Chapter 1

The Norwegian banking crisis

Bent Vale

1 Introduction

The banking crisis in Norway had many features common with banking crises elsewhere. However, some aspects of the resolution methods differed from those used in other crises. In this chapter we discuss some of the typical features of the Norwegian banking crisis in order to see what general lessons can be learnt from the Norwegian case. A list of these features is followed by a description of the course of events before, during and right after the crisis. Moreover we address the following questions: What was the role of bank behaviour and regulation? Were macroeconomic developments important in contributing to the crisis? Was the Norwegian crisis severe compared with crises in other countries? What were the objectives underlying the government bank rescue operations? Why did the resolution methods applied in Norway in some aspects differ from those applied in other countries? What was the cost to tax payers? And after comparing the recent crisis to previous Norwegian crises, what lessons can be learnt for the future, and what principles should be adhered to in crisis resolution?

Much of the discussion in this chapter draws on the main contributions from the five succeeding chapters.

The author is grateful to Einar Hope, Thorvald Grung Moe, João Santos, and Jon A. Solheim for helpful comments on previous versions

2 Typical features of the Norwegian banking crisis

The Norwegian banking crisis lasted from 1988 to 1993, and banks accounting for almost sixty per cent of bank lending to the non-financial domestic sector were in trouble. The crisis peaked in the autumn of 1991 with the second and fourth largest banks in Norway (with a combined market share of 24%) losing all their capital and the largest bank facing serious difficulties. From 1988 until 1990, the failing banks were mainly local or regional banks. The early part and the peak of the crisis coincided with the deepest post World War II recession in Norway. By late 1993, the crisis was effectively over.

What distinguishes the Norwegian crisis and its resolution from other banking crises – in particular the crises in the other Nordic countries?

- The Norwegian crisis started before the crises in Finland and Sweden and had its peak one year prior to the other two.
- The stock of non-performing loans as a percentage of GDP in Swedish and Norwegian banks was about the same,[1] but banking problems in Norway started to emerge at some smaller and medium-sized banks about two years before the crisis peaked and was deemed systemic.[2]
- The two bank-owned guarantee funds handled most of the failures in smaller banks by capital injections and guarantees. Unlike deposit insurance funds in the other Nordic countries, and most other European countries, these funds had – and still have – a fairly wide mandate.
- Once the crisis reached systemic proportions the government took swift action, and a separate institution for crisis handling was set up.
- Government support was contingent on strict requirements being met, e.g. existing shareholders accepting a write-down to cover losses to the extent possible.
- The requirements were stipulated as general guidelines, and there was no attempt at micro-management of the banks' operations.
- A separate entity to manage and recover non-performing loans – an asset management company or a "bad bank" – was *not* set up. This was different from the crisis resolution in many other countries (Sweden, Finland, the S&L crisis in the US, and several Asian countries) where government funded asset management companies were used.

---

[1] Some care must be taken as data for non-performing loans may not be comparable across countries due to different accounting methods etc. See Table 1 in Chapter 3 of this publication.

[2] For details about the Swedish banking crisis, see Englund (1999) and Daltung (2004).

- No blanket guarantee for banks' liabilities was issued by the Norwegian authorities.
- The gross fiscal cost of crisis resolution was 2 per cent of GDP in Norway. This was smaller than in both Sweden and Finland where comparable numbers were 3.6 per cent and 9.0 per cent respectively.[3]
- After the crisis, GDP and bank solvency recovered rapidly.
- Fraud was a negligible issue in the Norwegian crisis, like in the Finnish and Swedish crises.
- The Norwegian government maintained a portion of its bank ownership long after the crisis was resolved. Prior to the crisis, these banks had all been privately owned.

Of course the Norwegian banking crisis had several features in common with crises in other countries. Among them were: prior to the crisis; deregulation of a heavily regulated financial sector immediately followed by an excessive increase in bank lending, and a boom followed by a bust particularly in real estate prices. Moreover, neither supervisors nor most bank managers were sufficiently prepared for banks operating in a new competitive environment.

3 The sequence of the crisis

3.1 Background 1984–1987: Financial deregulation and boom

Quantitative regulation of banks' lending – not as prudential regulation but as a means to control credit flows as part of macro stabilization policy – and a cap on the interest rate charged by banks on lending, were lifted in 1984 and 1985 respectively. These kind of regulations had more or less been applied since 1945 combined with controls on capital inflows from abroad.

The deregulation resulted in a bank lending boom. Between December 1984 and September 1986 the real 12-month growth in bank loans stayed above 20 per cent for all but one quarter. This was accompanied by a boom in both residential and non-residential real estate. Private consumption grew in real terms at a record high of 10 per cent in 1985 and 5 per cent in 1986, and was reflected in a large drop in the households' net financial investments, (cf. Chart 10 in Chapter 2 of this publication).

[3] These figures are simple non-discounted sums of all gross fiscal expenses to faciltate a resolution of the crisis. Figures are measured in percent of GDP in 1997. See Chapter 3 for more details. Sources: Appendix B in this publication for Norway, Jennergren and Näslund (1998) for Sweden, and Drees and Pazarbasioglu (1998) for Finland.

After four decades of strict quantitative regulations of banks, neither bankers nor supervisors had any experience of competitive credit markets. It became evident that many bank managers focused largely on capturing market shares. Thus, several banks expanded into new geographical areas, and the number of bank branches increased.

In 1986, the Inspectorate of Banks – responsible for the banking supervision – was merged with the Insurance Council into the Banking, Insurance and Securities Commission. Prior to, and during liberalisation, on-site inspection had been scaled back in favour of more document-based inspection. While the number of on-site inspections in Norwegian banks was 57 in 1980, it had dropped to 8 in 1985, and down to 1 and 2 in 1986 and 1987 respectively. Nevertheless, from 1988, when the first signs of banking problems had emerged, banking supervision was given high priority by the Commission. In 1989, the number of on-site inspections increased to 44. However, during the late 1980s the Commission had problems in recruiting a sufficient number of experts to carry out the banking supervision.[4]

3.2 The first part of the crisis 1988–1990: failures of small banks

In late 1985 the oil price fell sharply. With its heavy reliance on oil revenues, the Norwegian current account shifted from a surplus of 4.8 per cent of nominal GDP in 1985 to a deficit of 6.2 per cent in 1986. This led to pressure on the Norwegian krone and eventually a devaluation in May 1986. In the months before the devaluation the central bank's sales of foreign currency in defence of the Norwegian krone were sterilised in order to dampen the rise in money market interest rates. This reflected the political authorities' priority at that time of a stable nominal interest rate. The market for government securities in Norway was thin (due to low government debt). Therefore, the sterilisation was carried out by increasing central bank lending to banks from zero to between 10 and 15% of banks' funding. Almost all of this lending was unsecured.

In the ensuing years, both the private sector and public sector consolidated their financial positions, leading to the beginning of a recession in 1988, (see Chart 3 in Chapter 2). Norway like most other small open economies at that time maintained a fixed exchange rate. The credibility of this policy had, however, not been established yet due to a series of devaluations between 1977 and 1986, and consequently interest rates had to be kept relatively high in the late 1980s as the recession set in.

The Norwegian banking industry consisted in 1987 of 193 domestic banks of which 132 each had total assets of less than 100 million USD. The latter, local banks, mainly engaged in retail banking mostly for consumers, and to

[4] See Knutsen and Ecklund (2000b) or the English summary in Knutsen and Ecklund (2000a) for more details about the history of banking supervision in Norway.

some extent for small firms. In addition, 8 subsidiaries of foreign banks had a combined market share of only 0.5 per cent of the domestic market for bank credit. Only two commercial banks were operating nationwide with a combined market share of 27 per cent. In addition, there were three large but mostly regional banks. In between the small single-office banks and the five larger banks there were smaller regional banks. Almost all the local banks, the majority of the smaller regional banks and the fourth largest bank were organized as savings banks, i.e. mutually held institutions. The others and mostly larger banks were organized as commercial banks held by shareholders.

The first Norwegian bank failure after the 1930s occurred in the fall of 1988, when a medium-sized regional commercial bank failed. In the years 1988 to 1990, 13 small and some regional medium-sized banks failed, mostly savings banks. The size of these banks did not yet qualify to call it a systemic crisis. With two exceptions, all these bank problems were solved by merging the failed bank with a larger and solvent bank. The measures necessary to facilitate such solutions were mostly financed by the banking industry's own guarantee funds. In addition, the central bank provided liquidity support on an individual basis.

There were two guarantee funds with mandatory membership, one for the commercial banks, the Commercial Banks' Guarantee Fund; and one for the savings banks, the Savings Banks' Guarantee Fund. The capital in both funds consisted of accumulated annual premiums from member banks. The majority of the funds' board members were appointed by the banking sector. Unlike the case in most countries these guarantee funds had (and still have) a wide mandate. Beyond paying out depositors at failed institutions, they could infuse capital into member banks and issue guarantees against the portfolio of a member institution.

When the guarantee funds were involved in the handling of distressed banks – and in most cases facilitating mergers with a larger and solvent bank – they used these latter measures. This was considered necessary for the acquirer of a problem bank to agree to the takeover.

During the whole crisis period only one small newly established commercial bank was closed and liquidated. This was also the only case in the Norwegian crisis where private creditors of a bank lost money. All depositors, however, were paid out.

In a case of a regional bank failure in Northern Norway in 1989, following close consultations with the political authorities, the central bank contributed to the bank's solvency partly by writing off an unsecured liquidity loan to the failed bank. Other than that, government finances were not involved at this stage of the crisis. An overview of the support measures applied to individual banks can be found in Chapter 6.

3.3 The peak 1991–1992: Systemic crisis

By 1990, Norway's fixed exchange rate regime had regained credibility as the Norwegian krone had not been devalued since May 1986. This provided room for a lower interest rate differential against the Deutsche Mark. However, as Germany was reunified in 1990, the Bundesbank had raised the interest rate. In Norway, this implied that high interest rates were maintained through 1990–1992, despite the slowdown of the Norwegian economy. The turbulence in the foreign exchange markets in the fall of 1992 resulted in even higher Norwegian interest rates, (see Chart 15 in Chapter 2).

In 1990, it was decided that Norway should gradually adopt the Basel 1988 Accord, with full implementation from end-1992.

By the end of 1990 the situation also deteriorated in the largest banks. Both the capital of the Commercial Banks' Guarantee Fund and that of the Savings Banks' Guarantee Fund were effectively depleted and they could no longer insure deposits. Thus the government proposed to the Storting (the Norwegian parliament) to set up a Government Bank Insurance Fund (GBIF). The fund was established in March 1991 and was granted a specific amount of capital from the Storting. The GBIF had a mandate to extend loans to the two bank guarantee funds to allow them to invest equity capital in distressed banks. The loans were to be paid back with interest over several years. The GBIF could impose conditions on the fund and the bank benefiting from such a support loan. For instance the government got the majority of the board members in both of the banks' own guarantee funds. Further conditions would include:

- writing down of original shareholders' value according to the bank's losses
- change of board of directors and management
- restrictions on the bank's activities
- programmes for cutting operating costs and branch network.

Such support loans were granted in the summer and early fall of 1991. By October 1991 the crisis reached systemic proportions as the second largest bank lost all its equity capital and the fourth largest bank had lost all its original shareholder capital. In addition it was evident that the largest bank also had lost a substantial portion of its capital. At this stage the Storting granted additional capital to the GBIF and it was now mandated to inject capital directly into problem banks, i.e. bypassing the banks' own guarantee funds. The GBIF injected capital into all the three major problem banks applying the conditions set out in its mandate. Thus the private shareholders were wiped out of the two banks where all the private equity was lost.

Further government measures of bank assistance applying to all banks were announced in October 1991. Among them:

- Loans from the central bank at interest rates below market rates. At this time, approximately 10 per cent of the banks' funding were loans from the central bank.

- A grant from the Storting to the Savings Banks' Guarantee Fund.

- Banks' annual premium to their own guarantee funds was cut by three quarters.

- To counteract the generally low supply of equity capital during the banking crisis, a separate Government Bank Investment Fund was set up. The fund could take part in capital investments in banks on commercial terms.

During 1992, the banks suffered further losses, and in the fall of 1992 more capital was injected by GBIF into the three large problem banks. Further conditions were imposed on the banks with these injections.

A more detailed description of the government support measures through the GBIF is given in Chapter 6.[5]

3.4 Out of the crisis 1993–1994

On 10 December 1992, Norway de-peged its currency from the ECU, and the krone started to float. In turn this made possible considerable reductions in Norwegian interest rates during 1993. The real mainland GDP started to grow more rapidly and households' collateral values started to increase (cf. Table 5 in Chapter 2). Loan losses fell from 1992 to 1993 and by 1994 the losses were minuscule. Both commercial and savings banks became profitable again during 1993 (cf. Chart 8 in Chapter 2).

No depositors lost money during the Norwegian banking crisis. Only in the case of one smaller newly established commercial bank did money market lenders (among them the central bank) lose money.

By the end of 1993, the second largest bank was able to raise equity in the market. Furthermore, in late spring of 1994, the largest bank raised equity in a joint operation with the GBIF selling out part of its shares to the market.

4 The main issues of the crisis

4.1 Regulation and banking behaviour leading to crisis

Banks had been exposed to little credit risk during the regulatory regime that had more or less been in place between 1945 and 1984, partly because of relatively stable macroeconomic developments and partly because the regulatory

[5] For details about the failure and problems in the two largest banks, see the Norwegian texts by Lie (1998) and by Knutsen et al. (1998).

regime did not allow any bank to expand its lending rapidly. Furthermore, the regime implied a rationing of credit that allowed banks to pick mainly the best credit risk among the queue of unsatisfied credit demand. Thus, when the quantitative regulation was lifted, banks had hardly any experience in how to operate in this new much more competitive environment.

Many banks, in particular the larger ones, started to expand their lending and fight for market shares. This strategy was reflected in their remuneration schemes for branch managers which was based on growth in lending. Can such behaviour leading to potential crises be explained by economic theories based on rational behaviour in the banks? Or is the only viable explanation simply inexperienced bankers?

The theory of herd behaviour may explain why it can be rational for the manager of an individual firm to follow the behaviour of other managers and ignore the private information he has.[6] Such behaviour can lead to excessive aggregate risk taking. There is evidence[7] that several (but not all) medium-sized and smaller banks chose to follow what apparently was the strategy of the largest bank.[8] While economic theory may contribute to our understanding of the excessive credit growth preceding the Norwegian banking crisis, there is little doubt that bank managers' lack of experience in the new environment and general economic optimism in the mid-1980s also were major factors in explaining banks' loan expansion after the deregulation.

The bank regulation that was in place between the end of World War II and 1984-85 did not have prudential purposes. The main purpose of the quantitative regulations of banks was to control aggregate credit supply as a substitute for a market-based monetary policy. For instance, high capital requirements were not considered important. Since the early 1970s there had in fact been an effective relaxation of the banks' capital requirements.[9] Hence Norwegian banks were not faced with stricter capital requirements as they entered the new competitive regime. On the contrary, in 1987 – three years after bank lending had been liberalised – capital regulation was loosened. Perpetual subordinated debt was approved on equal footing with equity for capital requirements, following strong demands from the industry. Higher cushions of capital at the time of deregulation in 1984 could perhaps have made a difference. A comparison with

[6] See for instance Scharfstein and Stein (1990).

[7] See Høyland et al. (1992).

[8] There are other theories that can also shed light on at least some of the observed banking behaviour. According to the theories of lock-in it can be rational for banks to compete aggressively for new borrowers in the first place by lending at such low interest rates that the banks initially have negative profits from these borrowers. These losses will be more than recaptured later on when borrowers become locked in the bank-borrower relationship, and the banks can charge monopoly rents from these borrowers. See Sharpe (1990) and von Thadden (2004). Furthermore, following the so called charter value hypothesis, increased competition among banks that erodes their charter value, will give banks incentives to take on more risk. See Keeley (1990).

[9] See (Norwegian Official Reports, 1992, pp. 21–24).

the development of bank problems in Denmark illustrates this point:

During recessions in Denmark in the late 1980s and early 1990s, Danish banks suffered loan losses similar in size to those at Norwegian banks. However, this did not result in any major bank failures in Denmark. One of the differences between the Danish and the Norwegian regulatory regime at that time was a much stricter capital requirement in Denmark. Requirements that were, in fact, stricter than the Basel 1988 Accord. Hence, when the 1988 Accord was implemented in Denmark in 1991, the banks already had a relatively large capital buffer that helped them to withstand the loan losses.

4.2 Macroeconomic background

The lifting of the quantitative restrictions on bank lending in 1984 was the end of the credit rationing regime. Borrowers previously denied credit could now be served by the banks. At this time Norway had for a long time had a tax system with relatively high marginal tax rates, and all nominal interest payments by households were deductible before tax. Coupled with a high rate of inflation, this implied a real after-tax interest rate of only 1 per cent at the time of deregulation, and −4 per cent just two years before deregulation (cf. Chart 5 in Chapter 2). Furthermore businesses also had quite favourable rules for capital depreciation in the corporate tax law. In the early 1980's the housing market had been deregulated and there was an ensuing rise in house prices. With pent-up credit demand and increased value of collateral, once the credit market was liberalized, the stage was set for a lending and consumption boom. As depicted in Chart 10, of Chapter 2 the household savings rate turned negative. Although this development in household saving contributed to the boom bust cycle, the major part of the banks' losses was on loans to businesses.

Like most other small open economies at that time, Norway had a fixed exchange rate. Since control of international capital movements had been almost completely lifted, monetary policy could not be used to stabilize domestic demand.

As described in sections 3.2 and 3.3, the circumstances caused monetary policy to work procyclically during the start and the peak of the banking crisis. This can be illustrated by comparing the actual path of the money market interest rate to the interest rate path that would have resulted from the adoption of a Taylor rule (cf. Table 3 in Chapter 2 and the ensuing discussion there). However, one may ask if replacing the fixed exchange rate regime with a monetary policy regime aimed at domestic stabilization was a realistic option for Norway in the late 1980s. At that time, all small open economies had fixed exchange rate systems, and establishing credibility in a policy regime hardly known to small countries in the late 1980s might have proved quite difficult. Norway's history of relatively high inflation and successive devaluations during the late 1970s and the early to the mid-1980s would not have made it easier.

Fiscal policy was also procyclical during the boom preceding the banking crisis and turned around too late to have any strong countercyclical effects after the bust occurred in 1988. In fact, it generated weak negative impulses into the economy during the first years of recession (cf. Chart 3 in Chapter 2). Nevertheless, in 1992, fiscal policy contributed to dampening the recession. With the benefit of hindsight, one might ask whether the government underestimated the automatic stabilization from the household sector and thus contracted fiscal policy too much in 1988. After the borrowing and consumption boom of 1985 and 1986, there was a need for financial consolidation among the households, as they could only temporarily increase their borrowing. In evaluating fiscal policy, however, one has to bear in mind that both in 1987 and in 1988 there were episodes of strong pressure on the Norwegian krone. In countries with a not yet credible fixed exchange rate regime, one has often seen that increased fiscal deficits lead to pressure on the exchange rate. Thus, it is far from obvious that a more expansionary fiscal policy in 1988 could have been carried out without problems.

A gradual reform of the tax system was started in 1987. The main aim was to lower the very high marginal tax rates applicable to both capital income and interest expenses. From 1992, a major overhaul of the tax system came into force, and the marginal tax rate applicable to tax expenditures had been lowered to 28 per cent for all tax payers. Before 1987 it was between 40 and 70 percent for most tax payers. Combined with high nominal interest rates and falling inflation, the change of the tax rule caused the real after-tax interest rate for an average household to increase from 0 in 1987 to more than 7 per cent in 1992. Thus, the timing of the tax reform also turned out to be procyclical. In retrospect, it can be argued that introduction of the tax reform before deregulation of the credit markets could have resulted in a more favourable path for the Norwegian economy. However, before 1987 there was not sufficient political support for such a reform.

In the post-war period to the beginning of the 1980s macroeconomic fluctuations had been relatively small in Norway compared with other countries. Thus, the much more volatile economic environment from the mid-1980s and until mid-1990s presented a challenge to all analysts of the Norwegian economy. Macroeconomic indicators are not realtime data. For instance national accounts figures for one year are usually revised as long as two years later.[10] This implies that it can be difficult for the fiscal, monetary or supervisory authorities, and also for the banks, to assess the current situation of the economy. This was particularly so when the economy fluctuated more widely than previously, as was the case in the boom and bust periods before and during the banking crisis. Thus, the problems facing the banks may easily have been underestimated in

[10] As an illustration, the growth of mainland GDP for Norway in 1989 was by February 1990 estimated at −0.9 percent. Two years later the revised national account figures showed a growth of −2.4 percent for mainland GDP in 1989.

the early stage of the crisis.

4.3 How severe was the Norwegian crisis?

The size of the Norwegian banking crisis was comparable to the crises in Finland and Sweden. If one, for instance, looks at loan losses at the peak of the crisis as a percentage of GDP, the Norwegian crisis was somewhat smaller than the Swedish and Finish ones. In Norway the number was 2.8%, in Sweden 3.8%, and in Finland 4.4% (cf. Table 1 in Chapter 3). When comparing these numbers, though, one has to keep in mind that unlike the crises in Finland and Sweden the peak of the Norwegian crisis was preceded by a couple of years with failures in smaller and some medium-sized banks (cf. Figures 7–9 in Chapter 3). Thus, the accumulated loan losses over the whole banking crisis period may not be that different between Sweden and Norway.

Compared with the banking crisis in the Asian countries in the late 1990s, however, the Norwegian crisis may appear rather modest. At the peak of the crisis non-performing loans in per cent of total loans outstanding was 9 per cent for the entire Norwegian banking sector whereas corresponding figures for both Korea and Thailand were between 30 and 40 per cent.[11]

There can be little doubt that by 1991 the Norwegian crisis was systemic, though it was smaller in extent than crises in several Asian countries. A few numbers can serve to illustrate this: The three major Norwegian banks that either failed or faced serious problems in the fall of 1991 accounted for half of the market for bank credit to the domestic non-financial sector. By the end of 1988 all the banks that either would fail or require capital support from the GBIF or the banks' own guarantee funds during the crisis, had 57.5 percent of all bank lending to that sector.[12]

4.4 The purpose of the rescue operations

The purpose of the rescue operations was to avoid what could have culminated in a collapse of the banking system. Consider what might have happened if the banks that encountered problems during the systemic part of the crisis had been forced to close: Insured depositors would probably not have lost a substantial amount. However, the situation for borrowers might have been serious if they had been forced to repay their loans early. Given the state of the Norwegian economy at that time, finding a new bank willing to extend sufficient credit would no doubt have been difficult – we would most probably have experienced a severe credit crunch that would have deepened the recession.[13] When the

[11] Sources: Norges Bank and Kane and Klingebiel (2002). Data for non-performing loans may not be directly comparable across countries due to different accounting standards.

[12] Source: Norges Bank.

[13] Peek and Rosengren (2000) look at the loan supply shock facing US firms borrowing from Japanese banks during the banking crisis in Japan. They identify a substantial impact on US

crisis was about to reach systemic proportions the rescue operations prevented such a scenario from becoming reality. Banks receiving a capital injection from the government were able to continue their normal bank lending and other banking operations. Empirical studies indicate that the credit conditions for firms borrowing from these troubled banks were no worse than for borrowers at non-crisis banks.[14]

At the early stages of the crisis – before it became systemic – there was a distinct fear that the failure of several medium-sized and small banks could have contagious effects on the larger banks through their overseas funding. Foreign money market investors with less detailed information about the Norwegian economy and the banking sector in particular, might have been much more sensitive to bad news than domestic money market investors. By the end of 1988 foreign short-term funding accounted for 23 per cent of the commercial banks' net lending.[15] A sudden outflow of foreign deposits might have left them with serious funding problems. A major purpose of the rescue operations during the first stage of the crisis was to forestall such funding problems.

Thus, any successful resolution method during a potentially systemic banking crisis must seek to restore confidence in the financial system among all market participants, domestic and abroad. To achieve this at least two conditions have to be met:

1. The government must demonstrate that it recognizes there is a major financial crisis and that it is willing to take necessary measures.

2. The commitments made by the government in handling the crisis must be credible, i.e. the government must not overstretch its fiscal capacity.

The decision to set up the GBIF when it became evident that the crisis might be systemic – and the extra measures announced in the fall of 1991 when the crisis actually had reached systemic proportions – made it clear to the general public and market participants that the government realized the situation was serious.[16] Furthermore, given the relatively strong fiscal position of Norway there was little doubt that the government would be able to fulfil the commitments made to deal with the crisis. As a result, one did not observe any run on banks among depositors or any major outflow of short-term funding from Norwegian banks during the crisis. Confidence in the Norwegian financial system was for all practical purposes maintained.[17]

---

real estate activity from this supply shock.

[14] See Ongena et al. (2003) and Vale (2002).

[15] Short-term funding is funding with a maturity of less than 1 year.

[16] A comparison of this relatively swift reaction to the more hesitant reaction by the Japanese government can be found in Allen and Gale (1999).

[17] Further evidence in support of this can be found in the event studies by Ongena et al. (2003).

4.5 Resolution policies in the Norwegian crisis

A common feature of almost all the resolutions for the banks failing in the first part of the crisis was the involvement of private capital. As described in Section 3.2, capital injections and guarantees to facilitate solutions were financed by the banks' own guarantee funds. Although membership of these funds was – and still is – mandatory for Norwegian banks, their capital was private as it was collectively owned by the member banks. By the end of 1990, as a result of their decisions during the early part of the crisis, these funds had exposed almost all of their capital to ensure the continued operations of failed banks or problem banks. The alternative of closing and liquidating the failed banks while paying out the depositors had been considered, but was found to be more costly for the funds. This was particularly so as the real estate market was in recession also at the early stage of the crisis. The capital injections from these funds were the only private contribution to bank recapitalization during the Norwegian crisis. During the peak of the crisis, when large banks had failed, attempts to find private investors willing to invest new capital into these banks were unsuccessful. Experience shows that in times of recession and high uncertainty investors will be extremely reluctant to take on new risk.

In 1991, when major banks had failed or were close to failing, it was essential to avoid loss of confidence in the financial sector and a major credit crunch while the economy was already in a recession. With no private capital available, the one remaining alternative was to inject government capital into the failed banks. The central bank could provide liquidity support only once solvency was assured.

Infusion of government capital was done through the GBIF. But only on certain conditions like:

- the management and board of directors of the bank were replaced
- the existing share capital was written down to cover losses to the fullest extent possible
- the bank's operating costs were reduced and some of its activities scaled down
- measures were taken to restrain growth in the bank's total assets.

These conditions did not seem attractive to the bank managers or bank owners. One thereby avoided capital from the GBIF appearing like "free lunches" for the banks. The management of a troubled bank should have strong incentives to try other solutions before approaching the GBIF.

Curbing the activities of banks receiving capital from the GBIF was done to avoid giving these banks a competitive advantage over rival banks that did not receive this kind of support.

In cases where the losses exceeded the existing share capital, the entire capital would be written down to zero. Such decisions would normally have to be

made by the banks' General Meetings. In order to avoid a stalemate if a majority at the meeting objected to the decision, the Storting (parliament) had one month earlier made an amendment to the Commercial Bank Act. This amendment entitled the government by Royal Decree to write down the share capital of a bank against losses in the audited interim accounts, if the shareholders' General Meeting did not do so. This authority was used in two instances where shareholders refused to write down a bank's shares as required by the GBIF. Shareholders in one bank brought the case to the courts, but lost.

By writing down the share capital according to the losses, the banks' owners were the first to shoulder the banks' losses. This principle, which reflects the normal role of equity as junior to all other claims, was consistently adhered to in all the bank rescue operations in Norway. Finland and Sweden did, however, in two cases allow the shareholders to maintain some of their stakes in the banks although the banks' share capital was lost, (see Chapter 3 for more details on these cases).

As a consequence, the government became the major or sole owner of the largest banks. In a way, the government acted as the "owner of last resort". However it was the intention that the government should sell its shares in these banks when conditions improved. Thus, the government-owned banks could be considered as "bridge banks" between the old failed banks and the banks that would become privately owned again once the government had sold parts of or all its shares in the market.[18] Government acquisition has been a fairly common way of dealing with severe bank problems also in other countries. In 13 of 18 banking crises studied by Lumpkin (2002) this method was applied.[19]

The Norwegian government still holds a large part of the shares in one of the three banks it acquired during the crisis. The government's declared intention is to make sure that at least one large bank maintains its corporate headquarters in Norway. Currently, three of the seven largest banks operating in Norway have their head offices in other Nordic countries.[20] The Swedish government has also maintained a significant part of the shares in one of the former problem banks.

It was decided not to establish a separate asset management company – a "bad bank" – to handle the failed banks' problem loans in Norway. There were several reasons for this:

- In none of the problem banks in Norway was the ratio of non-performing loans considered to be of such magnitude that it would require so much attention from the management of the bank that it would distract them from their main goal – bringing the bank back to profitability.

- An asset management company would have had to be completely financed

[18] See (Dewatripont and Tirole, 1994, pp. 68–69).

[19] Chapter 6 provides an extensive overview of the government's investments in and later sales of bank shares.

[20] Size is measured by loans to the domestic non-financial sector in Norway.

by the government, particularly since attempts to raise new capital for the distressed banks from private investors did not succeed. Thus, more government money than that already infused as equity into the troubled banks would have had to be put at risk. Although not the case for Norway, at least for a fiscally constrained government the added gross cost of resolution if one sets up a "bad bank" should be a major concern.

- Handling of problem loans will always be part of a large bank's business, and transferring employees with this expertise to a separate company might have left the banks more vulnerable when they encountered new problem loans.

- Setting up a "bad bank" and selling bad loans from the banks to the "bad bank" would have required considerable extra accounting and legal work. In particular, it would have been very difficult to find a fair price at which the loans should be transferred.

- The responsibility of handling the problem loans should remain with those who had the most to gain from a successful handling – the banks.

Both in Sweden and in Finland "bad banks" were set up, as further described in Chapter 3.

An explicit blanket guarantee covering all liabilities (except equity) of all the banks was not issued by the Norwegian authorities. However other countries, for instance Finland, Korea, and Sweden have applied such guarantees.[21]

To a fiscally constrained government, a blanket guarantee can be attractive; it will normally serve to restore or maintain confidence in the financial system, while potential government outlays are delayed. There is, however, a major potential problem associated with using a blanket guarantee; an explicit guarantee of all bank liabilities gives rise to moral hazard. The bank shareholders have all the upside, but their downside is limited to the value of the bank's capital. Beyond that the tax payers have all the downside risk. Therefore, managers of economically insolvent banks may be tempted to use the government guarantee to "gamble for resurrection" by taking on highly risky projects with high yields if they succeed. Such a bank manager will not worry about equally large downside risk, since that is covered by the government through the blanket guarantee. Thus, banks' extra risk-taking triggered by such a guarantee implies that the future expected government outlays increases. This increase may very well more than offset the benefit of delaying the potential outlays.[22]

Nevertheless, when the Norwegian crisis emerged, it was made clear both by the Minister of Finance and by Norges Bank that measures necessary to bolster

[21] See Chapter 3 and (Lumpkin, 2002, p. 126).

[22] See Kane and Klingebiel (2002) who give a highly negative assessment of the use of blanket guarantees in banking crises.

confidence in our financial system would be taken. No assurances, however, were given that individual banks would be rescued. Hence, if any bank manager had considered "gambling for resurrection" by issuing debt with a government guarantee, he was not given that option.

To summarize the discussion in this section, if a banking crisis is considered to be of a nature where the resolution requires government assistance, there is no recipe for resolution methods fitting all situations. The three main methods considered here are:

1. conditional government capital injection or government take-over as a "bridge bank" operation

2. setting up and funding of an asset management company

3. a blanket guarantee for all bank liabilities.

For a government with fiscal manoeuvrability both 1 and 2 are feasible. 1 is preferable to 2 when only gross fiscal costs are considered. However, if the crisis is heavily concentrated in one bank, a "bad bank" can help the managers of the remaining healthy bank focus on the future operation of that bank instead of being distracted by large work-out operations of bad loans. For a government that lacks fiscal freedom, a blanket guarantee can serve to delay government outlays. However, the moral hazard problem associated with such guarantees can cause the proportions of the crisis to grow, thus making the eventual resolution even more costly.

The Norwegian authorities chose not to issue a blanket guarantee nor to set up an asset management company. In this respect the resolution strategy in Norway differed from those in Finland and Sweden. Conditional capital injection by the government was done through a separate institution set up specifically for that purpose. As most of the government bank shares have later been sold, this strategy can be considered a "bridge bank" operation. The Norwegian experience shows that a major banking crisis can be quickly resolved through temporary government acquisition. If this resolution method is chosen it is important to apply strict conditions to the banks benefiting from government capital injection, as was done in Norway.

4.6 The costs of the banking crisis

How large were the fiscal costs associated with the resolution of the Norwegian banking crisis, and how do they compare to fiscal costs of banking crisis resolution in other countries? The overall size of the Norwegian banking crisis was about the same as the Swedish crisis, although the time pattern was somewhat different (see Section 4.3). Thus it makes sense to compare the accumulated fiscal costs between Norway and Sweden. Looking at simple non-discounted sums of all gross fiscal expenses to facilitate a resolution of the crises, the fiscal costs

in Sweden were 3.6 per cent of GDP and only 2.0 per cent in Norway.[23] The higher fiscal costs in Sweden may be due to the use of the "bad bank" strategy in Sweden, a strategy that was not applied in Norway.

For net fiscal costs[24] a similar pattern emerges. By mid 1997 – five years after the peak of the crisis in Sweden – net costs to the Swedish government were estimated at 1.4 per cent of GDP.[25] The figure for Norway – four years after the peak of the Norwegian crisis – was 0.9 per cent (cf. Table 3 in Chapter 3).

The total social costs or welfare costs of a banking crisis will of course be more than just the fiscal costs. Both bank shareholders and creditors may lose. Parts of these costs may be pure transfers between the failed borrowers and the bank stakeholders. As such, they are not part of the social costs of a banking crisis. However, to the extent the bank losses are due to unprofitable investments there is a social cost of misallocated capital. Similarly, when a banking crisis occurs bank lending may be hampered and there may be social costs associated with profitable investment projects not being carried out. Thus it is possible to draw up guidelines as to what elements should be part of the social costs of a banking crisis. Nevertheless, it is almost impossible to get the data necessary to estimate such costs.

As a proxy for the social costs of a banking crisis, some attempts have been made at estimating the reductions in GDP associated with the crisis. This is usually done by estimating the deviation of GDP during the crisis from a trend. Hoggarth et al. (2002) estimate these costs for a number of countries that have experienced severe banking problems or crises. For the Norwegian crisis, they present estimates of the accumulated loss in GDP ranging from a low of 9.8 per cent to a high of 27.1 per cent. In Chapter 4 of this publication, these estimates are further discussed and some alternative estimates are made for the Nordic countries. The estimates for Norway vary between 12.9 and 21.6 per cent, and are thus narrowed somewhat compared with those referred in Hoggarth et al. (2002). However, if one includes the GDP growth exceeding the trend during the boom preceding the Norwegian banking crisis the net cumulative output loss is estimated to 6.8 per cent. This wide variation in the estimates illustrates the methodological difficulties involved in isolating the effects of the banking crisis per se. As mentioned in Chapter 4 to truly identify the GDP effects of a banking crisis one would ideally need a structural econometric model.

[23] Figures are measured in percent of GDP in 1997. See Chapter 3 for more details. Sources: Appendix B and Jennergren and Näslund (1998).

[24] Net fiscal costs is the the discounted value of the gross government oulays in handling the crisis minus the discounted value of the revenues from sales of the government's shares in banks and the value of its remaining bank shares.

[25] This figure excludes the loss to the Swedish state as shareholder in one large failing bank at the outset of the crisis.

5 Historical perspective and lessons learnt

The crisis between 1988 and 1993 is not the only banking crisis Norway has experienced. Between 1899 and 1905 there was a severe crisis, though concentrated among banks operating in and around the capital. The next crisis – in the early 1920s – affected a number of banks around the whole country. In Chapter 5, these two episodes are discussed and compared with the most recent crisis. Although the Norwegian economy and society have changed enormously over the last hundred years, there is at least one striking common feature of the three crises: They were all preceded by strong boom periods and financial fragilities were allowed to develop before each crisis. Characteristics were expansion of bank lending, asset price inflation, and increased indebtedness of non-financial sectors. In general, there seems to be a strong link between a lack of overall macroeconomic stability and banking crises. The experiences also from the last crisis in Norway and the crises in the other Nordic countries show that booms accompanied by sharp asset price inflation and accumulation of financial imbalances can lead to severe banking problems once the asset bubble bursts.

The best contribution from macroeconomic policy for avoiding such developments is to aim for domestic stability. A monetary policy geared at achieving an inflation target within a reasonable horizon will contribute to stability both in nominal prices and low fluctuations in output. Low and stable inflation therefore provides the best foundation for financial stability. The two objectives normally underpin each other.

However, recent experience in Japan and the US has shown that there may be situations where inflation is low and the level of output is close to capacity, but where there is a sharp rise in asset prices accompanied by increased lending. It has been discussed whether monetary policy should react with a rise in interest rates in such a situation in order to avoid the buildup of financial imbalances, see for instance Borio and Lowe (2002). However, it is quite difficult to determine whether a rise in asset prices represents a bubble that can lead to financial instability. For a further discussion of this issue in relation to Norwegian monetary policy, see Gjedrem (2003).

Inadequate supervision and regulation, in particular when the economy is booming, can lead to excessive risk-taking by banks and serious problems when or if the boom turns into a bust. Supervision should also be geared up when external conditions for the banking industry change significantly, for instance when competition intensifies markedly. Similarly, adequate capital buffers in banks can serve as a first line of defence against losses in severe periods. The challenge is to induce banks to set aside sufficient buffers in good times.

With the banks' equity as the first line of defence the banks' owners were the first to shoulder the losses in the Norwegian banking crisis. The second line of defence was the bank-owned guarantee funds. Only when both the first line

and the second line of defence proved inadequate was a third line of defence, the Government Bank Insurance Fund, set up. By and large the crisis was resolved relatively quickly in this way, and at a low cost to tax payers. However, there is no guarantee that the same recipe will be successful in the future or in other countries. In recognition of this and to avoid moral hazard, the law establishing the GBIF has now been repealed and the Fund has ceased its operations. Even if government capital injections in the large problem banks were the right resolution method in the early 1990s, it is far from evident that such a rescue operation would be the right method should a large bank fail in the future. Nevertheless, some principles applied in the crisis more than ten years ago should be adhered to:

- The focus must be on saving the financial system, not the individual bank.
- Owners should be the first in line to take losses.
- The board and senior management responsible for the failure of a bank should not be allowed to continue.

Today, a large part of our banking industry is part of Nordic banking groups. This raises the question of whether a model for crisis resolution only based on national considerations would work. In light of this challenge, Nordic central banks have issued a memorandum of understanding setting out principles for the establishment of a structure for crisis management and the handling of information if a pan-Nordic bank should encounter problems. Nevertheless, the emergence of multinational banking groups – not only in the Nordic countries – raises the question of whether some banks may be "too big to save".

References

Allen F. and Gale D. (1999). Bubbles, Crises, and Policy. *Oxford Review of Economic Policy*, 15(3), 9–18.

Bergo J. (2003). Crisis Resolution and Financial Stability in Norway. Speech by the Deputy Governor of Norges Bank at the 50th Anniversary of Bank Indonesia. www.norges-bank.no/english/speeches/2003-12-10/speech-2003-12-10.html.

BIS (1993). 63rd Annual Report. Basel, Switzerland. Chapter VII.

Borio C. and Lowe P. (2002). Asset prices, financial and monetary stability: exploring the nexus. BIS Working Papers 114, Bank for International Settlements.

Daltung S. (2004). The Swedish banking crisis. In J. Reidhill (ed.), *Bank Failures in Mature Economies*, Working Paper No 13. Basel Committee on Banking Supervison, Basel.

Dewatripont M. and Tirole J. (1994). *The Prudential Regulation of Banks*. The Walras-Pareto Lectures. MIT Press, Cambridge, MA.

Drees B. and Pazarbasioglu C. (1998). The Nordic Banking Crisis: Pitfalls in Financial Liberalisation. IMF occasional paper, International Monetary Fund, Washington DC.

Englund P. (1999). The Swedish Banking Crisis. *Oxford Review of Economic Policy*, 15(3), 80–97.

Finansdepartementet (1994). Bankkrisen og utviklingen i den norske banknæringen. Stortingsmelding nr. 39 (1993–94), Oslo.

Gjedrem S. (2003). Financial stability, asset prices and monetary policy. *Economic Bulletin*, 74, 58–66. Norges Bank, Oslo.

Hoggarth G., Reis R., and Saporta V. (2002). Costs of banking system instability: Some empirical evidence. *Journal of Banking and Finance*, 26, 825–855.

Høyland E., Johnsen T., Meyer C.B., Reve T., Steigum E., and Sættem F. (1992). Bankkrisen i Norge. R 29, SNF, Bergen.

Jennergren P. and Näslund B. (1998). Efter Bankkrisen: Vad blev notan för skattebetalarna? *Ekonomisk Debatt*, (1), 69–76.

Kane E.J. and Klingebiel D. (2002). Alternatives to blanket guarantees for containing a systemic crisis. www2.bc.edu/ kaneeb/.

Keeley M.C. (1990). Deposit Insurance, Risk and market Power in Banking. *American Economic Review*, 80, 1183–1200.

Knutsen S. and Ecklund G.J. (2000a). Protection against Crises? A Century of Financial Supervision in Norway. Publication, Kredittilsynet.

Knutsen S. and Ecklund G.J. (2000b). *Vern mot Kriser? Norsk finanstilsyn gjennom 100 år*. Fagbokforlaget, Bergen.

Knutsen S., Lange E., and Norvik H.W. (1998). *Mellom næringsliv og politikk: Kreditkassen i vekst og kriser: 1918-1998*. Universitetsforlaget, Oslo.

Lie E. (1998). *Den norske Creditbank 1982-1990 : En storbank i vekst og krise*. Universitetsforlaget., Oslo.

Lumpkin S. (2002). Experiences with the Resolution of Weak Financial Institutions in the OECD Area. *Financial Market Trends*, (82), 107–149. OECD, Paris.

Norwegian Official Reports (1992). Report by the Commision on the Banking Crisis. NOU 1992: 30E, Royal Ministry of Finance and Customs, Oslo.

Ongena S., Smith D.C., and Michalsen D. (2003). Firms and their distressed banks: lessons from the Norwegian banking crisis. *Journal of Financial Economics*, 67, 81–112.

Peek J. and Rosengren E.S. (2000). Collateral damage: Effects of the Japanese Bank Crisis on Real Activity in the United States. *American Economic Review*, 90, 30–45.

Scharfstein D.S. and Stein J.C. (1990). Herd Behavior and Investment. *American Economic Review*, 80, 465–479.

Sharpe S.A. (1990). Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. *Journal of Finance*, 45, 1069–1087.

Stortinget (1998). Rapport til Stortinget fra kommisjonen som ble nedsatt av Stortinget for å gjennomgå ulike årsaksforhold knyttet til bankkrisen. Dokument nr. 17 (1997–98), Oslo.

Vale B. (2002). Firms' inventory investments, financial conditions and banking crisis. In I. Hasan and W.C. Hunter (eds.), *Research in Banking and Finance*, vol. 2, 179–198. JAI Press.

Vale B. (2004). The banking crisis in Norway. In J. Reidhill (ed.), *Bank Failures in Mature Economies*, Working Paper No 13. Basel Committee on Banking Supervison, Basel.

von Thadden E.L. (2004). Asymmetric Information, Bank Lending, and Implicit Contracts: The Winner's Curse. *Finance Research Letters*. Forthcoming.