

EPISODES OF SYSTEMIC AND BORDERLINE FINANCIAL CRISES

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The following table presents information on 114 episodes of systemic banking crises (much or all of bank capital being exhausted) in 93 countries and on 51 episodes of borderline and non-systemic banking crisis in 46 countries that have occurred since the late 1970s. Some judgement has gone into the compilation of this list, not only for the countries in which data are absent on the size of the losses but also in that in many cases the official estimates understate the size of the problem. Virtually every transitional economy at some stage in the transition process belongs on this list; however, in the interest of limiting the number of countries with missing information these were excluded. Moreover, it should be noted that it is difficult to time the episodes of banking insolvency. Overt crises, such as those involving a run on banks and/or on a country's currency, are relatively easy to date, but these are only a subset of cases listed here. Financial distress, in which the banking system has negative net worth, can occur over a period of time and indeed even persist before being detected. The dates attached to the crises reviewed here are those generally accepted by finance experts familiar with the countries, but their accuracy is difficult to determine in the absence of the means to mark portfolios to market values. Similarly, it is not always clear when a crisis is over, and in cases in which there are multiple episodes, it may well be that later events are just a continuation of those occurring earlier. Regarding the costs of these crisis episodes, as the information in the table indicates, they vary widely across episodes and countries. However, these cost figures should be treated with some caution. While some of the cost figures also include costs for corporate restructuring, others only include costs related to the restructuring/recapitalization of the financial system. Moreover, another caveat is important here as we have not been able to include that part of the burden born by depositors and borrowers in the form of widened spreads for bad loans that were left on bank's balance sheets. Finally, these cost figure also do not (at least in most cases) include costs that arose through indirect methods to bail out banks. For example, the government may give a subsidy to a borrower by granting the borrower monopoly privilege or other means to improve its profits and thereby repay loans or by directly injecting funds into banks.

Episodes of Major Bank Insolvencies

I. Episodes of Systemic Banking Crises – Crisis is defined as systemic if most or all of banking system capital is eroded.

Country	Scope of Crisis	Estimate of Total Losses/Costs
Countries:		
<i>Africa</i>		
Algeria 1990-1992	Banking system non-performing loan ratio (NPLs) reached 50 percent.	
Benin 1988-1990	All three commercial banks collapsed; 80 percent of banks' loan portfolio was non-performing.	CFA95bn, equivalent to 17 percent of GDP.
Burkina Faso 1988-1994	Banking system NPLs estimated at 34 percent.	
Burundi 1994 - ?	Banking system NPLs estimated at 25 percent of total loans in 1995; one bank was liquidated.	
Cameroon 1987 - 1993	In 1989, banking sector NPLs ratio reached 60-70 percent. Five commercial banks were closed, three banks were restructured.	
1995 - 1998	At end 1996, NPLs accounted for 30 percent of total loans. Three banks were restructured and two were closed.	
Cape Verde 1993 - ?	At end 1995, commercial banks' NPL ratio amounted to 30 percent.	
Central African Rep 1988 - 1999.	Four banks were liquidated. The two largest banks, accounting for 90 percent of total assets, were restructured. Banking sector NPL ratio amounted to 40 percent.	
Congo (Brazzaville) 1992 - ongoing	Two large banks were placed in liquidation. The remaining three banks are insolvent. Situation aggravated by the civil war.	
Congo, Democratic Republic of (former Zaire) 1980s		
1991-92	Four state-owned banks insolvent; a fifth bank was to be recapitalized with private participation.	
1994 - ongoing	NPLs to the private sector reached 75 percent; two state-owned banks liquidated and two other state-owned banks privatized. In 1997, 12 banks in serious financial difficulties.	
Chad 1980s		

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Country	Scope of Crisis	Estimate of Total Losses/Costs
1992	Private sector NPL ratio amounted to 35 percent.	
Côte d'Ivoire 1988 - 1991	Four large banks affected, which accounted for 90 percent of banking system loans; three definitely and one perhaps insolvent. Six Government banks were closed.	Government costs estimated at CFA677 bn equivalent to 25 percent of GDP.
Djibouti 1991 - 1993	Two of six commercial banks ceased operations in 1991 and 1992; other banks experienced difficulties.	
Equatorial Guinea 1983 - 1985	Two out of the country's largest banks were liquidated.	
Eritrea 1993	Most of the banking system insolvent.	
Ghana 1982-1989	Seven audited banks (out of 11) insolvent; rural banking sector affected.	Restructuring costs estimated at 6 percent of GNP.
Guinea 1985	Six banks accounting for 99 percent of total system deposits deemed insolvent.	Repayment of deposits amounted to 3 percent of 1986 GDP.
1993 - 1994	Two banks insolvent accounting for 22.4 percent of financial system assets; one other bank in serious financial difficulties; these three banks together accounted for 45 percent of the market.	
Guinea-Bissau 1995 - ?	At end 1995, NPLs accounted for 45 percent of commercial banks' total loan portfolio.	
Kenya 1985 - 1989	Four banks and 24 non-bank financial institutions faced liquidity and solvency problems together accounting for 15 percent of total liabilities of financial system.	
1992	Intervention into two local banks.	
1993 - 1995	Serious systemic problems with banks accounting for more than 30 percent of assets of the financial system facing solvency problems.	
Liberia 1991 - 1995	Seven out of 11 banks not operational; their assets were equivalent to 60 percent of total bank assets at mid-1995.	
Madagascar 1988	25 percent of banking sector loans deemed irrecoverable.	

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Country	Scope of Crisis	Estimate of Total Losses/Costs
Mali 1987 – 1989	NPLs of largest bank reached 75 percent.	
Mauritania 1984 – 1993	In 1984, 5 major banks had non-performing assets ranging from 45 percent to 70 percent of their portfolio.	Cost of rehabilitation estimated at 15 percent of GDP in 1988.
Mozambique 1987 – 1995?	BCM, main commercial bank, experienced solvency problems which became apparent after 1992.	
Niger 1983 -	In the mid 1980s, banking system NPLs reached 50 percent. Four banks were liquidated and three restructured in the late 1980s.	
Nigeria 1990s	1993: insolvent banks account for 20 percent of total assets and 22 percent of banking system deposits; 1995: almost half of the banks reported to be in financial distress.	
Sao Tome and Principe 1980s & 1990s	At end 1992, 90 percent of monobank's loans were non-performing. In 1993, the commercial and development departments of the former monobank were liquidated, as was the only financial institution. At the same time, two new banks were licensed, which took over many of the assets of their predecessors. The credit operations of one newly created bank have been suspended since the end of 1994.	
Senegal 1988 – 1991	In 1988, 50 percent of banking system loans were non-performing. Six commercial banks and one development bank closed accounting for roughly 20 - 30 percent of financial system assets.	US\$830 million which is equivalent to 17 percent of GDP.
Sierra Leone 1990 – ongoing	In 1995, 40-50 percent of banking system loans were non-performing. The license of one bank was suspended in 1994. Recapitalization and restructuring of the banks is ongoing.	
Swaziland 1995	Meridien BIAO Swaziland was taken over by the Central Bank. The Central Bank also took over the Swaziland Development and Savings Bank (SDSB), which faced severe portfolio problems.	
Tanzania Late 1980s; 1990s	1987: the main financial institutions had arrears amounting to half of their portfolio; 1995: The National Bank of Commerce which accounted for 95 percent of banking system assets, insolvent since 1990-92, possibly longer.	1987: implied losses amount to nearly 10 percent of GNP.

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Country	Scope of Crisis	Estimate of Total Losses/Costs
Togo 1993, 1994, 1995		
Uganda 1994 – ongoing?	50 percent of banking system facing solvency problems.	
Zambia 1995	Meridian Bank became insolvent which accounted for 13 percent of commercial bank assets.	Rough estimate of USD 50 million (1.4 percent of GDP).
Zimbabwe 1995 – ongoing	Two out of five commercial banks recorded high NPL ratio.	
Asia		
Bangladesh late 1980s-1996	In 1987, four banks accounting for 70 percent of total credit had estimated NPL ratio of 20 percent; since late 1980s, entire private/public banking system is technically insolvent.	
China 1990s	At end 1998, China's four large state-owned commercial banks, accounting for 68.3 percent of total banking system assets, deemed insolvent. Total banking system NPLs estimated at 50 percent.	Net losses estimated to reach USD 427.6 bn, or 47.4 percent of GDP in 1999.
Indonesia 1997 – ongoing	As of March 1999, Bank of Indonesia had closed down 61 banks and nationalized 54 banks, of a total of 240. NPLs estimates for the total banking system range from 65-75 percent of total loans.	Fiscal costs estimated to range from 50-55 percent of GDP.
Malaysia 1997 – ongoing	Finance company sector is being restructured and number of finance companies is to be reduced from 39 to 16 through mergers. Two finance companies were taken over by Central Bank including MBf Finance, the largest independent finance company. Two banks, deemed insolvent, accounting for 14.2 percent of financial system assets, to be merged with other banks. Overall, at end 1998, NPLs estimated between 25-35 percent of total banking system assets.	Net loss estimated at USD 14.9 bn, or 20.5 percent of GDP by 1999.
Nepal 1988	In early 1988 the reported arrears of 3 banks which accounted for 95 percent of financial system averaged 29 percent of all assets.	
Philippines 1983 – 87	Two public banks accounting for 50 percent of banking system assets, six private banks accounting for 12 percent of banking system assets, 32 thrifts accounting for 53.2 percent of thrift banking assets and 128 rural banks.	At its peak, central bank assistance to financial institutions amounted to 19.1 bn pesos (3 percent of GDP). Overall fiscal cost estimated to have amounted to 13.2 percent of GDP.

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Country	Scope of Crisis	Estimate of Total Losses/Costs
Philippines 1998 – ongoing	Since January 1998, one commercial bank, seven out of 88 thrifts and 40 out of 750 rural banks have been placed under receivership. Banking system NPLs reached 10.8 percent by August of 1998 and 12.4 percent by November 1998. Expected to reach 20 percent in 1999.	Net loss estimated at USD 4.0 bn, or 6.7 percent of GDP by 1999.
South Korea 1997 – ongoing	By March 1999, two out of 26 commercial banks accounting for 11.8 percent of total banking system assets nationalized; 5 banks, accounting for 7.8 percent of total banking system assets closed. Seven banks accounting for 38 percent of banking system assets, placed under special supervision. Overall, banking system NPL expected to peak at 30-40 percent.	Fiscal costs of crisis estimated to reach 26.5 percent in 1999.
Sri Lanka 1989 – 93	State-owned banks comprising 70 percent of banking system estimated to have non-performing loan ratio of about 35 percent.	Restructuring cost amounted to 25 bn rupees (5 percent of GDP).
Taiwan 1997	Banking system NPLs estimated at 15 percent, at end 1998.	In 1999, net losses estimated at USD 26.7 billion, or 11.5 percent of GDP.
Thailand 1983 – 87	Authorities intervened in 50 finance and security firms & 5 commercial banks or about 25 percent of total financial system assets; 3 commercial banks judged insolvent (14.1 percent of commercial banking assets).	Government cost for 50 finance companies estimated at 0.5 percent of GNP; government cost for subsidized loans amounted to about 0.2 percent of GDP annually.
Thailand 1997 – ongoing	Up to March 1999, Bank of Thailand intervened in 70 finance companies (out of 91) which together accounted for 12.8 percent of financial system assets or 72 percent of finance company assets. It also intervened in six banks that together had a market share of 12.3 percent. At end 1998, banking system NPLs had reached 46 percent of total loans.	Fiscal cost estimated to amount to 32.8 percent of GDP in mid-99.
Vietnam 1997 – ongoing	Two out of four large state-owned commercial banks accounting for 50.7 percent of banking system loans, deemed insolvent; the other two experience significant solvency problems. Several joint stocks banks are in severe financial distress. Total banking system NPLs reached 18.2 percent of total loans in late 1998.	

Central America and the Caribbean

Costa Rica	In 1987, public banks accounting for 90 percent of	Implied losses of at least twice the
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Country	Scope of Crisis	Estimate of Total Losses/Costs
Several instances	total banking system loans in financial distress as 32 percent of their loans considered uncollectible.	capital plus reserves.
El Salvador 1989	Nine state-owned commercial banks recorded NPL ratios of 37 percent on average in 1989.	
Jamaica 1994 – ongoing	In 1994, a merchant banking group was closed. In 1995, a medium sized bank received financial support. In 1997, the Financial Credit Adjustment Company intervened in and effectively nationalized five out of six commercial banks as a result of the sharp deterioration of their asset quality and the virtual erosion of their capital base.	
Panama 1988 – 1989	In 1988, Panama’s banking system experienced a 9 week banking holiday. The financial position of most state-owned and private commercial banks was weak. As a result, 15 banks ceased operations.	
Mexico 1981/82 (perhaps until reprivatized 1990/91)	Government took over troubled banking system.	
Mexico 1995 – ongoing	Out of 34 commercial banks as of 1994, nine banks were intervened in and 11 more banks participated in the loan/purchase recapitalization program. These nine intervened banks accounted for 18.9 percent of total financial system assets and were deemed insolvent.	Total cost of bank rescue estimated to amount to 20 percent of GDP.
Nicaragua Late 1980s – 1996	Banking system NPLs reached 50 percent in 1996.	

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Country	Scope of Crisis	Estimate of Total Losses/Costs
<i>South America</i>		
Argentina 1980 – 1982	1980-82: more than 70 institutions were liquidated or subject to central bank intervention accounting for 16 percent of assets of commercial banks and 35 percent of total assets of finance companies.	55.3 percent of GDP.
1989 – 1990	Non-performing assets constituted 27 percent of the aggregate portfolio and 37 percent of the portfolios of state-owned banks. Failed banks held 40 percent of financial system assets.	
1995	Suspension of eight banks and collapse of three banks. Overall through the end of 1997, 63 out of 205 banking institutions were either closed or merged.	Direct and indirect cost to public estimated at 1.6 percent of GDP.
Bolivia 1986 – 1987	Five banks were liquidated. Total NPLs of banking system reached 29.8 percent in 1987; in mid-1988 reported arrears stood at 92 percent of commercial banks' net worth.	
1994 -	Two banks with 11 percent of banking system assets were closed in November 1994. In 1995, four out of 15 domestic banks, which accounted for 30 percent of banking system assets experienced liquidity problems and suffered from high levels of NPLs.	
Brazil 1990	(deposit to bond conversion)	
1994 – 1996	By end 1997, the Central Bank had intervened in, or put under the Temporary Special administration Regime (RAET) system, 43 financial institutions. Also by end 1997 non-performing loans of the entire banking system had reached 15 percent.	In 1996, negative net worth of selected state and federal banks estimated at 5-10 percent of GDP. Costs of individual bank recapitalization, by end 1997: Banco Economico, USD 2.9 billion. Bamerindus: USD 3 billion. Banco do Brazil, USD 8 billion. Unibanco, USD 4.9 billion. In 1998, cost of public support to private banking sector estimated at 1-2 percent of GDP. Overall fiscal cost estimated to amount to \$10 billion or 13.2 percent of GDP.
Chile 1976	Entire mortgage system insolvent.	

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Country	Scope of Crisis	Estimate of Total Losses/Costs
Chile 1981 – 1983	Authorities intervened in four banks and four non-bank financial institutions (with 33 percent of outstanding loans) in 1981. In 1983, seven banks and one financiera accounting for 45 percent of total assets. By end-1983, 19 percent of loans were non-performing.	1982 - 1985: government spent 41.2 percent of GDP.
Colombia 1982 – 1987	Central Bank intervened in six banks accounting for 25 percent of banking system assets.	Costs of restructuring estimated to be around 5 percent of GDP.
Ecuador early 1980s	Implementation of exchange program (domestic for foreign debt) to bail out banking system.	
1996 – ongoing	Authorities intervened in several smaller financial institutions in late 1995 to early 1996 and in the fifth largest commercial bank in 1996. Seven financial institutions, which accounted for 25-30 percent of commercial banking assets, were closed in 1998/99. In March 1999, authorities declared a one week bank holiday.	At mid-99, fiscal cost estimated at 13 percent of GDP.
Paraguay 1995 – ongoing	Government Superintendency intervened in two inter connected commercial banks, two other banks and six related finance houses, accounting for 10 percent of financial system deposits. By July 1998 the Government had intervened in six other financial institutions, including the country's largest public bank and the largest Savings and Loans. By end 1998 most of the remaining domestic private and public banks and a number of finance companies were intervened in.	By end of May 1998, the Government had spent USD 500 million, equivalent to 5.1 percent of GDP.
Peru 1983 – 1990	Two large banks failed. The rest of the system suffered from high levels of non-performing loans and financial disintermediation following the nationalization of the banking system in 1987.	
Uruguay 1981 – 1984	Affected institutions accounted for 30 percent of financial system assets; insolvent banks accounted for 20 percent of financial system deposits.	Costs of recapitalizing banks estimated at USD 350 million (7 percent of GNP); Central Bank's quasi-fiscal losses associated with subsidized credit operations and purchase of loan portfolios amounted to 24.2 percent of GDP during 1982-85.
Venezuela 1994 – ongoing	Insolvent banks accounted for 30 percent of financial system deposits. Authorities intervened in 13 out of 47 banks which held 50 percent of deposits in 1994, and in five additional banks in 1995.	Estimated losses put at over 20 percent of GDP.

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Country	Scope of Crisis	Estimate of Total Losses/Costs
<i>Middle East & North Africa</i>		
Egypt early 1980s	Government closed several large investment companies.	
Israel 1977 – 83	Virtually the entire banking sector affected, representing 60 percent of stock market capitalization. Stock exchange closed for 18 days; bank share prices fell over 40 percent.	About 30 percent of GDP in 1983.
Kuwait 1980s	An estimated 40 percent of loans were non-performing by 1986.	
Lebanon 1988 – 1990	Four banks became insolvent; 11 banks had to resort to Central Bank lending.	
Morocco early 1980s		
Yemen 1996 -	Banks suffered from extensive non-performing loans and heavy foreign currency exposure.	
<i>Europe/Central Asia</i>		
Turkey 1982 – 85	3 banks were merged with the state-owned Agriculture Bank and then liquidated; two large banks were restructured.	1982-85: rescue cost equivalent to 2.5 percent of GNP.
<i>Transitional Socialist Economies</i>		
Albania 1992-	31 percent of “new” (post-July 1992 cleanup) banking system loans non-performing; some banks faced liquidity problems owing to a logjam of inter-bank liabilities.	
Armenia 1994 – 1996	Since August 1994, Central Bank closed half of the active banks. Large banks continued to suffer from high NPL ratios. Savings bank financially weak.	
Azerbaijan 1995 -	Twelve private banks closed; three large state-owned banks deemed insolvent; one large state-owned bank faced serious liquidity problems.	
Bosnia-Herzegovina 1992 – present	Banking system suffers from high ratios of NPLs due to the breakup of former Yugoslavia, and civil war.	

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Country	Scope of Crisis	Estimate of Total Losses/Costs
Bulgaria 1990s	In 1995 an estimated 75 percent of all loans in banking system were substandard. The banking system experienced a run in early 1996. The Government then ceased carrying out bail-outs, prompting the closure of 19 banks accounting for one third of the assets of the sector as a whole. The surviving banks were recapitalized by 1997.	By early 1996, the sector had a negative net worth estimated to be equal to 13 percent of GDP.
Croatia 1996	Five banks accounting for about 50 percent of banking system loans deemed insolvent, and taken over by the Bank Rehabilitation Agency during 1996.	
Czech Republic 1989 - 1991		12 percent of GDP was spent on bank support.
1997 - ongoing	In 1999, 30.6 percent of banking system loans were non-performing.	
Estonia 1992 – 1995	Insolvent banks accounted for 41 percent of financial system assets. Licenses of five banks were revoked, two major banks merged and nationalized. Two large banks merged and converted to loan-recovery agency.	Recapitalization outlays for new entity 300 million EEK (1.4 percent of 1993 GDP).
1994	Social Bank which controlled 10 percent of financial system assets failed.	
Georgia 1991 - ?	Most large banks virtually insolvent. About one-third of total banking systems' loans non-performing.	
Hungary 1991 – 1995	Second half of 1993: eight banks which accounted for 25 percent of financial system assets insolvent.	Overall resolution cost is estimated to amount to 10 percent of GDP.
Kyrgyz, Republic of 1990s	80-90 percent of total banking system loans doubtful. Four small commercial banks closed in 1995.	
Latvia 1995 – 96	Between 1994 and 1999, 25 banks either saw their license revoked, were closed, merged with another bank, or ceased operations.	In 1995, negative net worth of banking system estimated at USD 320 million or 7 percent of 1995 GDP.
1998 - 99	Two banks with large holdings of GKO ceased operations after the financial crisis in Russia.	The aggregate loss of the Latvian banking system in 1998 expected to reach 100 million lats (USD 172 million), about 2.9 percent of GDP.

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Country	Scope of Crisis	Estimate of Total Losses/Costs
Lithuania 1995 – 1996	In 1995, out of 25 banks, 12 small banks liquidated, 3 private banks accounting for 29 percent of banking system deposits failed and three state-owned banks deemed insolvent.	
Macedonia 1993 – 1994	70 percent of total banking system loans non-performing. Government took over banks' foreign debts and closed second largest bank.	Costs of banking system rehabilitation, obligations from assumption of external debt, liabilities regarding frozen foreign exchange and contingent liabilities in banks together estimated at 32 percent of GDP.
Poland 1990s	Seven out of nine treasury owned banks with 90 percent share of total credit market, the Bank for Food Economy and the cooperative banking sector in 1991 experienced solvency problems.	1993: recap. costs of USD 750 million for seven commercial banks; recap. costs for Bank for Food Economy and cooperative banking sector amounted to USD 900 million, together equivalent to 1.9 percent of GDP.
Romania 1990 – ongoing	In 1998, non-performing loans estimated to amount 25-30 percent of the total loans of the six major state-owned banks.	Agricultural Bank recapitalized on a flow basis. Central Bank injected 210 million dollars in Bancorex, the largest state bank, about 0.6 percent of 1998 GDP, and another 60 million will be injected in 1999.
Russia 1995	On August 24, 1995, interbank loan market stopped working; due to concern about connected lending in many new banks.	
1998	Close to 720 banks, or one-half of all those now operating, deemed insolvent. These banks account for 4 percent of the sector's assets and 32 percent of retail deposits. According to the Central Bank of Russia, 18 banks, holding 40 percent of the sector's assets and 41 percent of household deposits, are in serious difficulties and will require rescue by the state.	In 1999, cost of full bailout estimated at about USD 15 bn, or 5-7 percent of GDP.
Slovakia 1991 – ongoing	In 1997, total amount of unrecoverable loans was estimated at 101 billion crowns, equal to approximately 31.4 percent of total loans and 15.3 percent of GDP.	
Slovenia 1992 – 1994	Three banks accounting for two-thirds of banking system assets were restructured.	Recap. costs of USD 1.3 bn.

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Country	Scope of Crisis	Estimate of Total Losses/Costs
Ukraine 1997	By 1997, 32 out of 195 banks were being liquidated, while a further 25 were undergoing financial rehabilitation. Bad loans constitute 50 to 65 percent of assets of even some of the country's leading banks. In 1998, Ukraine banks were further hit by Ukraine Government's decision to restructure Government debt.	
Industrialized Countries		
Finland 1991-1994	Savings banking sector badly affected; Government took control of three banks that together accounted for 31 percent of total system deposits.	Recap. costs amounted to 11 percent of GDP.
Japan 1990s	Banks suffering from sharp decline in stock market and real estate prices; official estimate of NPLs: 40 trillion Yen (USD 469 billion) in 1995 (10 percent of GDP); unofficial estimates put NPLs at 1 trillion or 25 percent of GDP; for some of bad loans, banks have already made provisions. At end 1998, total banking system NPLs estimated at Yen 87.5 trillion (USD 725 billion), about 17.9 percent of GDP. In March 1999, Hakkaido Takushodu bank closed, Long Term Credit Bank nationalized; Yatsuda Trust merged with Fuji Bank, and Mitsui Trust merged with Chuo Trust.	In 1996, rescue costs estimated at over USD 100 bn. In 1998, government of Japan announced the Obuchi Plan which provides 60 trillion Yen (USD 500 billion), about 12.3 percent of GDP, in public funds for loan losses, recapitalization of banks and depositor protection. By mid 1999, recap of banks estimated to cost about 15 – 20 percent of GDP.
Norway 1987-93	Central Bank provided special loans to six banks, suffering from post-oil recession of 1985-86 and from problem real estate loans; state took control of three largest banks (equivalent to 85 percent of banking system assets, whose loan losses had wiped out capital), partly through a Government Bank Investment Fund (Nkr 5 billion) and the state-backed Bank Insurance Fund had to increase capital to Nkr 11 billion.	Recapitalization costs amounted to 8 percent of GDP.
Spain 1977-85	1978-83: 24 institutions were rescued; four were liquidated, four were merged and 20 small/medium sized banks (Rumasa Group) were nationalized. In total, 52 out of 110 banks were experiencing solvency problems, representing 20 percent of total banking system deposits.	Estimated losses of banks were equivalent to approximately 16.8 percent of GNP.

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Country	Scope of Crisis	Estimate of Total Losses/Costs
Sweden 1991 - 94	Nordbanken and Gota Bank insolvent, accounting for 21.6 percent of total banking system assets. Sparbanken Foresta intervened, accounting for 24 percent of total banking system assets. Overall, five of six largest banks, accounting for over 70 percent of banking system assets experienced difficulties.	Cost of recapitalization amounted to 4 percent of GDP.

Episodes of Major Bank Insolvencies

II. Episodes of Borderline and Smaller Banking Crises

Economy	Scope of Crisis	Estimate of Total Losses/Costs
<i>Africa</i>		
Angola 1991 to present	Two state-owned commercial banks experienced solvency problems.	
Botswana 1994-1995	One problem bank was merged in 1994, a small bank was liquidated in 1995, and the state-owned National Development Bank was recapitalized.	Recapitalization cost of National Development Bank amounted to 0.6 percent of GDP.
Ethiopia 1994 - 1995	A government-owned bank was restructured, and its non-performing loans were taken over by the Government.	
Gabon 1995 -	One bank was temporarily closed in 1995.	
Gambia, The 1985 - 92	In 1992, a government bank was restructured and privatized.	
Ghana 1997 ongoing	NPL levels increased sharply during 1997 from 15.5 percent of loans outstanding to 26.5 percent. Two state-owned commercial banks accounting for 33.9 percent of market share in bad shape. Three banks, accounting for 3.6 percent of market share in terms of deposits, are insolvent.	
Kenya 1996 -	At end of 1996, NPLs reached 18.6 percent of total banking system loans.	
Lesotho 1988 -	One small out of four commercial banks suffered from large portfolio of non-performing loans.	
Mauritius 1996	The Central Bank closed two out of 12 commercial banks for fraud and other irregularities in 1996.	
Nigeria 1997	Distressed banks accounted for 3.9 percent of banking system assets.	
Rwanda 1991 - ?	One bank, with well-established network, closed.	
South Africa 1977	Trust Bank	
1989 - ?		
Tunisia 1991-1995	In 1991, most commercial banks undercapitalized.	From 1991 to 1994, the banking system raised equity equivalent to 1.5 percent of GDP and made provisions equivalent to another 1.5 percent. Thus recapitalization through 1994 required at least 3 percent of GDP.

Episodes of Major Bank Insolvencies

II. Episodes of Non-Systemic Banking Crises

Country	Scope of Crisis	Estimate of Total Losses/Costs
<i>Asia</i>		
Brunei Darussalam Mid-1980s	Several financial firms failed in the mid-1980s. The second largest bank failed in 1986. In 1991, 9 percent of loans were past due.	
Hong Kong 1982-83	Nine Deposit Taking Companies failed.	
1983-86	Seven banks or Deposit Taking Institutions were either liquidated or taken over.	
1998	One large investment bank fails.	
India 1993 - ongoing	Non-performing assets of the 27 public sector banks estimated at 19.5 percent of total loans and advances as of end of March 1995. Non-performing assets to total assets reached 10.8 percent in 1993-1994. At end 1998, NPLs estimated at 16 percent of total loans.	Recap costs estimated at 4 percent of GDP in mid 1999
Indonesia 1994	Classified assets equal to over 14 percent of banking system assets with over 70 percent in the state banks.	Recapitalization cost for five state banks expected to amount to 1.8 percent of GDP.
Lao People's Democratic Republic Early 1990s		Recapitalization of state-owned commercial banks amounted to 1.5 percent of GDP.
Malaysia 1985 - 88	Insolvent institutions account for 3.4 percent of financial system deposits; marginally capitalized and perhaps insolvent institutions account for another 4.4 percent of financial system deposits.	Reported losses equivalent to 4.7 percent of GNP.
Myanmar 1996 - ?	The largest state-owned commercial bank reported to have large ratio of NPL.	
Papua New Guinea 1989 - ?	85 percent of the savings and loans associations ceased operations.	
Singapore 1982	Domestic commercial banks' non-performing loans rose to about \$ 200 million or 0.63 percent of GDP.	
Taiwan 1983-84	Four trust companies and 11 cooperatives failed.	
1995	Failure of credit cooperative Changua Fourth in late July which sparked runs on other credit unions in central and southern Taiwan.	
Central America and the Caribbean		

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II. Episodes of Non-Systemic Banking Crises

Country	Scope of Crisis	Estimate of Total Losses/Costs
Costa Rica 1994 -	One large state-owned commercial bank was closed in December 1994. The ratio of overdue loans (net of provisions) to net worth in state commercial banks exceeded 100 percent in June 1995.	
Guatemala 1990s	Two small state-owned banks had high non-performing assets; these banks discontinued operations in the early 1990s.	
Trinidad and Tobago 1982-1993	In the early 1980s, several financial institutions experienced solvency problems, resulting in the merging of three government-owned banks in 1993.	
South America		
Venezuela Late 1970s and 1980s	Notable bank failures: Banco Nacional de Descuento (1978); BANDAGRO (1981); Banco de los Trabajadores de Venezuela(1982); Banco de Comercio (1985) BHCU (1985); BHCO (1985); Banco Lara (1986).	
Transitional Socialist Economies		
Belarus 1995-	Many banks undercapitalized; forced mergers burdened some banks with poor loan portfolios.	
Estonia 1998	Three banks failed in 1998: Maapank (Agricultural Bank) which accounted for 3 percent of banking system assets, and two smaller banks: EVEA and ERA.	Maapank's total losses reached USD 500 million.

Episodes of Major Bank Insolvencies

II. Episodes of Non-Systemic Banking Crises

Country	Scope of Crisis	Estimate of Total Losses/Costs
Tajikistan 1996 -	One of the largest banks insolvent; one small bank has been closed and another (out of 17) is in the process of liquidation.	
Central Asia		
Turkey 1994	Three banks failed in April 1994.	Up to June 1994, authorities spent 1.1 percent of GDP.
Middle East and North Africa		
Egypt 1991 – 1995	Four public sector banks were given capital assistance.	
Jordan 1989 – 1990	Third largest bank failed in August 1989.	Central bank provided overdrafts equivalent to 10 percent of GDP to meet a run on deposits and allowed banks to settle foreign obligations.
Industrialized Countries		
Australia 1989-1992	Two large banks received capital from government to cover losses. Non-performing loans rose to 6 percent of total assets in 1991-92.	Rescue cost of state-owned banks was estimated to be 1.9 percent of GDP.
Canada 1983 - 1985	Fifteen members of the Canadian Deposit Insurance Corporation, including two banks, failed.	
Denmark 1987 – 1992	Cumulative loan losses over the period 1990-1992 were 9 percent of loans; 40 of the 60 problem banks were merged.	
France 1994/95	Credit Lyonnais.	According to unofficial estimates, losses amount to about USD 10 billion, making it the largest single bank failure up to that time.
Germany late 1970s	So called Giroinstitutions faced problems.	
Great Britain 1974-1976	“Secondary Banking Crisis”.	
1980s and 1990s	Notable bank failures: Johnson Matthey (1984), Bank of Credit and Commerce International (1991), Barings (1995).	
Greece 1991 – 1995	Localized problems that required significant injections of public funds into specialized lending institutions.	

Episodes of Major Bank Insolvencies

II. Episodes of Non-Systemic Banking Crises

Country	Scope of Crisis	Estimate of Total Losses/Costs
Iceland 1985 – 1986	One of three state-owned banks became insolvent and was eventually privatized in a merger with three private banks.	
Iceland 1993	The government was forced to inject capital into one of the largest state-owned commercial bank after it had suffered serious loan losses.	
Italy 1990-1995	During 1990-1994, 58 banks (accounting for 11 percent of total lending) were merged with other institutions.	
New Zealand 1987-90	One large state-owned bank accounting for one-fourth of banking assets experienced serious solvency problems due to high NPLs.	The bank required a capital injection which amounted to one percent of GDP.
The United States 1984-91	More than 1,400 savings & loans and 1,300 banks failed.	Cost of savings & loan clean up amounted to an estimated USD 180 billion equivalent to 3.2 percent of GDP.

Sources: World Bank Financial Sector Reviews and Country Economic Memoranda, interviews with Bank Financial Sector Specialists, and: Sheng, 1995; World Bank, 1990, p.53; IMF, 1995; Baer/Klingebiel, 1994; Vittas, 1992; V. Sundararajan, V. Thomas, J.T. Balino, 1991; The Banker, 1995; Jorge Marshall & K. Schmidt-Hebbel, 1994; Rodriguez, 1994; World Bank, 1989; Felipe Morris/ Mark Dorfman/ Jose Pedro Ortiz & Maria Claudio Franco, 1990; Blass and Grossman, 1995; Fleming and Talley, 1996; The Economist, 1995-99; Financial Times, 1995-1999; Borish, Long, and Noel, 1994; Lindgren, Garcia and Saal. Bank Soundness and Macroeconomic Policy, 1996; Oxford Analytica various editions; Investment Bank reports, various editions; Baer, Werner and Nader Nazmi. Privatization and Restructuring of Banks in Brazil, 1999. Caprio, Gerard and Michael Dooney. The Lender of Last Resort Function under a Currency Board: The Case of Argentina. (1996). Fleming et al. The Baltics – Banking Crises Observed. Working paper No. 1647, 1996. Reserve Bank of India, 1997-98.