Bank regulation and bank crisis

The main developments in the Norwegian regulatory system before, during, and after the banking crisis in the late 1980s and early 1990s[1][2]

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Abstract

The Norwegian experience the past thirty years may illustrate two general tendencies in bank regulation. The first one is that a bank crisis will tend to focus regulators' minds and lead to stricter regulations. The second one is that cycles in regulation tend to interact with the economic cycle, in the sense that the rationale for strong regulation tends to become somewhat blurred during upturns. These are patterns that can presumably be recognized in many other jurisdictions.

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1. Overview

The Norwegian banking industry became heavily regulated after the Second World War. Interest rate regulations created surplus demand for credit, which was handled by quantitative regulations on credit volumes. In this environment there was no imminent need for prudential regulation, and the capital adequacy requirements formally in place were often not met. It was a period with little attention paid to capital adequacy in general. The prevailing view was that banks had accumulated sufficient reserves under the predominantly tax-motivated rules for loss provisioning. This led subsequently to a gradual softening of capital adequacy requirements, simply to avoid too many open violations of the regulation. Banking supervision also became more lax, and with fewer on site inspections.

During the late 1970s and 1980s the quantitative credit regulations were increasingly circumvented, which helped feed a domestically generated boom that culminated only in the late 1980s. Interest rate ceilings were lifted in the late 1970s and early 1980s, but with little effect on credit growth. The failure of quantitative regulations was recognised, and they were gradually abolished in 1984-87. But the capital adequacy regulations were not tightened, and the supervisory agency was not reinforced.

When the crisis peaked in 1991-92 the main focus was on saving the most important banks. The Norwegian FSA had been reorganised in 1986 and was gradually becoming more efficient. When Basle I was introduced in 1991-92 in line with the rest of Europe, the new regulation did not attract much attention, mainly because it did not really represent a tightening of capital adequacy requirements for Norwegian banks. But within the Basle I framework, the Norwegian FSA did impose somewhat stricter rules than most other countries. And the Norwegian FSA has ever since been on the strict side in international discussions on bank regulation and in the implementation of the Basle regulations. In this sense the experiences from the banking crisis have had a lasting impact.

However, this did not prevent a new domestic credit boom to develop in the early 2000s. And there were a few cases of regulatory softening in 1998-2001. These cases of softening may not have had a significant impact on the credit boom that followed, and there was no further softening when the boom became more evident. But the occurrences do illustrate that the rationale for strong regulation indeed tends to become somewhat blurred during upturns.

2. The Norwegian banking crisis

The Scandinavian countries Denmark, Finland, Norway and Sweden all had their banking crises in the late 1980s or early 1990s. The main story of these crises are common to nearly any banking crisis all over the world: There was an overextension of credit and a boom in asset prices, which left the economies with huge debt problems once the price bubbles had

burst. There were substantial differences in the details, however, and also in the severity of the crises. Below we provide a snapshot of the Norwegian crisis.[3]

Figure 1 shows the growth in real lending from Norwegian banks in the 1980s. Inflation rates were in the double digits up to 1982, so the real growth was not very strong in those early years. But when inflation gradually came down to 5-6 per cent in 1985, real lending growth accelerated and peaked around 25 per cent in 1985 and in 1986. The prices of non-residential real estate more than doubled in real terms and tripled in nominal terms from 1981 to 1986. The increase in residential real estate prices was also brisk, but not quite at the same rate. See Steigum (2004) for a more complete discussion of asset price inflation before the Norwegian banking crisis.

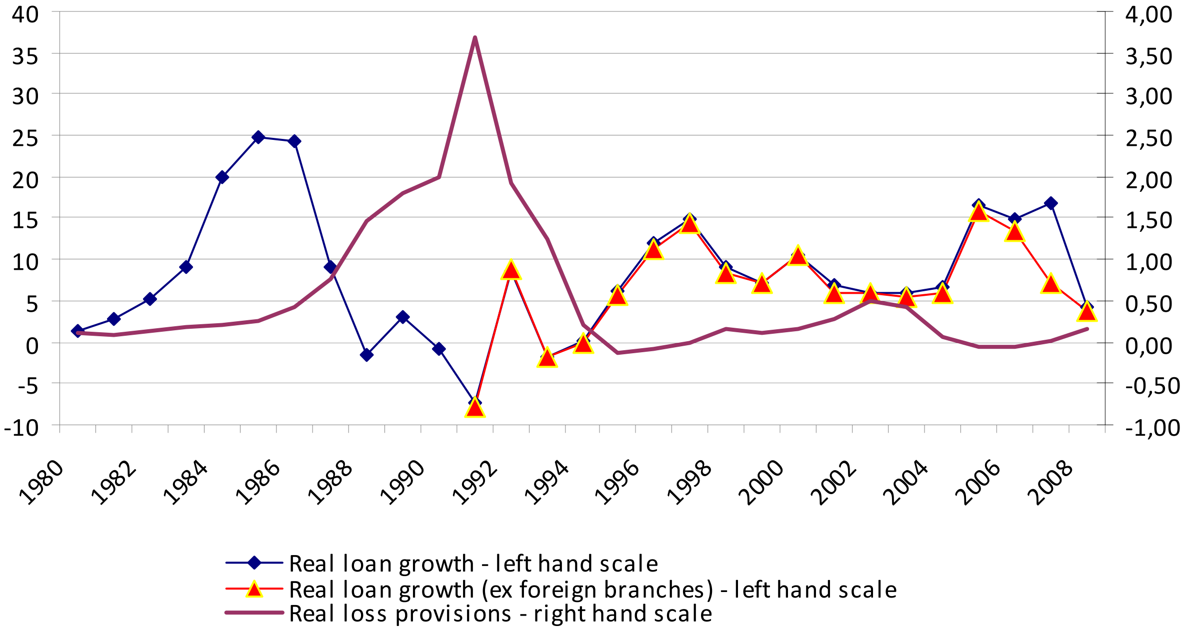

Figure 1: Real loan growth (left axis) and real loss provisions (right axis) 1980-2008 (in per cent). Source: Statistics Norway and Norges Bank.

Figure 1 also shows loss provisioning as a percentage of banks' total assets. There was an upward trend from 1981, but at a relatively low level. Losses picked up in 1986 and 1987 and exceeded one per cent of total assets in 1988. From then on the increase was dramatic until losses peaked at 3.7 per cent of total assets in 1991 before gradually coming down towards a level less than one per cent again in 1994. The first bank failures were observed in medium sized banks in 1988 and 1989. The problems at the three largest banks became evident in 1990, and they also suffered large losses in the two following years.

By 1992 the three largest Norwegian banks had all been nationalised. This was done by forcing the banks to write off all or part of the share capital and replace it with government

[3] There is an extensive literature describing and analyzing the Norwegian banking crisis. See e.g. NOU 1992:30, Report to the Storting no. 39 (1993-94), Report to the Storting no. 17 (1997-98) and Moe, Solheim and Vale (2004).

capital. This is the Scandinavian model of crisis resolution that quickly restored well functioning banking industries in Finland, Norway and Sweden. Notice, however, that subordinated debt was not written off at the largest banks and was effectively protected throughout the crisis. This was a consequence of the government's desire to avoid open bank failures and maintain the banks as going concerns.

Two separate government bodies were set up to handle the failed banks. A government insurance fund first lent money to the deposit insurance funds of the banking industry, and at a later stage also intervened directly in problem banks. A government bank investment fund was set up to handle the government ownership in the major banks. The investment fund played an important role in government banking policies during most of the 1990s. But the goal was always to sell the banks to private owners. Fokus Bank, the third largest, was sold in 1995, and Kreditkassen, the second largest in 2000. These two banks have now foreign owners and are a branch of Den Danske Bank and a subsidiary of Nordea Bank[4], respectively. The Norwegian government still holds a blocking 34 per cent ownership in the largest bank, Den Norske Bank. This holding is managed by the Ministry of Trade and Industry, whereas banking regulation is the responsibility of the Ministry of Finance.

3. Pre crisis regulation and deregulation

Central planning was an important component of Norwegian economic policy the first years after World War II. Credit was a scarce resource that the government tried to funnel to high priority purposes. The direct regulations of credit flows did not last for very many years, but part of the regulatory regime survived into the 1970s and 1980s.

The interest rates on both customer deposits and most loans were regulated until late 1977, when the regulation was temporarily lifted. It was reintroduced in a different disguise in early 1978, and this lasted until 1980. From then on deposit rates were free, and banks started to compete for deposits. Loan rates were still managed by informal and formal agreements between the government and the banking industry. The result was that interest rate margins were reduced. This was the situation until 1985, when these loan rate agreements were also cancelled. Monetary policy still kept interest rates at a very low level; in real terms after tax mortgage loan interest rates were negative until 1983-84, and remained at a low level for several years after that. This certainly helped fuel the lending boom we saw in figure 1.

A strict limit to how much banks could borrow in foreign currency was in force until 1978. It was then replaced by a requirement that banks could not have open foreign currency positions. In practice this meant that banks were free to borrow as much as they wanted in foreign currency. They only had to hedge the currency exposures. This source of borrowing became very important funding sources for the lending boom of the 1980s. Furthermore, an

[4] In 2001 the Finnish-Swedish MeritaNordbanken merged with Danish Unibank and Norwegian Kreditkassen and formed Nordea.

important part of the capital base supporting the lending boom was subordinated debt raised in the international markets.

On the volume side the government each year produced credit budgets indicating how much bank lending should increase. The banking industry was expected to approximately meet these lending targets. After 1965 the credit budgets were supported by reserve requirements on lending volumes and on lending growth, and by an obligation for banks to invest part of their funds in government bonds. Initially this worked well, but from the mid 1970s and particularly in the 1980s, the reserve requirements were circumvented. The banks set up off balance sheet institutions and directed part of the lending outside their own books. A side effect was that the government no longer knew how fast lending really increased, since the new institutions did not report to Statistics Norway. The two reserve requirements were abolished in 1984 and 1987, and the obligation to buy government bonds was cancelled in 1985. The main reason was that the government had realised how ineffective these regulations were.

In the environment with regulations of both interest rates and lending volumes, banking became a protected industry whose general profitability was in fact a government responsibility. Bank failures were rare and mostly reflected severe management errors at the banks involved. There were capital adequacy requirements for commercial banks, but they were not deemed to be important in this relatively safe environment. The requirements on capital adequacy were reduced in 1961 and again in 1972, se figure 2. Prior to 1972 the denominator had been total assets, but the denominator was now reduced, essentially by deducting own capital as well as liquid and government guaranteed assets from total assets. This had of course an immediate effect on the capital adequacy ratio.[5] The savings banks had no formal capital adequacy requirement whatsoever.

[5] The effective reduction in banks' capital requirements in 1972 has been estimated to around 25% and this reduction would support an increase in their total assets by 33% and represented in this respect a substantial increase in their lending capacity.

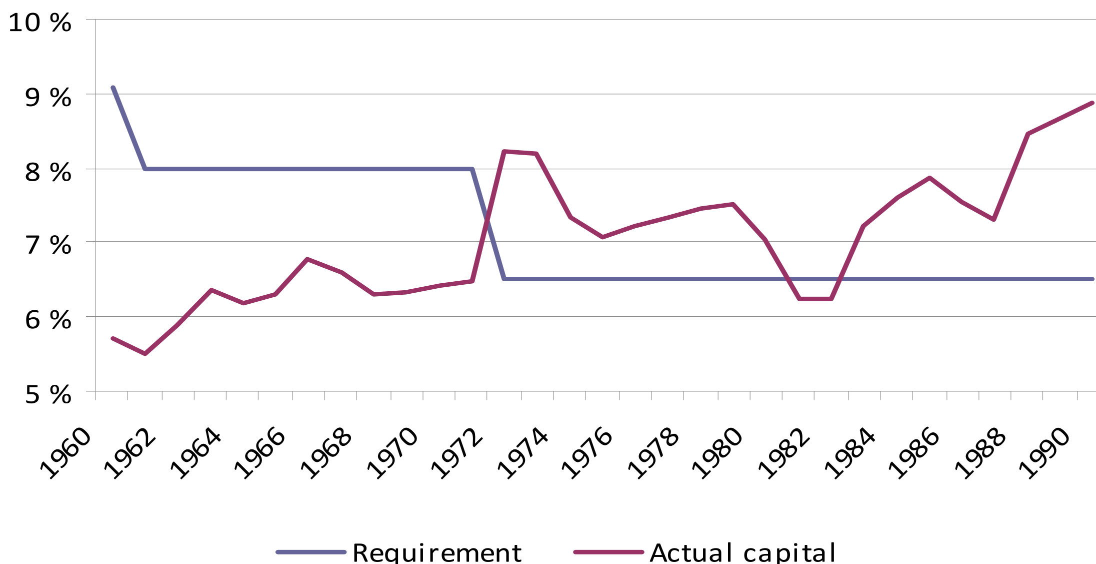

Figure 2: Capital requirements and actual capital held at commercial banks before Basle I. Per cent of stipulated assets. Source: Statistics Norway and NOU 1992:30.

Part of the motivation for these changes was that the commercial banks mostly did not meet the formal requirements before 1972, as illustrated by Figure 2. The government did not find it necessary to impose the capital adequacy requirements. Instead it helped the banks formally meet requirements by accepting larger volumes of subordinated debt as part of the capital. This happened from the late 1970s and accelerated during the 1980s. From 1984 the government[6] accepted that subordinated debt could be part of capital up to 50 per cent of bank equity, and from 1987[7] this was increased to 100 per cent, provided that the new 50 per cent quota was perpetual bonds. Subordinated debt became an important part of bank capital in the 1980s, in particular at the commercial banks, see figures 3 and 4. A large part of this debt was raised in international markets.

[6] Letter from the Ministry of Finance 18 January 1984.
[7] Letter from the Ministry of Finance 9 November 1987.

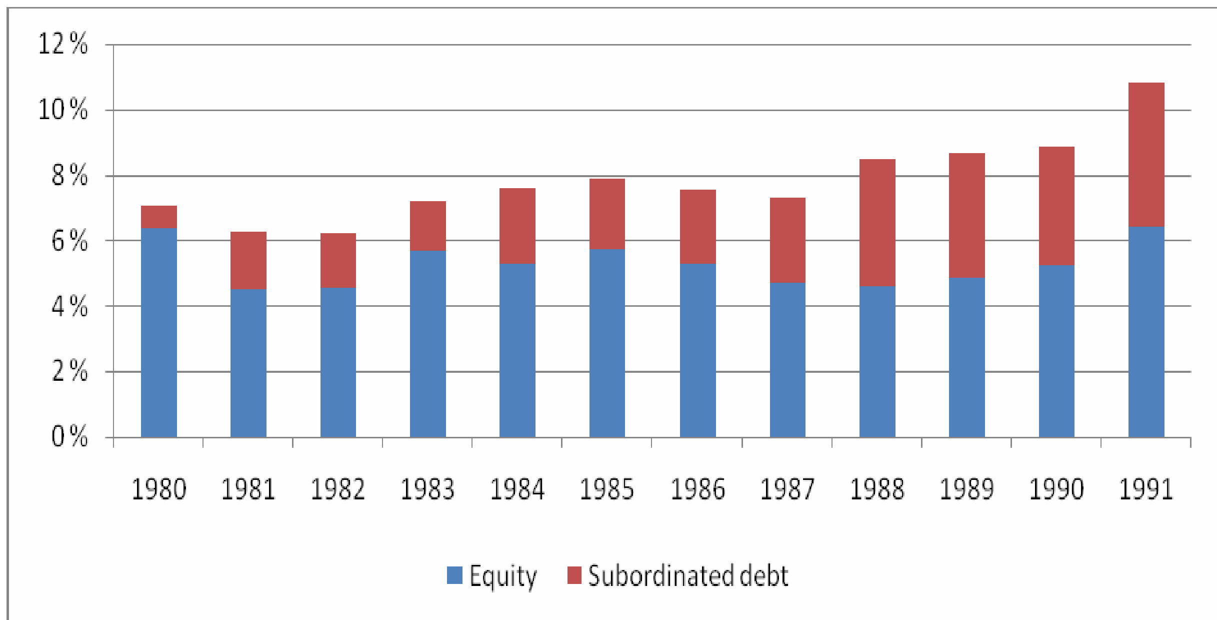

Figure 3: Bank capital at commercial banks before Basle I. Source: NOU 1992:30.

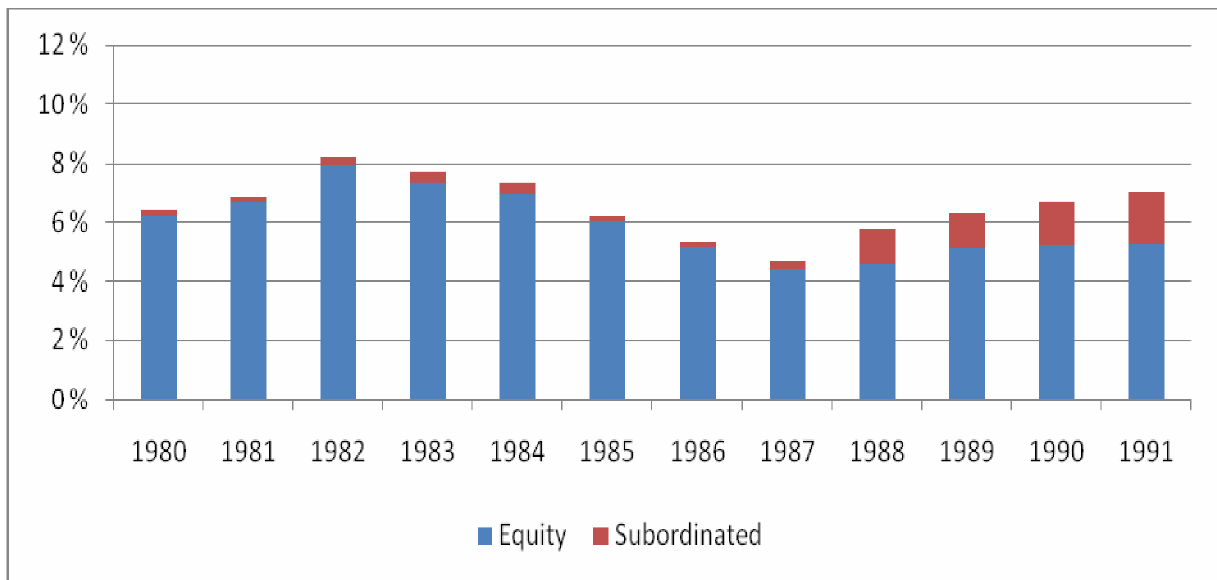

Figure 4: Bank capital at savings banks before Basle I. Source: NOU 1992:30.

Figure 5 extends the bank capital series up to the present. Since the distinction between commercial and savings banks have become blurred after the largest bank formally was transformed into a savings bank after a merger in 2003, we only report aggregate ratios for the two groups. The use of subordinated debt as capital peaked in 1992 after the pre-crisis build-up, but has not come significantly down after the crisis.

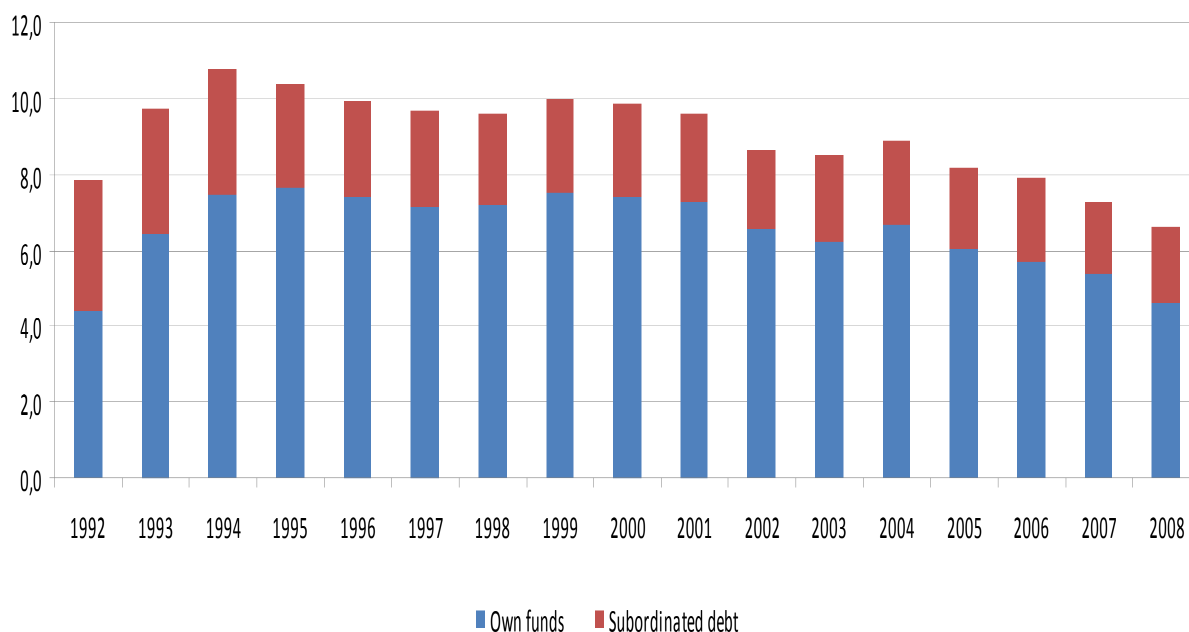

Figure 5: Bank capital at savings and commercial banks after Basle I. Source: Statistics Norway and Norges Bank.

4. Banking supervision

Banking supervision in Norway has its roots back to the 19th century and was institutionalized from the year 1900 when the first inspector for Norwegian savings banks was appointed.[8] The efficiency of banking supervision was gradually enhanced by more on site inspections as this would increase confidence in the banks and promote savings. The rapid increase in the number of commercial banks during World War I spurred some concern for additional regulations and in 1918 the parliament introduced new regulations for the licensing of new banks and the enlargement of existing ones. This was warranted as considerable financial imbalances had been developing during the war. A credit fuelled asset price inflation contributed to strong boom-to-bust development in the economy and Norway experienced a systemic banking crisis 1920-28.[9] One consequence of the financial crisis was the strengthening of financial supervision in Norway. A new public institution for the common supervision of commercial banks and savings banks was established in 1924.[10] Prior to this it was Norges Bank who had been handling the banking crisis on behalf of the authorities during the first half of the 1920s.[11] Following new legislation in 1956 the mandate for banking

[8] See Ecklund and Knutsen (2000, Ch 2 and 3, in Norwegian only) for a detailed discussion.
[9] See Gerdrup (2003) for more details on the history of financial crises in Norway.
[10] This was a common institution for public inspection of commercial banks and savings banks, and its mandate was anchored in the new banking legislation which was introduced the same year. The institution was operative from 1 January 1925 and its first major obligation was to help in cleaning up and restructuring the banking sector during the latter half of the 1920s.
[11] See Ecklund and Knutsen (2000, pp 85-86).

supervision was further strengthened and the institution was now called the Inspectorate of Banks. The Inspectorate of Banks should primarily oversee that the commercial banks and savings banks fulfilled the prudential requirements stipulated in the banking acts. Hence, the main obligation of the Inspectorate of Banks was to secure depositors and other creditors against losses. During the 1960s and 1970s new financial institutions emerged on the scene and the responsibility for the licensing and supervision of Investment companies and Finance Companies was added to the tasks of the inspectorate. This development added to the already substantial administrative burden put on the Inspectorate of Banks by the Ministry of Finance (Ecklund and Knutsen 2000, p. 233). The consequence was that the number of on site inspections in commercial banks as well as in savings banks was considerably reduced from 1960 to the mid-1980s. This development can be seen in Figure 6 which shows the number of on site inspections per bank over a period of more than 50 years.

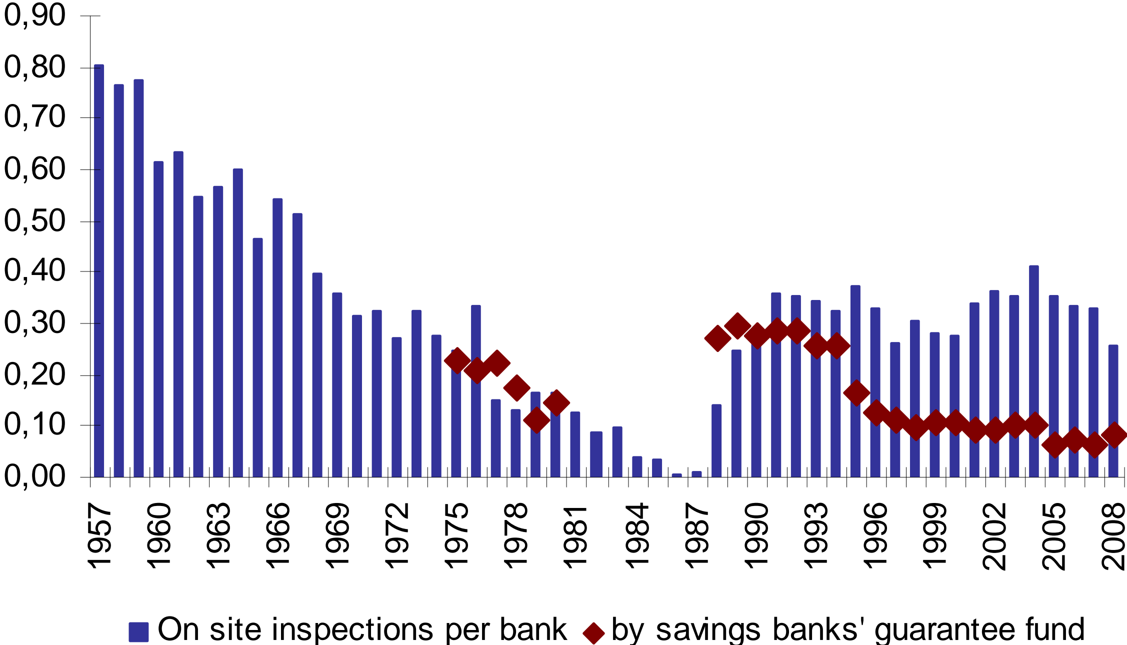

Figure 6: Number of on site inspections per bank reported by the Inspectorate of Banks 1957-2007 and by The Savings Banks' Guarantee Fund. Source: Ecklund and Knutsen (2000) and Norwegian FSA Annual Reports

We see that the number of on site inspections by the Inspectorate of Banks was gradually reduced from around 0.8 around 1960 to almost zero in the mid 1980s. The background for this was also that the Inspectorate of Banks shifted towards a more document-based system of inspections. There were also additional on site inspections of savings banks carried out by the Savings Banks' Guarantee Fund. We see that their activities follow a similar pattern during the late 1970s. The organization of financial supervision in Norway became further integrated in 1983 when the supervision of brokers was included in the Inspectorate of Banks. Finally, a major step towards integration of financial supervision was taken in March 1986 when the

Inspectorate of Banks merged with the Insurance Council to form the Norwegian FSA.[12] We conclude that banking supervision was gradually given less priority during the regulated post World War II period in Norway as resources in the Inspectorate of Banks were shifted away from on site inspections over to predominantly document-based inspections and other administrative tasks for the Ministry of Finance.[13] So at the same time as we observed the peak lending activities in Norwegian banks in the mid 1980s and the financial supervision in Norway was subject to a major reorganization, there were virtually no resources available for on site inspections. It also turned out that the information in the reports collected for document-based supervision of banks for the years 1986 and 1987 was subject to massive manipulation by some banks in order to avoid costly regulations which had been reintroduced by the government in an attempt to curb bank lending. The parliamentary commission who wrote a broad evaluation of the banking crisis in Norway in 1998 stated that banking supervision functioned less than optimally in a situation with deregulation, increased competition among banks and strong credit growth. Activities were further weakened by the ongoing reorganisation of financial supervision. Moreover, the warnings that nevertheless were given by the FSA were rarely followed up with adequate policy measures.[14] The parliamentary commission also criticised the FSA's involvement in approving the increased use of subordinated debt to fulfil banks' capital requirements.[15] The commission concludes, however, that although it would be unreasonable to assume that better functioning supervision would have been sufficient to avoid the banking crisis altogether, it would have contributed to dampen it. After these years with initial problems the Norwegian FSA handled the years with crisis management during 1987-1992 reasonably well according to Ecklund and Knutsen (2000, p 343). We see from Figure 6 that the number of on site inspections per bank have stabilized around 0.3 over the period 1990-2008, and this corresponds to one on site inspection every third year on average. In the early years following the Norwegian banking crisis the FSA was given more resources, and there were substantial increases in the budgets for 1993 and 1994. The main ambition stated in strategy plans for the Norwegian FSA from this period was to put more emphasis on preventive work to meet future challenges for financial stability. At the micro level the FSA would contribute to help each financial institution meet future challenges for its profitability and solidity and at the macro level the FSA would put more emphasis on a macroprudential approach to monitoring the financial stability.

[12] The act which laid the ground for a more integrated financial supervision was in place in 1985. While the Inspectorate of Banks had been administratively subordinate to the Ministry of Finance, the Insurance Council was prior to this merger subordinate to the Ministry of Social Affairs. And, prior to the merger with the Inspectorate of Banks, the supervision of brokers was a subordinate of the Ministry of Trade. After integration in 1986 the new FSA has been a subordinate to the Ministry of Finance.

[13] See Ecklund and Knutsen (2000, p. 221). The administrative tasks in the Inspectorate of Banks which demanded more resources were typically related to work on structural issues and competition.

[14] Report to the Storting no. 17 (1997-98) and Moe et.al (2004, p. 213).

[15] Report to the Storting no. 17 (1997-98, p. 75-76)

5. Capital adequacy after the crisis

In its Annual Report for 1993 the Norwegian Financial Supervisory Authority evaluated the capital adequacy requirements before and during the banking crisis. Two statements may be worth quoting:

> "The experience of the last decade clearly indicates that a capital ratio in keeping with the minimum standard set out in the statutory regulations is not sufficient to absorb losses on the scale experienced."

> "The minimum requirement for pure equity was too low, subordinated debt capital qualified too easily for inclusion in the capital base, and there was a lack of rules on capital requirements on a consolidated basis."

Capital adequacy requirements for savings banks were introduced in 1988, at the same level as for commercial banks. When the FSA wrote its report in 1993 the capital requirements for both commercial and savings banks had again been changed by the introduction of Basle I in 1991. These new rules did not create much discussion in the Norwegian banking industry. This was partly because the major banks were owned by the government, who had recapitalised the banks to a level where they looked very solid. But the FSA also recognised that the rules were not really very strict (from the Annual Report 1993):

> "New capital requirements were introduced in 1991 based on BIS/EC rules. With the exception of the consolidation requirements, the new rules did not entail a tightening of capital adequacy requirements."

Given the evaluation of the previous capital adequacy rules, one might have expected the FSA to push for higher levels of bank capital and more restrictive use of subordinated debt. But it would probably not have been possible to argue that Norwegian banks should meet significantly more restrictive rules than what their international counterparts would get through Basle I. One thing that Basle I did imply was a more stringent approach to what constituted capital in a banking group. But Basle I did overall not imply a need for more capital at Norwegian banks, and the possibility to use subordinated debt was not reduced.

The implementation of the Basle rules in Norway still shows some signs that that the banking crisis had an impact on the regulators. We can see this in those cases where the FSA had some leeway to choose risk weightings.[16] Loans to the commercial property industry constituted an important part of total bank losses, and the Norwegian FSA responded by imposing a 100 per cent weighting on loans secured by commercial property. There had also been losses on residential mortgage loans. The 50 per cent risk weighting for such loans were only accepted

[16] FSA Regulation of minimum standards of capital adequacy for financial institutions and investment firms. 22 October 1990.

if the loan to value ratio was below 60 per cent. Finally, the FSA held the weighting of loans to local governments at 20 per cent, where it could have been set to zero.

Subordinated debt was another item where the Norwegian FSA chose to be more restrictive than most other countries: The FSA would only accept non-perpetual subordinated debt as capital if the bank held at least 7 per cent of Tier 1 capital.[17] The FSA also tried to ensure the quality of bank capital by imposing strict requirements to the properties of the subordinated debt in Tier 1. This was formalised only in 2002[18]. Only 15 per cent of Tier 1 capital can be subordinated debt. This debt has to be perpetual and it should be written off pari passu with share capital if Tier 1 capital falls below 5 per cent or total capital below 8 per cent. Interest payments on the debt can only be made if the bank earns a positive profit, and any missing interest payments cannot be accumulated for later payment.

Furthermore, repayment of subordinated debt is conditional on permission from the FSA, and initially that permission would only be given if Tier 1 capital exceeded 8 per cent and Tier 2 capital exceeded 4 per cent.[19]

A third point concerns the funds for general banking risks which according to the EU regulations[20] may count as capital, at least up to a certain ceiling. That allowance has not been included in the Norwegian regulation. Similarly, Norway is one of the few countries where tax deferred assets must be deducted from accepted capital.[21]

However, as the banking crisis became more distant, some of these rules were softened. In 1998 the minimum required Tier 1 capital for having non-perpetual subordinated debt accepted as capital at low risk banks was reduced to 6.5 per cent, and in 2001 again to 6 per cent.[22] Repayment of subordinated debt could now be permitted if the Tier 1 capital exceeded 7 per cent, naturally on the condition that the bank was well capitalised after repayment of the debt. Also in 2001 the 50 per cent weighting of residential mortgages was extended up to a loan to value ratio of 80 per cent.

A new lending boom in Norwegian banking was at that time just around the corner. It is unlikely that these modest measures in a softening direction had much impact on that. But they fit into a pattern where regulation is affected by market developments.

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[17] FSA Circular Letter 20/1998, 12 August 1998.

[18] Letter from the Ministry of Finance 27 June 2002.

[19] FSA Circular Letter 21/2001, 11 September 2001.

[20] Council Directive 2000/12/EU.

[21] A comparison of national regulations across Europe is found in CEBS/2006/92.

[22] FSA Circular Letter 14/2001, 23 March 2001.

6. Long term learning from the crisis?

The main lesson drawn from the Norwegian banking crisis was about the importance of bank capital. Banks' equity capital, including funds, were too small and their subordinated debt turned out to be difficult to write down once it was decided that banks should continue as going concerns. These lessons appear to have had some lasting impact on bank regulation in Norway. The implementation of Basle I in Norway probably was on the strict side when compared to other European countries. This applies to some of the risk weightings, and thus implicitly to the level of capital. It also applies to the treatment of subordinated debt, which plays a more modest role for Norwegian banks than is common across Europe. Correspondingly, the leverage ratio of Norwegian banks remains at a comparatively high level, se figure 7.

Securitisation is one of the main culprits of the current international financial crisis. When these instruments became popular on the international markets, the Norwegian FSA created so strict rules for securitisation that it really amounted to a complete ban. We had no securitised assets from Norwegian banks, and no bank even applied for the permission to set up such structures. This was true until covered bonds were introduced in 2007. With covered bonds the bank retains the incentive to control credit risk, and these bonds thus have few of the problems that have been exposed with the more common ways of securitisation. This is perhaps an example of a FSA ruling that has prevented some problems on the Norwegian markets.

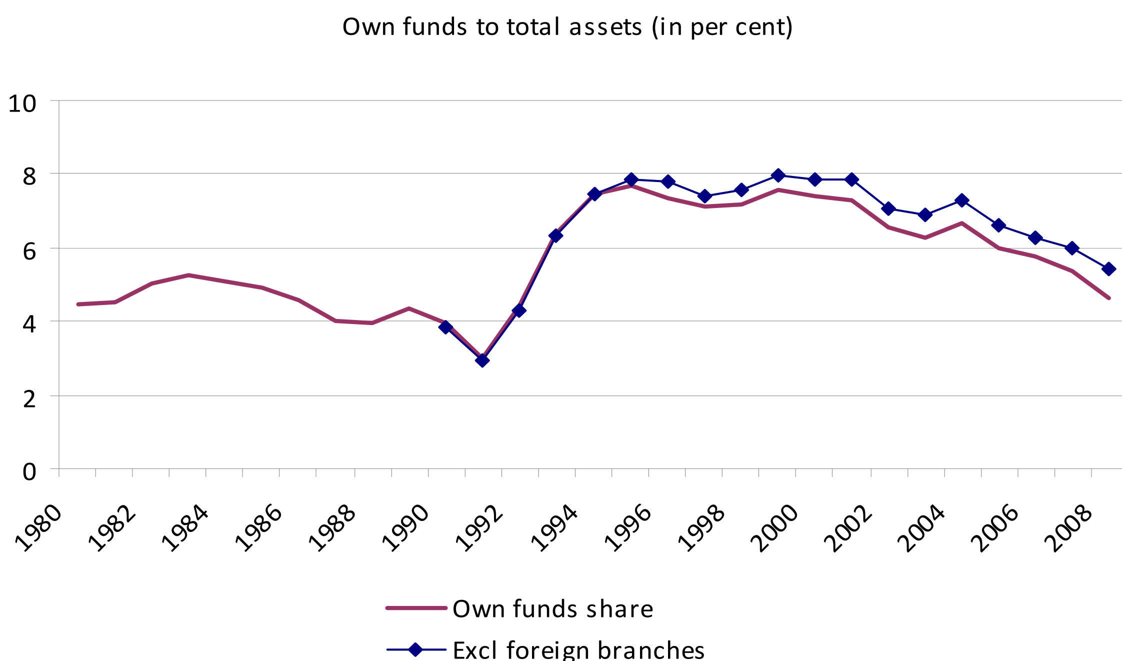

Figure 7: The ratio of share capital plus equity funds to total assets at Norwegian banks. Sources: Klovland (2007) and Statistics Norway.

This restrictive tendency still appears to prevail when Basle II is now being implemented. The major banks have been given the permission to use their own IRB models to compute risk weightings to the same extent as banks in other countries. But the Norwegian FSA indicates that it has been quite restrictive in its requirements to these models. The FSA has also evaluated the ICAAP process, which requires banks to assess their capital adequacy under Pillar 2 in the Basle II framework. A number of banks are being told that they are not sufficiently well capitalised, even if they meet the Pillar 1 requirements with wide margins. This is consistent with the FSA seeing itself as a strict regulator.

But there is another tendency apparent in this story. The tightening of regulations after the crisis did not always survive. There have been a few instances where strict rules have been partly reversed. This has happened in seemingly safe environments and at a certain distance in time after the crisis events. The examples we have found are quite modest, and they are unlikely to have had a significant impact on the strong credit growth we have seen in the past few years.

We conclude by looking again at figure 7, which shows the leverage ratio of Norwegian banks since 1970. Until the crisis culminated in 1991-92, the banks had on average own funds amounting to 4-5 per cent of total assets. The government interventions raised this ratio above 7 per cent, where it remained until the early 2000s. Since then there has been a downward trend, and some banks are now complaining that their capital base is now an effective restraint on their lending decisions. We may see a cycle where banks and regulators improve the standards after a crisis has hit and then let them gradually slide when the crisis has become a more distant experience. Today there is a renewed focus on strengthening bank capital

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