table 13). In particular, the extent of the coverage provided by deposit insurance and its pricing are two important influences on the degree of moral hazard.

One way to minimise moral hazard is to impose a *ceiling on the size of deposit covered*: in this way, large depositors are held responsible for monitoring the deposit-taking institutions. The IMF suggests, as a rule-of-thumb, a maximum coverage of twice per-capita income. Garcia's (1999)

Table 13

Deposit protection schemes

China	Informal stated policy of protecting the interests of depositors; more formal system for medium and small-sized deposit-taking financial institutions is planned
India	Deposit Insurance and Credit Guarantee Corporation; established 1962; limit of rupee 100,000 per person
Hong Kong	No formal scheme is in place, but since 1995 small depositors (less than HK$ 100,000) receive priority payment
Indonesia	Informal promise in late January 1998 to guarantee commercial bank obligations to depositors and creditors; formal scheme is under study
Korea	Korea Deposit Insurance Corporation; established 1996; limit of won 20 million after 2001 and interim arrangements
Malaysia	No deposit protection scheme in place
Philippines	Philippines Deposit Insurance Corporation insures deposits up to peso 100,000.
Singapore	No deposit protection scheme in place
Thailand	Financial Institutions Development Fund; unlimited
Argentina	New deposit insurance fund for financial institutions (FGD run by SEDESA); established in 1995; limit of US$ 30,000 per person
Brazil	Credit Guarantee Fund for financial institutions; limit of *real* 20,000 per person
Chile	State deposit guarantee system for time deposits; limit of 90% of deposit up to 120 Unidade de Fomento (about US$ 3,700); demand deposits enjoy priority over other deposits and are fully guaranteed by the central bank
Colombia	Guarantee Fund for Financial Institutions (FOGAFIN); established in 1985; pays 75% of deposit with limit of pesos 10 million per person per institution
Mexico	Under the previous scheme (via FOBAPROA), there was a full implicit guarantee. Under the present scheme, implemented in January 1999 (via IPAB), there will be limited guarantee of approximately US$ 100,000 per person, to be gradually reached by 31 December 2005
Peru	Insurance Deposit Fund; established in 1991; current limit of NS 62,822 (about US$ 18,000) per person
Venezuela	Bank Deposit Guarantee and Protection Fund (FOGADE) established 1985; legal limit of Bs 4 million per person, but reimbursements of up to Bs 10 million were made in mid-1994

Table 13 (cont.)

Deposit protection schemes

Czech Republic	Deposit Insurance Fund; established in 1994; limit of 90% of deposit up to crown 400,000
Hungary	National Deposit Insurance Fund; established in mid-1993; limit of forint 1 million (about US$ 5,000)
Poland	Banking Guarantee Fund; established in 1995; limit of € 1,000; 90% reimbursement between € 1,000 and 5,000; to be increased to € 20,000 prior to EU-membership
Russia	Law on Compulsory Insurance of Bank Deposits; limit of 90% of deposit up to 250 times minimum wage
Israel	No deposit protection scheme in place
Saudi Arabia	No deposit protection scheme in place
South Africa	No deposit protection scheme in place (but is under consideration)
Memorandum:	
European Union	*EU Directive on deposit guarantee schemes of May 1994; minimum protection of € 20,000*
Japan	*Deposit Insurance Corporation; limit of yen 10 million*
United States	*Federal Deposit Insurance Corporation and the National Credit Union Administration; limit of US$ 100,000*

Source: Central banks.

survey found insurance typically covered 90% or more of accounts by number but only around 40% of the total value of deposits. For the emerging economies in this paper, the limits typically applied range from the equivalent of $2,000 to $20,000. In Mexico coverage will reach approximately $100,000 by end-2005. In Argentina and Brazil, too, the ceiling is high.

Additional limitations of coverage have also been imposed. One increasingly common practice is to limit each depositor to a single claim (whatever the number of deposits they might hold). Another is to cover (a little) less than 100%; as in Chile, Colombia, Czech Republic and some other European countries. A third is to design arrangements for refunds in such a way that some value of the deposits is lost. Depositors may receive reimbursements spread over several years: for example, depositors of failed finance companies in Thailand in the mid-1980s were paid over a 10-year period without interest. The authorities may also maintain some discrimination as to the nature of deposits protected and the type of institution. Of the schemes surveyed by Garcia (1999),

27 excluded all or some foreign currency deposits and 45 do not cover interbank deposits. 16 guarantee only, or mainly, household deposits. Chile covers demand deposits in full (to protect the payments system) but limits coverage of time deposits. In Argentina deposits that pay more than 200 basis points above the reference rate are not insured.

A second technique is to design *pricing policy to minimise moral hazard*. Ideally, insurance premia should:

- be set high enough to cover the expected reimbursements that would need to be made in the event of one or more bank failures.
- vary with the riskiness of the individual bank – with weak or poorly capitalised banks being forced to pay more. (There is a strong case for deposit insurance schemes being compulsory to avoid adverse selection and simplify matters for small depositors. This could be opposed by the healthiest banks. Another argument for risk-related premia is that they should reduce this opposition.)

In practice, however, both ideals may be difficult to attain. Given the difficulties of forecasting the timing, depth and spread of a financial crisis, it may be virtually impossible for the insurance fund to quantify the expected cost of a banking crisis.[26] Moreover, since any shortfall would usually be made up by the public sector, the deposit insurance agency may be less inclined to try to price risk accurately. (However, arrangements could be devised to cover any shortfall with a government loan to the deposit insurance agency, which then has to increase premia in order to repay).

Designing appropriate risk-related premia for individual banks is complicated. It is very difficult for any outsider to assess ex-ante banking risk. The "best" assessment would draw on factors such as the quality of management but the premia charged would need to be based on objective criteria such as capital ratios so they can be justified to the bank, and to the courts should the bank challenge the ruling. Another problem is that premia set too precisely would be prohibitively expensive for already weak institutions. Furthermore, the actual loss will also depend on how quickly the supervisory agency controls or closes a bank

[26] It is also hard to build up sufficient reserves even once an expected cost is calculated. Garcia (1999) cites 17 countries with a target level for the fund, often expressed as a proportion of insured deposits. However only four of these countries have actually accumulated sufficient funds to meet their target.

as losses develop. Nevertheless, discriminating according to the nature of the institution insured, its credit rating or its past performance has become more prevalent in recent years, with a third of the countries surveyed by Garcia now using some form of risk adjustment. In Colombia, for instance, banks have to pay a higher insurance premium than savings and loans institutions. In the United States, risk-responsive premia are levied. Similarly, in Argentina factors such as the rating of an insured institution by the Superintendency of Financial Institutions, the size of its equity capital and the size of provisions to cover potential loan losses, play a role in determining the institution's monthly payments to the Deposit Insurance Guarantee Fund. An alternative approach might be to accept in the scheme only those institutions which have a proven record of sound risk management. Still another approach is to make a grouping of banks liable for its members' losses (mutual liability insurance) and so promote peer pressure for sound bank management.

While they may significantly reduce the degree of moral hazard, such restrictions run the risk of eroding the stability-promoting characteristics of deposit insurance. Is a depositor's tendency to withdraw a deposit from an unsound bank materially greater if it involves losing 100% of the deposit (i.e. no insurance) than when it involves a loss of, say, 25% (i.e. capped insurance)? Another question is whether the announced limitations to insurance coverage are in fact credible. Unless an insolvent bank is liquidated – still the exception rather than the rule – the negative net worth of a bank in need of restructuring tends to be borne by the public sector, thus implicitly offering total deposit insurance.

A privately funded deposit insurance scheme may not be adequate to cope with a generalised banking crisis. Furthermore, the government may feel obliged to offer a broad guarantee of all deposits to restore confidence, regardless of the modalities of the deposit insurance scheme. (It is hard to judge whether such guarantees will be necessary: in Venezuela, there were no bank runs on two occasions when the largest bank failed but there were runs the third time it happened.) Sweden and Finland offered full coverage during the Nordic banking crisis but have since limited it. Even in those countries where a number of banks were liquidated in recent years, there were no reported losses to depositors associated with these closures. In the past, the absence of explicit

insurance has not prevented the actual extension of protection in a crisis. Chile's experience in the late 1970s is one case in point. The rapid increase in the number of financial institutions in Chile, and the resultant difficulties in adequately supervising them, compelled the authorities to renounce depositor protection. But when the government rescued the first bank that got into difficulties soon thereafter, the public quickly assumed that its deposits were covered by implicit protection. A "no protection" policy is never very credible for banks regarded as "too big to fail".

Even when the deposit insurance scheme contains features to limit moral hazard, it will still need to be supported by action to strengthen regulatory and supervisory practice, promote higher capital adequacy standards and stimulate greater transparency and disclosure. Yet, once these steps have been taken, it might be argued that deposit insurance is no longer necessary. This view has been taken in Hong Kong and Singapore.[27]

Timing the introduction of a deposit insurance scheme is a difficult question. On the one hand, Garcia (1999, p. 10) regards "starting a deposit insurance scheme while the banking system is unsound" as a "departure from best practice" as it is likely to lead to a scheme with very wide coverage. On the other hand, restoring public confidence and avoiding runs are important elements in restoring the health of the banking system, which would argue for an earlier introduction.

In some recent crises, governments have given blanket guarantees to virtually all bank liabilities. At the same time, plans were announced for more limited deposit insurance schemes. Deciding when to withdraw the blanket guarantee, leaving depositors with a formal deposit insurance scheme will be delicate.

Sheng (1996, p. 47) stresses that if a deposit insurance scheme is established, the agency needs adequate powers: "The creation of deposit insurance schemes with insufficient resources or legal powers to deal with the problems can be disastrous. These institutions give the illusion of a responsible agency without the substance. Deposit protection agencies in Kenya and the Philippines were not provided with sufficient resources to deal with the rising level of bank problems, and in the end the rescuer had to be rescued."

[27] However, both are reviewing the need for deposit insurance.

General assistance

In many cases, the central bank or the government will decide to help the banking system without attempting to change the structure of either ownership or management. This may be the case particularly when the banking system as a whole is in difficulty. There are several ways this can be done: by extending central bank credit, relaxing regulations, easing monetary policy, giving tax breaks, assisting private capital raising, shifting government deposits and assisting borrowers.

The first central banks were established to provide *lender of last resort facilities*. The classical Bagehot (1873) prescription was to "lend unlimited amounts to solvent but illiquid banks at penal interest rates". The difficulty lies in distinguishing between illiquid and insolvent banks, given that many bank assets do not have a ready market value.[28] For this reason, central banks usually prefer to lend against collateral. Even with collateral, the ability to provide liquidity may be limited by macroeconomic considerations. For example, central banks operating fixed or quasi-fixed exchange rate regimes may be constrained in the amount of liquidity they can provide.

However, even limited support can buy time while solutions to underlying solvency problems are explored. Because the timing of resolution measures can be dictated by the withdrawal of liquidity support, central banks have a powerful weapon to force the bank owners to accept the terms of resolution decided upon. Central banks may prefer to maintain some 'constructive ambiguity' about the conditions under which they will provide assistance so as to discourage banks from relying on it. The worst case is to announce pre-specified rules and then not adhere to them.[29]

Accountability requires that details of central bank liquidity support be disclosed at some time. However it may not be desirable to announce it immediately because of the risk of triggering a run on the banks concerned. In 1991 the Bank of England organised discreet liquidity support for some small banks who were unable to continue funding

[28] As an example, a US study cited by Garcia (1999, p. 23) found that 90% of lender of last resort credit extended by the Federal Reserve went to banks that subsequently failed.

[29] Enoch et al (1997) discuss this in more detail.

themselves from the interbank market following the BCCI collapse and steep falls in property prices which had raised concerns about their asset quality. Details were only revealed a couple of years later once the pressure had passed.

There is always a danger that government reluctance to provide longer-term finance for troubled banks will lead to reliance on central bank liquidity that is too prolonged. In effect, central banks may, in a crisis, be induced to provide some *longer-term finance* for troubled banks. This may be inadvertent if short-term loans cannot be repaid. In Venezuela, for example, eight banks thought to have been solvent used special liquidity lines to meet withdrawals, but were subsequently unable to repay. In other cases, finance is deliberately long-term, with the aim of maintaining a stable banking system during a financial crisis and giving banks sufficient time to restructure. One example of more explicit longer-term assistance is provided by the National Bank of Poland, which purchased both shares and low-yield long-term bank bonds. Deliberate, longer-term lending by the central bank is often contingent on the receiving bank presenting a plan indicating the actions to be taken, the projected financial impact and the time required to resolve its difficulties (Table 14). In Indonesia, some central bank liquidity support is at present being converted into government equity in the recipient banks. When the central bank lent to the banks in Finland in 1991, the loans had a rate of interest that increased over time to encourage banks to repay early.

Relaxing regulations is another possible approach. White (1991) notes that as the S&Ls in the United States first incurred significant losses during 1980–82, mostly due to maturity mismatches, the main policy response was to allow them to offer first adjustable rate mortgages, then consumer credit and commercial real estate loans. While reducing the concentration on home loans, this permitted the S&Ls to move into riskier lending where they lacked experience. This expansion of activities was not matched by increased resources for supervisors: the number of examiners was reduced. Around the same time, interest rate ceilings on deposits were eased. The limit on deposit insurance was raised and the minimum net worth requirement lowered from 5% of liabilities to 3% and this was calculated on a 5-year average. Assets could be reported at higher values than standard accounting rules allowed (including liberal provisions for "good will"

acquired during take-overs) and losses written off over ten years. It is now generally accepted that these measures only made the eventual cost of restructuring the industry even higher.[30]

Reducing reserve requirements (or raising the interest paid on them) is another way of helping banks. For instance, Brazil released some reserve requirements on sight deposits to provide finance for the purchase of the time deposit certificates issued by institutions participating in its bank restructuring scheme. Allowing banks more flexibility in the assets they hold may also raise their profitability, but at the risk of further reducing their asset quality.

A more *expansionary monetary policy*, resulting in very low short-term interest rates and a steeper yield curve, may assist banks directly (by widening their net interest margins) and indirectly (by stimulating demand). Such a policy was pursued with some success by the Federal Reserve in the early 1990s. As the recent crisis has eased, yield curves in Asia have reverted to an upward slope, which should assist the banks.

However, if monetary policy becomes too expansionary, it may weaken confidence. In addition, an extremely low level of interest rates may have the effect of relaxing pressure for effective resolution because the carrying cost of bad loans is kept low. It has been suggested that Japanese banks' lack of urgency in addressing their problems stems in part from the low costs to banks of carrying non-performing assets.

A more extreme version is to run a very loose monetary policy in the hope that *high inflation* would raise banks' income, erode the real value of NPLs and increase collateral values. Such an approach was used in Latin America in the early 1980s and has (arguably) been used more recently in some Eastern European countries. However, whatever its temporary benefits, high inflation in the medium term will weaken banks and cause them further problems during any subsequent disinflation.

Generally, relatively little use has been made of *special tax privileges* for banks under restructuring, perhaps because troubled banks are making losses anyway. Brazil, however, has used tax incentives to encourage takeovers: the bank that is taken over can deduct the value of

[30] Goldstein and Folkerts-Landau (1993, p. 22) suggest this as one of two key unheeded lessons from banking crises: "what was a profitable activity for early entrants can become a significant source of losses if later arrivals expand the size of that activity beyond reasonable risk/return trade-offs and their own expertise."

NPLs and the acquiring bank receives a credit equal to the difference between the price of the acquisition and the book value of the stock acquired. In addition, some countries grant tax incentives to stocks and bonds issued in relation to the restructuring exercise (Table 14).

Governments may *assist the raising of private capital.* For example, Chile offered cheap government loans for equity purchases in banks and tax credits for taking up new issues. Government agencies in Chile and the Philippines have helped underwrite new equity issues by troubled banks.

In some cases, governments have supported a troubled bank by *transferring deposits* of public sector bodies to it. This has two disadvantages: it increases the exposure of the government to the troubled bank (in a very non-transparent way) and it may weaken the bank from which the deposits are withdrawn.

Some countries have put in place *programmes that support borrowers* as an indirect way of supporting banks. Such programmes may be particularly useful when borrowers have reached the stage where the incentive to continue repayments is much reduced, such as when collateral value is less than the outstanding debt. The main drawback, however, is that debtors may stop servicing their debts with the expectation that the government will increase its support in a subsequent programme. These programmes vary from those assisting borrowers in foreign currency (e.g. Chile) to others which assist specific industries (e.g. the Agricultural, Livestock and Fisheries Loan Support Programme of Mexico) or low- and middle-income families with mortgages (e.g. the recent measures in Colombia) (Table 14).

In Mexico, the sharp rise in nominal interest rates as inflation rose sharply after the 1995 devaluation had the effect of concentrating the real repayment burden of variable rate loans in the early years of a loan. To deal with this, the authorities helped banks to restructure a significant proportion of loans into fixed rate indexed loans.[31] Other measures included, for small debtors, sizeable interest rate relief and, for large enterprises, the replacement of liabilities at Mexican banks with long-term bonds issued by the government. Mortgagors and other debtors were subsidised on condition that they adhere to the rescheduled

[31] See the paper "Policy responses to the banking crisis in Mexico" in this volume.

Table 14

Official support measures

	Support by Central Bank	Tax concessions*	Support for borrowers
India			Govt support for some sick industries
Hong Kong (in 1980s)	liquidity support by Exchange Fund		
Indonesia	yes; converting some to Govt equity	no	Jakarta Initiative encourages out of court settlements
Korea	yes; some extended over a year; some 1% below usual i/r	yes on real estate and securities sales	agreement with banks to support viable illiquid firms; CB raised credit ceiling and cut i/r for loans to small firms; Govt contributed to credit guarantee institutions
Malaysia			support for some companies
Philippines	emergency advances	no	none
Thailand	not from CB but from FIDF	no	none
Argentina		no	none
Brazil	only LOLR liquidity assistance	yes	not to support the banks
Chile (in 1980s)	yes	yes for investors buying bank equity	CB subsidised borrowers after devaluation, subsidised maturity extensions and i/r cuts for household and productive loans
Colombia	yes	no	Govt low-i/r loans to families behind on mortgage repayments
Mexico	not by CB but some from deposit insurance fund	no	UDI created to hold constant real value of loans; other programmes to help debtors facing volatile i/r support for mortgagees
Peru	only LOLR liquidity assistance	no	none
Venezuela		no	none
Czech Republic	LOLR	no	considered
Hungary	banks excused from reserve requirements	no	Govt bought many debts of 12 large SOEs; banks got 90–100% of book value
Poland	yes (penal i/r)	no	none
Saudi Arabia	yes (1970s–80s)	no	none

Govt = government; CB = central bank; SOE = state-owned enterprises; FIDF = Financial Institutions Development Fund; i/r = interest rate; LOLR = lender of last resort.

* In addition to allowing tax deductions for write-off or provisioning of bad and doubtful loans.

Source: Central banks.

programme of debt servicing. Under one of the Mexican schemes the support provided by the government increased in proportion to the amount of new credit provided by the banks. One goal of such measures was to avoid a culture of default developing. However, the programmes were not entirely successful because the real value of debt was maintained while real asset values continued falling: the resultant situation of negative equity created incentives to default on the loans. It is important to avoid government assistance to borrowers becoming a regular feature of the financial system, which may erode payment discipline.

Capital injections

A direct way of helping troubled banks is by *capital injection* by government agencies (Table 15). Such injections are usually not offered to all banks. In theory, it is necessary to draw a three-way distinction between those banks strong enough not to require government capital, those viable only with a capital injection and those unlikely to survive even with substantial assistance. Only banks in the middle category should then be eligible. Making this three-way distinction operational, however, is far from simple. The use of simple numerical criteria (subject of course to auditing to ensure realistic valuations done on a reasonably comparable basis) seems to be the most transparent approach.[32] Indonesian supervisors relied on capital ratios. In Sweden a computer-based forecasting model was used to predict a bank's financial development over the next three-to-five years, which formed the basis for this classification. However, many subjective elements (notably, for instance, the quality of management) could also enter into consideration.

The design of both sides of such transactions must take account of the incentives created for owners to manage their banks effectively.

[32] In Sweden each bank had to compile a comprehensive list of all problem loans. These were then grouped, so that if one branch had an NPL to a company all the bank's loans to that company were regarded as suspect. Particular emphasis was given to valuing property. A special property valuation board of independent experts developed standards for the banks to apply and verified the accuracy of a sample of each bank's valuations. If a bias was discovered, the restructuring authority would adjust the bank's accounts accordingly. All the valuations by banks were required to be based on common assumptions about the macroeconomy and sensitivity analyses to these assumptions were also required.

One side concerns the nature of banks' liabilities transferred to the government. There are arguments for the government injecting pure equity. This will count as Tier 1 capital; it will enable the government to ensure the bank undertakes genuine operational restructuring; it does not impose any repayment burden on a weak bank; and, finally, the government will share fully in the increased value created as the bank recovers.

However, often governments instead inject some form of Tier 2 capital[33] such as subordinated bonds. This may be because they feel it inappropriate for the government to have a controlling role in the bank; or it may be because it costs the government less. Preference shares, equity warrants or options could also be issued to allow the government to share in any subsequent post-crisis recovery in the value of the bank. As they explicitly rank behind deposits and other credits, such instruments do not reduce the ability of the bank to attract funds from private sources.

The second side of the transaction is what the government uses to pay for the shares or bank-issued liabilities it acquires. Capital injections usually take the form of government bonds. This raises tactical issues of the kind of bonds best employed. While zero-coupon bonds mean the government does not need to provide immediate cash, it does not help banks to meet interest payments on deposits. They may also tempt governments to postpone the repayment of the bonds. Tradable bonds make it easier for banks to fund lending to the private sector by selling the bonds, which may help avoid a credit crunch. However, they carry the risk that banks may resume the risky lending to the same (often connected) borrowers who caused them to get into previous difficulties. A compromise might be to use bonds that can only be sold after a set period. (Of course, in some emerging markets there is not an active bond market on which to trade them.) In some jurisdictions, offering a coupon slightly lower than the standard government bond would encourage banks to hold onto the bonds by making the face value (counted as capital) greater than the market value. However, large departures from market values have to be avoided if the accuracy of banks' financial statements is not to be compromised. While government

[33] The distinction between these two types of capital is set out in Table A2.

Table 15

Public sector capital injections and privatisations

	Public sector equity contribution	Disposal	Privatisation of SOBs
India	Govt has recapitalised some SOBs	holdings diluted by issues of shares	partial by issues of shares
Hong Kong (in 1980s)	Govt bought 3 banks via IBRA, subject to restructure plan	sold to private banks	n.a.
Indonesia		planned	planned
Korea	Govt & DIF special agency (Danamodal) funded by CB and bonds	planned	
Malaysia			
Thailand	MoF up to 2.5% car, jointly thereafter		in preparation
Brazil	no		yes
Chile (in 1980s)	CB	replaced by subordinated debt after 2–4 years	no
Colombia	DIF		auctioned
Mexico	DIF	equities to be auctioned	18 banks privatised 1991–92
Venezuela	DIF replenished capital of 3 banks, funded by loan from CB and equity from Govt	banks sold within 2–3 years	
Czech Republic	no	n.a.	in preparation
Hungary	10% of GDP spent bringing car up to 8%	sold to foreigners	
Poland	CB acquired shares in 4 banks	shares in most banks sold at auction; some sold to existing large shareholder	all sold by end-1998
Russia	CB bought shares		
Saudi Arabia (in 1960s)	CB acquired shares of directors not repaying loans		Govt share diluted by new share issues
Saudi Arabia (in 1980s)	Public Investment Fund invested in shares at CB's behest		

Govt = government; CB = central bank; DIF = deposit insurance fund; MoF = ministry of finance; SOBs = state-owned banks; car = capital adequacy ratio.

Sources: Central banks; Drees and Pazarbaşioğlu (1998).

bonds are generally fixed-rate instruments, it could be argued floating-rate bonds would provide a better match with banks' assets.

Capital injections are often carried out by separate government agencies, and so do not appear directly in the government budget. In Mexico, the deposit insurance agency (FOBAPROA) purchased subordinated debt instruments convertible to capital either if the bank's capital deteriorated further or after five years. This gives an incentive to banks receiving aid both to halt any further deterioration in their capital and to repay these loans before the five-year period elapses. FOBAPROA funded this by a loan from the central bank that in turn required banks to place extra deposits with it. Five banks received this type of support during 1995 and were able to repurchase the subordinated debt within two years.

In Malaysia a special institution, Danamodal, was established, with some initial finance from the central bank but mostly funded from the issue of government-guaranteed 5–10 year zero-coupon bonds. Some of these bonds were sold to the healthy banks, which were required to subscribe to them using funds released from a decrease in their required reserve ratio. Danamodal takes a management role in those banks in which it buys equity, seeking improvements in operational efficiency and possibly merger partners.

Capital injections are usually highly conditional. In Thailand banks receiving capital injections are required to meet more rigorous provisioning requirements, which will reduce the stake of existing shareholders. Once government capital has rebuilt the capital adequacy ratio up to 2.5%, further injections will have to be matched by private sector capital injections. The new capital has preferred status over existing capital. In some countries, assistance has been made conditional on management changes, properly defined procedures for dealing with NPLs and strict limits on new lending (especially to related or delinquent borrowers).[34]

[34] Such conditions may depend on the health of the bank. For example, in the new recapitalisation scheme for Japanese banks, banks with a capital adequacy ratio between 0–2% are eligible to receive capital only if they agree to drastic management and structural reforms, provided that their continued operation is deemed indispensable to the regional economy. Banks with a capital adequacy ratio in excess of 8% are eligible to receive capital only if they agree to acquire a failing bank or it is deemed necessary to prevent a credit contraction. Banks with capital of between 8% and 4% are required to undertake various restructuring efforts that could include resignations of top management and reductions in shareholder capital.

In some cases, banks may be reluctant to accept such capital injections, even if stringent conditions are not attached. Commenting on an earlier recapitalisation fund established in Japan in 1998, Milhaupt (1999, p. 27) says "bank managers were reluctant to accept capital from the fund out of the fear that their institutions would be perceived as weak by the market. Ultimately, 21 banks received virtually equal and insignificant amounts of new capital."

In assessing how much capital to inject, governments or their agencies must avoid giving some banks a competitive edge over others. Lifting the capital ratios of some assisted banks above others (or above those of unassisted banks) would be inequitable and could undermine the competitive process.

Intervention: discretion versus rules

If banks are not to be allowed to fail, it is essential that corrective action be taken while the bank still has an adequate cushion of capital. This is particularly important since low or negative capital will tempt bank managers to try desperate remedies such as offering very high interest rates on deposits to fund credit to high-risk borrowers ("gambling for resurrection"). The Basle Committee has strongly endorsed the need for supervisors to take timely corrective action when banks fail to meet capital adequacy ratios or other prudential requirements. Yet one of the commonest complaints about bank supervisors is that they intervene too late in problem banks.[35] This has led many observers to suggest that interventions should be guided by rules rather than left to the discretion of supervisors.

The case for automatic rules is that they will lead to prompter action, which is important as the costs of restructuring a bank are likely to rise the longer that action is delayed. Several arguments can be advanced to support this case. Forbearance, or hoping the problem will solve itself, is always tempting, especially given the usual lack of precise information

[35] De Juan (1998) observes that in twenty years' experience he knew of no cases where regulators closed a bank that would have been viable but many insolvent banks were allowed to stay open. Goldstein and Folherts-Landau (1993, p. 21) observe that forebearance in the US S&Ls crisis "produced very poor results because many institutions used the extra time not to adjust but to redouble their bets." Jordan (1998) suggests the banking crisis in New England was resolved at far less cost because action was taken quickly and strict regulatory oversight prevented bankers increasing the riskiness of their operations.

Table 16

United States FDICIA System

Capital level trigger	Mandatory and distrectionary actions
10%> car >8% or 5%> core >4%	Cannot make any capital distribution or payments that would leave the institution undercapitalised
car <8% or core <4%	Must submit capital restoration plan; asset growth restricted; approval required for new acquisitions, branching and new lines of business
car <6% or core <3%	Must increase capital; restrictions on deposits' interest rates and asset growth; may be required to elect new board of directors
car <4% or core <2%	Must be placed in conservatorship or receivership within 90 days; approval of the FDIC for: entering into material transactions other than usual core business, extending credit for any highly leveraged transaction; changes in accounting methods; paying excessive compensation or bonuses

car = capital adequacy ratio; core = core capital.

about the extent of a bank's problems. If a large number of banks are simultaneously in trouble, there may be no political will to contemplate the short-run costs of radical action.[36] Other factors may also make supervisors cautious. Closing a whole bank may destroy value in the sound parts of its operations. Supervisors may fear that intervention in one bank could spark a run on others, as occurred in Indonesia in November 1997. They may hope a merger will resolve the problem or be awaiting a comprehensive set of reforms for the banking system as a whole. They may also fear legal consequences: in Argentina, judges forced the central bank to compensate the shareholders on the grounds that a bank was solvent at the time of intervention, and that the insolvency actually resulted from mismanagement during the intervention. Rule-based methods of intervention, especially if enshrined

[36] The incentives for regulators to delay are discussed further in Glaessner and Mas (1995). Factors raised in the literature include regulators' reluctance to alienate politicians, "regulatory capture" due to strong personal relations developing between supervisors and senior bankers (particularly if both come from a well-educated elite or if supervisors hope to move to better paid jobs in banks) or clashes between different government agencies. Where there are multiple supervisory agencies, banks may engage in "regulatory arbitrage"; shopping around for the laxest regulator. Sometimes constitutional or other legal reasons present supervisors acting against banks owned by the finance ministry or regional governments.

in legislation, may be particularly helpful for supervisors who operate in an environment of strong political pressures. They may also help counter a frequent bureaucratic preference for delay.

The best-known example of rules are the compulsory quantitative triggers (in relation to bank capital levels) for action by the supervisors set in the 1991 US Federal Deposit Insurance Corporation Improvement Act (FDICIA).

Similar rules have been adopted in some industrial economies and in a number of emerging economies (Table 17). Once capital falls below 8–9%, such rules typically require banks to draw up plans for re-capitalisation, limit or prohibit dividends and impose limits on risk-taking. Restrictions often involve limiting new acquisitions or restricting interest rates on deposits. When capital falls to very low levels, the authorities can force mergers or acquisitions, or proceed to closure. Such rules, however, have yet to be applied to a large bank – in such a case some believe that greater discretion would inevitably condition supervisors' responses. In Chile, the authorities can act in a forward-looking way: if they estimate that current losses may bring a bank's capital ratio down to critical levels in the subsequent six months, they can start imposing restrictions.[37]

Other emerging markets do not rely on a rule-based framework for policy actions. The first case for discretion is that the multifaceted aspects of a bank's operations that determine its viability cannot be reduced to a single number. Second, the appropriate response to banking difficulties will to some extent depend on the cause and the context of the difficulties. Finally, discretion may also allow the supervisory authorities to encourage a bank's top management to take action well before difficulties are manifest in the accounts.[38] Supervisors will often prefer to do this secretly.

[37] Capital/asset ratio is not the only variable used by Chilean authorities to trigger the intervention in a bank. They also take into consideration the frequency of accessing the central bank emergency liquidity window and the premium above the average cost of funding that individual banks offer to attract funding.

[38] As someone at the centre of the resolution of the US S&L crisis, Ryan's (1996) comments are worth quoting: "[after determining whether equity capital was positive or negative], we looked at management. If the capital level was poor but management, in our judgement, was good, our typical approach was to give management more time to try to work out the problem. And, in fact, some financial institutions that would have failed the capital test, but that had good management that we left in place, survived and are thriving today. Not shutting those institutions down saved US taxpayers billions of dollars."

Table 17

Other explicit structured early intervention frameworks

Country	Capital level trigger	Mandatory and distrectionary actions
Korea	8%> car >6%	Issue management improvement recommendation, including rationalisation of branch management and restrictions on investments, new business areas and dividends
	car <6%	Issue management improvement measures; including freezing new capital participation, disposal of subsidiaries, change management, draw up plan for merger, take-over by a third-party
	distressed institution[1]	Issue management improvement order; including cancellation of stocks, suspension of board of directors; merger, take-over or request the Finance Ministry to revoke banking licence
Argentina	car <11.5%	Bank is fined, must submit recapitalisation plan, limit deposit raising, pay no dividends or bonuses and is restricted in opening branches
Chile	car <8% or core <3%	Bank has to raise new capital; if unable supervisors prohibit extension of new credit and restrict the acquisition of securities (those issued by central bank)
	car <5% or core <2%	Bank has to prepare credit restructuring agreement (expanding debt maturity, capitalisation of credits and subordinated bonds, forgiveness of debt). If the agreement is not approved by supervisors (first) and bank creditors (second) the bank is declared under liquidation
Colombia	car <9%	Re-capitalisation plan agreement with supervisor to be carried out in one year. Discretionary application of sanctions
	car <50% of Tier I	Supervisors take immediate possession after approval of Finance Ministry
Czech Republic .	car <5.3%[2]	Plan to increase capital; restrictions on acquisition of new assets, interest rates on deposits, credit to related parties
	car <2.6%[2]	Revoke banking licence

car = capital adequacy ratio; core = core capital.

[1] Defined as one whose liabilities exceed their assets, have incapable management (because of a major financial scandal), have excessively large amount of NPLs, have suspended payment on deposits or borrowing from other financial institutions or are deemed by the authorities as unable to pay deposit claims without outside financial support. [2] Based on the current minimum capital adequacy ratio of 8%.

Source: Central banks.

Table 18

Discretionary policies of intervention

Economy	Situations allowing authorities to act	Measures
India	bank activities detrimental to depositors	authorities can instruct or remove managers
	car < 8%	infusion of new capital by government (SOBs), rights issue (private banks) or parent (foreign)
	extreme cases	assist take-over by strong bank
Hong Kong . . .	car falls below the minimum (In practice, the HKMA sets an informal "trigger" ratio above the statutory minimum capital ratio)	HKMA may take control of the bank. It will first discuss remedial action or give directions (e.g. stop taking deposits). It can appoint an Adviser or Manager
Indonesia	before, BI would put pressure on banks whose car fell below 8%. Now banks with car below 4% may participate in re-capitalisation programme.	banks required to implement plan to raise capital; may replace management
Singapore	banks unable to meet obligations, doing business detrimental to depositors or creditors, affecting the public interest or not complying with 12% min car	MAS could restrict or suspend operations, after ringfencing banks and instructing them to take necessary actions
Brazil	illiquidity, insolvency, large losses due to bad management, serious violation of laws and regulations or abnormal events	intervention: suspension of normal activities, removal of directors. After 6 months, either return to normal activities or extrajudicial liquidation or bankruptcy; temporary Special Management Regime (RAET): removal of directors and implementation of adjustment programme. The authority can authorise the merger, take-over, transfer of stock-holding control or decree extrajudicial liquidation; extrajudicial Liquidation: cancellation of office of the managers and Audit Committee members
Mexico	irregular operations affecting the stability or solvency of the institution or the public interest	can declare receivership-intervention
Peru	non-compliance with a set of restrictions (liquidity, forex exposure, etc.)	regular inspection of the bank and recovery plan, possibly through a Board of Creditors
	suspension of payments or non-compliance with recovery plan; or loss of half risk-based capital	intervention by authorities for one day, then bankruptcy procedure

Table 18 (cont.)

Economy	Situations allowing authorities to act	Measures
Venezuela	car <8%	if recapitalisation plan fails, new lending and dividends can be prohibited, directors removed and supervisors appointed
Hungary	minor infringement	higher reporting obligations; negotiate Plan of Action
	more serious infringement	on-site examination; revise internal regulation; may prohibit payment of dividend or earnings to managers
	seriously undercapitalised (car <4% for 90 days)	supervisory commissioners on site. prescribe sale of certain assets. proscribe attainment of certain car
Poland	imminent loss (or danger of insolvency) programme does not work	bank has one month to draft acceptable programme of action, implemented under Curator's supervision; extraordinary meeting of shareholders, possible replacement of management, take-over or liquidation if situation does not improve in six months
Saudi Arabia . .	solvency or liquidity at serious risk liabilities exceed capital by 15 times	appoint advisor, remove directors, limit or suspend new loans or deposits, require other actions; bank has 1 month to increase capital or deposit 50% of excess liabilities in central bank

car = capital adequacy ratio.
Source: Central banks.

Those supervisory regimes which allow some degree of "constructive ambiguity" are not necessarily easy on banks. For example, in Singapore the minimum capital adequacy ratio is 12% and in Hong Kong the supervisors have stepped in to require banks to take additional precautions in property lending when overheating has emerged. Both their banking systems have proved resilient in the recent Asian crisis. Table 18 shows the main actions the national authorities are allowed to take under discretionary regimes. In a number of countries, a "curator" or "administrator" can be appointed by the supervisory authorities to manage a bank's affairs until it either once again meets prudential ratios or is regarded as "sound" by the supervisors.

In conclusion, it might be noted that some supervisory arrangements incorporate a blend of discretion and rules. For instance, the less rigid criteria under some discretionary regimes are accompanied by some quantitative "triggers", with the actions taken often similar to those in a rule-based system. Also, some of the rules-based systems are yet to be tested in a banking crisis: some more discretion may be used in practice. A recent report by a Willard sub-group led by Draghi and Guidotti (1998) suggested the compromise that supervisors could rely on automatic triggers but with a regulated procedure for overriding them. Whatever regime is in place, supervisors should have legal immunity for actions taken in good faith.

Managing bad assets

Who manages the bad assets?

One choice faced in a restructuring programme is whether to s*eparate the management* of bad debts from the originating bank. The case for leaving the loans with the originating bank is that the bank knows the borrower (it also allows the credit relationship to be rehabilitated if the loan is eventually repaid). This is more relevant for loans to enterprises (i.e. which are non-homogenous and for which bank-client information flows are more important) than for real estate loans. The argument for "carving out" the bad loans is that the originating bank may be less objective and may even continue lending to delinquent debtors. Furthermore, a bank preoccupied with managing bad debts may become very risk-averse, with little time or inclination for new lending. It is easier to give separate transparent goals if different people are charged with the ongoing banking operations and the resolution of bad loans. Moving bad assets off the balance sheet would also facilitate finding another bank to buy the troubled bank without complicated guarantee arrangements covering the NPLs.

However, there is also a case for not moving *all* NPLs away from the bank. It is desirable for the bank to maintain some experience with work-out procedures; this was one reason why in Sweden small NPLs were generally left with the bank. It is also unfair to the better managed banks if the distressed banks end up with no NPLs. In the Swedish case

the authorities aimed to leave the problem banks with a ratio of bad loans to assets similar to that of the other banks.

Another possibility is for a government agency to buy the NPLs from the bank but the bank to keep managing them and the two to share any value recovered. However it is hard to devise such arrangements in a manner that gives the selling bank a strong incentive to pursue the borrowers very diligently. This problem is addressed in Annex B.

Another choice is whether to *centralise the ownership* of the bad assets. In the cases shown in Table 19, a decentralised approach was adopted, with each troubled bank being split into a "good bank" and a "bad bank". This approach is probably best when only one or a few banks are in serious difficulty. It may also be preferable for industrial loans because the preservation of bank-client relationships can be desirable if the experience and familiarity of the loan officer with the borrower outweighs the risk that the problem is being left with someone who may have been responsible for it. It is important when such an approach is followed that the "bad bank" does not end up with all the "bad staff" as well as the "bad assets". In Hungary, the bad banks issued bonds, guaranteed by the government, which were bought by the good banks. In Poland, bad banks were not established as separate entities but many banks were required to establish a special organisational section for the management of impaired quality loans.[39]

The alternative approach, used by the HLAC (and its successor the RCO) in Japan and currently by Malaysia and Korea, is to establish a single asset management corporation to purchase NPLs from a number of banks: in effect, there will be one large "bad bank" for the whole banking industry. This seems to be becoming the predominant approach. When there are a large number of banks in difficulty, and where the assets acquired have a certain degree of homogeneity (e.g. real estate), a single entity may reap economies of scale and make the best use of scarce managerial talent. A centralised AMC may be better placed to negotiate restructuring agreements with large delinquent borrowers then would a large number of small banks. Further, a centralised AMC

[39] See Kawalec et al (1994). Their explanation is of interest. "We did not believe in our ability to create … a strong central institution [with] high quality staff … which could resist political pressure. We also felt that the centralised solution [would] not address banks' lack of experience in handling credit."

Table 19

Examples of good bank/bad bank

		Troubled bank	Good bank	Bad bank
Australia	1994	State Bank of South Australia	Bank of South Australia, later sold to domestic bank	South Australia AMC
Brazil	1995	Bamerindus	sold to foreign bank	liquidated
Brazil	1998	Bank of Rio de Janeiro	sold	awaiting liquidation
China	1999	China Construction Bank	continues as CCB	Xinda AMC
Czech Republic .	1995	Agrobanka	sold	liquidated
Finland	1991	Skopbank	nationalised; parts sold to foreign bank	gradually selling assets
Finland	1993	Savings Bank of Finland	eventually taken over by Arsenal	Arsenal
Finland	1993	STS Bank	sold to domestic bank	STS Bank, controlled by government agency
Hungary	1994–96	Magyar Hitel Bank, Mezobank	sold	
Sweden	1992	Nordbanken	continued as Nordbanken	Securum, gradually selling off assets
Sweden	1992	Gota Bank	merged with Nordbanken	Retriva, gradually selling off assets
Thailand	1998	Bangkok Bank of Commerce	sold to Krung Thai Bank	sold to subsidiary of Bangkok Bank of Commerce
Venezuela . . .	1994	Banco Latino	branch network sold off	

Sources: Central banks; Drees and Pazarbaşioğlu (1998).

may also be able to consolidate properties used as collateral to different banks to realise a better return on them, if necessary by purchasing complementary property to get a viable development site.

In Thailand, the loans have stayed on the books of the finance companies while the restructuring agency arranges auctions to sell off either the loans or the underlying collateral. More commonly, the AMC has its own balance sheet and buys the impaired assets from the banks.

Table 20

Treatment of bad assets

		Separate management	
		No	Yes
Central ownership	No	Normal treatment of NPLs	good bank/bad bank (Table 19)
	Yes	Mexico	Danaharta (Malaysia) KAMCO (Korea)

It is generally thought the AMC should be independent of the central bank and the finance ministry, although operationally it may use its premises or ancillary services. The AMC usually has its own board and reports to the cabinet and/or legislature. Particularly when cronyism and corruption have been significant causes of the problems in banks, it is important that the AMC operates in a very transparent and objective manner. While some staff will come from banks to bring their experience of loan problems, many will come from outside the domestic banking system. They may be organised into project groups managing a specific cluster of connected assets.

The AMC should be structured with appropriate incentives so that management and staff seek a fairly quick resolution rather than unnecessarily prolonging the life of the AMC to protect their own jobs. A further category of incentive may be needed to induce key staff to stay when the AMC is nearing the end of its operations.

Japan has tried variants of both types. The banks established a type of private sector AMC, the Japanese Cooperative Credit Purchasing Company, to which they sold NPLs but, while providing the banks some tax benefits, it failed to resolve the banking crisis. In November 1998, the government launched a new scheme under which a troubled bank would be taken under government control after a report from the Inspection Agency. The NPLs of these "bridge banks" are to be transferred to the Resolution and Collection Organisation, funded by the deposit insurance corporation. The remaining "good banks" are to become subsidiaries of a new government holding company, and will be sold within five years.

Brazil has tried some different approaches. They split some banks into good and bad banks. The good bank kept all deposits and some of the assets of the "old bank" (under central bank intervention). The acquiring bank was free to choose the assets it wanted to keep in its portfolio (with no interference from the central bank). PROER finance fills the resultant gap in the balance sheets, providing an asset for the good bank and a bad bank liability.[40] The official finance was conditional on a change in bank ownership. The guarantees offered by the bad bank consisted mainly of federal debt securities (low risk) and credits against the indirect federal government administration. In the latter case, the bank was required to offer collateral valued at 120% of PROER financing. More recently, legislation has authorised the formation of financial companies who will specialise in the purchase of credits, including NPLs, although so far only one such company has been formed.

Purchase of assets

There are a variety of approaches to the purchase of NPLs. Using a uniform price (e.g. a fixed proportion of book value, as in Sweden) permits a quick transfer without the delays that haggling over terms with the banks inevitably entails. The disadvantage is that assets are mispriced and banks will have an incentive to sell their worst NPLs to the AMC for more than they are worth while retaining the NPLs with better prospects.

An alternative is to set a price that can be adjusted later (e.g. in the light of the eventual proceeds from selling the collateral). In Korea, KAMCO initially experimented with such an approach. However, this soon proved impractical (as prices of assets continued to fall in the recession, banks would have been forced to pay money back to KAMCO; in addition the price adjustment process itself proved to be time-consuming). Malaysia has experimented with a "one-way" price adjustment mechanism: if the AMC eventually sells the acquired asset for more than it pays the bank, the bank is given 80% of the profit.

The general practice for determining the price at which the asset is purchased has been to pay a discounted present value or "market value

[40] This is described in more detail in the paper "Restructuring the banking system: the case of Brazil" in this volume, which includes a numerical example.

in normal times". This value would be higher than could be realised in an immediate "fire sale" but would still imply a loss for the owners of the banks. Loans can be divided into broad categories. For instance, non-collateralised loans would be brought at a deep discount, (perhaps a tenth or less of book value) but collateralised loans would get a better price (often about half the book value). However, in Mexico FOBAPROA acquired bad loans from the banks above market value.

Other measures may be necessary to facilitate the process. In Malaysia, special legislation ensures that the AMC has a clear title to assets purchased and does not need the permission of the borrower to purchase the loan from the bank.

A common method is for the AMC to "purchase" impaired assets with government-guaranteed bonds. By the time the bonds mature, it is hoped the AMC will have sold off the assets. If it has paid a market price for the assets purchased, the AMC should therefore make minimal calls on the government budget. If the economy recovers strongly, it may even make a profit. Such bonds can be zero-coupon (Malaysia and Mexico) or interest-bearing (Korea) (the choice of bonds is discussed above). Until recently, the deposit insurance agency in Colombia bought bad assets with a repurchase agreement. However, the recent emergency programme envisages asset purchase by private asset recovery companies, which will receive funding from, inter alia, income from the controversial new 0.2% surcharge on withdrawals from banks.

While participation in the scheme is generally "voluntary", there are usually powerful incentives for banks to join. In some cases, any recapitalisation assistance is made dependent upon the sale of bad loans to the AMC. Because banks will usually find the scheme attractive, participation can be subject to conditions. In the Czech Republic, for example, participation was made contingent on reductions in high-risk activities, improved operational procedures and potentially even replacement of top management. In Mexico, for every two pesos of bad loans bought by the AMC, existing shareholders were required to contribute an additional peso in capital.

Management and sale of assets

The AMC is then faced with the question of how to deal with the assets acquired. One alternative is to sell them almost immediately and with

minimal preconditions. The risk here is that a large sale of weak assets (e.g., commercial property) may depress prices well below "fundamental" values. Another risk is that the assets may be repurchased at a deep discount by the previous owners who remain in default on their original bank loan. This may create moral hazard risks and, perhaps more important, undermine the political acceptability of restructuring policies. For these reasons, asset sales by the AMC may include restrictions on any subsequent resale over a certain period.

The alternative is for the AMC to manage the assets for some time and sell them off gradually. This solution is costly (particularly in countries where interest rates are high) and the risk is that asset prices may decline further during this period, particularly if the AMC staff do not have the skills for managing the assets. AMCs may operate for only a year (when a country opts for rapid sale) or for five to ten years (when the policy of gradual sale is adopted). Sweden had initially thought its AMC would operate for fifteen years but subsequent calculations comparing the holding costs of the assets they held with likely price rises led them to adopt a five-year period instead. The RTC in the United States operated for around seven years. White (1991), drawing on his experience with the S&Ls, comments that "typically, five years or more are required before all of the assets of a liquidated thrift or bank are sold or otherwise liquidated." One question is whether legislation establishing the AMC should incorporate a maximum period an asset can be held by the AMC before being sold.[41]

An AMC can use several procedures to sell bad loans or the underlying collateral. In the United States, for instance, the RTC was mandated to (i) minimise losses to taxpayers, (ii) sell the assets quickly and (iii) limit the impact on real estate and financial markets. As these three goals were inconsistent, it needed to develop solutions that represented compromises between them. In selling assets it followed standard procedures set out in detailed manuals, rather than discretion.

A major problem is how to price the assets purchased by the AMC from banks. In negotiations with private buyers, the authorities will have

[41] Wijnbergen (1998) cites the example of an Italian state holding company established in 1948 with a mandate to sell its holdings but which was still in operation half a century later. He also warns that in Slovenia the Bank Rehabilitation Agency became a very interventionist owner.

to find a balance between striking a "tough" pose to obtain good value for the assets disposed and setting conditions sufficiently attractive to ensure speedy sale. This will not be easy.

The RTC contracted out many of the sales using competitive bidding. Before bidding, the RTC grouped together portfolios of fairly homogenous assets and estimated a recovery value for each, which formed the basis for a performance standard that the RTC monitored. Around 100 contractors successfully bid to manage the sale of these portfolios and, by end-1992, they had around US$19 billion under management.

A variety of methods was used for sales of less homogenous assets. Assets, or portfolios of assets, were sometimes offered at a list price and sometimes auctioned. In some cases, the RTC encouraged sales by offering "seller finance", i.e. lending to the buyers. Especially in its latter stages, the RTC made extensive use of securitisation to sell loans; in this way, the loan could be split into smaller lots, which could then be sold to much smaller buyers. It formed a pool of similar types of loans which was then transferred to a trust fund that issued pass-through certificates collateralised by the pool of loans. At the behest of credit rating agencies, the RTC contributed to a reserve fund that could make good defaults on the loans up to a certain amount. This was much easier in the United States than in most emerging economies as there were already well-developed markets for asset-backed securities.

To encourage sales, the AMC may guarantee buyers of impaired assets against losses. This has been done in Spain and Thailand. Such guarantees enable an asset to be sold at a higher price. It is very hard to get information on the quality of an NPL or its underlying collateral so prospective purchasers need to undertake a major and time-consuming "due diligence" in the absence of guarantees.

But such guarantees have the disadvantage of giving rise to contingent liabilities of very uncertain size for the government. A second drawback is the risk of moral hazard: if the government undertakes to make good any future losses, there is little incentive for the buyer to get the most out of the loans purchased. To limit this risk, guarantees usually cover less than 100% of the value of the asset and are limited in duration. In effect, future losses are shared between the government and the purchaser. (The situation is analagous to the case discussed in Annex B). A similar form of sweetener is to give the buyer the option of returning the assets for a (usually full) refund within a set period. The RTC in the

United States adopted this after finding that prospective purchasers were taking a very long time to assess the quality of assets offered for sale. The terms of these "putbacks" varied across different types of assets, but usually allowed returns for up to a year. In practice, about a third of overall assets sold were put back, although the proportion was around half for some mortgages and negligible for securities.[42]

Another alternative, raised by Fries and Lane (1994), is for the AMC to get a return on physical assets by leasing them rather than selling. While not much used in practice, this avoids the problem of potential buyers being reticent to commit themselves to outright purchase before a lengthy evaluation. The lessee may later become a purchaser. One disadvantage is that a lessee has less incentive to maintain the asset.

Most of the current AMCs are still in the early stages of operation. The most advanced is the agency managing the NPLs of finance companies in Thailand. It sold physical assets, car loans and residential mortgages for around half the book value during 1998. However, December's much heralded "world's biggest asset sale" of corporate loans (many property related) with a face value of over $10 billion, was a disappointment, with few bidders and low bids. Some of these assets have since been sold subject to profit-sharing arrangements while others were resubmitted in March 1999 where many were purchased by another government agency.

There is some concern about market saturation in Asia, especially if similar sales start to occur in Japan or by Japanese banks withdrawing from Asian markets. In such circumstances, those countries that manage to complete their sales of assets quickly will do better than those that delay.

Ownership changes

Mergers of domestic banks

Domestic mergers and takeovers often constitute the least costly way of restructuring the banking system. In many cases, a consolidation of the banking system may be desirable even without the impetus of a crisis:

[42] For more details on the experiences discussed in this and the preceding five paragraphs, see Dellas et al (1996).

the economy may be "overbanked" and some banks may be inefficient. Mergers alone can remedy isolated problems in small banks. A large well-capitalised bank can readily absorb any NPLs thus acquired; and the quality of management can be improved. But it is an open question whether merging two weak banks can create a strong single bank. While there may be synergies or cost reductions from eliminating overlapping branches, the immediate practical difficulties in merging cultures, linking computer systems, dismissing excess staff and so forth can be formidable. It may therefore be unrealistic to expect mergers to produce the quick cost reductions needed in a crisis.

Nevertheless governments do tend to intensify their efforts to promote mergers in the aftermath of banking crises. Mergers can be encouraged by some form of "moral suasion", a suggestion that the authorities would view it favourably if a large bank were to take over a troubled small one. Temporary exemptions may be granted from prudential requirements. Takeovers likely to be delayed or blocked due to concerns about market concentration in normal times may be waved through in a crisis.

However, in cases where problems are more widespread, potential buyers may be harder to attract. In such cases, the authorities often first "clean" weaker banks' balance sheets by moving the NPLs into a separate bad bank or asset management corporation (see above). While this can improve the long-run viability of the new bank it is likely to make the exercise considerably more expensive for the government. It may still be more cost-effective than taking the bank into public ownership as a private buyer may pay more than the net assets of the bank for its "franchise value" or customer network.

However, forcing a healthy bank to assume a heavy burden of bad loans – admitted or concealed – may be counterproductive in restoring a willingness to lend, particularly if such action is taken when the banking system as a whole faces difficulties. In addition, the search for a healthy bank prepared to accept a weak bank under such conditions may prove fruitless and can delay necessary restructuring.

During the 1980s crisis in Hong Kong, financial assistance in the form of guarantees and liquidity support was provided to four troubled banks to facilitate their takeover by private sector entities, and three were taken over by the government itself. This was done because allowing these banks to fail might have had systemic implications and

could have had an impact on the value of the HK dollar at a time of political uncertainty. But the authorities did not rescue any of the twenty smaller financial intermediaries that experienced severe difficulties, as these did not have systemic implications.

Foreign takeovers

In a systemic banking crisis, the difficulty of finding enough large and healthy domestic banks has led governments to invite foreign banks to take over domestic banks. This may have other benefits too.[43] Foreign banks are less likely to engage in connected lending. They may improve the quality and availability of financial services in the domestic market by increasing competition and applying new skills and technology.[44] They may have faster and cheaper access to international capital markets and liquid funds (via parent banks). The additional oversight by foreign supervisors may make them sounder. In some cases, adopting a liberal approach has been a condition of entry for international "clubs" (notably the OECD). Some emerging economies may be too small to have a purely domestic banking system that is adequately diversified.

Nevertheless, governments often face domestic pressure to keep foreign banks out. Political sensitivities may be particularly acute if it is thought local banks are being sold too cheaply or if taxpayers' money had already been used to support them. The entry of foreign banks will also intensify competition (especially if they use their deep pockets to subsidise early losses), and may cause some domestic banks to fail. Foreign bank entry may be restricted to maintain the 'franchise value' of domestic banks. This may encourage domestic shareholders to contribute new equity into them.

Governments may be reluctant to have banking systems dominated by banks from a single country, in case problems in that country lead to the subsidiaries cutting back their operations. For this reason, they may

[43] A recent study by Claessens, Demirguc-Kunt and Huizinga (1998) suggests that an increase in the foreign share of bank ownership tends to reduce profitability and overhead expenses in domestically owned banks, so the general effect of foreign bank entry may be positive for bank customers. The number of foreign entrants seems to matter more than their market share, suggesting that local banks respond to the threat of competition.

[44] Kono and Schuknecht (1998) find that the liberalisation of financial services trade leads to less distorted and less volatile capital flows, not the contrary.

seek to "diversify" foreign owners. Many authorities feel it is desirable to keep some banks for whom the domestic market is their prime focus; otherwise domestic lending – notably to small businesses – may be neglected. A limited knowledge of local industry (and often few branches outside the major cities) might militate against lending to small businesses. There are high setup costs to establishing a branch network, especially if there are already strong local retail banks. For this reason, in economies such as Hong Kong, foreign banks have used the inter-bank market for much of their funding. This in turn may have meant local banks put more funds into the inter-bank market and made fewer domestic loans. The net effect may be that large companies gain better access to loans at the expense of small companies.

Even if welcome, foreign banks may be reluctant to enter. For instance, they may not be allowed to maintain majority ownership. Or they may find the risks too great, especially where balance sheet data are not credible, or there are concerns about operational aspects (e.g. "year 2000" computing problems). Furthermore, some foreign banks may believe that waiting will enable them to buy the troubled banks even more cheaply at a later date. In any event, having suffered heavy losses, many global banks may now wish to reduce their emerging markets' exposure.

Notwithstanding these impediments, in practice, rules have been relaxed and foreign banks have increased their presence in most economies. Majority foreign ownership is now permitted in Indonesia. While foreign banks may now take a majority stake in domestic banks in Thailand, they can only retain it for ten years and this appears to have been a significant deterrent to foreign banks. In contrast, a 30% ceiling on foreign ownership of banks has been retained in Malaysia.

In Mexico, recent legal reforms removed the restriction limiting foreign ownership in those banks with substantial market share. In 1995, the Brazilian government abolished the requirement that foreign banks have a minimum capital double that required for domestic banks. The Brazilian authorities have also provided financial assistance to foreign banks taking over troubled domestic banks (although fees levied on new entrants covered some of these expenses). The Russian government is considering whether to raise the limit on foreign presence in the domestic banking sector from its current 12% of capital in the system. Table 21 shows how the share of foreign institutions in Latin

America and central Europe has increased rapidly. It understates foreign influence as it only includes banks with majority foreign ownership. For example, while there are no majority-owned foreign banks in Saudi Arabia, eight banks have significant foreign shareholder participation of up to 40%. This, in addition to management contracts,

Table 21

Foreign and state-owned banks

As a percentage of assets

	Foreign banks		State-owned banks	
	1994	1998	1994	1998
China	0	0	100	99
India	8	8	87	82
Hong Kong	72	77	0	0
Indonesia	4	..	48	85[1]
Korea	5	6	19	28
Malaysia	21	20	9	7
Philippines	10	..	19	..
Singapore	80	..	0	0
Thailand	6	13	7	29
Argentina	22	30	36	30
Brazil	9	14	48	47
Chile	20	32	14	12
Colombia	4	31	23	19
Mexico	1	18	28	0
Peru	19	22	0	3
Czech Republic	13	25	20	19
Poland	3	17	76	46
Russia	2	14	..	36[1]
Saudi Arabia	0	0	0	0
South Africa	3	5	5	2
Memorandum:				
Australia	14	17	22	0
Germany	4	6[2]	50	47[2]
Japan	2	4[2]	0	15[2]
United States	22	20[2]	0	0

Note: Refers to shares of banks with majority foreign and state ownership respectively.

[1] June 1999. [2] Three largest state-owned banks. [3] 1997.

Sources: Central banks; Kamin, Turner and Van 't dack (1998), Table 4; IMF (1998b), Table 3.6; BIS estimates based on Fitch IBCA Ltd. data.

gives foreign shareholders significant control over assets of the Saudi banking system.

Prolonged public ownership

The final mechanism is for the state, or one of its agencies, to take over the banks in trouble temporarily. Most industrial countries have found themselves obliged to do this; in some cases, initial reluctance to nationalise banks delayed effective action. For example, the Long-Term Credit Bank and Nippon Credit Bank were found insolvent and taken into state ownership only after having received substantial public funding on earlier occasions. The challenge during these temporary state takeovers is to run the banks on commercial lines and sustain efforts to collect on bad loans. The danger is that banks remain in public hands for many years, either because the authorities do not find potential buyers/terms of purchase satisfactory or because favoured borrowers/ employees lobby for continued public ownership. As a countervailing weight to such political considerations, the United States requires the FDIC to reprivatise any problem bank it acquires under recent "bridge bank" legislation within two years. Japan's RCO is not generally allowed to retain more than 50% of a bank's equity for more than one year (although this period can be extended for a further two years).

Many countries have a number of state-owned banks (SOBs), either established to achieve certain goals or nationalised for political reasons long ago. Where these are in financial difficulties, privatisation is often an important element of a longer-run bank restructuring programme. This is particularly desirable where state ownership has been the primary cause of banking difficulties. The inherited bad loan problem in transition economies in the early 1990s, as well as in China more recently, is the result of previous lending not being subject to market discipline. A large proportion of their loan book consisted of "directed" loans to public-sector enterprises, often large loss-making enterprises. Restructuring the banks may then require restructuring the large public-sector enterprises as well. In other cases, credit provided by the public banks has been predominantly to the (federal or state) government, sometimes at below market rates.

SOBs' operations may be inefficient. Since they are typically backed by the full resources of the government, their funding costs are lower. But

this gives rise to a contingent liability, which may be called just when the government is least well-placed to meet it. In some cases, supervisory standards have been less stringent for SOBs.

Privatisation has been widespread in the 1990s. The nationalisation trends in the aftermath of the early 1980s debt crisis have been reversed decisively in the current decade. (Information on privatisations is given in Table 15 and Table 21 illustrates their effect on SOBs' market shares.) A large number of countries are in the process of further privatisation of banks while this process has only recently started in India and China. All the transition economies are privatising banks, with Hungary having gone the furthest so far.

Brazil illustrates the additional complications that can arise in federal systems. Since the Real Plan in 1994, the federal government has aimed at a "Reduction of the Participation of the Public Sector in the Financial System",[45] with the current 31 SOBs, who account for a large proportion of bank assets, probably being cut to nine. However, the SOBs are registered in the individual states and one of their main "functions" in practice (notwithstanding relevant legislation) had been to provide credit to the controlling states. Consequently, the federal plan has not been accepted by six out of 28 states. The history of Banco do Estado de São Paulo – Banespa, the largest Brazilian SOB – is of particular interest. The federal government used the need of the State of São Paulo for refinance as a lever to secure agreement to put the bank under federal government jurisdiction. The bank is now in a position to be privatised.

The government may divest itself of a bank either in one go or gradually. Selling the whole bank to a single buyer may achieve the highest price as a premium may be paid for control. Selling it to another bank may best allow synergies or cost reductions to be achieved. Moreover, care must be taken that the highest bidder does not want the bank so they can engage in a new round of connected lending. However if a single buyer is not found, trying to sell all of a large bank at once

[45] There are basically three approaches envisaged. The first is immediate liquidation. A second approach encompasses either privatisation or transformation into a development agency. In any of these events, the restructuring costs are to be fully covered by the federal government. In the third, very flexible, approach, "clean-up", the federal government covers half the cost, subject to approval by the central bank, while the National Treasury has to be convinced that the state government is able to financially support the other half.

could depress share prices and reduce the return to the government. A gradual sale may also be more politically acceptable. A public float (or even more so, "voucher privatisation") may be attractive in terms of broadening share ownership but may leave effective control of the bank in the hands of the existing management. This happened with two large banks in Chile.

A particularly thorny question that often arises in selling off SOBs is the treatment of loans that could well turn bad at some future date. Potential buyers usually request some form of guarantee. Brazil and Korea have both used mechanisms that allow buyers to sell back assets found to be bad during the first months of ownership. Discussions on the sale of two Korean banks to a foreign buyer apparently foundered on this issue: the buyer wanted the banks' loans to heavily indebted borrowers to be discounted even if such loans were still being serviced normally.

Conclusion

Governments and central banks have dealt with banking crises and restructured their banking systems in many ways. There is no panacea: what needs to be done depends very much on circumstances. But some common ingredients of all successful programmes can be discerned. The government must be willing to recognise the scale of the problem as soon as possible. It should strongly support supervisors who want to close insolvent banks (as the supervisors are likely to be subject to strong criticism from vested interests at such times). The government should also, if necessary, be prepared to commit substantial fiscal resources to fixing the problems in the banking system. In both cases early action is likely to prove cheaper in the long run. Transparent arrangements must be adopted at an early stage to deal with NPLs so that a core of healthy banks can continue to facilitate economic development. The process of saving the banking system does not necessarily mean saving existing bank shareholders or managers (the moral hazard risks are too great); but it requires pragmatism in devising arrangements that avoid untoward dislocation. Improvements in supervisory procedures are usually necessary to prevent problems recurring.

These guidelines are easier to state than to put in effect. Part of the difficulty is political. But part of it is also conceptual and administrative.

It is bound to be hard to predict how specific measures will affect expectations and the incentives of owners to ensure their banks are properly run – which will often be decisive for success or failure. Much will also depend on the macroeconomic environment. Because of this complicated mix of influences, there is a great need for highly-trained and politically independent supervisors to administer effective bank restructuring. Governments need to make sure that adequate resources and the necessary support are provided so that this crucial task can be effectively carried out.

Annex A: Preventive measures

Prudential requirements

Prudential requirements centre on banks holding adequate capital and avoiding it being eroded by poor credit practices such as connected or concentrated lending. Adequate and comprehensive risk management and control systems are needed within the banking sector.

A landmark initiative by banking supervisors has been the publication, in September 1997, of a set of 25 Core Principles for effective banking supervision. The principles are comprehensive and were formulated and endorsed by experts of both industrial and emerging market economies. Some of the more important are reproduced in the box.

The primary cushion against losses and a driving force promoting better governance is bank capital. Virtually all major emerging market economies have adopted minimum capital adequacy standards that meet the requirement established in the Basle Capital Accord (see Table A1) which distinguish between "core" or "Tier 1" capital and "secondary" or "Tier 2" capital (Table A2). In a number of countries, such as Argentina, Brazil and Singapore, the capital requirements well exceed the basic norm and actual ratios are higher still. In addition, all economies specify a minimum amount of start-up capital, typically between the equivalent of US$ 5 million and US$ 120 million. The amount reflects the balance between promoting liberal entry of new banks, so as to enhance competition, and limiting the risk of bank failures.

It is often argued that the Basle risk-weighted standards, developed for industrial countries, may not be entirely appropriate for banks in many emerging market economies. The overall minimum ratio, 8%, may be too low for banks operating in much more volatile macroeconomic environments.[46] As Caprio and Vittas (1995) note, it is also well below the capital ratios maintained by banks in OECD economies during their own industrialising phase. Recent amendments to the Basle Capital Accord, such as capital charges for the degree of market risk faced by individual banks, only partly address this problem. In Argentina, loans at higher interest rates require additional capital backing while in South Africa, more capital must be held against mortgage loans exceeding 80%

[46] See Table 1 in Goldstein and Turner (1996).

Core Principles of Banking Supervision

- Banking supervisors must be satisfied that banks have management information systems that enable management to identify concentrations within the portfolio and supervisors must set prudential limits to restrict bank exposures to single borrowers or groups of related borrowers.
- In order to prevent abuses arising from connected lending, banking supervisors must have in place requirements that banks lend to related companies and individuals on an arm's-length basis, that such extensions of credit are effectively monitored, and that other appropriate steps are taken to control or mitigate the risks.
- Banking supervisors must be satisfied that banks have adequate policies and procedures for identifying, monitoring and controlling country risk and transfer risk in their international lending and investment activities, and for maintaining appropriate reserves against such risks.
- Banking supervisors must be satisfied that banks have in place systems that accurately measure, monitor and adequately control market risks; supervisors should have powers to impose specific limits and/or a specific capital charge on market risk exposures, if warrented.
- Banking supervisors must be satisfied that banks have in place a comprehensive risk management process (including appropriate board and senior management oversight) to identify, measure, monitor and control all other material risks and, where appropriate, to hold capital against these risks.
- Banking supervisors must determine that banks have in place internal controls that are adequate for the nature and scale of their business. These should include clear arrangements for delegating authority and responsibility; separation of the functions that involve committing the bank, paying away its funds, and accounting for its assets and liabilities; reconciliation of these processes; safeguarding its assets; and appropriate independent internal or external audit and compliance functions to test adherence to these controls as well as applicable laws and regulations.
- Banking supervisors must determine that banks have adeqaute policies, practices and procedures in place, including strict "know-your-customer" rules, that promote high ethical and professional standards in the financial sector and prevent the bank being used, intentionally or unintentionally, by criminal elements.
- Banking supervisors must set prudent and appropriate minimum capital adequacy requirements for all banks. Such requirements should reflect the risks that the banks undertake, and must define the components of capital, bearing in mind their ability to absorb losses. At least for internationally active banks, these requirements must not be less than those established in the Basle Capital Accord and its amendments.
- An essential part of any supervisory system is the evaluation of a bank's policies, practices and procedures related to the granting of loans and making of investments and the ongoing management of the loan and investment portfolios.
- Banking supervisors must be satisfied that banks establish and adhere to adquate policies, practices and procedures for evaluating the quality of assets and the adequacy of loan loss provisions and loan loss reserves.

– Basle Committee on Banking Supervision (1997)

Table A1

Prudential ratios

	Capital (% to risk-weighted assets)	Minimum capital	Liquidity ratio	Required reserve ratio
China	8	RMB 1 bn	25	8
India	8 (9 by March 2000)	rupee 1 bn	25	10
Hong Kong	10–12	HK$ 150 mn	25	0
Indonesia	4 (12 by end-2001)	rupiah 3000 bn		3–5
Korea	8	won 100 bn (national) 25 bn (regional)	30	3
Malaysia	8 (10 by end-1999)	ringgit 20 mn	15	4
Philippines	10	peso 2–5 bn	7	7–10
Singapore	12 (at least 10% Tier I)	S$ 1.5 bn	18	3
Thailand	8.5		6	0
Argentina	11.5	US$ 5–15 mn	20	
Brazil	11	real 9.3 mn	none	75 (demand) 20 (time)
Chile	8	US$ 25 mn	*	9 (demand) 3.6 (time)
Colombia	9	US$ 24 mn		16 (demand) 2.5 (medium term) 0 (long term)
Mexico	8	US$ 13 mn	**	0
Peru	8.7 (9 by end-1999)	NS 16.9 mn	8 (domestic) 20 (foreign)	7 (local currency) 38 (foreign currency)
Venezuela	8	Bs 1.2–3 bn	none	19
Czech Republic	8	Crown 500 mn		5
Hungary	8	forint 2 bn		12
Poland	8	€ 5 mn		
Russia	8	€ 5 mn		
Israel	8	NIS 10 mn		8
Saudi Arabia	8	SR 250 mn	20	7 (demand) 2 (time)
South Africa	8	R 50 mn (soon R 250 mn)	5	2.5

* 100% on demand deposits over 2.5 times capital; 10% on foreign currency deposits.
** 10% of profits allocated to reserve fund until equal to capital.

Sources: Central banks; Kamin, Turner and Van 't dack (1998), Table 2.

Table A2

Definition of external capital

Tier 1	Paid-up share capital/common stock (Tier 1 must be at least half of the total).
Tier 2	Hybrid debt instruments subject to four requirements: – unsecured, subordinated and fully paid-up – not redeemable at the initiative of the holder or without prior consent of the supervisory authority – available to participate in losses without the bank being obliged to cease trading – debt service obligations can be deferred (as with cumulative preference shares) Subordinated debt: – must have minimum original term to maturity of over five years (during the last five years to maturity, a cumulative amortisation factor of 20% a year will be applied) – must be subject to adequate amortisation arrangements – no more than 50% of core capital

of valuation. On the other hand, if capital requirements are too much harsher than elsewhere, it may drive banks away.

The weights currently assigned to each of the several classes of credit risk may not always be appropriate in an emerging market economy context. For instance, credit risks involved in corporate lending may be much higher and accounting and legal practices differ. Uniform weights within a particular class of borrowers are simple but do not reflect differences in risk. In Argentina, for instance, risk weights on loans are varied according to the interest rate charged (assuming the level of this rate reflects the bank's assessment of the relative riskiness of the loan).[47]

A key bank governance problem that has contributed to banking problems, notably in Chile, Indonesia and Korea, is "connected lending", i.e. the extension of loans to bank owners and senior staff, as well as to related companies. While these have the advantage of being to companies whose affairs are well-known to the bank, they are often not

[47] This perceived need for greater risk differentiation is a rather universal phenomenon. In industrial countries, too, the conceptual approach to banking supervision has moved away from reliance on simple numerical standards to greater focus on qualitative aspects of bank governance as well as greater dependence on internal risk control models for determining individual banks' capital requirements.

subject to objective credit assessments, not monitored sufficiently closely and their non-performance is often neglected and not provisioned. As one central banker put it, "it is easier to rob a bank from inside". In Brazil it is a criminal offence for banks to lend to their directors, senior management or related companies without permission from the central bank. Harder to monitor is lending to "friends" of directors and senior management.

Many fragile banking sectors are also marked by excessive loan concentrations. Large exposures to a single borrower and excessive loan exposures to particular economic sectors mean banks are unduly vulnerable to specific shocks. Sometimes, such narrowness is caused by government-directed lending and regulations specifying minimum proportions of loan assets to be invested in particular economic sectors, or promoted by the use of implicit or explicit government guarantees. In those countries where banking institutions tend to be specialised or operate in only a local area, vulnerability to large loan concentrations is often great. Moreover, a strong rise in asset prices, in particular in real estate prices, can fuel a vicious circle as bank lending accelerates on the strength of commensurately rising collateral values. When these asset price bubbles eventually burst, large loan concentrations in the affected sectors sometimes present banks with insurmountable problems.

Most emerging market economies have prudential limits to bank exposures to related borrowers or single borrowers or corporate groups (Table A3). Limits of at most 30% of capital are set to single borrower exposures in all economies. These individual exposure limits are combined with an overall limit to large exposures. In general, banks are also subject to limits on loans to related parties. Much greater cross-country variety characterises these prudential limits, although one common feature is that they tend to be significantly more restrictive than limits on exposures to a single borrower. By contrast, the table suggests that prudential limits on sectoral loan concentrations are not very common. Notable exceptions are the limits on property sector exposure which were imposed in Hong Kong until 1998, limits on the share of the increase in deposits which Indian banks are permitted to invest in equity or convertible debt instruments, and restrictions on property or share related loans in Singapore. At the same time, government prescriptions with regard to the composition of banks' loan portfolios also seem to have become less common in recent years.

Table A3

Loan exposure limits

	Related parties (% to capital)	Single borrowers (% to capital)	Sectors
China	max loan to shareholders = their equity holding	10	
India	prohibited	25 (connected group 50)	equity and convertible debt limited to 5% of rise in deposits
Hong Kong	aggregate 10	25	limit on property lifted 1998
Indonesia	10	20	loans for land prohibited 1997
Korea		15 (connected group 45) aggregate 500	
Malaysia	prohibited	25	
Philippines	aggregate 100	25	real estate limited to 20% of loans
Singapore	Unsecured credit facilities to related parties ≤ $5,000	25 aggregate of loans 15% or more of capital is limited to 50% of loan portfolio	limits on property, equity, securities
Thailand		25	
Argentina	5 (collateralised 10) aggregate 20	15 (collateralised 25) aggregate 300	
Brazil	10	25	no
Chile	aggregate 100	5 (collateralised 30)	
Colombia	20	10 (collateralised 25)	no
Mexico	aggregate 100	individuals 10 corporates 30	
Peru	aggregate 75	10–30	rules on loan concentration
Venezuela	prohibited	10 (connected group 20)	
Czech Republic	20	25 aggregate ten largest borrowers; 230	
Hungary	15	25 aggregate 800	
Poland	25	25 aggregate 800	

Table A3 (cont.)

	Related parties (% to capital)	Single borrowers (% to capital)	Sectors
Russia	20 aggregate 50	25 aggregate 800	
Israel	aggregate 10	15 (group 30) aggregate of top six 100	
Saudi Arabia . .	10 aggregate 50	25–50 aggregate 800	
South Africa . .	under review		
Memorandum:			
Australia		*30*	
EU guideline . . .		*25*	
Japan		*20* *aggregate 800*	

Source: Central banks.

Most countries allow banks to determine how loans are allocated across sectors. Partial exceptions are the minimum lending requirements imposed on specialised financial institutions in Colombia, the advisory prescriptions concerning lending to priority sectors in India, the specification of the share of local-currency lending that Korean banks should extend to small and medium-sized enterprises and the incentives for loans for particular sectoral and regional projects (as well as preferential credit to agriculture) in Venezuela.

The Saudi Arabian Monetary Agency established a credit information service in the 1980s which provides information to banks on large exposures and permitted banks to exchange information on delinquent borrowers. Both measures should help banks in their credit assessments.

An essential part of bank activity is the transformation of maturities: short-term deposit liabilities are invested in longer-term loan assets. Even if the maturity of loans is kept short-term, borrowers, especially those using the funds to finance longer-term investments, typically count on loans being rolled over. Maturity mismatches between bank assets and bank liabilities expose banks to two major types of risk. First, any shock which reduces the short-term funding sources of banks (e.g. a

sudden drying-up of deposits or (foreign) interbank credit lines) will aggravate the essential nature of illiquidity of banks. Banks may try to liquidate some assets, but if no liquid market exists for most assets, this may be possible only at the cost of a sharp reduction in the quality of bank assets. A problem of illiquidity can then spill over into one of insolvency. Especially in emerging market economies, in which longer-term capital markets and securitisation have not developed much and bank assets are predominantly non-marketable, maturity mismatches and illiquidity risks are likely to be pronounced. Secondly, typical maturity mismatches in banks heighten interest rate risks, with a rise in interest rates often eroding the banks' asset side much more than their liability side, possibly to the point of rendering them technically insolvent. While increased reliance on lending at variable interest rates lessens the interest rate risk, it would tend to increase credit risk if rising debt servicing payments force borrowers into default.

The recent turmoil in the Asian region showed how exposure to foreign currencies can result in financial sector crisis. With uncovered interest arbitrage conditions favouring funding of local operations by borrowing abroad, many Asian banks, or enterprises borrowing from them, built up large net foreign exposures. On top of the currency transformation came usually a maturity transformation as well, as funds were typically borrowed abroad on a short-term basis and on-lent domestically at longer maturity. When exchange rates moved in an adverse direction and foreign funding sources were cut off, banks were faced with an often deadly cocktail of foreign exchange risk, liquidity risk and credit risk (given that many domestic entities had borrowed in foreign currency).

A number of mechanisms are available to limit the vulnerability of banks to currency or maturity mismatches. One approach is to impose limits on these exposures (Table A4). Although a number of countries specify quantitative limits to maturity mismatches (or make specific recommendations) for a variety of maturity bands in many countries no regulations exist or banks are asked to specify their own limits and to monitor and regularly report them. One important reason why precise rules are only infrequently specified is the great variety of scenarios (with regard to expected roll-over ratios or price responses to asset sales) that can be devised, with often sharply diverging implications for bank liquidity.

Table A4

Foreign exchange and maturity limits

	Foreign currency exposure	Maturity mismatch
India	bank must obtain approval for its OP limits	cash-flow mismatches in 1–14 and 15–28 days maturity ranges ≤20% of outflows
Hong Kong	overnight OP (excl. HK$/US$ position) of local banks ≤5% of K (15% for experienced institutions)	bank should adopt own limits which should in general <10% for up to 7 days and <20% for up to one month
Indonesia	maximum net OP 20% of K	no formal guidelines
Korea	15% of K (overbought or oversold)	requirement to match assets and liabilities in local currency; limits on gap ratios for various time buckets for fx operations
Malaysia	each bank has individual net OP limit	
Philippines	maximum short position of 20% of K temporarily suspended; max. long position 5%	
Singapore	no formal limits; banks must establish, monitor and report self-determined limits	banks have to manage and report their maturity gaps
Thailand	maximum overbought position of 15% of K; maximum oversold position 15%	
Argentina	no formal guidelines; K requirement associated with fx position	positive mismatches are required for a number of maturity ranges and a variety of scenarios
Brazil	limits on bought and sold positions. New policy will relate fx exposures to K requirements	no formal guidelines
Chile	absolute weighted sum of net currency positions <20% of K, with weights reflecting currency volatility and ratings of the country of issuance	limits on interest rate and residual maturity (30 and 90 days) gaps relative to capital
Colombia	OP between –5% and 20% of K	liquidity gap calculations are made to evaluate liquidity risk
Mexico	Limit of 1.83 times core K	banks have to cover with liquid assets largest mismatch among different maturity bands
Peru	net liabilities ≤2.5% of K; net assets ≤100% of K	mismatch should be "reasonable"
Venezuela	maximum OP of 15% of K	no formal limits

Table A4 (cont.)

	Foreign currency exposure	Maturity mismatch
Czech Republic	OP in any currency should ≤15% of K; OP of non-convertible currency ≤2% of K; overall OP ≤20% of K	no formal limits
Hungary	absolute sum of OPs ≤30% of K	no formal limits; banks should determine and monitor maturity management on their own
Poland	limit of 15% K in any currency; limit of 30% for overall net position; limit of 40% for absolute sum of OPs	no quantitative limits
Russia	maximum OP 30% of K	
Israel	no formal limits	no formal limits
Saudi Arabia	no formal limits	no prescribed limits
South Africa	maximum net OP 15% of K	

K = capital; fx = foreign exchange; OP = open position.

Source: Central banks.

The use of prudential limits appears much more widespread with regard to foreign exchange exposures. Limits, expressed as a share of capital, are generally put on the size of banks' open positions in foreign currency. In some countries, these limits are quite detailed. In Poland, for instance, separate limits exist for open positions in individual currencies, for the overall net position and for the absolute sum of both oversold and overbought positions. In Chile, overall positions are calculated using weights that reflect volatility and country ratings of the component foreign currencies. Very few countries, however, specify formal prudential rules with regard to the foreign exchange exposure of enterprises borrowing in foreign currency from the banks, although the latter are often assumed to monitor such exposures (e.g. Hungary, India, Saudi Arabia and Singapore).

Another defence against illiquidity stemming from growing maturity mismatches is to impose liquidity requirements on banks. Table A1 shows that banks in many emerging market economies are subject to a liquidity requirement, amounting to as much as 30% of deposits. In Hong Kong, banks are moreover required to establish an internal liquidity management policy, whereas in Poland a financial liquidity monitoring system is promoted and banks are required to build up a fund for

general banking risks. Reserve requirements could also be instrumental in dealing with a more generalised increase in bank illiquidity. As illustrated by Argentina in 1995, reductions in reserve requirements imposed on banks can release a significant amount of liquidity in the banking sector. As Table A1 shows, most countries impose reserve requirements, but only in a limited number of cases are they high enough to make reductions in them an effective instrument in combating system-wide illiquidity.

Ensuring sound management of credit exposures, however, is not only a question of formulating appropriate prudential limits, but also one of adequate supervision and enforcement. Use of dummy accounts and fictitious names, or legal impediments, can undermine the monitoring of exposures by supervisors and bank examiners. All countries have put in place management sanctions in the case of infringements of the prudential regulations on loan exposures. These sanctions include firing and disqualification of senior staff, fines, making management financially responsible for all losses related to violations of prudential (and internal) regulations and even imprisonment in a number of countries (such as Colombia, Hong Kong, Indonesia, Saudi Arabia and Singapore). However, these punitive instruments are not always very effective. In Brazil, for instance, legislative action may be required to raise fines for violations to more realistic levels, increase the central bank's discretionary power in approving bank managers and make criminal proceedings more effective.

Transparency, disclosure and auditing

The prudential rules discussed above need to be enforced, requiring checks on data reported by banks. This is done by on-site inspections and use of external auditors. Increasingly, more information on banks' performance is being publicly released and they are being rated by agencies.

A balance, likely to reflect the maturity of the domestic financial system, needs to be struck between active supervision and reliance on market forces to discipline banks' performance. For example, Hong Kong recently replaced a guideline on banks' property exposure by full disclosure of these exposures, relying on market participants' judgement of their acceptability.

The influence of recent banking crises on the drive towards greater disclosure is less clear. On the one hand, heavy bank losses, often borne by the taxpayer, have prompted many national authorities to strengthen disclosure requirements. Argentina and Mexico are prominent recent examples. On the other hand, some supervisory authorities, while supporting greater disclosure in principle, fear that full public knowledge of the true financial state of banks could undermine confidence and that genuine progress towards better disclosure cannot be made when banks are weak. Furthermore, market participants' incentives do not always coincide with the public interest goal of establishing a sound banking system.

Both supervision and market discipline depend on transparent, timely, comprehensive and accurate information on the wide array of risks taken by banks.[48] In addition, market or supervisory oversight should be able to monitor the quality of financial institutions' internal systems for managing, evaluating and controlling risk exposures.

Under the Core Principles, effective banking supervision should include on-site examinations and regular contacts with bank management to verify information provided by financial institutions and identify inherent problems. The qualitative aspects of bank operations are likely to be best evaluated and monitored through direct examinations within the supervised institution itself.

An important practical problem, especially in emerging market economies, is that civil service conditions of employment are often not attractive enough to retain qualified supervisors, sharply limiting the scope for regular and effective on-site examinations. Reliance on external auditors may remedy this problem, as long as their independence is not compromised by being chosen and paid by the banks themselves. Good communication between the supervisory agency and the external auditors is necessary. Many countries use external auditors for on-site supervision and reporting irregularities or internal control weaknesses to the supervisory authorities (including Chile, the Czech Republic, Hong Kong, Hungary, India, Mexico and Poland).

[48] Key risks are credit risk, country and transfer risk, market risk, interest rate risk, liquidity risk, operational risk, legal risk and reputational risk.

Annex B:
Sharing the recovery of non-performing loans

One possible model for assisting a troubled bank deal with NPLs is for a government agency to buy them for less than market value but share the proceeds of any value realised from them. In this model the loans would be left with the originating bank to manage. The challenge is to devise a system where the bank retains a strong incentive to chase the delinquent borrowers or manage well any collateral assets acquired.

A bank with a portfolio of NPLs has to consider how many resources to put into dealing with them. Graph B1 portrays the amount recovered as a non-linear function of expenditure on dealing with three types of NPLs: the Good, the Bad and the Ugly.

The Good are borrowers who are only behind with repayments due to temporary difficulties and will repay all their obligations, or alternatively had offered collateral still worth more than the loan. (This is why the recovery curve starts up the y-axis from the origin.)

The Bad are borrowers who are insolvent with worthless collateral and, no matter how much effort it puts in, the bank will not recover anything. This is why the recovery curve tends to an asymptote short of 100%.

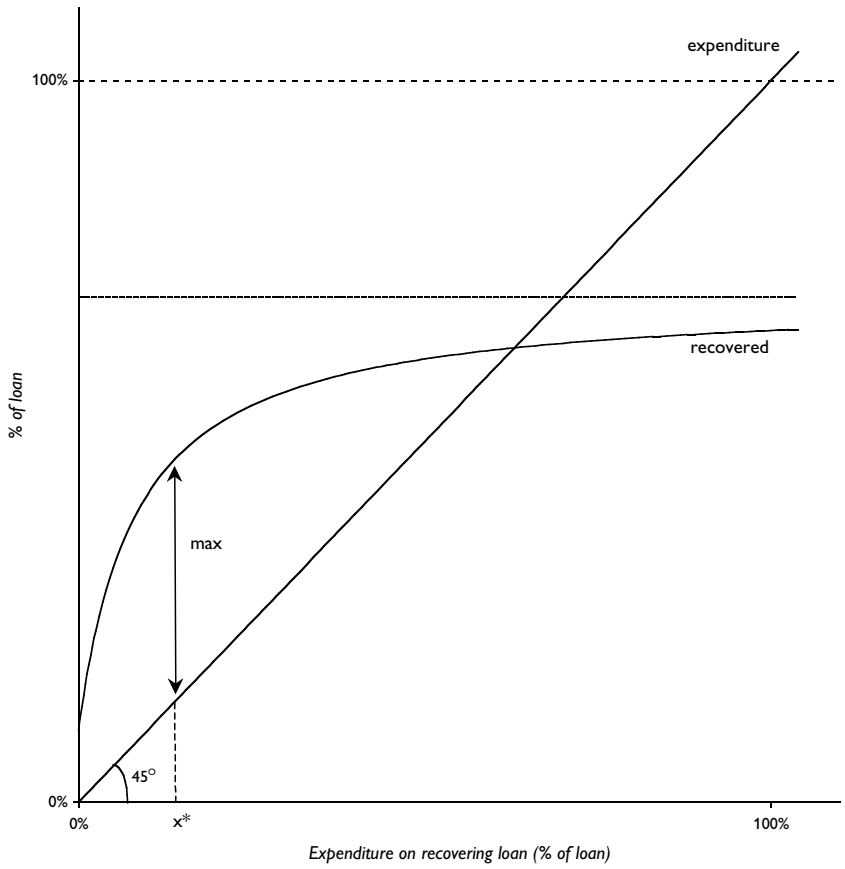
The Ugly are the in-between cases: borrowers who are trying to avoid repaying but can repay if placed under duress, or are well-intentioned but needing assistance to organise their affairs, or with collateral which can yield a return but only if managed carefully.

The optimal strategy for the bank is to spend x*, the amount which maximises the gap between the recovery and expenditure lines.

The position when the government agency becomes involved is shown in Graph B2. Suppose the agency pays the bank 5% of face value for the portfolio of NPLs but shares equally any value recovered. The graph shows that the bank now spends less and a smaller proportion of the original loans are recovered.

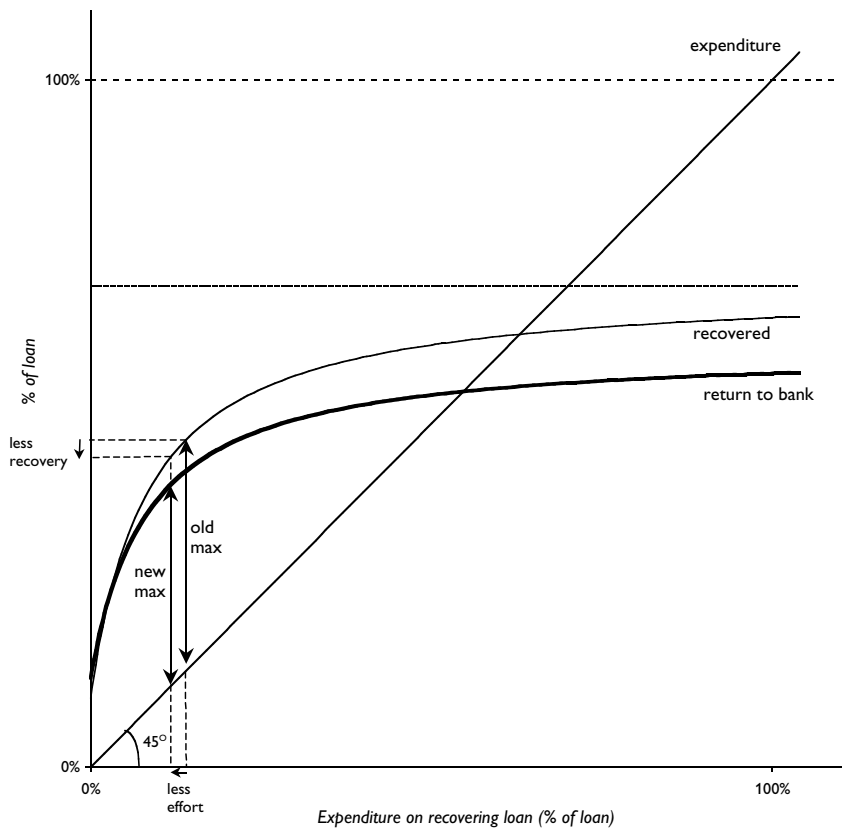
If the government agency pays the bank a larger proportion of face value and in return takes a larger proportion of any value recovered, then the bank may now make no effort to recover the loans at all. This is illustrated in Graph B3.

Graph B1
No government involvement



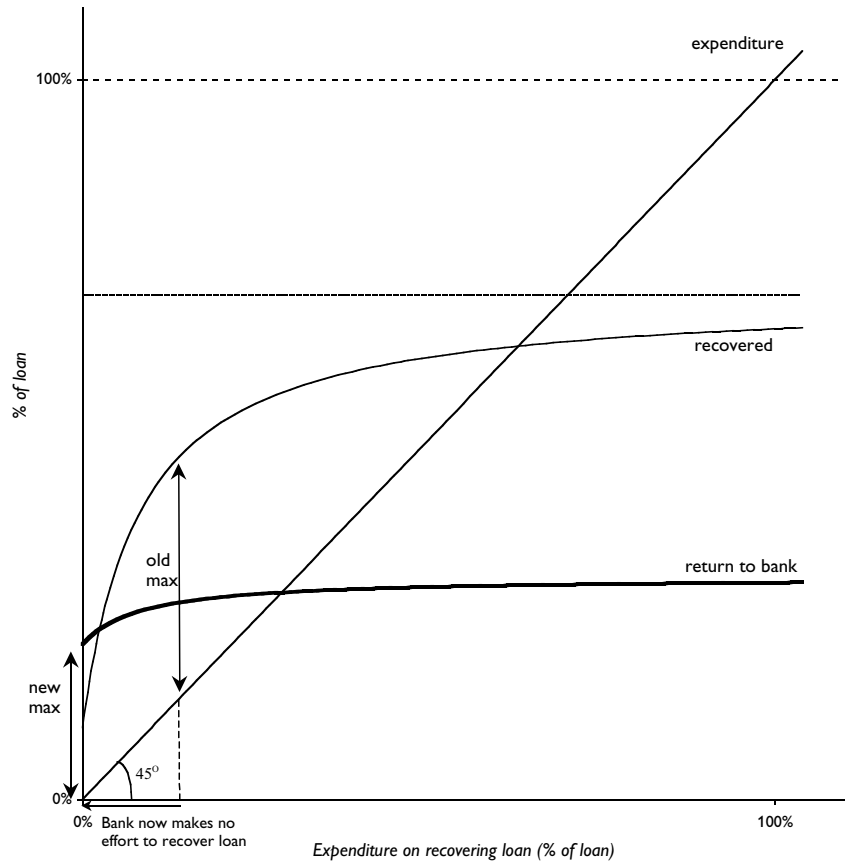
Graph B2

Government pays 5% of face value of loan and shares recovery 50/50



Graph B3

Government pays 10% of face value and lets bank keep on 5% recovery



The same idea can be represented algebraically. Denoting the proportions good, bad and ugly by *G, B and U* respectively; then a plausible functional form relating repayment *(y)* to banks' expenditure *(x)* is given by

$$y = G + U - \frac{1}{(x + {}^{1}/_{U})}$$

Note that when $x = 0$, $y = G$ and as x increases y approaches G + U.

In the simple case, the bank seeks to maximise its profit $\pi = y(x) - x$ which it does when $x = 1 - 1/U$. This plausibly implies that the bank will make more effort the greater the number of ugly (potentially recoverable) loans.

In the case where the government agency makes a payment P to the bank in exchange for taking $(1 - s)$ of the amount recovered, then the bank is trying to maximise $\pi = P + s.y\ (x) - x$. Solving for x gives

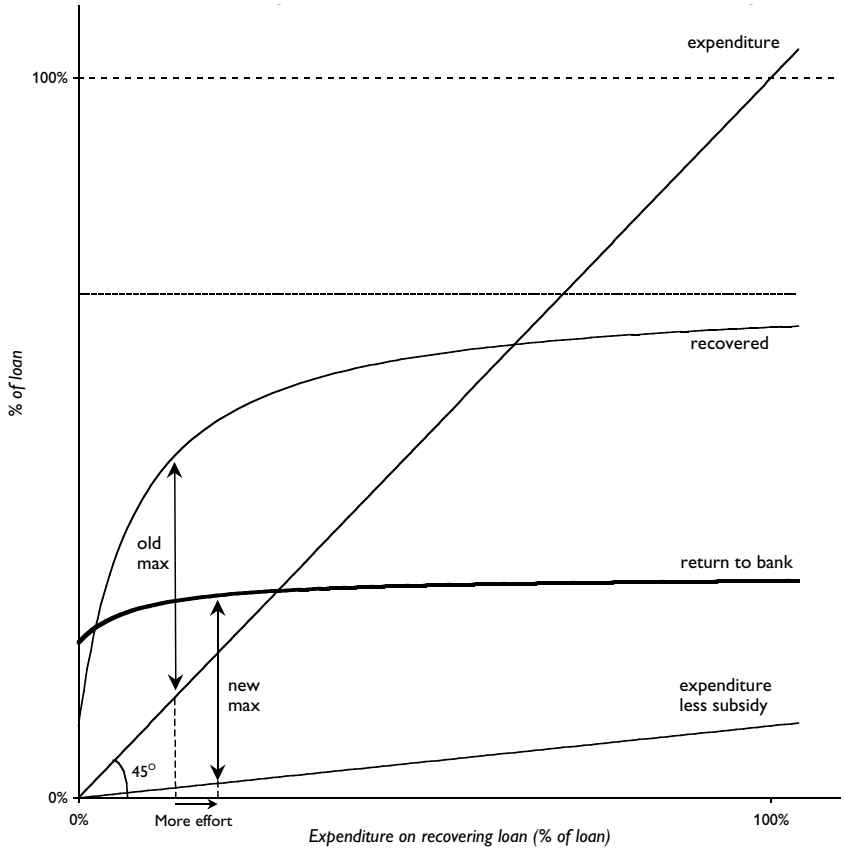
$x = \sqrt{s} - 1/U$, which plausibly implies the larger the share kept by the bank, the more effort it puts in. When $s = 1$, the optimal x is the same as in the simple case. But whenever $s < 1$, x is below the amount spent in the simple case.

(The bank will only take part in the sharing scheme if its profit in this case is greater than in the simple case. It can be shown that this requires $P > (1 - s)\ (G + U) - (1 - \sqrt{s})$. That is, the agency could offer a lower payment for bad loans (so that the recovery curve intersects the y-axis closer to the origin) in return for allowing banks to keep a higher proportion of the eventual recovered amount (so making the return-to-the-bank curver steeper). This makes the bank increase efforts to recover the loan. Setting these parameters requires the government agency to judge how much of taxpayers' money it can spend and the socially desirable amount of expenditure on loan recovery.)

In theory, further steps could be taken by the government to avoid these disincentive effects. The government could directly subsidise the banks' expenditure on loan recovery (perhaps through tax deductions) if these expenditures are conducted by an identifiable unit within the bank (although such provisions could well be subject to abuse; the bank may switch more general expenditure to this unit). As shown in Graph B4 a large subsidy may even lead the banks to recover more than in the original case. The obvious disadvantage is that the government is now spending even more on bank restructuring.

Graph B4

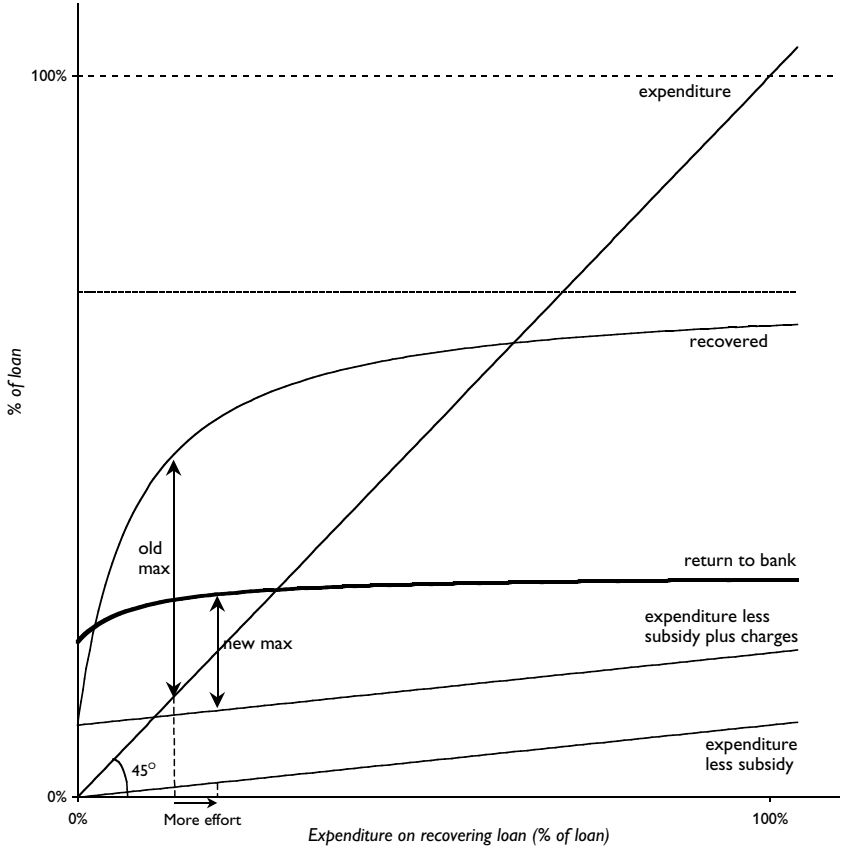
Government pays 10% of face value to bank, lets bank keep 5% and subsidises expenditure on recovery



The agency could try to recoup some of its expenditure by charging the bank a fixed amount to participate in the scheme (as shown in Graph B5). Such a flat fee, if not too large, has no effect on incentives to recover loans. The size of the fee could be set at auction. Of course, such arrangements add further to the complexity of the exercise and may delay it considerably.

Graph B5

The government pays 10% of face value to bank and lets bank keep 5% of recovery, the government subsidises expenditure on recovery but also charges banks for participation in the scheme



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Restructuring the banking system – the case of Brazil

Geraldo Maia*

Introduction

The implementation of the *Real* Plan in July 1994 triggered a major process of structural changes in the Brazilian financial system. Years of high inflation had created the incentives for an overbranched banking system in order to benefit from the accumulation of relatively low-interest rate deposits. With currency stabilisation, hyperinflation ended and Brazilian banks were forced to retrench, find new sources of financing and redirect their activities.

The evolution of the financial system since then can be roughly divided into three, partly overlapping, phases. The first phase followed immediately the inception of the *Real* Plan and was marked by the use of official intervention and liquidation to reduce the number of banks. The second phase was characterised by the implementation of the *Programa de Estímulo à Reestruturacão e ao Fortalecimento do Sistema Financeiro Nacional* (Programme of Incentives for the Restructuring and Strengthening of the National Financial System) PROER in November 1995 and the *Programa de Incentivo ã Reducão do Setor Público Estadual na Atividade Bancária* (similar, but for the state-owned financial system) – PROES

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in August 1996. The third, and current, phase is marked by the entry of foreign banks.[1]

The *Banco Central do Brasil* (BCB), with discretionary power to intervene in financial markets and close financial institutions, played a key role in the first phase. The institutional arrangements that provide for these discretionary powers are known as *Special Regimes,* which include intervention, a mechanism for temporary special management (*Regime de Administracão Especial Temporária* (RAET) and extrajudicial (out-of-court) liquidation.

The second phase is marked by the restructuring of private and state-owned banks. The two programmes (PROER and PROES) aimed to protect the interests of depositors and to transfer the shareholding control of troubled banks. Two fundamental objectives were to guarantee the normal functioning of the payments system and to preserve confidence in the banking business generally. This helped to prevent bank runs and to keep moral hazard to a minimum.

The third phase involves the entry of new foreign institutions, a farreaching process which, together with the policies of bank closure and restructuring, is bringing about significant changes in the structure of the banking industry.

The magnitude of the problem

Inflation had provided banks with an important source of revenue ("the float") as the real value of sight deposits fell each day and as time deposits carried interest rates that were typically below the rate of inflation. By the early 1990s, banks' "inflationary revenue" had grown to around 4% of GDP, accounting for almost 40% of the revenue from financial intermediation (i.e. the difference between interest receipts and payments) and other services (Table 1). It fell to 2% of GDP in 1994, and by 1995 it was negligible. A comparison of 1994 figures with the

[1] Significant improvements in banking regulation and supervision have also been recently implemented. Although the measures adopted constitute an important element of the restructuring policy, they are not analysed here. See Almeida Júnior, Mansueto and Mendonca de Barros (1996, 1997), Banco Central do Brasil (1998), IMF (1998) and Tombini (1999) for a discussion on this matter.

Table 1

The inflationary revenue of banks

Year	As % of GDP	As % of Bank Value Added
1990	4.0	35.7
1991	3.9	41.3
1992	4.0	41.9
1993	4.2	35.3
1994	2.0	20.4
1995	0.0	0.6

Source: ANDIMA/IBGE: Financial system: an analysis as from the national accounts – 1990/1995.

average from 1990 to 1993 suggests that banks lost about R19 billion in inflationary revenue from stabilisation.[2]

Such a huge loss meant that financial institutions would have to make radical changes in order to adapt to the new low-inflation environment. As a result, many banks began a process of adjustment involving the closing of branches that were no longer economically viable and the dismissal of employees.

The other side of the coin was that, with the end of hyperinflation, it became more attractive to hold bank deposits, which grew dramatically following stabilisation ("remonetisation").[3] To relend these deposits, and to compensate for the loss of inflationary revenue, the banking system was under some pressure to expand lending. Therefore, in order to forestall an excessively rapid growth of bank credit, the authorities increased the reserve requirements on sight deposits from 48% to 100% (at the margin) right at the outset of the Real Plan. Even so, financial sector loans to the private sector grew by almost 60% during the first year of the Plan.[4] Such rapid growth of bank loans at first partly compensated for the loss of the "float", postponing the adjustment of the financial system. But the downturn in economic activity in the second quarter of 1995 as a result of increased interest rates after the Mexican crisis led to a substantial increase of non-performing loans (NPLs).[5]

[2] See Almeida Júnior, Mansueto and Mendonca de Barros (1997).
[3] Sight deposits grew by 165% during the first six months of the Real Plan.
[4] See Almeida Júnior and Mendonca de Barros (1997).
[5] The delinquency rate reached a peak of about 10.5% in July 1996.

The combination of a low-inflation environment (loss of the float) with the (temporary) surge in bank credit expansion (increase of NPLs) thus served to destabilise a financial system that had long lived under high and volatile inflation rates and that had yet to develop a solid "credit culture".

To make matters worse, the fiscal position of most of the state governments began to deteriorate from 1995: here, too, the slowness to adapt to the low-inflation environment and the devastating effects of high real interest rates were the main reasons for renewed problems.

Bank intervention and closure

The legislation that deals with bank intervention and closure, established in Law 6,024/74, Decree-law 2,321/87 and Law 9,447/97, covers the cases of (a) insolvency, (b) bad management and (c) violation of banking laws and regulations. Under these legal provisions, private and non-federal public financial institutions can be made subject to certain procedures, known as *Special Regimes,* such as intervention, the so-called temporary special management (RAET) and extrajudicial liquidation.

The decree and the management of a special regime is the responsibility of the central bank. The provisions of the general Bankruptcy Law (Decree-law 7,661/45) are also applicable to financial institutions under extrajudicial liquidation.

In addition, financial institutions may also be dissolved by the shareholders (ordinary liquidation), following the provisions of the Brazilian Corporate Law (Law 4,595/64).[6] Moreover, the bankruptcy of financial institutions can be declared by judicial order; in this case, the general provisions of the Bankruptcy Law are applicable.

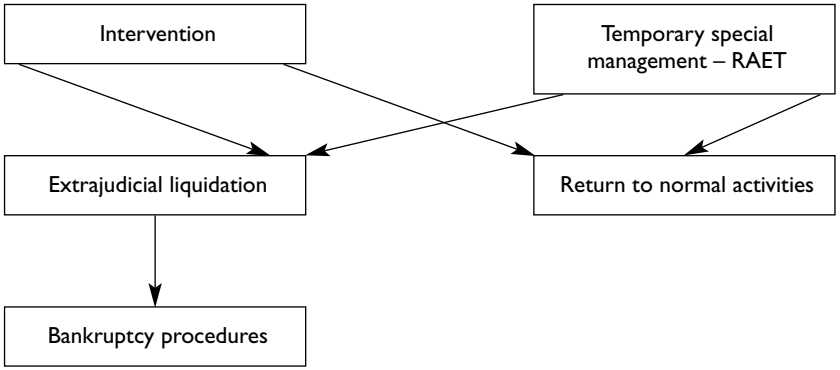
Special Regimes

The Special Regimes of intervention, extrajudicial liquidation and RAET essentially provide the early, structured intervention mechanisms (exit

[6] In the ordinary liquidation, assets are disposable and liabilities are enforcable, but the institution stops setting up new operations. Authorisation to operate is cancelled as obligations are met.

Diagram 1

Special regimes



policy) of the financial system: whenever there are cases of insolvency, bad management or infractions of banking laws, the central bank can, at its discretion, take action (Diagram 1). Accordingly, there is no quantitative rule triggering a Special Regime.[7] Under a Special Regime, the directors of the financial institution concerned automatically and immediately lose their offices. An Intervenor, a Liquidator and a Board of Directors are appointed by the central bank and are granted the power to conduct the transformation, merger, split or transfer of the share-holding control of the institution (including federalisation). Managers and majority shareholders assume joint responsibility for the institution's uncovered liabilities: during this process, they are not allowed to sell any properties they own.

In the case of *intervention,* there occurs "a suspension of liabilities enforcement", that is, deposits are blocked.[8] In an *extrajudicial liquidation,* creditors' potential claims against the institution's assets (including property) are suspended. No similar claims may be made during the liquidation period. Once the institution has been liquidated,

[7] Note that the central bank can also take action by selling the institution *before* it reaches the stage of complete insolvency (see Law 9,447/97): in this way the scale of ultimate losses can be limited. Liquidity problems (overdraft to bank reserves' account) may also motivate the adoption of the RAET (see Decree-law 2,321/87).

[8] Only the amount covered by the deposit insurance agency is enforceable.

Table 2

Liquidation, intervention, temporary special management (RAET) and bankruptcy since the Real Plan

(July 1994 – December 1998)

Type of Intervention	Number of Institutions
Intervention	2
Extrajudicial Liquidation	28
Ordinary Liquidation	3
RAET	5
Bankruptcy	10
Total	48

Source: Central Bank of Brazil.

the maturities of all liabilities are brought forward to the date of the liquidation. Interest payments are not necessarily due.[9] Moreover, the inflation correction is not applied to liabilities.[10] The period of an intervention shall not exceed six months; the central bank may renew this period only once (i.e. for at most another six months).

Contrary to intervention and extrajudicial liquidation, however, the adoption of a RAET will *not* affect the normal activities of the financial institution. Moreover, the duration of a RAET is set more flexibly (i.e. is not limited to at most one year).

If the institution does not return to its normal activities, intervention and the RAET are ultimately followed by extrajudicial liquidation, while bankruptcy procedures follow the extrajudicial liquidation.

Since the outset of the *Real* Plan until December 1998, 48 banking institutions have undergone Special Regimes procedures, with 31 being liquidated. Considering the financial system as a whole (that is, including

[9] The institution is only required to make interest payments if it is able to do so.

[10] During the years of high inflation this constituted a great incentive for the extrajudicial liquidation to be decreed upon request of the managers of the financial institution since several months of inflation were sufficient to obliterate the real value of liabilities. Liabilities are now adjusted by the interest rate on savings deposits, i.e. the *taxa referencial* (reference rate, TR).

also non-banking financial institutions), 182 financial institutions were submitted to Special Regimes in the same period.

Special Regimes have constituted the major exit policy for financial institutions. However the difficulties of some private banks considered too big to fail and the recurrent problems with state banks made it necessary to design a new set of policy instruments to forestall the risk of a systemic banking crisis.

Programme of incentives for the restructuring and strengthening of the national financial system (PROER)

Access to the PROER is based on a case-by-case authorisation by the central bank and is restricted to universal banks, commercial banks, investment banks, development banks, savings banks, consumer finance companies and real estate credit companies.[11] Brazil's deposit insurance agency, called *Fundo Garantidor de Créditos* (FGC), takes part in the PROER.[12] Foreign financial institutions are allowed to find their way into the Brazilian financial system through PROER lines of credit. It is implemented through administrative, operational and corporate reorganisation resulting in the transfer of the shareholding control of private financial institutions.

The basic principles of the PROER can be summarised as safeguarding the payments system and penalising bad banking policies. Safeguarding the payments system means that deposits are protected and can be claimed at any time. The sanction applied is that shareholding control of the troubled bank is transferred to new (reputable) owners. Hence the risk of moral hazard from bail-out operations is reduced.

The PROER comprises two general models: one applying to large banks and the other to small/medium banks (Table 3). Under the *first general model,* large troubled banks that have been placed under Special Regime (intervention or RAET) are split into a "good bank" and a "bad bank".[13] The "good bank" is constituted from the good assets and deposits of the troubled bank. The acquiring bank is free to select the assets from the troubled bank (due diligence), but it is compelled to assume *all* troubled bank deposits. The "bad bank" is made up of the remaining troubled bank assets (i.e. the impaired assets) and liabilities (after Special Regime).[14]

PROER operations serve to close the "good bank" asset gap (deposits *minus* troubled bank selected assets), i.e., to redress the balance sheet of the "good bank".[15] The financial assistance provided by the central bank is converted into a "good bank" asset (bank reserves' availability) and a "bad bank" liability (PROER's debt). The acquiring bank takes over the "good bank", thus originating a "new bank".[16] All troubled bank deposits are transferred to the "good bank" and enforceable through the "new bank".[17] The "bad bank" is liquidated; the central bank-appointed liquidator is responsible for disposing of the impaired assets. The managers and majority shareholders of the troubled bank are dispossessed, may be prosecuted and are prevented from selling any property they hold pending final resolution.[18]

Table 3

Mergers and acquisitions under PROER

PROER general models	Acquiring institution	
	Domestic	Foreign
PROER general model 1 – large banks	4	1
PROER general model 2 – small and medium-sized banks	2	0
Total	6	1

Source: Central Bank of Brazil.

[11] Including institutions under Special Regimes (intervention and RAET).

[12] The FGC, created in late 1995, provides coverage of up to R20,000 per depositor on deposit (and other assets), in case of intervention, extrajudicial liquidation and bankruptcy *since the beginning of the Real Plan.* All financial institutions participate in the FGC, with the exception of credit unions. Institutions contribute 0.025% of their deposit account balances each month.

[13] In practice, the central bank intervenes once the acquiring bank has been identified and the PROER arrangements finalised.

[14] For instance, FGC coverage and PROER's debt.

[15] Two numerical examples of PROER balance sheet operations are set out in an annex. The following paragraphs outline the general principles.

[16] Accordingly the "new bank" is simply the bank that results from the acquisition of troubled bank (selected) assets and liabilities (deposits).

[17] The FGC covers deposits up to the limit. Similar to PROER operations, FGC coverage is entered as a "bad bank" liability and a "good bank" asset.

[18] Any action taken with respect to managers' properties, however, depends upon verification of their contribution to the failure of the bank. The properties of the majority shareholders are frozen independently of such verification.

The BCB's ensuing claim on the "bad bank" is collateralised by federal debt instruments whose face value must exceed by 20% the amount of PROER finance.[19] Financial charges correspond to a spread of 2% over the remuneration of the collateral provided.[20] If the "bad bank" lacks the required volume of federal debt instruments to secure the debt, the central bank may also finance the purchase of the accepted collateral. In this case, the volume of PROER finance is equal to the "good bank" asset gap *plus* the value of collateral purchased.[21]

PROER financial assistance is also granted to a federal financial institution to acquire the troubled bank's mortgage portfolio.[22] Another line of credit is based on (troubled bank's) claims on the FGC,[23] while three others are still pending.[24]

The *second general model* is tailored for small and medium-sized banks. In this case the troubled bank is simply taken over by another bank (the troubled bank is not split into a "good bank" and a "bad bank"). The "new bank" has to be capitalised. A PROER line of credit is granted to the acquiring bank as a liquidity cushion against potential deposit withdrawals or as a lever to help to replace the troubled bank's impaired assets.[25]

Several important mergers and acquisitions took place under PROER arrangements (Table 3), whereas others were managed *without*

[19] PROER also accepted as collateral for loans unmarketable federal debt instruments, i.e. debt instruments of uncertain settlement which are therefore negotiated at a substantial discount (because of their high liquidity risk) in secondary markets (when a secondary market for them exists at all). The *Fundo de Compensacão para Variacões Salariais* (Government-subsidised mortgage assets (FCVS) may be considered as a representative unmarketable federal debt instrument used as collateral for PROER loans.

[20] The remuneration of the FCVS is equivalent to a spread over the TR.

[21] Federal debt instruments are offered as PROER guarantees at their *face value,* but purchased at their *market value*. This means that the collateral purchased is settled at the books of the "bad bank" by its value of acquisition. See annex.

[22] The federal financial institution is the Caixa Econômica Federal (CEF). As the main savings and loan institution in Brazil, the CEF has a considerable volume of FCVS on its portfolio that may be used to secure PROER finance. There was no case of an acquiring bank taking over the mortgage portfolio of the troubled bank.

[23] This line of credit has the maturity of up to five years and interest rate charges set by the market overnight rate on federal debt repos, the so-called *taxa referencial do* SELIC (SELIC rate).

[24] These are related to (i) cleanup operations, (ii) administrative reorganisation and modernisation of operational systems, and (iii) fixed assets reduction.

[25] This line of credit has the maturity of up to five years. Collateral is defined according to BCB criteria and interest rate charges are set by an annual accruing spread over the SELIC rate.

borrowing from PROER facilities (Table 4). Total BCB disbursements under PROER totalled around R20 billion from November 1995 (approximately 2.5% of 1996 GDP), with the bulk of disbursements being made before mid-1997 and under the first general model. Claims on the FCVS provided nearly 2/3 of total PROER guarantees.

Programme of incentives for the restructuring of the state public financial system (PROES)

The main objective of the PROES is to reduce the role of state governments in the banking system.[26] A major problem in Brazil had been the extraction by these governments of credit from their "own" banks, thus undermining the independence of credit assessment.

In much the same way as PROER, PROES principles can be summarised as safeguarding the payments system and penalising bad banking policies. Deposits are protected, but the nature of state control is to be changed or the bank has to modify its line of business.

Table 4

Transfer of shareholding control, merger, acquisitions and split after the real plan without borrowing from PROER facilities

Type of adjustment	Institution	
	Domestic	Foreign
Transfer of shareholding control	9	20
Merger, acquisition	3	6
Split	6	0
Total	18	26

Source: Central Bank of Brazil.

[26] Laid down originally by Provisional Measure 1,514, August 1996. Federal financial institutions also engaged themselves in restructuring plans, but these were not under PROES facilities. For instance, the two largest federal banks, Banco do Brasil (BB) and CEF, have sought to restructure their operations and restore capital adequacy, while the third largest, Banco Meridional, has been privatised.

The PROES forms part of a comprehensive process of state fiscal adjustment and debt restructuring.[27] The fiscal adjustment programme aims at generating primary surpluses so that states are able to service their debt, while debt is reduced to sustainable levels through restructuring.[28]

The debt restructuring agreements involved both forgiveness of (securitised) debt and an (implicit) interest rate subsidy on (total) restructured debt. Banks were able to exchange the state government paper they held for federal government paper. Part of the state's resultant debt to the federal government was then forgiven through the capitalisation of the outstanding securitised state debt at a specific (past) date using a below-market interest rate. The difference between the overnight market interest rate and that on the restructured debt over the period (i.e. up to the time of the signing of the renegotiating debt contract between the state and the federal government) was assumed by the federal government.[29] The securitised debt was then consolidated with other debts and the total restructured debt was given the same interest rate subsidy as the securitised debt.[30]

Under PROES arrangements, the federal government finances the restructuring of state banks. State bank claims on impaired assets (mainly credits granted to their controlling shareholders, i.e., state governments) are assumed by the federal government and this debt is also consolidated with other state debts under restructuring. The

[27] Current legal provisions (Law 9,496/97) has been recently preceded by two other state debt renegotiations. Accordingly, in 1989 the federal government assumed much of the states' external debt (Law 7,976) and in 1993 it assumed state debts owed to federal financial institutions (Law 8,727). Another form of federal bailout for the states that has taken place since 1994 is a forward selling agreement involving BCB bonds and non-tradable state government securities (which must remain frozen in state banks' portfolios).

[28] Under fiscal adjustment programmes, state governments are required to pursue primary surpluses to cover debt service obligations (overall balanced position). A decreasing trend is set for the debt-revenue ratio, which has to fall to one from an average value of 2.2 in 1996. Furthermore, debt service due on newly *and* previously restructured debt is scheduled to commit from 11% to 15% of net revenues (own revenues plus transfers from the federal government less transfers to the municipalities), any excess being capitalised.

[29] According to Law 9,496/97, the stock of outstanding securitised state debt is taken at 31 March, 1996 and capitalised using an annual interest rate of 6% plus inflation (as measured by the IGP-DI index). The portion of the debt assumed by the federal government was considered to be about R6.2 billion by the end of 1996 (0.7% of GDP). In 1997 the interest rate subsidy would have increased to some R8 billion (1% of GDP) and it was [expected to be] even higher in 1998 (IMF, (1998)).

[30] The newly restructured debt is divided into two portions. The first portion, the so-called *"conta gráfica"*, corresponds to 20% of the restructured debt. It had to be amortised by the end of 1998 using revenues from the privatisation of state assets. The remaining 80% is amortised over 15 to 30 years at an annual interest rate of 6% plus the rate of inflation.

quid pro quo for such aid is that the state bank has to agree to be further privatised, liquidated or transformed into a non-banking financial institution (such as a development agency).[31]

With a view to reducing the role of state banks in the financial system, the federal government may acquire shareholding control of the bank for the exclusive purpose of privatisation or liquidation. The federal government may also finance the liquidation of the state bank and the adjustments required to privatise or change the status of the state bank to that of a non-banking financial institution.[32] Lastly, the federal government is responsible for the assignment of assets (treasury bonds) to secure payment of PROES obligation. However, if the state government should decide to maintain control over the state bank, only 50% of the costs of the restructuring programme would be met by the federal government. In either case, the bank would have to be recapitalised and the management changed.[33]

All transactions conducted by the federal government under debt restructuring agreements and PROES finance are made through marketable treasury securities. The central bank provides the state bank with liquidity by swapping short-term bills for the long-term federal securities issued under debt restructuring agreements.[34] In addition, the central bank provides bridge loan finance for federal financial institutions or state financial institutions to acquire state bank impaired assets owed by the federal government, the state government or the private sector.[35] The

[31] Even if the state government decides not to adhere to PROES, there still remains the possibility that the central bank may intervene in the bank (Special Regime) so as to liquidate or transform it into a non-banking financial institution. In this case, however, the state government debt owed to the state bank is not given a special treatment, i.e., it is not consolidated with the state debt under restructuring.

[32] Privatisation revenues are used to amortise state restructured debt owed to the federal government.

[33] This is also the case when the state government decides to keep control over one of the state financial institutions, allowing the others to be privatised or liquidated.

[34] The central bank issues short-term bills in exchange for long-term federal securities. The BCB bonds are redeemed at a premium (for the central bank) at regularly scheduled (weekly) intervals.

[35] The line of credit based on claims on the federal government is identical to the PROER line of credit applied to large banks, except for the financial charges, which are set in the protocol (letter of intent) signed by the federal and the state government. The line of credit related to claims on the state government and the private sector has the maturity of up to one year. Guarantees are accepted according to BCB criteria and financial charges are those established in the protocol. The federal financial institution is the CEF that acquires the state bank mortgage portfolio and the (another) state financial institution is eventually the one that remains under state government control.

central bank may also provide bridge loan financing for a federal financial institution to assume state bank deposits.[36]

After the renegotiated debt contract between the state and the federal government is signed, the federal government provides finance to the state government for either recapitalising the state bank, paying its debt to the state bank or acquiring state bank impaired assets. The revenue received by the state bank is used to pay the federal financial institution or state bank financial institution, which, in turn, redeems the BCB bridge loan.

Last but not least, the central bank is always responsible for evaluating the magnitude of the necessary adjustment of state banks.

Total debt restructuring agreements amounted to about R75 billion out of a total state debt of R143 billion (as of December 1996). It was composed of securitised debt (R41 billion), ARO[37] (R0.5 billion), debt owed to CEF (R2.5 billion), borrowing to finance the clean-up of state banks under PROES (R3.5 billion) and other debt (R28 billion) including bank debt owed mainly to state-owned commercial banks and to suppliers. Previously rescheduled debt was *not* included in this restructuring round. The federal government issued about R100 billion in treasury securities to finance state debt restructuring agreements and PROES operations in September 1997 (IMF, (1998)). As a result of PROES, much of the state public financial system has been restructured in various ways (Table 5).

Entry of foreign banks

The greater participation of foreign banks has played a key role in restructuring the Brazilian financial system. The main channels have been,

[36] In other words, the central bank provides unlimited protection to state bank's depositors through a federal financial institution that assumes all state bank deposits. The federal financial institution is turned into the state bank's sole depositor and, as a counterpart, is given a claim on state bank assets. It is also the case when the state bank is liquidated or transformed into a non-deposit taking financial institution. This line of credit has the maturity of up to five years and the federal government as the guarantor. Interest rate charges are set by the SELIC rate. As federal financial institutions cannot incur any losses from taking part in official restructuring programs, the federal government is responsible for equalising the cost of the liabilities assumed (deposits) with the cost of PROES' finance.

[37] States' short term revenue anticipation loans.

Table 5

The restructuring of local state financial systems under PROES

Option	Number of institutions
Liquidation	9
Privatisation	7
Federalisation	4
Cleanup	6
Transformed to Development Agency	14
Out of PROES*	3

* Local state governments that did not adhere to PROES.

Source: Central Bank of Brazil.

first, capital increases in banking institutions where foreign banks were already minority shareholders and, secondly, the entry of new banks. Foreign institutions have also set up or taken over non-banking financial institutions.

Article 192 of the 1988 Federal Constitution dealing with the financial system (including the regulation of foreign institutions) still has to be ratified. Meanwhile, the *Act of Transitory Provisions of the Constitution* prohibits either the entry of new branches of foreign financial institutions or the increase in the participation of non-residents in the equity of financial institutions headquartered on Brazilian territory. However, this disposition (barrier to entry) does not apply to permission derived from international agreements, reciprocity arrangements or when it is considered to be in the interest of the federal government.

Administrative guidelines based on these arrangements establish that it is in the country's interest to permit the entry, or the increase in the participation, of foreign banks in the Brazilian economy (moral suasion).[38] To facilitate the entry of external institutions, the restriction that the minimum capital for a foreign bank had to be twice as large as that required for a national bank was eliminated.

[38] The so-called *"Exposicão de Motivos 311"*, as of August 1995.

The expectation of a more stable environment created by the Real Plan stimulated growing foreign interest in Brazil's financial system. The possibility of acquiring well-established institutions with valuable goodwill (even if in distress) opened an important channel for the entry of foreign institutions (Tables 3 and 4).[39]

Moreover, the opening of the capital market, the privatisation programme and the prospect of profits from project finance for infrastructure investment have been attracting the attention of foreign investors.

The central bank charges a "toll" for the entry of new foreign institutions in order to recover the public resources used in restructuring. The increase in the equity participation of external institutions is also subject to a toll. Although no specific rule governs these charges, the value of the toll has been established broadly according to the minimum capital required for setting up a financial institution ("entry capital"). The BCB revenues from toll collection has amounted to R350 million (Franco, (1999)).

The share of foreign banks' assets in the total banking system has increased from 7% in December 1994 to around 14% in December 1998. Some of the foreign banks to enter are important international banks and, in contrast to earlier practice, the new participants are competing strongly in the retail market, instead of simply exploiting specialised niches, such as private banking and corporate finance.[40]

Concluding remarks

The comprehensive approach taken to bank restructuring in Brazil has prevented a systemic crisis that once seemed likely. Although it remains to be completed, restructuring has already produced important structural changes in the banking system. The intervention and closure of numerous institutions, the restructuring of public banks (both state and federal) and the entry of foreign competitors have been accompanied by major mergers and acquisitions. Private banks have adjusted their balance sheets, local state financial systems have shrunk and foreign banks have grown in importance. The process of mergers and acquisitions and the ensuing increase in the level of concentration is likely to continue.

[39] Only one foreign institution entered the Brazilian banking system through PROER arrangements, but this resulted from an unprecedented take-over transaction.

[40] The number of foreign commercial and universal banks in the Brazilian financial system more than doubled (from 20 to 44) and the share of foreign banks' branches increased from 2% to 15% in the same period. See Banco Central do Brasil (1999).

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Annex
Restructuring troubled banks: a numerical example

Case 1: closing "good bank-1" asset gap without having to finance the purchase of collateral (FCVS)

Troubled bank	
Assets	**Liabilities**
Good assets = 20	Deposits = 120
NPLs = 60 (= zero)	NET WORTH = 80 (= –40) (*)
FCVS = 120 (= 60)	
Good bank-1	
Assets	**Liabilities**
Good assets = 20	Deposits = 120
	NET WORTH = –100
Bad bank-1	
Assets	**Liabilities**
NPLs = 60 (= zero)	NET WORTH = 180 (= 60)
FCVS = 120 (= 60)	
Good bank-2	
Assets	**Liabilities**
Good assets = 20	Deposits = 120
PROER = 100	NET WORTH = zero
Bad bank-2	
Assets	**Liabilities**
NPLs = 60 (= zero)	PROER = 100
FCVS = 120 (= 60)	NET WORTH = 80 (= –40)

(*) Adjusted (marked to market) for the assumption that FCVS is negotiated at a discount of 50% and that NPLs amounts to zero.

The amount of PROER resources needed to conduct the operation in this case is equal to the amount needed to close the asset gap of the "good bank-1".

PROER = "good bank-1" asset gap.

The bank holds FCVS securities and, as explained in the text, provides them as collateral for PROER's finance. As established by the authorities the face value of this collateral has to exceed the amount of finance by 20%.

Case 2: closing "good bank-1" asset gap and financing the purchase of collateral (FCVS)

Troubled bank	
Assets	**Liabilities**
Good assets = 20	Deposits = 120
NPLs = 60 (= zero)	NET WORTH = –40 (= –100) (*)
Good bank-1	
Assets	**Liabilities**
Good assets = 20	Deposits = 120
	NET WORTH = –100
Bad bank-1	
Assets	**Liabilities**
NPLs = 60 (= zero)	NET WORTH = 60 (= zero)
Good bank-2	
Assets	**Liabilities**
Good assets = 20	Deposits = 120
PROER = 100	NET WORTH = zero
Bad bank-2	
Assets	**Liabilities**
NPLs = 60 (= zero)	PROER = 250
FCVS = 150 (**)	NET WORTH = –40 (= –100)

(*) Assuming that NPLs amounts to zero when marked to market.

(**) Purchase of FCVS booked by its value of acquisition (at a face value discount of 50%).

In this second case, the amount of resources provided by PROER is larger than in the first case. This is because the "bad bank" does not have collateral to secure PROER's finance, and receives support by PROER to acquire it.

In this case, the amount of PROER finance is given by:

PROER = "good bank-1" asset gap + finance to purchase FCVS at market value (= FCVS face value/2)…(1).

Additionally, the face value of the collateral has to exceed by 20% the amount of PROER finance:

PROER = FCVS face value/1.2…(2).

From the formulas (1) and (2) above:

FCVS face value = 300,

FCVS market value = 150,

PROER = 250.

Bank restructuring in China

Xie Ping*

Introduction

Since 1997, it has been an important task for financial reform in China to restructure financial institutions that are having difficulties making payments, are making losses or are even insolvent, so as to mitigate financial risks and find ways for the weakest financial institutions to exit the market. In China, bank restructuring includes not only the restructuring of commercial banks, but also restructuring of those non-bank financial institutions, such as trust and investment companies and urban/ rural credit cooperatives, which also receive deposits. There are several ways of restructuring banks in China, including recapitalisation, conversion of debt into equity, merger, disposal of non-performing loans (NPLs), and closure and bankruptcy of some insolvent financial institutions.

Recapitalisation

In March 1998, a special Treasury bond amounting to 270 billion yuan was issued. The purpose was to strengthen the capital bases of the four wholly state-owned commercial banks and to increase their capital ratio to 8%. The bonds were purchased by the four state banks, with funds freed up by a lowering of the required reserve ratio from 13% to 8%. However, joint-stock commercial banks and rural credit cooperatives are ineligible for such funding from the central government. Their capital increases mainly come from capital injections from shareholders or

* This paper represents the views of the author, not necessarily those of the People's Bank of China.

accumulated profits; however, their capital is unlikely to be built up quickly in this way. Especially for some trust and investment companies, their capital has not been increased for a long time, while losses and NPLs accumulated. Other than the four wholly state-owned banks, financial institutions are mainly owned or controlled by local governments and state-owned enterprises, and their shareholders were unwilling to inject fresh funds unless they were under great pressure.

Conversion of debt into equity

In October 1996, the Everbright Trust and Investment Company, whose biggest creditors included a state oil firm and two state-owned commercial banks, could not meet its maturing debts. To avoid its bankruptcy, the central bank decided to convert its debts, of about 5 billion yuan, into equity. However, the company hardly earned any profits during the next three years, and creditors suffered great losses from this kind of conversion. Conversion of debt into equity should be the last resort in bank restructuring, because it is at the expense of creditors' interests, and its final effect is not very good.

Mergers

From 1995 to 1998, more than 2,000 urban credit cooperatives were merged into 88 city commercial banks according to the following principles: assessing assets and capital, writing off some bad debts, estimating net worth of equity and encouraging new shareholders.

Even though these measures have been adopted, there are still unsuccessful cases. In August 1995, Hainan Development Bank was formally established after the merger of five trust and investment companies based in Hainan Province and the introduction of new shareholders. However, the asset quality of those trust and investment companies was very low and led the newly formed bank to perform poorly. In December 1997, Hainan Development Bank took over another 28 local urban credit cooperatives that were suffering liquidity problems, resulting in a further deterioration of its situation. Although the central bank provided more than 3 billion yuan in liquidity assistance to it, runs

on deposits still occurred. In January 1998, Hainan Development Bank was finally closed by the central bank.

Furthermore, since the performance of the former urban credit cooperatives was poor, the new 88 city commercial banks suffered high NPLs and heavy losses; several city commercial banks even experienced payment crises.

To mitigate the risks of trust and investment companies, the Chinese authorities are planning to reduce their number from the existing 239 to around 60 through merger.

Closure, liquidation and bankruptcy

During 1997 and 1998, one insolvent commercial bank and three trust and investment companies have been closed in China. Their total liabilities reached about 120 billion yuan.

In China, closure of a financial institution is different from bankruptcy. Closure of a financial institution follows these procedures:

- Firstly, the central bank announces the closure of a financial institution and designates a commercial bank to take care of its claims and debts.
- Secondly, the commercial bank or an external accounting firm liquidates the assets of the closed institution, calculates its losses and realisable net assets as well as registers and confirms debts.
- Thirdly, the principles for the repayment of debts are decided. In general, the principal and legal interests of foreign debtors and individual depositors will be repaid in priority. How much of the deposits of domestic legal entities can be repaid depends on the net assets after liquidation, and usually, it is not enough to repay even the principal of deposits.
- Fourthly, if an institution incurs an especially heavy loss, it can also apply for bankruptcy to the court. Once the bankruptcy procedure begins, the procedure of closure and liquidation terminates.

In October 1998, Guangdong International Trust and Investment Company (GITIC) incurred heavy losses and could not meet maturing debts. The central bank announced the closure of this financial institution. However, the liquidation led by a well known international accounting firm found that GITIC was seriously insolvent. In January

1999, GITIC applied for bankruptcy. This is the first case of bankruptcy of a financial institution in China.

Disposal of NPLs of state commercial banks

In China, NPLs of state commercial banks are relatively high; bad loans account for about 6–7% of total loans, and there are further amounts of overdue loans. Up to now, according to the regulations set by the Ministry of Finance, only 1% of outstanding loans of the previous year should be reserved as loan loss provisions against which bad loans can be written off in the current year. As a result, the loan loss provisions are far from adequate.

The first Asset Management Company responsible for dealing with NPLs of state banks was established in April 1999. Another three are planned to be set up. They will separate NPLs from the four state banks, and use various methods to dispose of them.

Some difficult issues regarding bank restructuring

The issue of bank restructuring in China only emerged within the past three years. While financial risks in China were gradually exposed, the Chinese authorities have fully recognised its urgency, and do not wish the situation in Japan to recur in China. However, under the existing social environment and within the existing legal framework, the restructuring of financial institutions in China faces some difficult problems.

- Guarantee of repayment of individual deposits (since China has not established a deposit insurance scheme). Net realisable assets of some closed financial institutions are not enough to repay the principal of saving deposits of individuals. Under this circumstance, shareholders, local governments, central government or the central bank usually have to provide funds to subsidise the repayment.
- Different orders of repayment among individual deposits, foreign debts and domestic legal entity debts. When dealing with some insolvent financial institutions, different orders were applied to different creditors. This practice did not have a sufficient legal basis, especially for the different treatment of foreign debts and domestic

legal entity debts. Furthermore, it is at the expense of the central government or the central bank: because most of the domestic legal entity creditors are state-owned enterprises or state-owned financial institutions, the government or the central bank has to rescue them.

- Absence of a specific closure and bankruptcy law for financial institutions makes it very difficult for them to go bankrupt. The treatment of GITIC's bankruptcy was based on the bankruptcy law for general enterprises.
- Even though asset management companies are being established to cope with NPLs of state commercial banks, the question of who will compensate for the final losses is yet to be resolved. Under some specific circumstances, it may be necessary for the central government to use public funds to make some compensation; while at present, the central government budget does not have such arrangements. Therefore, some of the losses are compensated by the central bank in terms of central bank loans.
- Considerations of applying deposit insurance scheme to rural credit cooperatives. The four biggest banks have about 63% of the deposit and loan market, which means that if they do not join the deposit insurance scheme, the contributions will not be enough, and this is not fair to medium- and small-sized financial institutions. However, if the authorities request the biggest four to join the scheme, because of their huge deposits, they would have to make very large contributions, for possible rescues of medium- and small-sized institutions, and they will be reluctant to do this.
- The existing financial accounting principles can not meet the needs of developing financial business, nor embody the prudential accounting principles, such as the calculation of maturities of interest receivable and the principle of provisioning for bad debts. Especially in the process of bank restructuring, there is not a criterion for the evaluation and calculation of net assets.
- The inadequate integrity and reliability of business records of financial institutions in China and the low transparency of information make it more difficult for merger, restructuring or closure of financial institutions.
- Some financial institutions needing to be restructured are either solely owned by local governments or largely controlled by them. Local governments usually appoint senior management of financial

institutions and intervene heavily in their business. While local governments assume limited responsibility for providing funds for the merger, restructuring, closure, and even bankruptcy of financial institutions; they often intervene in all the restructuring on behalf of their own interests. Furthermore, the restructuring of financial institutions can not be implemented justly, because judiciary departments also obey instructions from local governments.

- When NPLs of banks are disposed and financial institutions closed or bankrupted, there exist several obstacles to transfer, sale or securitisation of the valid assets. The first is the absence of a secondary market for credit in China, second is that most credits do not have explicit collateral; and the third is that there are a lot of legal difficulties and other problems in the auction of any collateral. Thus, the market price for the net assets of financial institutions can hardly be realised, and the ratio of realised asset values to book values is relatively low.

Banking problems: Hong Kong's experience in the 1980s

Raymond Li*

Political and marco-economic background

The last major banking crisis faced by Hong Kong occurred in the period 1983–86. This had its roots in an earlier period of rapid credit expansion, made possible in an environment relatively free of institutional supervision. An unsustainable asset price increase reversed after a sharp deterioration in economic fundamentals. Overlending to the property market also set the stage for bank failures. These problems were compounded by a political shock.

The strong boom internationally in the second half of the 1970s produced an inflow of funds into Hong Kong. Strong economic growth, together with very low or even negative real interest rates, produced a strong demand for credit. Money flowed into the stock and property markets from 1978, and the credit expansion had also pushed the inflation rate to the double digit range between 1979 to 1982. The easy credit policy of the banking sector, helped by heavy competition among banks, was demonstrated by its rapidly increasing exposure to the property sector. Loans to construction and property development climbed steadily in banks' asset portfolio, reaching some one-fifth of total domestic loans by end-1981. By then, speculation had pushed residential property prices to a level too high to be affordable by the general public.

In an effort to cool US inflation, the Federal Reserve began to tighten monetary policy sharply in 1981. This led to a recession in the US in late 1981 and by 1982, worldwide economic recession began to bite. Although the HK dollar was on a free float, the United States remained Hong Kong's major trading partner, and Hong Kong interest rates

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were heavily influenced by rising United States dollar rates. Real interest rates reached a peak of 4.4% for the best lending rate in 1982 Q2 and slowed GDP growth to just 2.7% in that year. However, bank credit did not show any sign of slowing down. The key factor was the continuing growth of loans to the property sector despite the downward adjustment of property prices. The longer term financial commitment of property projects had prevented a quick adjustment of loans in response to the change in market situation. Many speculators, particularly those in commercial property, were highly leveraged. Banks had also relaxed their credit standards during the sharp rise in property prices.

Both property and stock prices fell sharply during this period. The stock market index and property prices corrected by 38% and 31% respectively from end-1981 to end-1983, and many property companies encountered problems. The credit squeeze finally came in 1983. Loans to construction and property development dropped by 4.9% in the year.

Political uncertainties added to the crisis atmosphere, following China's official statement in August 1983 that it would take back Hong Kong on or before 1 July 1997, regardless of the outcome of its negotiations with the UK. The climax was reached on the weekend of 23–24 September 1983, with the news that Sino-British negotiations had ended in stalemate. During these two days, the HK dollar depreciated by some 13% against the US dollar, closing September 24 at a record low of HK$9.6. Matters stabilised after the announcement and implementation of the linked exchange rate system in October 1983 which linked the HK dollar to the US dollar at a rate of HK$7.80/US$.

The economic gloom and the general lack of political confidence persisted, however, and did not bottom out until 1985. In the meantime, problems of mismanagement and fraudulent operations in some banks and deposit-taking companies (DTC) came to the surface. An example was the Carrian case, a property developer that collapsed after it was discovered that it was fraudulently financed by a DTC called Bumiputra Finance, a subsidiary of a state-owned bank in Malaysia.

Brief history of the problems

Between 1983–86, seven local banks got into difficulties. These included the then third largest local bank in Hong Kong, the Overseas Trust Bank.

The Government took the view that if these banks were allowed to fail, there would be systemic implications and an unacceptable impact on the HK dollar under the circumstances prevailing at that time. Therefore, these banks were rescued by the Exchange Fund, whose main role was to maintain currency stability. Three of them were taken over by the Government and financial assistance (e.g. in the form of guarantee of assets, liquidity support etc) was provided to facilitate the takeover of the other four by private sector entities.

The causes of failure of these banks varied, but the underlying problems were all related to loan quality. Some of them had lent too aggressively during the boom period, and were hard hit in the downturn. Other failures involved outright fraud. The following summarises the more common reasons for failure:

- *Over-concentration in property and share related lending.* Historically, residential mortgage lending in Hong Kong has been relatively safe. However, during the downturn from 1982, banks suffered substantial losses in loans related to property development, property and share speculation, and commercial properties.
- *Connected lending.* Lending to connected parties, including directors and director-related companies, was another significant source of loss. These loans were extended without proper credit assessment. Many such loans were also used for speculative purposes.
- *Large exposures.* Some banks were exposed to a few very big borrowers and suffered heavy losses when such borrowers were hit by the recession.
- *Fraud.* Either in a desperate attempt to cover up loan losses, or to benefit themselves, many members of the management of the problem banks were involved in fraudulent activities, e.g. cheque kiting,[1] fictitious loans etc.

Apart from banks, over 100 DTCs left the market during 1983–86 because of the unfavourable operating environment. Of these, around 20 experienced serious financial difficulties, mainly for the above mentioned

[1] Such cheque kiting activities typically involved the bank concerned discounting US$ cheques issued by companies connected with the management. The issuers had use of the money during the 7 days it took at that time to clear the cheques. The funds required for settlement were telex-transferred to the relevant accounts in the US, often obtained by discounting another batch of cheques.

reasons. The Hong Kong Government, however, did not rescue any DTCs. Their failures were not expected to have systemic implications.

Dealing with banking problems

Nature of the problems

It is important to determine whether or not the problem is systemic in nature. In Hong Kong, this dictates the policy choice of whether or not financial assistance should be provided to the problem bank. In the 1980s, virtually all banking problems had systemic implications, given the economic and political atmosphere at the time. However, in the BCCI crisis in 1991, the BCCI Group subsidiary in Hong Kong (BCCHK) was allowed to fail and go into liquidation. This was because the Hong Kong Government took the view that the failure of BCCHK was not going to have systemic implications despite the fact that it was a substantial local retail bank. The process was nevertheless not a painless one. There were demonstrations from depositors, rumours were widespread and bank runs started on several other banks. Such bank runs subsided after a few days but this did show that the liquidation of a retail bank would inevitably cause social/political problems despite the relatively benign economic climate prevailing in 1991. This is especially true in Hong Kong where there is no deposit insurance.

Solvency of the problem bank

The next question is whether or not the problem bank is solvent. If it is, liquidity support by the central bank as the lender of last resort may be the appropriate measure. In Hong Kong, the Government effectively acted as lender of last resort in the 1980s. There were however problems. It was in practice difficult to determine whether the bank was solvent or not. Some of the problem banks in the 1980s were in fact insolvent when liquidity support was provided. That delayed the proper resolution of the problems and increased the ultimate costs of rescue.

If it is decided that a bank is insolvent, the options available will be:

(a) to close the bank and allow it to go into liquidation;
(b) Government to acquire the bank and to inject fresh capital. Eventually the bank would be privatised; and
(c) Government to facilitate a takeover of the bank by a third party.

As mentioned above, the liquidation of a retail bank is inevitably destabilising. Option (a) is feasible only when it is judged that the systemic impact arising from possible loss of confidence in other banks would not be too severe. A safety net for depositors such as deposit insurance, with all its shortcomings, will help in this aspect. Option (a) was not pursued during the 1980s, but the other two were used.

The opportunity should also be taken to consolidate the banking sector if considered necessary. In Hong Kong this was achieved to some extent in the 1980s as all the three banks taken over by the Government were eventually sold to existing banks.

Problem loans

In all restructuring exercises, a major problem to deal with is the problem loans. In the 1980s this was dealt with by Government guarantees in favour of the buyers of the problem banks. This was not the most efficient and effective solution. The loan recovery process was complicated and the bad assets remained on the banks' book for a long time. To some extent, this might also have diverted some of the banks' resources which could have been better deployed to develop other more constructive businesses.

An asset management company (AMC), to which bad assets might be transferred, would be useful in that:

- where a bank is still a going concern but has a large amount of bad loans, the purchase of these loans by the AMC would free up liquidity in the bank and enable management to concentrate on the daily running of the business; and
- in the case of insolvent (or capital impaired) banks, which need to be restructured, the purchase of bad loans by the AMC would provide the means of stripping out the bad assets to leave behind the good assets which could be sold, along with the liabilities of the failed bank, to a rescuing bank.

Addressing the weaknesses of the banking system

Prevention is better than cure. It is obviously desirable for the problem not to arise in the first place. In Hong Kong, a number of initiatives have been taken to this end since the 1980s.

Strengthening the legal framework

Following the problems of the early 1980s, the Government commissioned a study to make recommendations on improvements in the prudential supervision of banks and DTCs. As a result of the study, the *Banking Ordinance* was revamped in 1986 to tighten up the supervision of these institutions. Its provisions included the following areas:

Similar Supervisory Standards for Banks and DTCs

Prior to 1986, there were two different sets of supervisory standards for banks and DTCs under the then *Banking Ordinance* and *DTC Ordinance* respectively. The latter were subject to less stringent supervision. DTCs also provided vehicles for bank management to undertake risky business or to facilitate fraudulent schemes. As a result many problems occurred in that sector. The *Banking Ordinance 1986* replaced the pre-1986 ordinances and put banks and DTCs under the same supervisory framework. They are now known collectively as Authorised Institutions (AIs).

Functions of the supervisor

The *Banking Ordinance 1986* spelt out clearly the supervisor's duties. Reflecting the primary objective of supervision to promote the general stability and effective working of the banking system and provide a measure of protection to depositors, the Ordinance provided that the supervisor should take all reasonable steps to ensure that AIs were soundly based and prudently managed. This duty implied a different emphasis in the approach to prudential supervision which relied more on the supervisor's discretion and qualitative judgment than previously. Adequate safeguards in the form of appeal to the Financial Secretary and the Chief Executive in Council were provided as a check and balance against the supervisor's exercise of discretion. To enhance further the accountability of the supervisor, he was required to make an annual report to the Chief Executive in Council on the performance of his duties which were published for public scrutiny.

Capital and liquidity ratios

Whilst the pre-1986 *Banking Ordinance* and *DTC Ordinance* prescribed minimum capital requirements for banks and deposit-taking companies,

these capital requirements did not bear any relationship to the amount and level of risk of the assets they supported. Some AIs were therefore tempted to overextend their businesses and take undue risks, making them vulnerable in circumstances where their assets became bad and needed to be written down.

The *Banking Ordinance 1986* introduced new minimum requirements on capital adequacy and liquidity. The supervisor was given the discretion to vary such requirements to cater for individual differences.

Connected lending and large exposures

The pre-1986 ordinances did not have adequate provisions to prevent imprudent lending. In particular, legislation was inadequate to regulate connected lending and concentration in exposure which was the root of many financial institutions' difficulties.

The *Banking Ordinance 1986* contained provisions to restrict lending against the security of shares of related companies, and to place limits on large exposures and connected lending.

Regulation of ownership and management

Apart from requiring locally incorporated banks to obtain the Financial Secretary's approval before reconstructing their capital, legislative controls under the pre-1986 *Banking Ordinance* over ownership of banks and DTCs were practically non-existent. Further, there had been inadequate provisions to ensure competence and integrity of the controlling managerial level of AIs.

The revised ordinance introduced new regulations for ownership and management. These included approval requirements for the exercise of voting rights by certain shareholders and the appointments of directors (including chief executives) of AIs. These have since been expanded to cover changes in the ownership and control of local AIs and the appointment of alternate chief executives.

Improvements in co-ordination with external auditors

The *Banking Ordinance 1986* enabled the supervisor to call a tripartite meeting between the supervisor, the institution's management and the institution's auditor to discuss matters relating to the AI. The supervisor

might also refer to the Disciplinary Committee of the Society of Accountants any cases of negligence or serious misconduct by the auditors.

Regular update of the legal framework

Since the *Banking Ordinance 1986* was enacted, it has been regularly reviewed and refined to take account of local and international developments, such as the Basle Capital Accord which was given statutory effect in Hong Kong from the end of 1989. It is Hong Kong's policy to keep its supervisory standards in line with international standards, particularly those promulgated by the Basle Committee.

The HKMA is currently revising the *Banking Ordinance* once again to bring the legal framework fully in line with the Core Principles for Effective Banking Supervision published by the Basle Committee. It is hoped that the legislation will be passed in the near future.

Market discipline

In recent years the HKMA has attempted to blend its traditional supervisory approach (centered around the Basle Capital Accord and verification of asset quality through on-site examination) with greater reliance on market discipline and internal governance within banks.

Financial disclosure

Market discipline on the banking system can only work if market participants have sufficient information about the financial position and performance of individual banks, including in the audited annual accounts. In the case of Hong Kong, the position prior to 1994 was that most banks published very little information in their annual accounts. In particular, no breakdown was given of net profits and such profits were shown only after transfer to or from inner reserves. The accumulated total of such inner reserves on the balance sheet was not disclosed. The rationale for this position was to avoid banks having to disclose losses or even a sharp fall in profits which might result in an abrupt loss of confidence in the bank concerned and perhaps affect the stability of the system as a whole.

However, in today's environment where greater transparency is demanded, the HKMA came to the view that the lack of disclosure in Hong Kong was becoming counter-productive, in the sense that it might give the impression that the banks had something to hide – which was not the case – and because it provided insufficient incentive to management to improve performance. Beginning with the 1994 accounts, therefore, the HKMA has encouraged banks in Hong Kong to publish more information in their annual accounts. The result is that the level of public disclosure in Hong Kong is now on a par with international standards. In particular, the banks now publish a full breakdown of their profit and loss account and much greater balance sheet information. Profits are no longer shown after transfer to inner reserves and the accumulated total of such reserves has been disclosed. Information is also provided about bad debt provisions and the amount of non-performing loans.

So far this exercise has been accomplished without any adverse effects even though banks' performance has been hard hit by the Asian financial crisis. The increased transparency seems to have enabled investors and creditors to reach an informed opinion on banks' credit worthiness and has contributed to the relative stability of the Hong Kong banking sector vis-à-vis the rest of the region.

Lender of last resort

Market discipline can be eroded by over-generous financial assistance and support from the monetary authorities. The HKMA has therefore sought to clarify its role as the official lender of last resort in Hong Kong.

The granting of such assistance by the HKMA is by no means automatic. The guiding principle in considering whether to provide liquidity support is whether the failure of an individual bank would either by itself or through the creation of a domino effect, damage the stability of the exchange rate or the monetary and financial systems. The HKMA expects all authorised institutions in Hong Kong to have liquidity policies in place which, among other things, include contingency plans for dealing with a funding crisis. Such plans should identify emergency sources of funds and which assets could be used for pledging purposes. The HKMA would expect a bank to utilise its own liquidity resources and commercial sources of finance before obtaining support from the

HKMA. In particular, it should look to its significant shareholders to inject liquidity and/or capital into the bank as a demonstration of their own commitment.

In its role as the lender of last resort, the HKMA would act on the basis that it is providing liquidity support to institutions that are currently solvent. Rescue of insolvent banks would involve wider policy considerations and a different decision-making process (see below). Therefore, in keeping with its role as a prudent banker and to discourage moral hazard, the HKMA would normally only lend on the basis of security and at rates which provide incentives for good management.

Bank rescues

While lender of last resort facilities are expected to be repaid and are extended to solvent institutions with a liquidity problem, an insolvent bank gives rise to questions as to whether it should be rescued and by whom. A key issue in this context is who should bear the losses: shareholders, depositors, other creditors or the government (and thus the taxpayers).

Hong Kong has no policy of automatically bailing out insolvent banks. As noted above, a number of banks were taken over by the Government in the first half of the 1980s in the interests of maintaining the stability of the financial system as a whole. Financial support was provided in respect of others. However, it was made clear at the time that this was not a general policy but that an ad hoc approach would be adopted in each case. This principle was followed in 1991 when BCCHK was closed and subsequently put into liquidation.

Deposit insurance

Over-generous deposit insurance will undermine market discipline and cause moral hazard problems. On the other hand, lack of deposit insurance may inhibit the authorities from placing a bank into liquidation, because of the impact on depositors, thus delaying the exit of failed banks from the system.

In the case of the BCCHK liquidation in Hong Kong, the impact on small depositors was eased because the high liquidity and generally good asset quality of the bank enabled an early payout in full to be made to small depositors. This took much of the tension out of the situation.

Following this episode, the Hong Kong Government issued a public consultation paper on whether a deposit insurance scheme should be introduced in Hong Kong. The conclusion was that, on balance, the costs of deposit insurance were greater than its benefits. Instead, the insolvency laws were amended to enable small depositors (HK$100,000 and below) to be paid out in a liquidation in priority to other creditors. This is intended to help to reduce the disruption caused by any future liquidation of a bank, though its effectiveness would depend on the bank in question having sufficient liquid assets to enable an early distribution to depositors.

Financial infrastructure

Having an advanced and efficient financial infrastructure will also contribute to greater banking stability. Set out below are some of the initiatives Hong Kong has taken in this regard.

Real Time Gross Settlement System (RTGS)

Banking stability depends crucially on the stability of the systems through which banks make and receive payments. Liabilities of the problem banks to other banks through the interbank payment system were one of the major considerations in deciding to rescue some of the problem banks in the 1980s. The introduction in December 1996 of the RTGS system in Hong Kong achieves finality of settlement on an intra-day basis, substantially reducing the risks which banks run in respect of payments between themselves. Settlement is across the books of the HKMA, and no longer across the books of a commercial bank. This paves the way for linking up with other RTGS systems abroad. The RTGS system in Hong Kong has also been linked to the HKMA's book entry transfer system for securities which allows delivery against payment for the settlement of transfers of securities lodged in the system.

Bilateral netting

As a market initiative to enable bilateral netting of foreign exchange contracts, and thereby reduce settlement risk, the Hong Kong Association of Banks has developed, and recommended to their members the

use of, a master netting agreement called the Hong Kong International Foreign Exchange Master Agreement. A legal opinion has been obtained that the agreement will be enforceable under Hong Kong law. In accordance with the Basle Committee's recommendations and subject to the conditions specified by the Committee, the HKMA has confirmed that it is prepared to allowed the bilateral netting of off-balance sheet transactions in calculating counterparty exposure for capital adequacy purposes.

Mortgage corporation

The share of mortgage loans in the domestic loan portfolio of the banking sector has increased from less than 10% to over 20% in the past 15 years. While the default rate on residential mortgage loans in Hong Kong has been very low in the past, the banks' growing involvement in this type of business gives rise to a concentration risk. It also has implications for the management of their liquidity (since they are financing an increasing amount of long term loans on the basis of short-term deposits). This maturity mismatch was a cause of difficulties for some of the problem banks in the 1980s, although it was commercial property loans that was a major cause of losses.

As a result, the Government has set up a Mortgage Corporation in Hong Kong whose role will be to buy residential mortgage loans from the banking system, either to hold on its own balance sheet or for the purposes of securitisation. The Corporation is initially owned by the Government via the Exchange Fund, but is intended that it should operate on a commercial basis. It finances itself by issuing long-term debt which helps to reduce the maturity mismatch in the system as a whole and also encourages the development of the Hong Kong dollar debt market.

Concluding remarks

Hong Kong's experience of banking problems in the early 1980s indicates that the problems stem from a combination of factors both endogenous and exogenous to the banks. As one of the freest economies in the world, excessive competition under a low level of supervision in the late 1970s, helped by a global boom, caused over-speculation in property that

reached unsustainable levels. When the world entered a recession in the early 1980s, Hong Kong experienced at the same time a political shock that caused a sharp reversal in asset prices. The financial institutions that were not well managed suffered large loan losses, exacerbated by fraud and mismanagement.

The solution to the problems resulted in a strengthening of both bank management and prudential supervision. The general direction was not simply further controls, but measures to enable the market to work better. Emphasis was placed on capital and, more recently, on disclosure requirements, and generally prudential standards were brought up to international levels.

Bank restructuring in Korea

Dookyung Kim

Introduction

The recent crisis has been the most severe to hit Korea in its thirty-five year history of rapid economic development. It was triggered by the loss of the credibility of the Korean economy among international investors following the earlier crises in south-east Asia. Foreign investment houses suddenly became reluctant to make new loans and sought to withdraw existing credit lines to Korean banks and business firms. As a result, usable foreign exchange reserves were severely depleted in a short period of time, bringing Korea to the brink of insolvency.

However, at the root of the crisis lay more fundamental causes; over-borrowing and over-investment by the corporate sector, imprudent provision of loans by financial institutions funded by short-term borrowings in international markets, lack of transparency in the accounting and management of corporate and financial institutions, etc. These structural problems were dramatically laid bare amid a prolonged economic slowdown coupled with the contagion effect of the south-east Asian crisis. Thanks to the arrangement of a prompt rescue package from the international community led by IMF and World Bank, and concerted national efforts to recover from the crisis, the worst phase now appears to be over. Usable foreign exchange reserves expanded from US$ 3.9 billion on 18 December 1997 to US$ 54.5 billion at end-March 1999. This reflected the rapid improvement of the current account position, restructuring of the maturity of external short-term borrowings of domestic banks, and the successful issuance of government Foreign Exchange Stabilisation Fund Bonds in the international market. As the exchange rate of the Korean won stabilised, domestic interest rates, which had risen swiftly to over 30% in terms of call rates, have eased gradually to 4%, well below their pre-crisis level.

However, the real economy has been hit harder than expected due to the sharp reduction of investment and consumption demand. Throughout 1998, real GDP was projected to contract by 5.8%. In the aftermath of the crisis, the Korean government has been carrying out an extensive economic programme focused on macroeconomic stability and structural reform of the financial, corporate and labour sectors. Reform of the financial sector and banks in particular has been given top priority, and it is here that most success has been achieved so far.

The financial sector restructuring is focused on compelling unsound financial institutions to leave the market, resolving the overhang of bad loans, strengthening institutions' capital base, and ensuring the transparency of management. Although the ultimate goal is, of course, to improve the overall efficiency of management and enhance competitiveness in the globalised market, it is vital for the real economy to recover from its deep recession and move to a sustained growth track. A vicious circle had been set in motion whereby a severe credit crunch associated with financial restructuring brought about an even more acute business slowdown. Banks avoided making fresh loans and sought to call in existing credits, because those which failed to meet the BIS capital adequacy guidelines might be forced to leave the market. This, in turn, triggered increased corporate failures that tightened the credit crunch in the financial markets.

This paper first looks into the explanations for the policy initiatives taken. It then goes on to describe the tasks to be completed in the course of financial restructuring.

Underlying principles of bank restructuring

Bank restructuring is being pursued in accordance with fundamental principles as follows.

First, bank restructuring should be completed swiftly and thoroughly to get the intermediation function of the financial markets working properly again as soon as possible. The slower the restructuring process proceeds, the longer and deeper will be the associated credit crunch. Troubled banks will be reluctant to lend to firms due to their great anxiety about creating additional bad loans. This, in turn, will lead firms

to go belly-up and further weaken the soundness of banks. Such a circle once set in motion notably increases the cost of restructuring.

Secondly, the burden of fiscal support on taxpayers must be kept to an absolute minimum. Financial institutions should only be supported provided they mount a drive to cut costs and attract foreign investment for recapitalisation.

Thirdly, to prevent moral hazard arising in the course of resolving troubled banks, shareholders, employees and managerial staff should share the pain and the responsibility.

Fourthly, bank restructuring should be implemented in line with transparent and objective criteria to avoid the likelihood of subsequent disputes.

Specific policy directions

Resolution of bad banks and reshaping the banking industry

Unless ailing financial institutions can be swiftly disentangled from sound ones, confidence in the overall financial system will suffer severe damage, and borrowing money abroad will remain difficult. Thus, top priority is being placed on resolving the unsound financial institutions as promptly as possible in accordance with internationally accepted standards, on assisting the viable banks to raise their efficiency, and on easing the credit crunch.

Also, bank restructuring aims to induce the creation of leading banks by mergers between large banks. This would, it is reasoned, enable them to compete with large foreign banks on an equal footing and remove the inefficiencies resulting from over-banking in this country.

After bank restructuring has been completed, the Korean banking sector will take on a new shape. It will comprise three categories: leading banks created through mergers between large banks, medium-sized banks carrying out retail banking and providing housing finance in niche markets, and small regional banks specialised in specific areas.

Making financial statements and prudential regulations more transparent

Many experts have pointed to a lack of transparency as one of the primary factors in bringing about the crisis since it caused foreign

investors to lose confidence in the Korean economy. The banking sector has not been an exception to this pervasive opacity. Financial statements of banks did not always reflect their status accurately because accounting standards (i.e. provisioning requirements) set by bank regulators were adjusted almost every year.

To improve the credibility of bank financial statements, the accounting standards are now enforced in accordance with internationally accepted standards by Financial Supervisory Service (FSS).[1] Disclosure requirements in relation to banks' internal management have also been strengthened. Prudential regulation standards that incorporate the "Basle Core Principles for Effective Banking Supervision" have been put in place.

Furthermore, forward-looking criteria for asset classification will be introduced by end-1999.

Improving the efficiency of banks' management

Banks in Korea had enjoyed a high level of government protection in return for serving as the handmaidens of industrial policy during the period of development finance. For too long, their lending decisions were not based on strict analysis of the profitability of a firm's investment projects. Rather, in the case of big firms, banks showed a tendency to lend money in the belief that these were too big to fail. In the case of small and medium-sized enterprises, lending decisions were based mainly upon the collateral offered.

To transform banks into profit-seeking corporations operating on a commercial basis like other companies, the supervisory authority has introduced a scheme for them to improve their competitiveness by building up their credit-screening capacity and developing risk management techniques and internal control systems.

If they are to become robust and strong players in the globalised market, banks will also have to cut their branch networks and shed staff to enhance their productivity to the level of rivals from developed countries.

[1] The FSS was established on 1 January 1999 by combining four former supervisory bodies: the Banking Supervisory Authority, the Securities Supervisory Board, the Insurance Supervisory Board, and the Non-bank Supervisory Authority.

Progress in restructuring

In close consultation with the IMF, the government is pressing ahead with the exit of nonviable banks. It is also helping the viable banks to recapitalise and dispose of non-performing loans (NPLs) by injecting public funds on the condition that they make every effort themselves to rehabilitate by mergers, induction of foreign capital and improvement of management.

In a further move to improve banking soundness and efficiency, a systematic policy framework is being prepared. It will include the adoption of prudential regulations in line with internationally accepted standards, the tightening of internal control systems, and the adjustment of restrictions on shareholdings in banks.

Restructuring of distressed banks

The government revoked the foreign exchange licenses of eight merchant banks[2] unable to meet their current liabilities at the time the negotiations with the IMF began in November 1997. On 2 December 1997, business suspensions were imposed on nine merchant banks[3] owing to their liquidity shortages, and then the suspension of an additional five merchant banks[4] was ordered on 10 December following runs on them. In all, 18 merchant banks had their operations suspended, and 16 of these have since had their licenses revoked. As a result, only 14 merchant banks were still operating by end-1998. Among these, though, an additional two merchant banks[5] had merged with commercial banks while one merchant bank[6] had been ordered to suspend business in 1999. Four securities companies[7] on the brink of insolvency had their licenses revoked and one securities company[8] was ordered to suspend its business. In the case of investment trust companies, one company[9]

[2] Gyongnam, Samyang, Hangil, Coryo, Yeungnam, Daehan, Samsam, Kyungil (26 November 1997).

[3] Samsam, Hansol, Gyongnam, Coryo, Hangdo, Ssangyong, Shinsegae, Chongsol, Kyungil (2 December 1997).

[4] Daehan, Central Banking, Shinhan, Hanhwa, Nara (12 December 1997).

[5] Korea International Merchant Bank (merged with KEB on 1 January 1999), Hyundai (merged with Kangwon Bank on 9 February 1999).

[6] Daehan (10 April 1999).

[7] Coryo (5 December 1997), Dongsuh (2 December 1997), KLB Securities (15 March 1999), Dongbang Peregrine Securities (9 April 1999).

[8] KDB Securities (25 July 1998).

[9] Sinseki Investment Trust (19 December 1997).

was dissolved and another company,[10] whose business was later taken over by a healthier company, was ordered to suspend business operations.

In this situation it was deemed advisable to liquidate the distressed commercial banks and merchant banks as a first step in the process of financial restructuring. The simultaneous closure of all the troubled financial institutions would have such a large impact on the financial markets that it would have generated serious systemic risk. In the case of non-bank financial institutions such as securities, insurance and leasing companies, the sequencing decided was that those companies facing insolvency in the process of bank restructuring should be liquidated forthwith. The remaining institutions would be encouraged to raise additional capital from calls on major shareholders, and seek a management turn-around through their own efforts. Where such attempts proved futile, they would in turn be forced to leave the market.

The focus of this paper will now be placed on a description of the process of resolving the distressed banks.

Nationalisation and sales to foreign bidders

The problems at Korea First Bank and Seoul Bank were the most severe faced by any of the 26 commercial banks, and posed the greatest threat to the financial system. As a first step, they were both directed in December 1997 to carry out measures to improve their management.

In January 1998, these two banks were ordered to reduce their paid-in capital from 820 billion won to 100 billion won in each case, meaning that existing shareholders had to bear part of the loss. After that, both banks were nationalised through subscriptions of 1.5 trillion won to each of them by both the government and the Korean Deposit Insurance Corporation (KDIC), bringing their capital to 1.6 trillion won in each case.

The reason why public funds were used to rescue the two distressed banks, rather than forcing their exit, was that if the two banks had been liquidated, all remaining banks would have faced bank runs with severe systemic risk for the financial industry. As Korea had no previous experience of bank closure at that time, and the two banks had a

[10] Hannam Investment Trust (14 August 1998).

very high profile, the prospect of a heavy run on banks was considered very likely.

Meanwhile, it was agreed with the IMF that Korea First Bank and Seoul Bank would be sold back to the private sector following their recapitalisation by the government.[11] A privatisation process committee was therefore set up in March 1998 to handle this. Coopers & Lybrand were selected as the accountants responsible for the due diligence evaluation of the two banks' assets, and Morgan Stanley was chosen as lead manager of the sell-off.

The government signed a memorandum of understanding (MOU) with Newbridge Capital Limited, a major US investment firm, on 31 December 1998 for the sale of Korea First Bank. An MOU was then signed between the government and HSBC on 22 February 1999 for the sale of Seoul Bank. Now due diligence on both banks is underway to allow the conclusion of these agreements.

Exit

In February 1998, the then Monetary Board[12] (renamed the Monetary Policy Committee from 1 April 1998) issued orders or recommendations for management improvement measures to the twelve commercial banks (other than Korea First Bank and Seoul Bank) which had had BIS capital adequacy ratios of less than 8% at end-1997.[13] It required them to present management rehabilitation plans, including capital enhancement, by April 1998.

[11] The agreement that the two banks should be sold by 15 November 1998 could not be kept in the absence of a suitable buyer and their sale was postponed to the end of January 1999.

[12] The provisions of the Act Concerning Establishment of Financial Supervisory Organisations not being in effect in February 1998, the then Monetary Board of the Bank of Korea ordered these measures.

[13] Banks' BIS capital adequacy ratio classifications at the end of 1997

8% or more	6–8% (management improvement recommendation)	Less than 6% (management improvement order)
Kookmin, Housing & Commercial, Shinhan, Koram, Hana, Boram, Daegu, Pusan, Kwangjoo, Jeonbuk, Cheju, Kyongnam (12 banks)	Chohung, Commercial Bank of Korea, Hanil, Korea Exchange Bank, Chungchong, Kyungki (6 banks)	Donghwa, Dongnam, Daedong, Peace, Kangwon, Chungbuk (6 banks)

The Financial Supervisory Commission (FSC), established on 1 April 1998, selected six domestic accounting firms associated with internationally recognised accountants. They had them inspect the assets and liabilities of the twelve banks concerned and assess the viability and feasibility of their management rehabilitation plans according to the standards agreed with the World Bank.[14]

A Management Evaluation Committee, consisting of experts from the private sector, was then set up by the FSC on 20 June 1998, to deliberate on the basis of the accountants' assessment as to whether the rehabilitation plans should be approved.[15]

On 29 June 1998, and for the first time in the history of the modern Korean banking industry, the FSC decided to order the exit of five Korean banks (Daedong, Dongnam, Donghwa, Kyungki and Chungchong) deemed by the committee to have little possibility of rehabilitation. The resolution of these institutions was to be achieved through a purchase and assumption formula, whereby each acquiring bank (Kookmin, Housing & Commercial, Shinhan, Koram and Hana) would purchase the sound assets and assume the liabilities of a distressed bank. In accordance with this decision, the operations of the five banks slated for exit were suspended and the green light was given to preparations for their acquisition, including the winding-up of their remaining affairs.

The acquiring banks were chosen on the basis of their having a BIS capital adequacy ratio of more than 9% at end-1997. They are expected to remain under stable management following their acquisition of the distressed banks and to benefit from potential synergies.

To guard against the possible worsening of their asset quality by way of the acquisition, the acquiring banks were granted put-back options under which assets could be sold back to the Korea Asset Management Corporation (KAMCO) within six months after acquisition if they subsequently turned sour. The period within which this option can be

[14] To evaluate the appropriateness of such matters as capital adequacy, plans to raise additional capital, prudential classification of assets, plans for reducing non-performing assets, plans for cutting costs, and plans for management improvement, etc.

[15] So as to ensure the objectivity and professionalism of the evaluation, the Management Evaluation Committee is made up of twelve members including accountants, lawyers, university professors and researchers.

exercised has since been extended to one year. Also, to prevent a fall in the BIS capital adequacy ratios of the acquiring banks, public funds were subscribed in the form of government securities to make good any decrease. Some of the bad loans on their own books were purchased by KAMCO, at its standard discount to book value.

Upon completion of due diligence of the assets and liabilities of the resolved banks on 19 September 1998, KAMCO purchased bad loans with a book value of 4.16 trillion won on 28 September. The KDIC put up the 5.78 trillion won by which the liabilities of the resolved banks exceeded their assets on 29 September. The licenses of the resolved banks were revoked on 30 September.

Meanwhile, an unexpected set-back occurred in the process of closing down the five failed banks when union members at those banks refused to attend their offices, changed computer passwords, and concealed important computer manuals. Due to this situation, business at the acquired banks was paralysed for about a week. Under a compromise agreement worked out between labour and management, however, it was possible for business operations to be resumed on a normal basis.

Restructuring of viable banks

The remaining seven banks which had BIS capital adequacy ratios below 8% but were deemed to have the potential to stage a turnaround and had had their turnaround plan conditionally approved were required to file implementation plans for management improvement with the FSC by 31 July 1998. Items to be included were steps to strengthen their business through increasing their capital, change of the management team, and downsizing.

The FSC had a Review Team operating under the FSS, and consisting of professors, accountants and financial experts, inspect and supplement these implementation plans, before their finalisation on 15 September 1998.

Accordingly, the seven banks have been carrying out their rehabilitation plans through mergers, capital increase by inducement of foreign capital, consolidations with subsidiaries, and partial limitation of their banking business activities. The supervisory authority appraises their progress in this regard, and where this is unsatisfactory, it may either require them to change their management team or issue an order

directing them to take measures to improve their management status through, say, a merger with another bank.[16]

Capital increases and resolution of non-performing loans

The government recommended that the seven conditionally approved banks increase their capital at their own initiative and take steps to improve their management. In this context, it eased the limitations on bank share holdings by non-residents through revision of the provisions associated with the General Banking Act. They may now hold up to 10% of the overall equity of a bank without requiring the permission of the FSC and can own stocks in excess of 25% or 33% of the total voting stocks of a bank by obtaining approval from the FSC at each stage.

So far, Korea Exchange Bank (KEB), to whose capital Commerz Bank of Germany contributed 350 billion won in July 1998 and an additional 260 billion won in April 1999, has achieved clearly demonstrable success. KEB also merged with its subsidiary, Korea International Merchant Bank, in January 1999.

To enhance their competitiveness, banks other than the seven conditionally approved banks are also trying to attract foreign capital. Shinhan Bank successfully issued Global Depository Receipts in the overseas market in April 1999, while several other banks including Kookmin Bank are planning to raise foreign capital in the foreseeable future. Peace Bank increased its capital to 440 billion won after having written down its capital in October 1998 to 10 billion won, the minimum capital for a nationwide commercial bank to hold a bank license.

[16] Plans for management rehabilitation of seven conditionally approved banks

Banks	Management Rehabilitation plans
CBK, Hanil	Merger, capital reduction and injection of public funds by the government
Chohung, KEB	Raise capital by induction of foreign capital
Peace	Withdrawal from international business and large-value loan business over 5 billion won
Kangwon	Capital increase and merger with a related company, Hyundai Merchant Bank
Chungbuk	Capital increase

By end-March 1999, NPLs with a book value of 11.4 trillion won had been cleared from the books of those conditionally approved banks that had actively pursued management rehabilitation plans and mergers. These non-performing assets were acquired at a discount by KAMCO.

Mergers

The government has been encouraging mergers between banks that are both sound and of substantial size. Its objectives are to hone the competitive edge of the Korean banking industry through economies of scale and remove the inefficiency caused by the presence of many relatively small banks. Accordingly, in addition to the merger between the conditionally-approved Commercial Bank of Korea and Hanil Bank, Hana Bank, which had a BIS capital adequacy ratio of more than 8% at end-1997, merged with Boram Bank, while Kookmin Bank paired off with Korea Long-Term Credit Bank.

Moreover, Chohung Bank is to merge with both Kangwon Bank, which earlier amalgamated with Hyundai Merchant Bank after having written down its capital to 25 billion won, the minimum capital for a local bank to hold a bank license, and with Chungbuk Bank, which was ordered by the FSC to write off its entire capital and to merge with another entity.

The Korean government acted to improve the merging banks' BIS capital adequacy ratios through the injection of public funds, to avoid the possible deterioration of their status. Where it was deemed necessary, the conditions for their receipt of this assistance included the reduction of their capital and moves to turn themselves around. On 14 September 1998 the amended *Act Concerning the Structural Improvement of the Financial Industry* came into force, providing for the simplification of merger procedures and tax incentives for mergers between financial institutions.

Major elements of the act are that the FSC is given the right to order mergers of distressed financial institutions and that the Minister of Finance and Economy can, if need be, grant exemptions from the corporation or personal income taxes payable on income arising from the liquidation of a financial institution. He may similarly waive or reduce acquisition or registration tax payable on real estate purchased in the course of the merger.

Improving related systems, such as prudential regulatory standards

The evaluation standard for marketable and investment securities held by banks was changed from the lower-of-cost-or-market method[17] to the mark-to-market method. Likewise, since the semi-annual closing at end-June 1998, full 100% provisioning for loan-losses, retirements, and valuation losses on securities investment must now be set aside following the tightening of accounting standards for the closing of accounts.[18]

In a further move, from July 1998 prudential regulation has been tightened by classifying loans in arrears for three months or more as "substandard" instead of "precautionary", and those in arrears for from one month to three months as "precautionary" instead of "normal" loans. Also, the required provisioning rate for precautionary credits was raised from 1% to 2%.

From 1999, banks are required to set aside provisions for losses from guarantees at the end of each fiscal year. The provisions of those credits classified as substandard or lower are to be deducted from Tier 2 capital in calculating the BIS capital adequacy ratio, and asset quality classification standards are to be introduced based on the assessed future ability of borrowers to honour their obligations.

A bank's large exposure limit on credit to a single borrower or a single group, which is now 45% of its equity capital, will be reduced to 25% of its total capital for a single group, and to 20% for a single borrower from 1 January 2000. The definition of large exposure for the purposes of the ceiling limit on the sum of large exposures was changed from 15% of equity to 10% thereof on 1 April 1999. This ceiling on the sum of large exposures is currently set at five times total equity capital.

Moreover, the scope of large credits falling under this ceiling was extended from loans and contingent liabilities to total credit which includes commercial paper, corporate bonds, etc. The definition of capital in the denominator was amended from equity capital to total (Tier 1 and 2) capital.

[17] Whereby the value of a security is taken as the lower of the carrying value (or acquisition value) and the fair market value.

[18] It applies from September 1998 for securities companies and from the fiscal year ending March 1999 for merchant banks and insurance companies.

Also, to encourage banks to strengthen their internal controls, a system requiring the matching of the raising and operation of foreign capital by maturity[19] was introduced in July 1998. Derivatives contracts amounting to more than 5% of a bank's equity capital can be entered into only after screening by its risk management committee. Banks' plans for rehabilitation must include arrangements to maintain capital adequacy, and measures to strengthen credit analysis and ex post facto credit administration.

In January 1998, to improve the internal governance structure of banks, the *General Banking Act* was amended. The supervisory authorities are now able to carry out fit-and-proper tests of major shareholders and senior management by inspecting the adequacy of the composition of shareholders, the source of funds used in the acquisition of stocks, and the integrity and the suitability of the management team. After also amending the *Act Concerning the Structural Improvement of the Financial Industry*, the government can now order the destruction of the equity of shareholders deemed to bear responsibility for the insolvency of banks which the government has recapitalised or decided to recapitalise.

In April 1998, the related legislation was amended to grant the FSC the right to demand management changes, capital reduction, mergers, business transfers and third party acquisitions in relation to banks whose BIS capital adequacy ratios and management status evaluation results fall below a certain level. In this context, on 28 June 1998, the FSC required the seven conditionally approved banks to change their management teams substantially by the appointment of outside directors including foreign experts. The KEB subsequently appointed two non-resident directors[20] in July 1998 as part of its cooperation with Commerz Bank of Germany. Other conditionally approved banks have also changed the make-up and size of their boards.

[19] To prevent a shortage of foreign currency liquidity arising from the diversion of short-term foreign borrowings to long-term applications, this system regulates the ratio (gap ratio) between net assets arranged by term to total foreign assets, after the classification of foreign assets and liabilities based on maturity.

As per term	0–7 days	7 days–1 month	1–3 months
Regulatory gap ratio	0% or more	below –10%	below –20%

[20] The *General Banking Act* was amended to allow the appointment of non-resident directors of banks on 25 May 1998.

In February 1998, to activate the function of shareholders and internal auditors in monitoring management status, the requirement conditions for the exercise of minority shareholders' right to initiate a class action were eased.[21] The listed financial institutions had to appoint external auditors (accounting firms) at the request of the nomination committee which consists of the internal auditor, the outside directors, representatives of shareholders, and creditors.

The conditions for taking prompt corrective actions have been clarified and made mandatory by linking them to the BIS capital adequacy ratios in order to avoid possible bias on the part of regulators. The FSS intends to alter the components of the bank management status evaluation system from CAMEL to CAMELS to incorporate market risk assessment from 1999.

With a view to reducing moral hazard and improving customers' discrimination among banks, the interim blanket guarantee of deposits and interest payments introduced in the run-up to the financial crisis to secure stability was removed by imposing maximum insurance limits. In particular, only the principal of single deposits of more than 20 million won per depositor made after 1 August 1998, are now guaranteed.

Improving the efficiency of bank management

To increase the efficiency of bank management through downsizing their organisation and staff, which had been allowed to swell with little regard for profitability, all conditionally approved banks shed more than 32% of their workforce as of end-1997 under an agreement reached in talks with labour in 1998. Some banks, notably Chohung and KEB, have reduced their workforce further. They are also boldly downsizing their head offices and branches, to improve productivity by reducing expenses.

In addition, much of the discretionary authority concerning loan decision-making formerly given to presidents and branch managers has been removed, and banks have now generally established credit appraisal committees whose main function is to assess the status of potential borrowers before providing any large-scale loans.

[21] The equity ratios required for exercise of minority shareholders' rights have been lowered as follows:
- right to initiate class action: 1.0% to 0.05%;
- right of claim for dismissal of directors and internal auditors: 1.0% to 0.05%;
- right of inspection of accounting books: 3% to 1%, etc.

Furthermore, to enhance corporate governance, the role of the board of directors, a majority of which is now formed by outside directors, has been strengthened so as to act as a major decision-maker on bank strategy and risk management.

Fiscal support for financial restructuring

The most difficult problem in the process of financial sector restructuring is how to raise the funds necessary for the restructuring programme. In principle, financial restructuring should be funded by the financial institutions themselves. However, given the very real possibility that turmoil in the financial system could trigger an economy-wide crisis and the great difficulty for the financial institutions themselves to raise funds in the bearish stock and real-estate markets in 1998, the provision of public funds to financial institutions was unavoidable.

Therefore, the government set up basic principles to improve the efficiency of fiscal support and to avoid moral hazard arising within financial institutions. Banks were required to downsize their staff and branch operations, and to improve productivity and profitability. They have also taken steps for self-rescue such as raising additional capital from abroad. Losses due to management failure should be shared by stockholders and the management team responsible by means of capital reduction or replacement of management.

The government supplied public funds in sufficient quantity to ease the credit crunch swiftly, and thereby to return banks to normal. To this end, it is raising a total amount of 64 trillion won[22] to facilitate financial sector restructuring, of which 32.5 trillion won is to be used to finance the purchase of NPLs, while 31.5 trillion won is to be spent on recapitalisation, deposit payments, etc. The funds are being raised by issuing bonds of the Non-performing Asset Management Fund (run by KAMCO) and the Deposit Insurance Fund (run by the KDIC), both of which are guaranteed by the government. To prevent possible side-effects like a run-up in interest rates or crowding-out through their issue in the market, the government either pays financial institutions for the purchase

[22] This 64 trillion won (fiscal funds) for financial sector restructuring is equivalent to 15% of 1997 GDP.

of NPLs directly with the bonds or participates in the equity of banks by subscription of the bonds for their recapitalisation.[23]

Purchase of non-performing loans

To resolve the large amounts of NPLs held by financial institutions, the government set up the Non-performing Asset Management Fund in KAMCO in November 1997. At this stage, KAMCO purchases NPLs from financial institutions planning mergers or carrying out self-rehabilitation plans.

By end-March 1999, KAMCO had purchased at a discount 44 trillion won (book value) of NPLs for a total of 20 trillion won, paying directly with Non-performing Asset Management Fund Bonds. Currently, KAMCO pays 45% of the appraisal value of collateral in the case of collateralised loans, while it pays just 3% of the value in the case of uncollateralised loans.

As KAMCO will purchase additional NPLs that arise during 1999, it is anticipated that Korean banks will become 'clean banks' with balance sheets as healthy as banks in advanced countries.

To date, the disposal by KAMCO of its acquired non-performing assets has reached about 2.4 trillion won, with proceeds standing at 1.1 trillion won at end-March 1999.

Schedule for KAMCO's purchase of NPLs
In trillions of won

	Nov. 97–Sept. 98[1]	Oct. 98–Mar. 99[2]	From April 99[3]	Total
NPLs	39	5	32–42	76–86
Purchase price	17.8	2.2	12.5	32.5

[1] 30 commercial banks and specialised banks, 30 merchant banking corporations, and two fidelity/surety insurance companies. [2] Specialised banks, some sound banks, merchant banking corporations, securities companies, mutual savings companies. [3] Newly arising NPLs.

[23] In the case of purchasing NPLs, KAMCO makes direct payment in the form of its own bonds to financial institutions. However, for recapitalisation, the KDIC issues bonds underwritten by the financial institutions which will be assisted, and then provides these funds to the institutions to rebuild their capital.

Recapitalisation support and loss compensation

Banks acquiring resolved banks or consolidating with other banks by merger run the risk of a deterioration of their management status and shrinkage of their banking activity. To prevent this, the government has established a programme to inject public funds into the recapitalisation of newly merged banks and make up the losses arising from the acquisition of resolved banks.

For banks acquiring resolved banks, the shortfall between the assets and the liabilities of the acquired banks is to be fully made up by the government, so as to prevent deterioration of their management status. The government also injects sufficient capital into the acquiring banks to prevent any decline in their BIS capital adequacy ratios. For new banks created by mergers between troubled banks, capital would be injected to bring their BIS capital adequacy ratios up to 10%. In the case of mergers between sound and troubled banks, the new banks are to have enough fresh capital pumped in to maintain the previous BIS capital adequacy ratios of the sound banks.

By end-March 1999, the government had devoted a total of 23.6 trillion won to these purposes. Until August 1998, 8.1 trillion won had already been spent for recapitalisation of two ailing commercial banks (Korea First Bank and Seoul Bank), and for the repayment of deposits with resolved merchant banks. The large remaining amount of 10 trillion won was spent in the one month of September 1998 for the recapitalisation of several banks.

In the last quarter of 1998 and the first quarter of 1999, an additional 5.5 trillion won was used not only for the recapitalisation of a number of banks including five acquiring banks but also for the redemption of deposits held with mutual savings companies and credit unions whose business had been suspended, the sixteen merchant banking corporations that had left the market and newly-resolved non-bank institutions, etc.

Schedule of fiscal support
In trillions of won

Jan. 98–Aug. 98	Sept. 98	Oct. 98–Mar. 99	From April 99	Total
8.1	10.0	5.5	7.9	31.5

Nor will this be the end. In the near future, additional fiscal funds will be needed to cover losses resulting from the sales of the government's stakes in Korea First Bank and Seoul Bank to foreign investors, and exercise of the asset put-back option by the five banks which acquired the resolved banks earlier.

Tasks to be completed

Major steps in the bank restructuring process appear to have been completed successfully so far. However, the benefits of bank restructuring will be increased provided a number of associated measures can also be carried out without delay.

Accelerating corporate restructuring

At this stage, formerly ailing Korean banks have been converted to clean and healthy banks by eliminating NPLs and injecting new capital. However, the delay in corporate sector restructuring may give rise to additional NPLs. In the long run, it will reduce the benefits of banking sector restructuring.

Therefore, in order for Korea to pull through its present difficulties and regain a track of sustained economic growth, there seems to be no alternative other than swift and intensive corporate restructuring, to reduce credit risks and to eliminate the possibility of additional NPLs.

In this regard, the restructuring process in the top five interlinked business groups, or *chaebol*, has already been given strong government encouragement.

To restructure the top five *chaebol* in a more timely and effective manner, they agreed with the government and major creditor banks to close nonviable affiliates, restructure business to focus on core competencies, eliminate cross guarantees between companies within each *chaebol* and substantially improve capital structure. Meanwhile, the asset swaps and merging in seven industries, popularly known as 'big deals', are now in their final stage.

Furthermore, workout programmes[24] for weak but viable companies[25] among the top sixth through sixty-fourth largest chaebol and other large corporations, in terms of credit from the organised financial system, are being put in place by the creditor financial institutions. They are

reviewing various packages of possible measures to recover the value of their loans to these firms. One of the major programmes is debt restructuring through, for example, the conversion of short-term loans into medium and long-term loans, the granting of a grace period on servicing payments, reductions of interest payments, and debt for equity swaps.

As of 2 March 1999, 83 corporations were in workout programmes and among these 72 corporations had come up with feasible workout schemes.

Strengthening management accountability at financial institutions

To prevent deterioration in the management status of financial institutions, it is necessary that bank ownership system and governing structure be improved so as to strengthen the management accountability of financial institutions. As a part of such efforts, there have been debates about such issues as the elimination or raising of the ceiling on stock holdings of a bank.

Another important task is to strengthen market discipline exercised by interested parties, such as shareholders and depositors, by providing them with accurate and timely information about the management and financial status of banks. The FSC has increased the frequency of regular disclosure from once a year to twice a year (quarterly disclosure will be recommended after the introduction of quarterly closing accounts from September 1999) and has prepared sanctions against cases of misleading or untruthful disclosure.

It has also increased the regular disclosure items to include all those requested by the International Accounting Standard. These include risk

[24] Each creditor bank set up its workout team on 20 June 1998. In addition, in order to ensure collaboration among creditor financial institutions regarding the assessment of corporations' viability and the method of providing financial assistance to them, a corporate restructuring agreement was signed on 25 June 1998, by 33 financial institutions on behalf of 224 financial institutions. These included banks, merchant banking corporations, insurance companies, securities companies, and financial companies specialized in the loan business. Creditor financial institutions have been selecting corporations for workout programmes through negotiations with them.

[25] In May–June 1998, creditor banks assessed the viability of a total of 313 corporations including eleven emergency loan recipients and weak corporations affiliated with the top sixty-four business groups. Based on this assessment, 55 companies classified as non-viable were resolved by merger (eleven companies), sale to a third party (15 companies) and liquidation (25 companies) while four are in court receivership.

management, off-balance sheet transactions including derivatives, asset classification, and so on, and special disclosure items such as those related to financial mishaps, the loss of a lawsuit for a large sum, etc.

In addition, it is also vital that a system that operates fully in accordance with market principles should become firmly entrenched. Financial institutions should make decisions on lending based on analysis of the profitability of firms' investment projects. The transparency of the decision-making process will also make it clear where responsibility lies for NPLs that arise in the future.

Toward a more competitive financial sector

While strengthening prudential regulation, the supervisory authority still needs to ease restrictions on the range and methods of banking business so as to afford banks more alternatives in their management strategies.

In line with this, measures are being sought to develop the Korean financial industry to the level of developed countries by instilling greater competitiveness into the financial sector. To make financial institutions more competitive, it is an urgent task to establish firmly a general practice of allowing market forces to resolve financial institutions lacking the capacity to turn themselves around by their own efforts.

Conclusions

What lessons can Korea draw from its harsh economic ordeal? Perhaps the most important is a renewed recognition of the significance of the financial industry for the overall economy. In the process of pursuing economic development from the 1960s, the basic functions of the financial industry, such as credit screening, had been largely neglected because the financial sector had been regarded simply as a means of supporting the real sector. This eventually served to bring about the recent crisis. When many large firms collapsed, financial institutions were left with the problem of heavy bad loans on their hands.

Throughout the long haul of recovery from the crisis, non-viable financial institutions have been leaving the market on an unprecedented scale. It cannot be denied that Korean financial institutions had long neglected sound management and invested recklessly in high-yielding but

high-risk assets, sustained by the belief that 'financial institutions would not be allowed to fail'. However, these recent exits have come as a salutary warning to the contrary to the remaining financial institutions.

Financial institutions have been forced to desist from practices that involve moral hazard and must now operate their businesses in accordance with market discipline, which requires transparent financial statements and profit-oriented, sound and accountable management.

Provided that financial restructuring and a major part of corporate restructuring are completed successfully, we expect the normal operation of the financial system to be resumed and a matching recovery of confidence in the country on the part of international investors. Along with this, domestic business and consumer confidence will pick up, moving the Korean economy back onto a sustained growth track.

Policy responses to the banking crisis in Mexico

Pablo Graf*

Introduction

The Mexican banking system went through major changes during the last fifteen years. After a long period of remarkable growth and stability, the banks were nationalised in 1982, at the beginning of the debt crisis. There were about 60 institutions in Mexico when the nationalisation took place; by the early 1990s, after a decade of mergers, the system consisted of 18 banks. These banks were privatised in 1991–92. A rapid process of expansion subsequently led to the establishment of new banks and other financial intermediaries.

This process came to a sudden end with the abrupt devaluation of the Mexican peso in December 1994. Banks were badly hurt by the peso crisis, and as a result of interventions, mergers and consolidations, the group of 18 banks privatised has been reduced to 10 banks, only half of which remain under the control of the original shareholders. The group of 10 banks accounts for 86% of total assets, with the three largest, all majority locally owned, accounting for 57%.

This paper reviews the experience of Mexico in bank restructuring after the 1994 crisis. After a brief summary of the causes of the crisis, the paper focuses on a description of the main programmes implemented by the authorities to deal with the acute banking problems. The last section shows the estimated fiscal cost of restructuring and outlines some reflections on the effectiveness of the programmes to deal with the banking crisis.

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Background and origins of the banking crisis

Macroeconomic, microeconomic and institutional factors combined to produce increasingly difficult problems for Mexican banks even before the December 1994 devaluation.[1] The sharp contraction of the economy that followed the devaluation made these problems worse.

Macroeconomic boom before 1994 (new funds)

After the "lost decade" of the 1980s, during which per-capita GDP in Mexico hardly expanded, the capital inflows which poured into the country in the early 1990s fed into the banking system. Mexican banks tapped the international markets in large amounts. The debt of domestic banks to international banks increased from $8 billion in 1991 to $16.5 billion in 1994. In the same period, the stock of outstanding international bonds expanded from $1.0 billion to $3.8 billion.[2] Bank credit to GDP increased from little more than 20% of GDP in 1987 to more than 40% only seven years later (Table 1).

The most dynamic components of this expansion are shown in Table 2. Lending to activities in which banks had no previous experience, such as housing and consumption, grew very rapidly. Credit to traditional sectors also increased.

Rapid and expensive privatisation (new owners)

When banks were privatised in 1991–92, investors paid an average price of 3.34 times their book value[3]. Investors wanting to recover their investments were prone to undertake risky business. And some of the investors who bought the banks had no previous experience of banking.

Fiscal contraction (new borrowers)

The correction of the fiscal imbalance was large and rapid. The consolidated public sector balance moved from a deficit of 8% of GDP

[1] See Gil-Díaz (1998) for a more detailed account of the origins of the crisis.

[2] By the end of 1994 the stock of other short-term international money market instruments issued by Mexican banks was $5.1 billion. This stock had declined by $1 billion in the course of 1994.

[3] Or 45% above the market value according to one estimate (Unal and Navarro (1997)). As a reference, these same authors show that the average price-to-book-value ratio was 1.89 for mergers in the US industry between 1984–87.

Table 1

Mexican commercial banking system: salient features

Year	Credit (% of GDP)[1]		Indices[1]		
	Total	Private sector	Capitalisation	NPL (% of total loans)	Provisions (% of NPLs)
Early 1980s	35.0	16.6			
1988	22.1	12.2		1.6	
1989	26.7	18.1		2.1	
1990	29.8	21.9		3.1	
1991	32.8	25.5		3.8	
1992	33.8	30.8	7.5	5.3	
1993	35.9	34.6	9.5	7.1	
1994	45.1	43.2	9.3	7.3	48.6
1995[2]	44.1	41.6	12.1 (7.2)	6.9 (16.9)	72.6 (54.1)
1996[2]	35.8	33.9	13.2 (7.7)	5.8 (18.8)	119.9 (74.4)
1997-Jan[2,3]			13.9 (6.9)	12.2 (35.4)	58.7 (37.7)
1997	31.1	28.8	17.0	11.3	62.8
1998	27.9	25.7	17.5	11.4	66.0

[1] Unless otherwise shown, figures correspond to the end of the year. [2] The figures in parentheses include the NPLs sold to FOBAPROA. [3] In January 1997 new accounting principles were adopted requiring banks to recognise the full amount of a delinquent loan as non-performing, instead of the earlier standard of recognising only the portion due but not paid.

Sources: Banco de México; OECD.

in 1987 to a surplus of 1% in 1993. Accordingly, the banking sector credit to the public sector decreased from 14% of GDP in 1987 to nearly 2% in 1993. This shift released funds for lending that were quickly passed on to the private sector (Table 1).[4]

Financial liberalisation coupled with deficient supervision and regulation

Many years of "financial repression" meant that Mexican banks did not develop necessary market and credit risk capabilities. For example, caps on interest rates (removed in 1989 allowing banks to compete for deposits), and credit allocation regulation were in place. Moreover, a liquidity requirement of 30% (which replaced a reserve

[4] The shift of resources from the public to the private sector reflects as well the privatisation of many public entities (including the banks themselves) during this period.

Table 2

Commerical bank lending by sector (% of GDP)

	1989	1994
Agricultural sector	3.6	4.0
Industry	7.4	12.4
Services	2.2	7.8
Commerce	3.7	8.7
Housing	1.6	7.4
Consumption	1.5	3.1
Total	20.0	43.2

Note: Data on bank lending to public and financial sectors are not included.

Source: CBNV.

requirement ratio), forced banks to buy treasury bills. This requirement was eliminated in 1992. When banks had new owners, new customers, and new resources to lend, they started to get into trouble. Nor did the authorities' capacity to supervise develop as needed.

Banks extended large amounts of loans without sufficient credit analysis. They also found ways to increase credit according to borrowers' needs. A good example of this is provided by Guerra (1997). He noted that when interest rates are high, borrowers with mortgages may be unable to service their debts. The practice of Mexican banks to address this was to offer loans with interest payments determined according to their payment capacities (salaries), which meant that not all accrued interest was paid, but was instead capitalised. This process leads to an increase of the real value of the debt, at least in the early years of the loan. This behaviour, coupled with the stagnation of real estate prices observed in Mexico prior to the crisis, proved very dangerous and indeed led to many situations where the value of the mortgage loan exceeded the price of the house or land purchased (negative equity).

The share of NPLs in total loans began to rise well before the 1994 crisis (Table 1). In addition, the discovery of fraud led the authorities to take-over two banks in late 1994.

The devaluation in December 1994

The already weak situation of the banking system was aggravated by the devaluation of the peso and its effects on interest rates, inflation and

output. At first, in early 1995, the central bank considered that the potential direct impact of the devaluation would be limited, for two reasons. First, the central bank had imposed a ceiling such that the foreign currency denominated liabilities of a bank could not exceed 20% of total liabilities. Second, banks' net open foreign currency positions were subject to a ceiling of 15% of bank's capital. Yet, as Garber (1996) has shown, Mexican banks were able to circumvent the regulation by using derivative instruments to increase their net open positions. When the exchange rate collapsed, the magnitude of the exposure of Mexican banks proved to be much larger than expected by the authorities. Even when banks had covered direct exchange rate risk, they remained exposed to credit risk when those borrowers that had taken foreign currency denominated loans were in many cases unable to service their debts after the devaluation. In effect, exchange rate risk was converted into credit risk.

The effects of the devaluation on interest rates, inflation and output were the main channels through which the banks were affected. With the increase of inflation and nominal interest rates, and falling real income, debtors found it increasingly difficult to service their debts. In order to avoid a collapse of the banking system, the authorities implemented several programmes.

Objectives of programmes of support

The acute crisis at the beginning of 1995 forced the authorities to act rapidly. According to the National Commission of Banking Supervision (CNBV) and the Banco de México, the following principles have guided their actions[5]:

- reduce the risk of a bank run;
- support the greatest number of families and firms, by promoting a "re-payment culture". Any benefit should be targeted to reach those debtors that keep up their payments or, having been in arrears, return to current standing;
- banks and the federal government will share the costs of the programmes. Minimise the fiscal impact and spread it over time. Programmes should not lead to an expansion of domestic credit by the central bank;
- support institutions, not shareholders;
- enhance competitiveness by promoting the participation of foreign banks;
- the programmes should build in incentives for banks to grand additional credit to those sectors which they are designed to help, thus contributing towards economic recovery.

The steps taken are described in this section. For analytical reasons the various programmes can be classified into three groups: those that were applied immediately to prevent a collapse; those aimed to support banks; and those aimed to support debtors.

Programmes of immediate action

Two priorities in early 1995 were to prevent a drastic fall in international lending to Mexico and to keep banks' capital ratios above minimum levels.

Dollar liquidity facility

In early 1995, banks found it increasingly difficult to rollover their debt with international banks. The high stock of external debt and domestic dollar-linked government debt (tesobonos) held by non-residents coupled with the low level of international reserves raised concerns about the capacity of the Mexican borrowers, including the banks, to service their foreign obligations. To help banks service their foreign debt, a top priority for the government, a special dollar credit window at the central bank was therefore established. Loans were advanced to 17 commercial banks, and the outstanding amount peaked at $4 billion in April 1995. Part of the resources granted to Mexico by the United States, the IMF and other IFIs and governments were used for this purpose. These loans were extended at penal interest rates: 25% and 17.5%, with the lower rate applicable to outstanding balances below a certain threshold.[6] By September 1995, all banks had repaid their loans in full.

[5] CNBV (1988): Banco de México, Annual Report (various issues).

[6] Dziobeck (1998).

Loans from the government covered only a proportion of the external debt of Mexican commercial banks, which stood at nearly $25 billion by end-1994; (75% with a short-term maturity).[7] It appears that the emergency foreign exchange lending by the central bank was priced well above rates that a number of Mexican borrowers would have had to pay in the markets. For instance, spreads on the international sovereign bonds averaged 1,000 basis points during the first few months of 1995 and decreased to 500 b.p. in September. Another comparison is that Banamex, the largest Mexican bank that was the first bank to issue an international bond after the devaluation (in early May 1995), paid a spread of 300 b.p. to issue a 3-year bond of over $200 million.

Temporary Capitalisation Programme

An immediate effect of the devaluation was to increase the peso-value of loans denominated in foreign exchange. Official sources show that the capital-asset ratio for the whole banking system fell from 9.3% by end-1994 to below 8% two months later; the ratio for half of the commercial banks fell below the 8% minimum. To meet the minimum capital ratio, banks were required to issue subordinated debt that was acquired by FOBAPROA (the government agency responsible for dealing with bank insolvencies). The debt was convertible into common shares and were callable to allow banks that could restore their capital ratios to re-acquire them. The debt would become capital if not paid back before five years, or if the capital-asset ratio fell below certain parameters.[8] FOBAPROA funded the acquisition of the subordinated debt with a credit by the central bank. By requiring commercial banks to deposit the resources thus obtained in the central bank, an unwarranted expansion of overall liquidity was prevented. At the same time, the mechanism gave some breathing space to banks to find a more permanent solution. In March 1995 six banks obtained this support, amounting to 7 billion pesos ($1 billion approximately). By June 1996 the stock of debt had decreased to 2.9 billion pesos, with only two banks

[7] National figures. BIS statistics show a similar picture: banks' debt with international banks amounted to $16.4 billion while the stock of internationally traded bonds and other money market instruments issued by Mexican banks stood at nearly $9 billion. Some of the latter might have been held by international banks and so may be already included in the $16.4 billion.

[8] If the participating banks' Tier 1 capital ratio fell below 2% of or if it was 25% or less of the average of the banks participating in the programme.

remaining under the programme. However, the amount of resources required by one of these banks increased substantially in 1996, thus bringing the total outstanding balance to 12 billion pesos at end-1996. By end-June 1997 both banks had liquidated their debts. Of the six banks that required such support, only two remained under their original shareholders; three were later taken over by the authorities (see below) and the other was taken over by another bank.

Programmes of support for banks

Capitalisation and loan purchase mechanism

The government, through to FOBAPROA, provided support for banks to deal with their NPLs and to re-capitalise. The programme had the following steps:

1. The government bought NPLs from the banks above market value and imposed the condition that shareholders inject new capital.[9] A formula was established: two pesos of loans of commercial banks were bought for every peso of new capital injected by the stock-holders.
2. The government bought the NPLs with promissory notes issued by FOBAPROA. These notes substituted the NPLs in the asset side of banks' balance sheets. They are zero-coupon bonds with long-term maturity (about ten years), bear an interest rate equivalent to that on 3-months Treasury bills when denominated in pesos and LIBOR plus 400 basis points when denominated in US dollars (below normal lending rates) and are non-tradable.
3. Banks created special off-balance sheet trusts for their NPLs, retaining the responsibility for administering them. Income arising from payments by debtors on these loans are to be used to cancel FOBAPROA's paper in an equivalent amount.
4. When the FOBAPROA paper becomes due (after 10 years), the amount not recovered from the NPL constitutes a loss. A general rule established that banks will bear 20–30% of this loss, with the government covering the remainder.

[9] In more precise legal terms FOBAPROA acquired the right on the amount collected on each particular loan that banks continue collecting.

Twelve of those banks not intervened (see below) participated in this scheme. The situation of some banks did not improve after a first round agreement with FOBAPROA and they had to sell additional loans in a second round. Between 1995 and 1996 banks sold 114 billion pesos to FOBAPROA and injected 53 billion pesos of new capital.[10] The loans sold to FOBAPROA represented approximately 30% of these banks' total loans.

This is perhaps the most controversial support programme implemented by the authorities for several reasons. First, there is conflicting evidence as whether banks have incentives to recover the loans passed on to FOBAPROA. On the one hand, they may not make much effort to recover some loans since their share of the losses may be lower than the costs of recovery. At the same time they face other associated costs of keeping the FOBAPROA's promissory notes in the balance sheets: the paper cannot be sold, and does not accrue income flow (interest is capitalised), so banks become highly illiquid and profits remain weak. Secondly, the banks were able to select the worst loans for transfer and purchase. FOBAPROA bought NPL at their nominal value (net of provisions). The authorities considered that if NPL had been bought at market value, banks' capital would have decreased to very low levels due to the need to create provisions. Thirdly, the fact that a minority of contracts accounted for a large share of the total amount purchased provoked a political problem. Indeed, so controversial was this issue that Congress debated throughout 1998 whether to recognise the promissory notes issued by FOBAPROA as public debt. An agreement was finally reached in late 1998, creating a new deposit insurance agency that will deal with the NPLs absorbed by FOBAPROA.

Bank interventions

The authorities were forced to intervene in those banks that could not continue operating as solvent entities despite the support granted to them and their debtors. They took over twelve banks between the end-1994 and August 1997; the outstanding stock of credit of

[10] At constant prices of August 1996. Equivalent approximately to $15.2 and $7.1 billion.

these banks by September 1997 represented 19% of the industry's total. There are some salient features of these interventions. First, the capitalisation level of some of the institutions had already fallen below the minimum required by regulation, suggesting that interventions came late.[11] Secondly, interventions in smaller banks were carried out more quickly. Late interventions could increase the costs for the government, as banks may attempt to conduct more risky investments to restore the bank's value (i.e. "gambling for resurrection").

The typical situation following an intervention was to negotiate with potential buyers the terms of the acquisition.[12] In most cases these banks were re-sold after being re-capitalised and "cleaned up" of their NPLs portfolio by FOBAPROA. Some of these banks, however, received official support before being taken over by authorities or a third party. In almost all cases, the management was replaced and share-holders' capital was exhausted before public resources were injected. Out of 18 privatised institutions in 1991–92, only 5 remain under control of their original shareholders. Five banks are still under intervention.

The lack of domestic resources to re-capitalise the banking industry after the crisis led the authorities to remove some restrictions on the foreign ownership of banks.[13] There were two main methods of entry of foreign banks: some banks acquired minority stakes in existing banks, while others acquired banks that had been intervened by the authorities. As explained before, the terms of the acquisitions in the latter case, were negotiated with the authorities on a case-by-case basis.

FOBAPROA has therefore acquired banks' NPLs through the two programmes just described. An important issue is how FOBAPROA will sell these assets. A loan workout subsidiary of FOBAPROA (VVA) was created in April 1996 to sell the loans acquired. The first auction of assets was conducted in July 1997. Assets worth $135 million were sold at an average of 50% of the nominal value. However, VVA was liquidated one month later.

[11] *Institutional Investor,* Vol. 18, No. 2, February 1993.

[12] In only one case (Banpais) there was a formal tender for the sale of the "good" assets and branch network.

[13] The implementation of the NAFTA was the first step in this direction.

Programmes of support for debtors

Restructuring of Loans in Investment Units (UDIs)

High inflation causes an accelerated amortisation of credits in real terms especially when the contract allows for the frequent revision of interest rates. A typical mortgage loan before 1994, as well as other type of credits granted by banks, specified a quarterly (and in some cases monthly) revision of interest rates. In the first quarter of 1995, interest rates reached 70% while inflation reached more than 50% in 1995 and around 30% in the subsequent year. A debtor that was able to service his debt would have seen the real value of the credit fell by more than 70% in real terms, a highly improbable rate of repayment.

To deal with this problem, the government introduced a new unit of account, the UDI, for denominating credits. The peso-value of the UDI follows the consumer price index with a short lag, so it has a constant real value. Payments on credits restructured in UDIs therefore remain practically constant in real terms during the term of the loan.

The government provided support to banks and borrowers to restructure the debts in UDIs. First, as re-denominating loans in UDIs without a corresponding transformation on the liability side would entail a mismatch in interest rates for banks, the government provided banks with loans in UDIs. Hence the government absorbed the interest rate risk.[14] Second, as explained below, those adhering to the UDIs restructuring programme obtained other benefits.

Support Programme for Banks Debtors

In September 1995, the government introduced a one-time relief programme targeted to credit card, small business, agricultural and mortgage borrowers. One of the benefits under this programme was an interest rate subsidy for one year, which in most cases applied from September 1995 to September 1996. Other non-monetary benefits were the standardisation of restructuring procedures and a temporary

[14] More precisely, banks created off-balance sheet trusts in which they transferred the UDI-denominated loans. These were substituted by treasury bonds in the asset side of the balance sheets. By setting the amount of UDI-denominated loans to the banks, the government initially determined the amount of UDI loans that the banks could restructure. Later on, banks started attracting deposits in UDIs giving them extra resources to denominate credits in UDIs.

halting of foreclosure proceedings against defaulting debtors. By end-1996, nearly two million contracts (73% of those eligible) had been restructured, amounting to 200 billion pesos.

Programme of Additional Benefits for Mortgage Loan Debtors

This programme, announced in May 1996, was targeted to mortgagees that had borrowed before this date and were to restructure their credits in UDIs before end-September 1996.[15] This programme was designed to help the many borrowers who either could not or had little incentive to remain current in their payments. First, monthly payments were absorbing a large proportion of the income of a large percentage of mortgagees (even if the loans had already been restructured in UDIs). And, second, the weak real estate market had resulted in many cases where the value of the collateral (properties) had fallen below the outstanding principal of the UDI-denominated credits.

Borrowers benefited from a scheme of reductions on payments scheduled for the following 10 years, starting at 30% during 1996 and decreasing progressively to reach 5% by 2005. The discounts were applied only to the first 500,000 UDIs (approximately $140,000) of each loan. The cost of the programme is borne by the Federal Government. The programme established a further 10% discount for payments brought forward before 31 May 1999.

However, the announcement of further support in late 1998, suggests that mortgagees continued to face problems remaining current in their payments; some of them may have stopped servicing their debts in the expectation of more favourable terms. The government offered a reduction on the loan capital (50% on the first 165,000 UDIs, or $38,000 approximately).[16]

Sector-specific programmes

The agricultural and fishery sectors and the small and medium-sized firms received special incentives to keep servicing their debts. Clear-cut

[15] Later on the date-limit to restructure the credits was prolonged until end-1997 and debtors that had not restructured their credits in UDIs but were current in their payments were also eligible.

[16] The sharp increase of nominal interest rates in Mexico following the Russian crisis did not affect those mortgage loans already denominated in UDIs since these contain fixed real interest rates and account for 60–70% of mortgages held by major banks.

rules were established to limit this support to debtors who were servicing their debts. Debt payments were reduced, with the cost of the programme borne by the federal government and the banks. A particularly interesting and novel feature of this scheme is that the share in total costs assumed by the government increases in proportion to new credits that banks give to these sectors. The government share can reach a maximum of 50% of the total cost and it will be distributed over the next 15 years. It was originally announced in June 1996 and, as with the mortgagees, further support was announced in late 1998, in the form of an increase in the discounts formerly agreed.

Other actions

Co-ordinating Unit for Corporate Loans

The objective of this unit was to foster the restructuring of syndicated corporate loans. The unit acts as a facilitator in bringing back into negotiation with banks all those firms that voluntarily submitted to mediation. 31 loans have been restructured, for a total value of $2.6 billion.

Legislative reforms of the financial system

In 1995 a new provisioning regulation was implemented in order to prepare banks for the expected rise in NPL. This regulation required banks to provision 60% of past due loans, or 4% of the total portfolio, whichever was larger. The banks had to make considerable efforts to meet the new requirement since at the time provisions represented 43% of NPL.

In order to facilitate capital injections into the banking system, legal steps were taken to allow reform the ownership structure of banks increasing the limits on ownership by both individuals and foreign investors. Market share ceilings previously established under NAFTA negotiations were liberalised. This change, however, did not allow foreign majority control of banks having a domestic market share larger than 6%. In practice, this meant a limitation on foreign majority ownership of the three largest banks in the country, and was set to a maximum of 20% of paid-in capital. This last restriction was reformed in late 1998

Table 3

Fiscal cost of support programmes for banks and debtors

	% of GDP*
Debt restructuring in UDIs	
Original programme	0.9
Additional programme for mortgage loans	1.2
Support to small debtors	0.2
Sector-specific programmes	
Agricultural and fishery	0.5
Small and medium-sized firms	0.2
Total debtor support programmes	3.0
Loans purchased for capitalisation schemes	2.6
Bank interventions	8.3
Restructuring of toll roads	0.5
Total bank support programmes	11.4
Total support programmes	14.4

* February 1998 estimates (as a percentage of 1998 estimated GDP).

Source: CNBV (August 1998).

giving the three banks the option to seek foreign partners, but did not allow foreigners to bid for these banks in the coming five years.

In December 1998, Congress approved legislation creating limited deposit insurance to be gradually introduced (over the next 7 years). More recently, the government submitted to Congress a revision of the Law on Guarantees that will make the procedures for seizing collateral by banks more efficient and less costly.

Costs and consolidation

Fiscal cost

Over time the government has revised upwards its calculation of the fiscal costs of support programmes. The latest estimates (made in February 1998) put the total cost at 14.4% of GDP[17] (Table 3). As can

[17] As a reference, this cost compares with a net public debt of 21.9% of GDP in 1994, before the crisis erupted.

be seen, more than half of the total cost arises from the operations of those banks intervened by the authorities. These banks accounted for a fifth of the industry's assets before the crisis. Many of these interventions were delayed and this may have led to large (and more expensive) problems. The capitalisation and loan purchase mechanism is the second most expensive programme, and its amount is sensitive to the expected recovery value of the assets that were transferred to FOBAPROA. The figures in Table 3 were estimated based on the assumption of an average of 30% recovery rate across all categories of loans and of an average real interest rate of 6.5%.

The banking system four years later

Table 4 lists the banks both before the banking crisis (first column) and those that remain (last column). The columns in-between give account of which banks participated in the different programmes of support implemented by the authorities,[18] which banks were intervened by the authorities, and which banks were acquired or merged with other banks. In the second block of banks, to give an example for illustration, it can be seen that Bancomer, Promex and Union were three independent banks in 1994. None of them took part on the temporary capitalisation programme, while the first two participated in the capitalisation and loan purchase programme; indeed Promex went on two occasions to FOBAPROA. Union was taken over by the authorities in November 1994 after fraud was found. Promex then bought the branch network of Union, while FOBAPROA retained both the assets and liabilities. Later on, Promex was acquired by Bancomer, which in turn had sold 16% of shares to Bank of Montreal.

This table summarises some salient features of the Mexican restructuring of banks. First, official support was not generally channelled to banks that were subsequently taken over by the authorities; one exception was support of BANCEN. Secondly, the authorities intervened in the management of many small banks. According to the data provided in the first column of Table 4, the assets of these banks accounted for 12.2% of the total of the system in 1994. It has proved to be very difficult to create efficient administrations for so many banks simultane-

[18] There is no reference to the debtor support programmes because they were applicable to all banks.

Table 4

Mergers, acquisitions and government support

Banks in 1994[1]	Government support		Government intervention		Acquisitions[3]	Banks in 1998[1]
	Temporary capitalisation	Capitalisation and loan purchase[2]	Capitalisation problems	Fraud		
Banamex (20%)		x			Banamex (21%)	
Bancomer (17.2%)		x			Bank Montreal acquired 16%	Bancomer (21%)
Promex (2.3%)		xx			Merged with Bancomer	
Union (2.7%)				Nov. 1.994	Promex acquired b.n.	
Serfin (12.1%)	x	xx			HSBC acquired 20%	Serfin (13%)
Bital (5.2%)	x	xx			Central Hispano acquired 20%	Bital (8.4%)
Sureste (0.4%)			May 1996		Bital acquired b.n.	
Atlantico (5.5%)		xx			Merged with Bital	
Interestatal (0.1%)			Sep. 1995		Atlantico acquired b.n.	
Banorte (2.1%)		xx				Banorte (7.4%)
Banpais (3.5%)				Feb. 1995	Banorte acquired b.n.	
Bancen (2.0%)	x		Jun. 1995		Banorte acquired b.n. and A&L	
Banoro (0.5%)					Banorte acquired b.n.	
Probursa		xx			Acquired by BBV (70%)	BBV (5.7%)
Oriente (0.5%)	x		Dec. 1994		Probursa acquired b.n.	
Cremi (2.3%)				Nov. 1994	Probursa acquired b.n.	
Inverlat (5.6%)	x				Scotiabank acquired 55%[4]	Scotiabank

Table 4 (cont.)

Banks in 1994[1]	Government support		Government intervention		Acquisitions[3]	Banks in 1998[1]
	Temporary capitalisation	Capitalisation and loan purchase[2]	Capitalisation problems	Fraud		
Mexicano (6.4%)		x			Acquired by Santander (75%)	Santander (6.4%)
Confia (2.1%)	x	x			Acquired by Citibank (100%)	Citibank (2.3%)
Bancrecer (2.7%)						Bancrecer
Afirme (-)						Afirme (0.5%)
Obrero (0.4%)			Mar. 1995		Afirme acquired b.n.	
Capital (0.1%)			May 1996			Intervened by the authorities. For sale or liquidation
Pronorte (0.03%)			Oct. 1996			
Anahuac (-)			Nov. 1996			
Industrial (0.2%)			Feb. 1998			
Rest[5]						Rest[6]

[1] The percentage in parentheses after each bank name represents the share of the bank in the industry's total assets. [2] "xx" means that the bank completed two rounds of the support programme with the authorities. [3] b.n. = branch network. The acquisitions of Atlántico (by Bital) and Promex (by Bancomer) are not yet completed. [4] With an option to acquire a further 45%. [5] In addition to the banks shown in the list there were other small banks accounting for 4% of the market, some of them with majority participation by foreign banks. [6] In addition to the banks shown in the list there were 9 other small Mexican banks with a market share of 5.3%, and 17 foreign-owned small banks with a market share of 2% in 1998.

ously, and this may have led to some reticence to undertake further interventions. Thirdly, none of the intervened banks was liquidated by the authorities, since the costs of legal procedures would have been very

high. Finally, majority-owned foreign banks now account for 20% of the market, up from 4% before the crisis.

The recovery of the system

The policies of bank restructuring adopted in Mexico succeeded in avoiding a bank run even in the context of very acute problems of the banking system. As problems appeared, successive programmes were implemented (or extended in their amounts or duration) to reassure investors' confidence in the stability of the system. Because it was difficult for the authorities to evaluate at the start the full impact of the crisis on the quality of banks' portfolios, policy-makers chose a gradual approach. The main drawback was that the gradual approach may have created a "wait-and-see" attitude on the parts of the debtors (OECD (1997), p. 58).

Banks and government have shared the cost of restructuring. Only a few banks remain with the shareholders who had acquired them at the beginning of the 1990s. And even in these cases, the owners have had to reinvest profits into capital (and/or provisions) for an amount equivalent to 1.9 times the price originally paid by the banks when they were acquired, at constant (November 1997) prices (CNBV (1998), p. 37).

The Mexican banking system remains weak. Credit to the private sector is still well below its pre-crisis level despite strong economic growth during the past three years. Banks have not contributed much to the recovery, leaving firms to finance themselves internally, from suppliers or from abroad, and households through major manufacturers (such as car manufacturers) and retailers. Credit has not expanded because banks have tightened credit standards and the supervisory commission (CNBV) now requires banks to establish reserves for 100% of those loans granted to debtors with a bad credit record.

The authorities have also indicated the need to further increase the capital of banks from the current level of 12%. There are good reasons for this: first, although banks have made considerable efforts to both reduce the share of NPLs in their loan portfolio and increase provisions, full provision for NPLs has still not been made: non-provisioned NPLs amount to almost a third of the capital base.[19] Second, under the current

[19] See Table 7 of the overview paper in this publication.

agreement with FOBAPROA, and as explained above, banks will have to share with the government eventual losses for those loans not fully recovered. Finally, the quality of capital – 37.5% of which is made up by subordinated debt and deferred tax credits – will need to be improved in the years ahead.

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Development and restructuring of the Saudi banking system

Saudi Arabian Monetary Agency

Early history of banking development and bank restructuring

The early years

The emergence of Saudi Arabia as a modern day unified state has been a development of recent origin. The consolidation of the state apparatus over a large country with a small population dispersed in far-flung pockets and the laying down of the country's physical and fiscal infrastructure on the most efficient and modern lines in a relatively short span of time has been a remarkable achievement. The simultaneous development of the legal and institutional framework of finance and commerce in a span of about four decades has been a no less onerous exercise. The basic framework was laid some time back and in recent decades the institutional framework has evolved to support the development of a modern economy.

In the early part of this century a few foreign based trading houses (including a trading arm of Algemene Bank Nederland) and money changers provided most of the finance related services to meet the needs of the trading community and pilgrims who were the major sources of finance in the economy. With the discovery of oil in 1939, the inflow of royalty revenue into government coffers started and following the Second World War, there was a surge in oil demand and production. Government revenues and expenditures rose rapidly and foreign banks started entering the market. The French Banque de L'Indochine and Arab Bank opened branches in Jeddah in 1948; followed in 1950 by the British Bank of Middle East, National Bank of Pakistan and Bank Misr of Egypt. Banking services such as deposit taking and lending were also provided by the local money changers.

Creation of the Saudi Arabian Monetary Agency

In order to achieve a stable monetary mechanism and stability of currency, in October 1952 the government created the Saudi Arabian Monetary Agency (SAMA). It opened offices in the main cities, but the government continued to use the payment service of money changer Al-Kaki and Bin Mahfouz Co. to act as its agent. In 1953 the government permitted this money changer to start the Kingdom's first commercial bank under the name of the National Commercial Bank.

Introduction of paper money

More foreign banks followed, and in 1954 Banque du Caire started operations, followed by Banque du Liban et d'Outre Mer and First National City Bank of New York. Riyad Bank started operation in 1957 and Bank Al-Watany in January 1958. During the period 1950 to 1956, there was a gradual introduction of paper money in the form of Pilgrim Receipts which were supported by precious metals and foreign currencies. By 1960 the government was able to hold down inflation, the Riyal was officially pegged to the US dollar at 3.75 and was stable, foreign currency reserves had gone up and the government had issued paper currency to replace all Pilgrim Receipts. Nearly all government debt had been repaid, an accomplishment that lasted for years to follow.

First banking problem and resolution

The first banking problems faced by SAMA took place in 1960. Riyad Bank and Al-Watany Bank, which had commenced operations in 1957 and 1959 respectively, faced serious liquidity problems arising from mismanagement and improper loans. Board members in both banks had borrowed heavily from the banks and defaulted on loan repayments. By 1960 Bank Al-Watany was technically insolvent and was unable to settle the claims of local depositors. Following the refusal of its board members to settle their debts, SAMA liquidated the bank and merged its operations with Riyad Bank. In 1961, SAMA required Riyad Bank to be reorganised. The Chairman of the bank was removed from office and a new board of directors was formed. SAMA, on behalf of the Government, acquired the shares of the directors who failed to repay their loans and thus ended up with 38% ownership in the bank.

Introduction of the banking control law

These banking difficulties led to more powers being given to SAMA to license and regulate all banks. A new *Banking Control Law* was passed in 1966, which gave SAMA broad supervisory powers. Banks were required to meet capital adequacy, liquidity and lending ratios and reserve requirements. The *Banking Control Law* also permitted SAMA, with the approval of the Minister of Finance, to recommend institutions for new licenses, issue rules and regulations, and to take actions against any violators of the Law. It also supported the concept of a "universal banking model", which permitted banks to provide a broad range of financial services including banking, investments, securities, etc. Consequently, banks became the primary licensed financial institutions and expanded rapidly, covering the entire country.

Rapid growth and restructuring in the 1970s

Conversion of foreign bank branches to joint stock banks

The 1970s were a period of rapid expansion of the banking system to keep pace with the significant rise in government revenues and expenditures and the financing of major development projects aimed at infrastructure and industry. Up to 1975, the government had encouraged foreign banks to open branches within the Kingdom and consequently ten international banks with 29 branches were present. However, with the Second Five-Year Plan, commencing in 1976, the government promoted a policy of converting foreign banks' branches into publicly traded companies with participation of Saudi nationals.

This policy had a number of objectives. It served to encourage the participation of Saudi investors in an important and rapidly expanding sector. The incorporation and floatation of shares of these banks encouraged broad based public participation which also contributed greatly to the development of a stock market in the Kingdom. Also it promoted banking activities and the formation of banking habits among the population. By encouraging foreign banks to take large shareholdings in the newly incorporated banks and by offering them management contracts, the foreign partners' position was strengthened as they could exercise significant management control while benefiting from national treatment accorded to banks fully owned by Saudis.

Role of money changers

By 1979, of the twelve banks in operation only three were non-Saudi, and the total number of bank branches had almost doubled to 140. However, many major cities, which were frequented by pilgrims, and many small remote communities were also served by over 250 branches of money changers who provided currency exchange and other financial services.

Establishment of special purpose government funds

In addition to the banks and money changers, during the 1970s the government created five major lending institutions namely; Saudi Credit Bank, Saudi Agricultural Bank, Public Investment Fund, Saudi Industrial Development Fund and the Real Estate Fund. These institutions provided medium-term and long-term development finance to supplement the short-term funds provided by commercial banks.

The 1970s boom in banking

There was tremendous growth in the financial position of the commercial banks between the period 1970 to 1979, with the total assets increasing 20 times from SR 2.7 billion to SR 53 billion. Deposits increased from SR 1.6 billion to SR 40 billion and loans from SR 1.6 billion to SR 19 billion. The demand for commercial credit lagged the increasing liquidity available in the banking system and also low cost medium to long-term credit was easily available from the government lending institutions. Consequently the foreign assets of the commercial banks grew rapidly from 11% of total assets in 1977 to 25% at the end of 1979.

The remaining gaps

Notwithstanding the growth, significant gaps remained in the provision of banking and financial services. Some of the key gaps included; small business had limited access to credit; chequing facilities were limited to cash withdrawals; foreign currency transfers were non-existent or were provided mostly by money changers; consumer loans and facilities for small savers were lacking; banking methods were antiquated; computer technology was non-existent; and the clearing house system was

regionally based. A major deficiency at that time was the dependence of banks on foreign expatriates and lack of Saudi nationals in banking business. Thus by 1980, Saudi banks and the authorities faced the challenge of rectifying these deficiencies.

Banking problems and the consolidation of the 1980's

The tumultuous 1980s

The decade of the 1980s was a tumultuous and testing period for Saudi banks and the banking system. In line with the tremendous increase in government revenues during 1979 to 1981 and subsequent slowdown from 1982 to 1986, the Kingdom's commercial banks saw rapid expansion followed by a difficult period of adjustment, deterioration in asset quality and retrenchment. During 1980 and 1981, the growth in commercial credit averaged 26%, falling to 10% from 1982 to 1989. The deposit base of banks grew rapidly from SR 68 billion in 1980 to SR 146 billion by end-1989; and the number of bank branches increased from 188 to 534 over this period.

New measures to strengthen financial sector

With the 1982 merger of three remaining branches of foreign banks into United Saudi Commercial Bank, the conversion process was complete. In 1982, following the failure of a large money-changing organisation, the government passed the *Law for Money Changing Business* that required SAMA to also license and regulate these institutions. Money changers were also prohibited from deposit taking, lending and providing any other financial services except those specified in the Law. Other major policy changes included the introduction of the Banking Security Deposit Account, a liquidity management tool, and permitting Saudi banks to invite foreign banks to join Saudi riyal loan syndications. In 1985, SAMA issued rules that permitted banks to undertake stock brokerage activities. SAMA also put pressure on Saudi banks to train Saudi nationals and to invest money in developing computer and information technology.

Difficulties faced by Saudi Cairo Bank

In 1982, SAMA faced a major supervisory challenge when irregularities appeared in Saudi Cairo Bank's operations. The Managing Director and the Treasurer were involved in unauthorised trading in bullion during the 1979–81 period. The Bank had concealed accumulated losses that exceeded its share capital. SAMA forced the board of directors to resign and prosecuted the Managing Director and the Treasurer who were convicted and gaoled. SAMA required the bank to issue new shares and double its capital in 1986. This increase was taken up entirely by the Public Investment Fund (PIF). The Bank also benefited from "cheap" deposits from the PIF. In this case the PIF had acted not only as an "investor of last resort" but also helped the Bank with liquidity and restored it to a healthy position.

The impact of falling oil prices on the quality of bank assets

As oil prices tumbled from the all time high in 1981 and continued to decline in the next five years, it put significant pressure on the quality of banks assets which deteriorated with the economic slowdown. Credit to the private sector, which had increased over 500% during the period 1976–81, only grew by 20% over the next five years. The banks incurred many non-performing loans which increased to over 20% of all loans by 1986. Banks' profits suffered significantly and loan loss provisions and loan write-offs mounted. By 1988 most banks had made sufficient provisions for doubtful accounts and the average provision for the banking system had risen to over 12% of total loans.

Problems faced by the banking system

The main causes of the problems faced by the Saudi banks were the macroeconomic imbalances created by a steep rise in government revenue from 1979 to 1981 followed by a precipitous decline in oil revenues. Government oil revenue, which had risen to SR 333 billion by 1981, dropped to just SR 74 billion by 1987. The rapid rise in bank assets and liquidity in the late 1970s and early 1980s had given rise to a sharp increase in demand for private sector credit. Some banks expanded too rapidly, and did not have adequate credit assessment and monitoring procedures. They also lacked required technical expertise, faced a shortage of qualified human resources and had inadequate technology.

Consequently when the steep decline in the economy occurred, many companies and businesses suffered from a lack of liquidity and faced a credit crunch. The construction and contracting sectors, which had boomed earlier, faced the biggest setback and many projects were affected. Banks had difficulties recovering their loans and the collateral in many cases proved to be difficult to realise.

Response to the challenge

In this period SAMA, in concert with the Ministry of Finance, took a number of steps to ensure the stability of the financial system and to help the banks to overcome the prolonged economic downturn. These include the following:

- *Dividend payments*. Banks were required by SAMA to seek its approval prior to announcing their dividends. The *Banking Control Law* requires all banks to build their statutory reserves equal to their share capital. SAMA further encouraged Saudi banks to build additional reserves to strengthen their capital base.
- *Tax holidays*. Most foreign shareholders in Saudi banks enjoyed a tax holiday for the first five years of their ownership. To encourage retention of profits, the tax holiday was extended in most cases by another five years after which a deferred tax scheme was permitted. These measures helped the foreign shareholders in Saudi banks to take advantage of eased taxes and encouraged them to retain their share of profits.
- *Tax deductibility of provisions for doubtful accounts*. In 1986 SAMA obtained a ruling from the Tax Department that permitted the tax deduction of loan loss provisions on an accrual basis. Thus banks could now receive favorable tax benefits at the time of making a provision and not just on write-off of a loan. This encouraged banks to increase their loan loss provisions for doubtful accounts.
- *Withholding tax on inter-bank transactions*. To encourage Saudi banks to increase their interbank dealings and to support the development of a riyal inter-bank market, a tax ruling was obtained which exempted foreign banks from withholding taxes when carrying out inter-bank transactions with Saudi banks.
- *Creation of banking disputes committee*. In 1987, Saudi authorities established a Banking Dispute Committee by the order of the

Council of Ministers. The creation of this Committee as the only relevant quasi-court to handle disputes between banks and their customers significantly strengthened the legal system. By law, all banking disputes had to be referred to this Committee and the rulings of this Committee were given the same enforcement support as decisions from any other court.

- *Strengthening of the technological infrastructure*. SAMA initiated a number of projects to improve the technological foundations of the banking system. In 1986, an automated Clearing House was established and in 1989 a national integrated Automated Teller Machine system was also made operational. These new systems compelled all Saudi banks to invest in technology and to improve their back and front office operations.
- *Corporate governance*. SAMA recognised the need to encourage banks to take strong steps to improve their risk management and control procedures. Consequently it took major initiatives in the area of corporate governance. Firstly, it required all banks to develop and strengthen their internal audit departments, and secondly it issued minimum internal control guidelines. Also SAMA issued accounting standards for commercial banks in Saudi Arabia which were in line with International Accounting Standards.
- *Exchange of information on large borrowers and on delinquent loans*. In the early 1980s, SAMA established a credit information service that provided information to Saudi banks on all large exposures of the banking system. This enabled banks to assess the credit position and risk of big borrowers better. Also in 1986, SAMA permitted banks to exchange information on delinquent borrowers as a means of applying collective pressure on them. These measures have proved quite effective in resolving the problem of delinquent loans.

Further bank restructuring

In addition to the above measures to strengthen the banking system, SAMA encouraged banks to restructure and recapitalise. During the 1980s, some of the main actions were as follows:

- *Formation of United Saudi Commercial Bank*. This bank was established on 5 October 1983 by taking over the three remaining branches of foreign banks, United Bank of Pakistan, Bank Melli Iran and Banque du Liban d'Outre Mer. The share capital was SR 250 million of which 40% was owned by foreigners.
- *Saudi Investment Bank*. This bank was established in 1976 as a special purpose bank. It was given a full commercial license in 1984 and permitted to offer all banking services. There were changes in its ownership at this time as some foreign shareholders sold their shares reducing foreign ownership to 25%.
- *Formation of Al-Rajhi Banking and Investment Corporation*. In 1988 the government issued a banking license to the Al-Rajhi family to create the third largest bank in the Kingdom. Al-Rajhi was previously the largest money changer in the Kingdom and had been providing a range of banking and financial services. The floatation of Al-Rajhi as a bank raised SR 750 million in new capital and brought in approximately 100,000 new shareholders. The floatation was over-subscribed by approximately ten times. In 1992, Al-Rajhi doubled its capital to SR 1.5 billion by issue of bonus shares on a 1:1 basis.

Recapitalisation of banks

- In 1988 SAMA approved Riyad Bank's request to raise its capital from SR 100 million to SR 200 million, by capitalisation of reserves. This floatation was postponed to 1992 when the bank increased its capital to SR 2,000 million by a share bonus and then by another SR 800 million by issue of new shares. It also raised share premium of over SR 3 billion on this issue.
- Saudi Cairo Bank was permitted to raise its capital from SR 150 million to SR 300 million in 1987 and then in 1988 PIF made a major investment of SR 300 million thus doubling the share capital. In 1992 the bank issued 6 million shares at SR 350 per share and increased its capital by another SR 600 million. It also raised SR 1,500 million in share premium.
- Saudi American Bank doubled its capital to SR 600 million in 1988 by issuing bonus shares to its shareholders. Also in 1991, Citibank N.A. sold ¼ of its 40% stake in the bank to two public sector agencies. In 1992 the share capital was increased to SR 1,200 million by capitalisation of its reserves.
- Saudi British Bank had increased its capital from SR 100 million to SR 300 million in 1979. In 1988, it further increased its capital to SR 400 million.

- Saudi French Bank increased its share capital from SR 100 million in 1977 to SR 200 million in 1979 and to SR 400 million in 1987. In 1992, the share capital was increased to SR 900 million through bonus shares and an offering of 2 million shares at SR 100 and a premium of SR 470 million.
- Al-Jazira Bank raised its capital from SR 100 million to SR 400 million in 1992. It also raised share premium of SR 600 million. It used this premium to provide for doubtful loans.
- The National Commercial Bank in 1992 increased its capital from SR 30 million to SR 6 billion by a cash injection. In 1997 the bank has reorganised from being a partnership bank to a limited joint-stock company as a prelude to widening its shareholder base in the near future.

The position at the end of 1980s

Despite the tumultuous economic conditions during the 1980's, the Saudi banking system grew rapidly. The number of branches, 247 in 1980, reached 1,007 by end-1989. Three new banks – Al-Rajhi Banking and Investment Corporation, Saudi Investment Bank and United Saudi Investment Bank – were added to the list. Total employees also rose significantly from 11,000 in 1980 to about 20,000 by 1989. Another aspect of expansion was the opening of overseas branches of major banks with branches in the United Kingdom, Bahrain, Beirut and Turkey.

The new banking system-wide instruments and technologies

During the 1980s Saudi authorities continued to introduce new instruments and systems to enhance and strengthen the Saudi financial markets. Significant changes were made to modernise the banking system. Specific highlights included the following:

- Introduction of the Government Development Bonds programme to provide an important investment instrument to banks and other investors in the Kingdom.
- Arrangement for repos of up to 25% of banks' Saudi Government Bond holdings with SAMA.
- Introduction of a national Automated Teller Machine System which permitted customers access to their accounts from any machine.
- Introduction of debit, credit and charge cards.
- The linking of Saudi Arabia with the SWIFT payment network.

Growth and stability in the recent decade

The Gulf War

By beginning of the 1990s the Saudi banking system had largely recovered from the difficulties of the mid-80s. Banks had expanded their branch network, introduced stronger management methods and new technologies, raised new capital, improved their profitability and set aside large provisions for doubtful accounts. They were healthy and profitable and the 1990s augured well. However, with the invasion of Kuwait by Iraq in August 1990, the Saudi banking system faced its biggest challenge. The Gulf crisis fully tested the strength of the banking system and SAMA's capability as a central bank and banking supervisor. The crisis affected the monetary situation profoundly. Customer withdrawals of domestic deposits during August 1990 were 11% of total customer deposits. These were largely converted into foreign currency and transferred abroad. By September 1990 the pressure had eased and withdrawal slowed down to 1.1%. SAMA had provided banks access to additional liquidity through more liberal repo arrangements, placing additional Saudi riyal and foreign currency deposits with them and by selling foreign currency in large volumes. Banks also coped well by liquidating their foreign assets.

The post-war expansion

Following the resolution of the Gulf crisis there was a mini boom in the economy. During 1991 there was a massive surge in the deposits of the banking system of about 20%. Banks' domestic loans and advances grew 90% during the period 1990–95 and all other banking indicators such as return on equity and return on assets continued to be very positive with many banks making record profits during this period.

Strengthening the capital base of the banks

The Saudi banks, under the guidance of SAMA, used the bullish sentiments in the stock market to raise substantial amounts of capital. As noted earlier, six of the twelve banks increased their capital during 1991–92. The trend to increase the banks' capital base has continued during the second half of the 1990's, and three Saudi banks have been

to the market during the 1993-97 period. The objectives of the capital increase have been as follows:

- To strengthen the capital base of banks. This was to ensure that banks continue to meet the capital adequacy standards required by the *Banking Control Law* and the Risk Assets based Standard introduced by SAMA in 1992.
- To increase the deposit-raising potential of the banks.
- To broaden the base of shareholders. As more small investors enter the market, the floatation of bank shares provides an attractive opportunity for them to hold shares.
- To permit banks to use their additional capital to increase their provision for doubtful accounts and to ensure that they were all provided against non-performing loans.
- To provide banks with more funds to invest in computers and information technology and development of new products and services.

The capital adequacy ratio

These objectives have largely been achieved and Saudi banks at end-1998, with a Risk Asset Ratio of over 21% mostly comprising tier 1 capital, are highly capitalised by international standards. Following the Gulf crisis the banking system has coped well with the domestic economic cycles and the volatilities and turbulence of the international financial markets. Despite difficult international conditions, the banks have continued to show solid and stable growth and reasonable profitability during the 1990s.

A strong supervisory framework

The sustained long-term growth and development of the Saudi banking system has been supported by a strong and comprehensive system of banking supervision. Since the 1960s, SAMA has enjoyed broad regulatory powers of licensing banks, approving their activities and taking prompt corrective action when required. SAMA has powers to promulgate rules, regulations and guidelines to banks in all areas including capital adequacy, liquidity, lending limits, credit and market risk, etc. Also, it has powers to conduct both on-site and off-site supervision. SAMA also acts as the regulator of the stock market and has a dual role

of providing central payment and settlement services and for the oversight of these systems. Over the years, SAMA has used its broad supervisory powers effectively to ensure that the Saudi banking system continues to enjoy a high reputation of soundness and stability in the international financial markets.

Enhanced corporate governance

One of the salient features of the bank restructuring in Saudi Arabia has been the increased focus by SAMA and the Saudi banks on the area of corporate governance. SAMA has issued guidance to Saudi banks on a range of subjects including the Role of a member of the Board of Directors, Formation of Audit Committees, Minimum Internal Control Standards, Special Audit Examinations, Role of Internal and External Auditors, etc. These initiatives have inculcated a strong management control culture and risk management environment in the Saudi banking system.

Expansion and technological enhancements

The restructuring of the banking system has continued with the 1997 merger of United Saudi Commercial Bank and Saudi Cairo Bank into United Saudi Bank. In 1999, the Saudi banking system is preparing for a likely increase in the number of banking institutions, as a result of the recent decision of the Gulf Cooperation Council Prime Ministers to permit reciprocal opening of their banking markets to their institutions. The banking system is also poised to take advantage of investments in new technologies by the introduction in 1997 of a Real Time Gross Settlement Electronic Funds Transfer System. Additionally, the banks also share the benefits of a Point of Sales System and an advanced Electronic Share Trading and Settlement System which boasts same-day settlement.

New banking products and services

Another important dimension of the restructuring of the Saudi banking system has been the growth of banks' off-balance sheet and fiduciary activities. The Saudi banks now manage about 100 investment funds with investments of over SR 22 billion and offer international stock

brokerage. Given that Saudi Arabia is one of the largest private banking markets in the world, the potential for growth in this area is immense.

Well-positioned for the new millennium

The progress of the Saudi banking system over the past four decades has been solid if not spectacular. The system has faced many challenges arising from downturns in the domestic economy, turbulence and volatilities in the global financial markets, international financial crises and the Gulf War. During this period, the banking system has seen periods of rapid growth and prolonged slowdown; it has faced deterioration in asset quality and problems with delinquent borrowers; it has suffered flight of deposits and losses due to international market conditions. Nevertheless, the Saudi banks have managed to stay on course and achieve their current strong position without experiencing a serious banking crisis. At the beginning of the new millennium, they are well-positioned, in terms of capital, quality of assets and technology to play an important role in the regional and global markets.

Bank restructuring in South-East Asia

John Hawkins*

Introduction

Weaknesses in the financial systems of Thailand, Malaysia and Indonesia were exacerbated by very large devaluations in 1997 and early 1998. Policy responses have some similarities; all have set up agencies to manage bad assets and all have schemes to inject public money as capital into the banks. The differences between the responses reflect three main factors:

- the severity of the problems; Indonesia has had a much larger devaluation and more severe depression and consequently its banking system faces greater problems than does Malaysia or Thailand.
- political factors; Thailand and later Indonesia (like Korea) have had changes of leadership which facilitated policy changes and signed agreements with the IMF that have required some policy changes. In contrast Malaysia has maintained its, more market-sceptical, approach.
- the structure of the banking system; Thailand has been able to adopt more of a case-by-case approach to its treatment of banks while the much larger number of banks in Indonesia have forced them to adopt more general rules for restructuring.

This paper compares the main elements of the implementation of bank restructuring. It is not meant to be comprehensive. Moreover, these policies are being adapted over time as conditions change. It is of course too early to assess the efficacy of restructuring to date.

* This paper has benefited from discussions with officials, bankers and academics in the countries covered and comments by Elmar Koch, Robert McCauley, YK Mo and Philip Turner. All opinions are those of the author and not necessarily those of the BIS or central banks of the countries discussed. It includes information available up to June 1999.

Background

The economic crisis

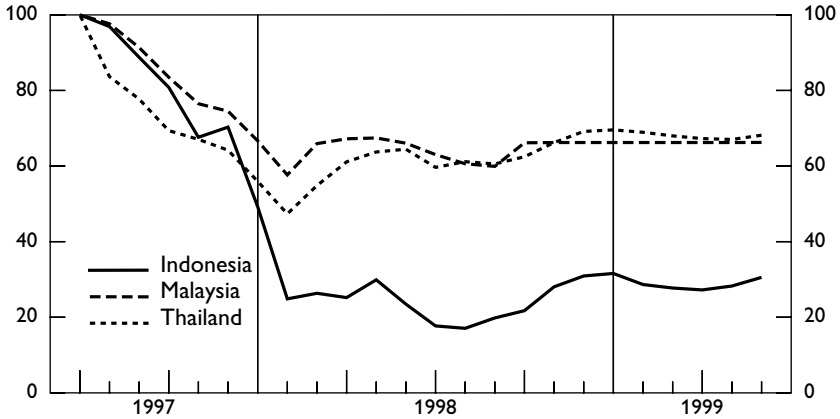
Thailand, Malaysia and Indonesia experienced from late 1997 severe and unexpected recessions after consistent and very strong growth for more than a generation. The Thai devaluation in July 1997 triggered recurrent rounds of currency depreciation affecting all three economies during the remainder of the year. The currencies all recovered somewhat from January 1998 onwards but remain much weaker than in the first half of 1997. The size of these depreciations was far greater than previous discussions of possible overvaluation had suggested was warranted.[1]

Attempts to stave off devaluation, and then fears of yet further depreciation, meant that interest rates in East Asia rose to high levels in the second half of 1997 and early 1998 and credit contracted sharply. These in turn caused severe contractions in output (Table 1) and corporate profitability (as reflected in massive falls in equity prices). This unprecedented slump put the banking system under severe stress.

Graph 1

Exchange rates *

Monthly averages; June 1997 = 100



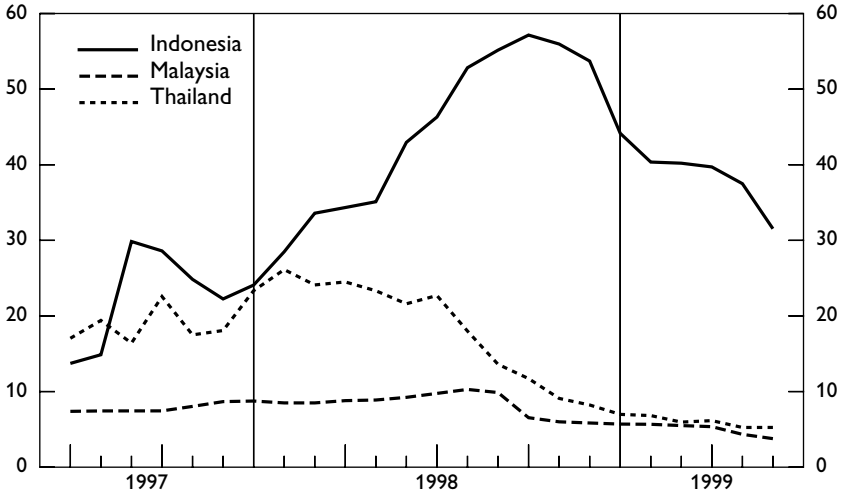
* US dollars per local currency.

[1] For a further discussion of the contours and causes of the Asian currency crisis, see Goldstein and Hawkins (1998) and Radelet and Sachs (1998).

Graph 2

Interest rates *

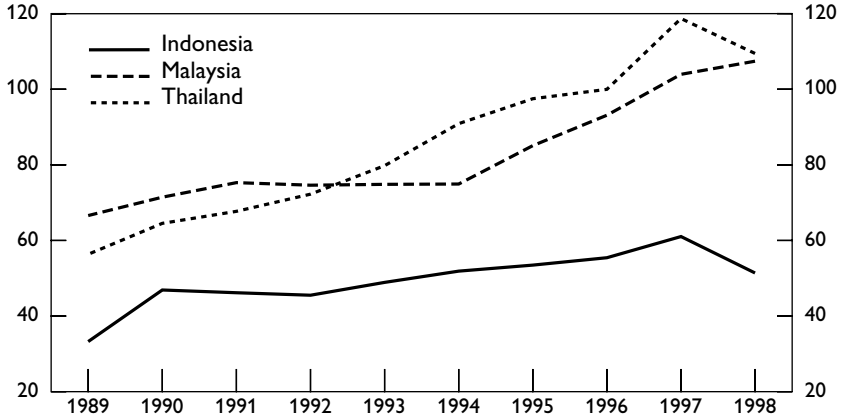
Monthly averages, in percent per annum



* Three-month rates.

Graph 3

Domestic credit *



* To the private sector, as a percentage of GDP.

Table 1

Comparative data

	Number of banks[1]	Real GDP[2]	Estimated cost of restructuring[3]	
		1997–99	$US bn	% to GDP
Thailand	20	– 7	43	32
Malaysia	24	– 5	13	18
Indonesia	178	–15	40	29

[1] Pre-crisis; private domestic commercial banks and state banks. Source: World Bank (1998). [2] Cumulative percentage change. Source: Consensus Economics *Asia-Pacific Consensus Forecasts*, July 1999. [3] IMF estimates as at 30 November 1998. Source: IMF (1998).

Scale of the problem in the banking system

The banking systems in the three economies now face a crisis more severe than experienced in any of the high profile banking crises in the advanced economies.[2] Official figures now put non-performing loans (NPLs) at almost 50% of loans in Thailand and considerably higher in Indonesia. In Malaysia, the official estimate is 8%[3] but some private sector estimates are much higher. The cost of repairing the banking systems will obviously be very high; some IMF estimates are given in Table 1.[4]

The problems are extraordinarily widespread; most surviving banks are incurring losses and there are scarcely any which have not had to seek official assistance, mergers or large amounts of new capital.

The proportion of NPLs has risen rapidly. This reflects both more realistic assessments and an increase in the number of borrowers falling behind in payments. Interest rates have eased back in all three countries. In Malaysia and Thailand they are now below pre-crisis levels (Graph 2). This has been associated with output recovering in Malaysia and Thailand (Graph 4). Equity prices have come off their lows, in some cases markedly so.

[2] See Tables 6 and 7 and the associated discussion in the overview paper.

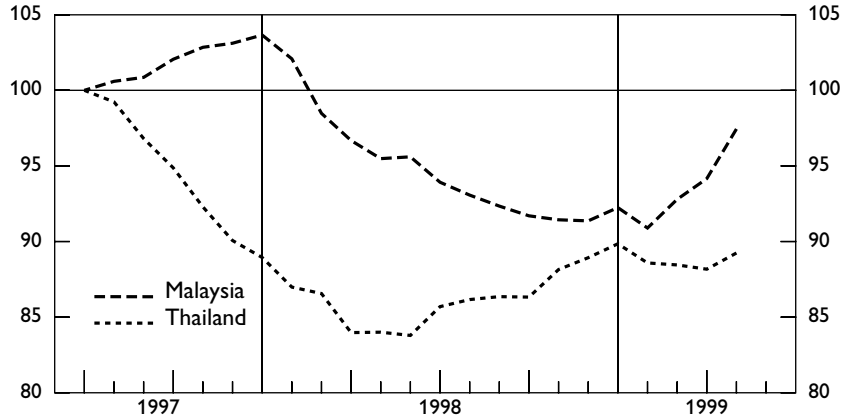
[3] Note that in Malaysia loans are only required to be classified as non-performing when repayments are over 6 months overdue. If the more usual 3 months classification were used NPLs would be around 13%.

[4] Some similar private sector estimates are given in Keenan et al (1998) and Shirazi (1999). More recently, much higher estimates for Indonesia and Thailand have been made by Armstrong and Spencer (1999). Many commentators now expect the cost of restructuring Indonesia's banks to exceed 60% of GDP; Standard and Poor's think it could exceed 80%.

Graph 4

Industrial production *

June 1997 = 100



* Three-month moving averages.

Along with some successful restructuring of corporate debt, these features give some hope that NPLs may now be near a peak in Thailand and Malaysia.[5] This is supported by a levelling off in NPLs reported by some individual banks there.

Coordinating bank restructuring

The *Financial Restructuring Advisory Committee* was formed in **Thailand** to advise on the overall process and issue guidelines. It is chaired by a former deputy minister of finance and includes representatives from the Bank of Thailand (BoT), finance ministry and the private sector. The BoT, the central bank, provides its secretariat.

Bank Negara Malaysia (BNM) itself plays the coordinating role in **Malaysia**. It has also provided some key personnel for the specialised bodies charged with resolving the problems.

In **Indonesia** the lead has been taken by the Indonesian Bank Restructuring Agency. IBRA held discussions with the five main political

[5] Goldman Sachs (1999a) report calculations based on published corporate balance sheets supporting this view. However, they warn that a significant proportion of companies are making losses even before interest payments.

parties prior to the recent election and secured general agreement from them on its approach.

Challenges for supervisors

Bank runs and depositor protection

General guarantees covering all bank deposits have been announced in the three countries; in August 1997 by Thailand, in late 1997 by Malaysia and in January 1998 by Indonesia. Explicit deposit insurance schemes are now being developed.

The need for this, notwithstanding concerns about moral hazard, was demonstrated by the reaction to bank closures in Indonesia. Under the terms of an IMF programme, Indonesia closed sixteen commercial banks in November 1997. It was explicitly stated that deposits over 20 million rupiah (about US$ 5,000 at the time) were not guaranteed. A major run on private domestic banks in Indonesia followed. Some funds were transferred to foreign or state-owned banks but some funds appeared to be kept out of the banking system entirely, being held as cash or sent abroad.

Not only domestic depositors lost confidence. Foreign banks cut back lending (Table 2) and became reluctant to roll over credit facilities or to accept letters of credit written by banks in the region. This led to a lack of trade finance preventing exporters from taking full advantage of the apparent increase in competitiveness from the devaluations. For this reason the Indonesian authorities' guarantees apply not just to domestic depositors but all creditors both in rupiah and foreign currencies and including off-balance sheet liabilities. In January 1999, Bank Indonesia

Table 2

Liabilities to BIS reporting banks

$US billion; December 1998 (June 1997)

	Banks	Non-banks
Thailand	46 (86)	11 (13)
Malaysia	18 (25)	5 (7)
Indonesia	18 (23)	33 (37)

Source: BIS International Banking and Financial Market Developments, June 1999 (and February 1998).

announced it had repaid almost all the local banks' trade-related debt to foreign banks. Notwithstanding references to informal understandings with the foreign banks, it is unclear whether foreign banks will now be more willing to undertake new lending to Indonesian entities.

Changes to regulations

Changes to regulations and supervisory practices take two forms. One is temporary concessions, aimed at helping banks out of current problems. The other is tightening requirements to avoid banks getting into more problems in the future. Malaysia has done more of the former, while Thailand and Indonesia have concentrated on the latter. Property development has been a particular area where regulations in Asia have been tightened.[6]

The authorities in **Malaysia** announced that banks were expected to expand their loan portfolio by 8 per cent during the course of 1998. In the event, this was not achieved. Indeed, overall outstanding loans were virtually unchanged during 1998. Despite the subsequent lack of compliance, the announcement of the loan target raised concerns about further deterioration in the quality of banks' loan books. The authorities have set a similar target for loan growth in 1999. Performance in meeting this target may be one aspect of the recently announced reviews of bank CEOs by BNM.

The percentage of eligible liabilities banks must maintain as non-interest-bearing deposits with BNM was cut in stages from 13.5 to 4%. Although the definition of NPLs was made more lenient (i.e. six months overdue), Malaysia has tightened some prudential guidelines. Banks' required general loan loss provisions were raised from 1 to 1.5% of loans. Capital requirements were to be met quarterly rather than annually. In April 1999 changes were foreshadowed to the capital adequacy requirement, relating capital to internal controls and the industrial composition of loans. The maximum exposure to a single borrower has been reduced from 30 to 25% of capital and loans to

[6] ADB (1999) comments "In Malaysia, the Central Bank limited the banking sector's exposure to the broad property sector to 20% of outstanding loans, and set limits on the institutional and individual purchases of shares and stocks. The financing of second houses has been reduced to 60% of property value. In Indonesia, banks are no longer allowed to extend new loans for land purchase or property development, except in the case of low-cost housing."

controlling shareholders are being prohibited. Banks are required to disclose ratings, sectoral exposures, capital adequacy and NPLs six weeks after the close of the quarter. BNM permission will be required before opening new branches.

Thailand announced a mild easing of capital requirements. While the overall required ratio remains slightly above the Basle standard at 8.5%, the tier 1 component of this need only be 4.25 rather than the previous 6%. Restructured bad loans can now be classified as performing. At a meeting with BoT in January 1999, the local banks agreed to plan for 7% loan growth this year.

But so far the Thai authorities have been more concerned with removing laxity in supervision. A comprehensive review of the legal and regulatory framework is expected to lead to new legislation around the middle of 1999. Tighter provisioning requirements are being phased in and take full effect by end-2000. However, banks wanting to use the tier 1 scheme discussed below must meet these requirements immediately. BoT has also announced measures to ensure the quality of any capital raised (e.g. by limits on equity issues with attached bonds).

Amendments to the Banking Act in **Indonesia** gave the central bank responsibility for licensing, regulating and supervising banks. Bank Indonesia (BI) has issued new regulations on loan classification and provisioning, reduced the maximum allowable net open foreign exchange position and reduced the maximum size of loans to associated companies. A new central bank law was passed in April 1999 giving BI more independence but limiting BI's ability to lend to banks. From 2000 bank supervision will be handed over to a new body.

Managing bad assets

Asset management corporations (AMCs) have been established in all three economies, although they appear to be adopting different strategies. Thailand's AMC seems keenest to sell off the loans or underlying assets quickly while Malaysia's AMC seems to prefer managing them for some time and selling off more gradually.

The first AMC in the region was that in **Thailand** charged with disposing of the assets of the insolvent finance companies. The *Financial Sector Restructuring Agency* (FRA) was established in October 1997. The

FRA has its own board, including a deputy governor from BoT, a former secretary of commerce, a former finance company CEO, a public prosecutor and an accountant. It had early success in auctioning off the more homogenous assets that are easiest to value. Physical assets (office furniture, cars etc) were sold in March 1998, car loans in July and residential mortgages in August. These sold on average for around half the book value.

However, the much heralded 'world's biggest asset sale' of corporate loans (many property related), with a face value of over US$ 10 billion, in December 1998 was a disappointment. It attracted only twelve bidders, mostly US investment banks. The highest bids received were in most cases below what the authorities regarded as the minimum acceptable (reported as 25–30% of book value). While about a third of the assets were later sold for 21% of face value plus a profit-sharing deal, the aim of completing the asset sale by the end of 1998 was not achieved. Under the auction rules, purchasers are forbidden to sell loans to the original debtors for six months.

Most of the remaining assets were resubmitted to a new auction in March 1999, at which some packages of loans were offered on a profit-sharing basis, under which the FRA receives 20% of the cashflow after deduction of expenses. Bids were accepted in either cash or bonds. This flexibility was hoped to attract more bidders, but complicates the choice of the 'best' bid. Profit-sharing arrangements mean the FRA does not yet know how much revenue it will eventually have available to distribute and require it to stay in operation longer. The results of this auction were also disappointing, with few bidders and sales at an average price of only 18% of face value. A small auction of construction loans in May 1999 was cancelled when it only attracted a very small number of low bids. A final auction is to be held in August 1999.

The *Asset Management Corporation*, established in October 1997, has capital of THB 15 billion and plans to issue up to THB 180 billion of 3–7 year bonds (a portion of which will be explicitly government-guaranteed). It can act as a bidder of last resort at FRA auctions and manage assets thus acquired for up to five years. It made no purchases at the December auction but was the largest purchaser at the March auction, buying almost three-quarters of the assets on offer.

The *Radhansin Bank* was established in March 1998, with initial capital from the World Bank and the Asian Development Bank, with a

mandate to bid for 'high quality' assets (its name means 'good assets') being sold by FRA. In practice there have been few good assets so it has not been very active in its initial role. Instead it has been used to take over the failing Laem Thong Bank. The combined bank is being sold in August 1999 with the government subsidising up to 85% of losses for the first five years.

A specialised AMC, the *Property Loan Management Organisation*, was established to purchase loans collateralised against partly developed property projects from financial institutions with the aim of enhancing their value by careful management. It is owned by the government, chaired by the permanent secretary of the finance ministry and can raise up to THB 100 billion in working capital through issue of government-guaranteed bonds. It makes purchases at a market price appraised by three independent valuers. Operating expenses are funded from charges on the financial institutions and borrowers.

A 'bad bank' has been established to manage the NPLs of Bangkok Bank of Commerce. It is mostly staffed by former employees of the bank and housed in some of their former branches. The intention is to wind it up by the end of 1999. The performing assets are being taken over by the state-owned Krung Thai Bank. The government has established a legal framework to encourage private banks to establish their own 'bad banks'.

Malaysia established a public company owned by the Ministry of Finance, *Danaharta* (in full, Pengurusan Danaharta Nasional Burhad) in June 1998 whose objectives are to "acquire, manage, finance and dispose of assets and liabilities" of financial institutions to "allow them to focus on their core business of lending". It bought its first loan from a bank in August 1998 and is expected to operate for up to ten years. It outsources some of the management of properties it acquires.

Danaharta has a board of nine directors appointed by the finance minister. Most come from the private sector (including two from the international community) but two represent the government. The managing director, a former investment banker, is a non-voting member of the board.

The legislation establishing Danaharta gave it two special powers. Firstly, it can acquire assets through statutory vesting to give it certainty of title. If Danaharta wants to acquire a NPL from a bank, it first agrees the terms and conditions (including price) with the bank. It then issues a

vesting certificate which the Registrar of Land will accept as giving the same charge over land as held by the selling bank. Danaharta may later sell the loan, also using statutory vesting. None of this requires the consent of the borrower.

Secondly, it has the ability to appoint Special Administrators to manage the affairs of distressed companies, unable to meet their debts, subject to the approval of an Oversight Committee. The Committee comprises representatives from the finance ministry, central bank and the securities commission. While the Special Administrator is controlling the company's assets, a 12-month moratorium takes effect during which no action can be taken against the company. The Special Administrator prepares a workout proposal, which along with a report on it by an independent advisor approved by the Oversight Committee, is passed to Danaharta. If Danaharta and a majority (by value) of secured creditors approve it, the proposal is implemented.

Five subsidiaries manage property, infrastructure, industrial, construction and general investment respectively. Some of these will be taking projects through to completion before sale. This more active approach to managing assets has been compared to Sweden's AMC (Securum), which was able to restructure, package and sell assets within five years.

Danaharta initially estimated it needed to raise MYR 25 billion for its operations but this has been revised down to MYR 15 billion. The government contributed MYR 1.5 billion in capital and further contributions are possible. Almost MYR 5 billion has been raised from issue of zero-coupon bonds. Private equity participation is also contemplated.

As at 30 June 1999 Danaharta had purchased 2,000 NPLs, worth MYR 30 billion from the banks, swapping them for 5-year zero-coupon government-guaranteed bonds with an option to rollover for another five years, discountable at BNM. About a third of the loans purchased were property loans. In general, Danaharta is meant to give priority to supporting lending for strategically important sectors such as exporters. Danaharta is also managing MYR 13.7 billion of NPLs for two banks. In some cases, banks have rejected offers from Danaharta to buy NPLs off them.

The price Danaharta offers banks for NPLs is calculated using either a market value for collateral or a discounted present value approach based on that employed by the RTC in the United States and Securum

in Sweden. This has so far meant paying an average of 61% of book value (excluding one exceptional case). Danaharta only caters for the 2,000–3,000 NPLs made by banks of more than MYR 5 million. Lack of involvement with consumer or housing loans makes its operations less politically sensitive: it is not evicting people from their homes. (A special purpose vehicle is being established to purchase and manage small NPLs from finance companies.) In some cases Danaharta takes over performing loans to a firm if other loans to that firm are in arrears. In 1998 it concentrated on secured loans; in 1999 it may purchase unsecured and foreign currency loans.

There are two specific incentives for banks to sell NPLs to Danaharta. Firstly, if the loan or underlying collateral is subsequently sold for more than Danaharta pays, 80% of the surplus is returned to the bank. Secondly, banks will be able to amortise the loss on any loans sold to Danaharta over up to five years. Danaharta has started to dispose of some assets. A tender has been held for foreign currency loans, with bids due in August.

In **Indonesia**, the *Assets Management Unit* is a component of the *Indonesia Bank Restructuring Agency* (IBRA – sometimes called BPPN after its Indonesian initials). IBRA takes over the management of unsound banks. It was established in January 1998 and has 500 staff. Initially its staff were mostly seconded from the central bank, finance ministry and other public and financial institutions and supplemented by external consultants. Now most of the staff have a private sector background. Separate parts of IBRA handle financial assets and non-core assets.

It has just started the process of selling the IDR 158 trillion of financial assets it has acquired so far (it may eventually have over IDR 250 billion in assets to sell). A package of credit card receivables was sold in June 1999, following the sale of some cars and computers. Up to IDR 1 trillion of retail loans will be sold in July. It plans to contract out recovery of loans below IDR 25 billion.

Mergers and takeovers

Domestic private bank mergers have not been able to play a large role in resolving banking problems as almost all banks have suffered in the crisis. In September 1998 the authorities in **Indonesia** announced that

four state-owned banks would be merged into the new Bank Mandiri. Their bad assets will be transferred to IBRA. The new bank, whose name means "self-reliant bank", will have almost a third of total bank assets and may later be sold. Treasury operations have been centralised and a centralised credit unit has been formed. Substantial staff cuts are likely in order to reduce costs; a voluntary severance plan has already resulted in over 9,000 applications. Most NPLs will stay with Mandiri. The bank is being advised by an array of international companies. According to *The Economist* (1999), Deutsche Bank is overseeing the restructure and overhauling credit procedures, McKinsey is developing a retail banking strategy, Andersen Consulting is revamping information systems, Hay Management looking at staffing and Ogilvy & Mather designing a new image. Preliminary merger talks have been held between five other Indonesian banks.

The **Malaysian** authorities have announced plans for the country's banks and finance companies to be merged into six large groups by September 1999.

Takeovers by foreign banks have become much more favourably regarded in Indonesia and Thailand since the crisis broke out. Legislative amendments in Indonesia now permit majority foreign ownership. A British bank has taken control of one large Indonesian bank. However, while foreign banks are now allowed to take a majority stake in domestic banks in Thailand, it can only be held for ten years. This appears to have deterred foreign banks from buying. However, in contrast, Malaysia is retaining its 30% limit on foreign ownership of banks.

Recapitalisation schemes

All three economies have schemes in place to assist the recapitalisation of the banking system. Recapitalisation in **Thailand** is taking place under the aegis of the *Financial Institutions Development Fund* (FIDF). FIDF was established in 1985 to provide financial assistance to troubled banks, accepting a broader range of collateral than allowed under the BoT's lender-of-last-resort facility. It is staffed by the Bank of Thailand (BoT), who provided its initial capital, and is partly funded by a levy on financial institutions of 0.4% of deposits. (In time it will be replaced by a new deposit insurance agency.) The government issued THB 500 billion in

bonds to cover the FIDF's liabilities. The interest on the bonds is met from the budget with amortisation from future BoT profits. The FIDF has taken over some undercapitalised banks by converting its loans to them into equity. Initially it had hoped to sell these banks by end-1998 by providing guarantees covering future losses. It now hopes to sell them by end-1999. Foreign purchasers will be offered a loss-sharing agreement, where the cost of bad loans will be partially shared by the central bank for several years. Bids are expected from HSBC and Citibank among others.

Krung Thai Bank, now 94% state-owned, is being used to consolidate some failing banks and its subsidiary KTT is taking over some finance companies. The government has recapitalised it and intends to sell 20% of it by June 2000 and a further 30% by end-2000.

The government announced two general recapitalisation schemes in August 1998, which are operated by the FRAC. They involve the issue of up to THB 300 billion in government bonds. Under the 'tier 1 scheme', the government will inject capital to bring a bank's tier 1 capital up to 2.5% of assets with further government funding to bring capital up to 4% being contingent on private shareholders contributing matching amounts. The funds are provided in the form of tradable 10-year government bonds carrying market-related interest rates.

The tier 1 scheme is conditional on banks presenting viable restructuring plans to BoT. They must also meet strict requirements for loan classification and provisioning, which would often mean existing shareholders losing most of their stakes in the banks. Furthermore, the new capital will have preferred status to the existing shareholders. The BoT is also able to require replacement of top management as a condition of assistance and the ministry of finance can nominate at least one board member. For all these reasons, banks have been slow to take up the offer. The Siam Commercial Bank, part owned by the royal family, is the only bank to have had an application approved under the scheme so far, although at least one other bank has applied.

A third of the government funds are earmarked for the 'tier 2 scheme', which involves the government exchanging 10-year non-tradable government bonds for 10-year bank debentures. The bank debentures are to pay interest 1 percentage point above that on the bond and are convertible to preferred equity if the institution's capital ratio falls below the regulatory minimum. The amount offered to a bank will depend on

the extent of write-downs resulting from corporate debt restructuring and the amount of new lending but is limited to 2% of risk-weighted assets. So far only three banks have taken up the offer but more are expected to do so.

In **Malaysia**, *Danamodal*, (in full, Danamodal Nasional Berhad) was established in August 1998 as a limited liability corporation, and a subsidiary of BNM. Danamodal has raised additional funds through issuance of MYR bonds. As it achieves its objectives, Danamodal will sell its stakes in the banks. When they are all sold, any residual value will be distributed to shareholders. The current plan is for Danamodal to operate for five years; reforming banks in the first two years and then winding down shareholdings over the following three.

Danamodal is designed to operate separately from the government and take its own decisions on which banks in which to invest. The central bank has a strong involvement in establishing and overseeing Danamodal's operations. Danamodal's managing director is a former BNM assistant governor. Accompanying him on the board are two additional members from BNM, a deputy secretary of the finance ministry, the head of Danaharta and an accountant and lawyer from the private sector.

Danamodal can inject capital into domestic banks in the form of equity or hybrid instruments. It is nominating two directors, one of whom will serve as chair or deputy chair, to those banks to which it has contributed capital so far and has said if further capital is contributed it may seek further representation. As a strategic shareholder, it may seek mergers if it judges them appropriate and act to revamp management. Before receiving capital from Danamodal, existing bank shareholders have to bear all losses. Banks have to sell all eligible NPLs to Danaharta and comply with a comprehensive set of performance targets.

The BNM contributed MYR 1.5 billion as initial capital and a further MYR 1.5 billion in November 1998. 57 banking institutions also subscribed to MYR 11 billion nominal value (MYR 7.7 billion net) of zero-coupon bonds with maturity of 5–10 years, paying with funds freed up from the September 1998 reduction in required reserves with BNM.

In January 1999 BNM took control of Malaysia's largest finance company and guaranteed its deposits. In March 1999 Danamodal bought 70% of it for a token 1 ringgit and then injected MYR 1.6 billion in new equity. Danamodal will provide the chairman and five directors. By June 1999 Danamodal had injected MYR 6.2 billion into ten banks restoring

them to health, and raising the average risk-weighted capital ratio for the banking system to 12%.

In **Indonesia** it was about a year after the crisis hit before a major recapitalisation scheme was launched and not until March 1999 that the details of the package were announced. The package was initially costed at IDR 300 trillion; by June 1999 this estimate had been doubled. About IDR 230 trillion will be required for the state banks, IDR 220 trillion has been provided by BI to the private banks, a further IDR 130 trillion will be needed for recapitalising them and IDR 20 trillion will be needed to repay depositors of closed banks. These estimated costs are continuing to rise however as most banks are continuing to pay more on deposits than they are earning on loans. After audits of local banks (for the larger banks by international auditors and for smaller banks by the central bank), the banks were initially classified into three categories:

- *sound*; 74 banks with capital ratio over 4% (about a third of these banks had management regarded as "not fit" and were required to merge with other sound banks);
- *viable*; 9 banks with capital ratios between –25 and 4%, which will be eligible for recapitalisation support;
- *unsound*; 24 banks with capital ratios below –25%, and 21 banks previously classified in category B, which were not thought to be recoverable and are being closed and their depositors paid out by BI.

Under the plan eight of the nine banks classified as viable will receive equity from the government; one elected at the last stage not to join the scheme. The banks have been required to present credible business plans for bringing capital ratios up to 8% within three years to review committees that include representatives from the central bank, finance ministry, IBRA and independent observers from international agencies. Their shareholders were also required to inject at least 20% of the banks' capital requirements; by early June 1999 four had done so. NPLs will be transferred to IBRA's asset management unit. The government will receive preference shares with limited voting rights, which the original bank owners will have the option of purchasing at a later date. In addition, seven of the unsound banks were taken over by IBRA as their extensive branch networks mean they risk substantial disruption to the payment system. (This is in addition to the four taken over in 1998.) One bank is being taken over by a major international bank. The ultimate

Table 3

Corporate debt-equity ratio, 1998

Thailand	4.2
Malaysia	2.0
Indonesia	9.4

Source: IMF, reported in Stone (1998).

goal is a banking system comprised of 8–10 solid banks with a mix of domestic private banks, foreign-owned banks and a state-owned bank.

The government is to swap long-term rupiah bonds, tradable after six months, for the equity in the banks. There will be three types of bonds issued in June 1999: IDR 164 trillion with a real interest rate of 3% and maturity of 20 years; IDR 95 trillion with a rate tied to the three-month central bank bill rate and maturity of 3–10 years; and IDR 9 trillion with a fixed rate of 12–14% with maturity of 5–10 years. The annual coupon payments on the bonds represent about 3% of GDP in the first year. It will be funded from the sale of assets from liquidated banks and from the fiscal budget.

At the same time, Indonesia is trying to force former majority shareholders in some banks to repay the IDR 110 trillion in emergency loans they received from the central bank. It was agreed in November 1998 to extend a deadline from one year to four years, with only 27% of the total owed due in the first year. An International Review Committee is monitoring the process.

Dealing with corporate debt

Corporate debt restructuring

As well as restructuring the banks themselves, helping the corporate sector cope with large debt repayments (especially when interest rates are high) from their reduced cash flows is an important element of getting the process of financial intermediation operating again. Once schemes for addressing problems in the banks had been developed, this became more of a focus of attention. As firms are not subject to 'runs'

in the manner of banks, it was not generally thought appropriate to make public injections of equity into them. Instead the authorities tried to facilitate and encourage private sector deals to restructure corporate debt and keep firms operating rather than proceed with bankruptcy cases. These issues were particularly important in Indonesia, given that its companies tended to borrow more heavily and incur foreign debt directly rather than through the banking system (Tables 2 and 3).

Drawing on the Bank of England's 'London Approach', the 'Bangkok approach' to corporate debt restructuring was developed in **Thailand** during 1998.[7] It calls for creditors to agree on a standstill, and perhaps provide new money senior to existing debt, while a restructuring plan is formulated by the firm and its advisors. The agreement of creditors representing 75% of the amount owed is required for a deal to progress. If creditors cannot agree, the final decision rests with the court. A *Corporate Debt Restructuring Advisory Committee*, (CDRAC) chaired by the governor of BoT with representatives from the financial and corporate sectors, acts as an intermediary facilitating such negotiations (and has compiled a list of advisers with expertise in the area). It is monitoring around 200 corporate groups with combined debts approaching THB 700 billion and by end-May 1999 THB 430 billion of debt had been restructured. This may be a reflection of Thai bankers lacking experience in corporate restructures. CDRAC is hiring more mediators in coming months and will take on more cases. To encourage a faster resolution, some tax measures favouring restructuring will only apply until end-1999. Banks are being allowed to reclassify restructured loans as performing. Some corporate restructuring has involved equity for debt swaps.

CDRAC and BoT have also been involved with the Thai Bankers' Association, the Foreign Bankers' Association and the Association of Finance Companies in the jointly developed 'Debtor-Creditor Agreement on Debt Restructuring Process' and the 'Inter-Creditor Agreement on Restructure Plan Votes and Executive Decision Panel Procedures' finalised in March 1999. The agreements are binding contracts that commit signatories to follow a set framework, including deadlines, arrangements for the debtor to negotiate with a lead institution and fair

[7] See Table 11 of the overview paper in this volume for further information.

treatment of all creditors. They become effective in a particular case when the debtor signs the debtor accession form. As part of the process a CDRAC mediator can give non-binding advice. A plan approved by over half the creditors (but less than the 75% needed for the Bangkok Approach) can be referred to a panel for a binding decision.

Along similar lines, **Malaysia** has established a *Corporate Debt Restructuring Committee* (CDRC) to help preserve viable businesses. It calls for banks to share information and voluntarily grant firms a standstill period during which consultants can assess viability and devise schemes for saving the company. (See also the discussion above of the special administrators appointed by Danaharta.) As at June 1999 it was working to resolve and restructure loans amounting to MYR 32.6 billion from 52 applicants. Ten cases, involving MYR 10 billion, have been resolved with a further 18 involving debts of MYR 6 billion expected to be resolved in the near future. This procedure supplements the existing provisions in section 176 of the *Companies Act*, whereby the borrowers can obtain a stay against involuntary bankruptcy proceedings by submitting a reorganisation plan to the appropriate court. The plan is then implemented if approved by creditors representing 75% of the value of each kind of debt. The CDRC arranged a debt restructuring for the Renong Group, one of the largest in Malaysia.

Indonesia announced the Jakarta Initiative, a set of principles to guide voluntary restructuring of corporate debt, in September 1998. Each overdebted company can approach its major lenders to form a steering committee, agree to a standstill and consider new funding with priority over existing debt. The steering committee will appoint an adviser to assess the financial rescue plan proposed by the company and may then agree to a plan. If not all lenders agree, with commercial court approval a plan can come into force subject to the approval of a minimum share of creditors. The Jakarta Initiative is supported by a task force, led by the chairman of the stock exchange and including representatives from INDRA (see below), domestic and foreign creditors, government agencies and companies. Over 125 companies employing a total of 220,000 people are seeking such assistance but by mid-March 1999 only 15 companies had reached an arrangement with their creditors.

In some cases corporate debt restructuring will be a matter for the AMCs that now own the NPLs. Some have argued they have poor

incentives to do this but if the necessary expertise is concentrated in this one body it may operate more efficiently than if it is diffused among a number of banks.

Another important aspect of these approaches is whether arrangements can be made for new credit to be advanced for working capital to firms that may be viable in the longer term but struggling to meet repayments on current debt. The Jakarta Initiative recommends this. One important form of new lending is trade financing. Thailand and Indonesia have established programmes whereby the central banks buy notes backed by export receipts and the government supports the banks in issuing letters of credit.

A more active approach involving public money has also been adopted in **Indonesia**. The *Indonesian Debt Restructuring Agency* (INDRA) was established in July 1998 following the Frankfurt Agreement. It assists Indonesian debtors repay their foreign currency obligations to foreign creditors (including Indonesian branches of foreign banks) by intermediating between the domestic debtor and the foreign creditor in servicing renegotiated debt. A condition of INDRA's participation is that creditor and debtor agree to restructure the loan so that repayments are spread over eight years or more with only interest paid for the first three years. Debt service payments are made to it in rupiah at a set exchange rate. The set rate is derived from a nominal exchange rate calculated as the best 20-day average rate since August 1998. This is then adjusted to be stable in real terms. INDRA then pays the foreign creditor the agreed amount of dollars. By April 1999, 794 companies had contacted INDRA, mostly eager to join the scheme, but no deals had been finalised.

The process of working out corporate debt may be facilitated by the development of a secondary market in corporate loans. The *Asia Pacific Loan Market Association* (APLMA) was established by 15 banks in the region in September 1998. A key goal is to develop standardised loan documents including clauses relating to the transferability of loans. APLMA also hopes to compile data on secondary trades of syndicated loans. For better quality loans, so far the main sellers have been Japanese banks seeking to reduce their balance sheets and the main purchasers European and US banks. There has been less trading so far in distressed loans, typically selling for about a quarter of face value. US 'vulture funds' are potential buyers for these.

Bankruptcy procedures

An important factor inhibiting both corporate restructuring and banks realising on collateral in all three countries has been the weakness of bankruptcy legislation and the long delays such cases face in the courts. (In Indonesia it has been claimed that only 13 cases went to court in the four years before the crisis. In Thailand, cases could take over five years and claims in foreign currency were frozen at their baht value at the time proceedings were initiated.[8]) Many bankers in the region say this has fostered a culture of non-repayment and rendered threats of legal action ineffective. It has been suggested that about a third of NPLs in Thailand are 'strategic'; the loans are to relatively healthy companies using the economic crisis as an excuse not to repay loans.

In **Thailand** some amendments were made to the 1945 bankruptcy legislation in April 1998 but they still left many problems and this was cited as an important reason why the December auction was unsuccessful. New laws were finally passed in March 1999, just before the subsequent auction. Inter alia, they established a separate bankruptcy court which opened in June 1999 with 13 judges having a strong background in economics and experience in dept restructuring. The number of judges will be increased to 60 over time. Only 37 cases were filed during its first month of operation.

The **Indonesian** bankruptcy law had been characterised as "seldom invoked due to its drawn-out, costly and sometimes unfair procedures".[9] An amended code adopted in August 1998 was patterned on US Chapter 11 provisions and established a new Commercial Court to facilitate realisation of collateral and bankruptcy procedures. There is a 30-day deadline for court decisions and specially trained judges. However many commentators have claimed it is not functioning efficiently and unduly favours borrowers. For example Eichengreen (1999, p. 31) comments "the courts remain unpredictable … by the end of November (1998) only five cases (of 17 filed) had been evaluated by the commercial court … and three of these … had been rejected on technical grounds".

[8] Delhaise (1998, pp. 23, 98).
[9] ADB (1995, p. 25).

Other measures

Improvements are required, and are gradually being made, in other areas of corporate governance and transparency. Accounting and disclosure rules are being upgraded. In Thailand the central bank is helping establish a centralised credit bureau to help banks share information on debtors. Taxation codes and licensing procedures are being made clearer and fairer. Government-sanctioned monopolies are being dismantled. These moves away from what has been termed 'crony capitalism' should encourage banks to base loans on more objective financial criteria and make the financial system more efficient.

Removing regulatory and tax impediments to the development of corporate debt markets should also diversify some risks away from the banking system. The development of bond markets in the region has lagged well behind banking and equity markets. One main reason why bond markets have not developed is because governments did not run large deficits. The bank recapitalisation and asset management programmes will entail the issuance of substantial amounts of government paper which, as it is subsequently traded, will help establish benchmark yield curves.

Attachment: Chronology of bank restructuring in South-East Asia

	Thailand	Malaysia	Indonesia
July 1997	Baht depreciates sharply. 42 FCs suspended.		Rupiah band widened.
Aug 1997	IMF-led rescue package refers to bank restructuring.		Rupiah floated.
Oct 1997	Financial Sector Restructuring Authority (AMC) established for FCs. Foreigners allowed majority share in banks for 10 years. Bank and foreign exchange deposits guaranteed.		
Nov 1997	56 of 58 FCs closed.		IMF-led rescue package refers to bank restructuring. 16 banks closed.
Jan/Feb 1998	Radhansin Bank established. 4 banks nationalised.		IBRA (includes AMC) established. Bank deposits guaranteed.
April 1998	Bankruptcy Act amended.		
May 1998		Danaharta (AMC) announced.	
June 1998		Danaharta incorporated.	
Aug 1998	Bank recapitalisation schemes announced. 2 banks nationalised. Forced bank mergers.	Danamodal (BRV) incorporated.	
Sept 1998	The first bank announces participation in recapitalisation scheme.	Danaharta purchases first NPL. Ringgit pegged to $US. Capital controls introduced.	Recapitalisation scheme announced. 4 SOBs to be merged.
Oct 1998		Danamodal agreement with 10 FIs and first bond issue.	

Attachment (cont.)

	Thailand	Malaysia	Indonesia
Dec 1998	Large auction of FC assets fails to sell most.	12 foreign banks make loan to assist in bank restructuring.	
Feb 1999		Capital controls modified.	
Mar 1999	Second large auction of FC assets, mostly sold to AMC.		Banks classified as sound, to be recapitalised, taken over or closed.
Apr 1999			Capital injected into 8 banks.

AMC: asset management corporation; BRV: bank recapitalisation vehicle; FC: finance company; FI: financial intermediary; IBRA: Indonesian Bank Restructuring Agency; NPL: non-performing loan; SOB: state-owned bank.

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