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Bank Regulation and Bank Crisis

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Norges Bank's bicentenary project

Bank regulation and bank crisis

The main developments in the Norwegian regulatory system before, during and after the banking crisis of 1988-92

Sigbjørn Atle Berg and Øyvind Eitrheim

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BANK REGULATION AND BANK CRISIS
**The main developments in the Norwegian regulatory system before,
during, and after the banking crisis of 1988-92**

*Sigbjørn Atle Berg and Øyvind Eitrheim**

October 21, 2009

Abstract:

The Norwegian experiences of the past thirty years illustrate what we believe are 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 when the economy is booming. These patterns appear in the Norwegian experience after the banking crisis of 1988-92, and they can presumably also be recognized in many other jurisdictions.

JEL: G28, N44

Keywords: Banking crises, history of bank regulation, capital adequacy, Basel I & II

1. Introduction

The bulk of research literature on bank regulation is concerned with identifying the socially optimal form of regulation. It is generally assumed that regulators will set and implement rules in order to provide banks with the correct incentives for socially desirable behaviour. The regulators are seen as completely rational, and the human limitations of regulation are rarely discussed. A review of this stream of literature is found in Bhattacharya, Boot and Thakor (1998). There is also a growing literature on how actual bank regulation affects the macro economy, in particular relating to the effects of the Basel capital adequacy requirements. See Goodhart, Hofmann and Segoviano (2004) for a prominent example. Furthermore, the literature contains some discussion of the interaction between financial innovation and bank regulation; see for instance White (2000).

There is also a literature on how regulation is affected by regulators' private interests. General papers in this tradition include Stigler (1971), Becker (1983) and Peltzman (1989). Papers

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more specifically on banking regulation include Kane (1990), Boot and Thakor (1993) and Kroszner and Strahan (2000). These papers discuss how the self-interest of bank regulators affects regulatory behaviour and makes it deviate from the socially optimal behaviour. In the present financial crisis much attention has also been paid to the limited resources of regulatory agencies and the consequences that might have for regulation and supervision, see for instance Goodhart (2008). It is increasingly being realised that regulators cannot be expected to implement long term optimal solutions.

The present paper is primarily concerned with this latter aspect of bank regulation. We believe that bank regulation will always be influenced by the developments in the financial sector and in the economy at large. We try to illustrate this by looking at how the Norwegian banking crisis of the late 1980s and early 1990s influenced bank regulation in Norway. We shall argue that in the aftermath of this crisis the regulation in Norway has been stricter than in most other European countries, and that this strictness can probably be ascribed to the experiences during the banking crisis. But we shall also provide some examples that initial strict rules were eased as the memory of the banking crisis became more distant.

There may thus be regulatory cycles which are correlated with the financial cycles. After a banking crisis has occurred there will typically be a period with stricter regulations (a tightening phase). But as the upturn become manifest and the financial sector looks more resilient, the regulatory standards may gradually deteriorate (an easing phase). Such cycles would illustrate that bank regulation is a highly human endeavour, with severe limitations on the long run rationality of the regime as a potential consequence.

2. 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 1970s and 1980s the quantitative credit regulations were increasingly circumvented, which helped feed a domestically generated boom that culminated only in the mid 1980s. Interest rate ceilings were lifted in the late 1970s and early to mid 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. Thus, we observe that the Norwegian banks started the post-deregulation period with relatively low capital ratios.

The first banking failures after the boom period occurred in 1988, and the three major Norwegian banks all failed during 1990-92. At that stage the main focus of the authorities was on saving the most important banks. The Norwegian FSA had been reorganised in 1986 and was gradually becoming more efficient. When Basel 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 Basel 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 Basel 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.

3. The Norwegian banking crisis

The Scandinavian countries Denmark, Norway, Sweden and Finland, in that chronological order, all had their banking crises in the years from the mid 1980s to the early 1990s; see Berg (1998) for an overview. 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 merely provide a snapshot of the Norwegian crisis.¹

Figure 1 shows the growth in real lending from Norwegian banks in the 1980s. Inflation rates were in the double digits up to 1982, and real loan growth was not very strong in those early years. But when inflation gradually came down to 5-6 per cent in 1985 and the economy was booming, lending accelerated and real loan growth peaked at a rate around 25 per cent in 1985 and 1986. The real prices of non-residential real estate more than doubled, 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 comprehensive discussion of asset price inflation before the Norwegian banking crisis.

¹ 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). Gerdrup (2003) put the Norwegian banking crisis 1988-1992 in a historical perspective and give a detailed description of three episodes of financial fragility in Norway since the 1890s.

Figure 1 also shows loan losses 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 well below 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.

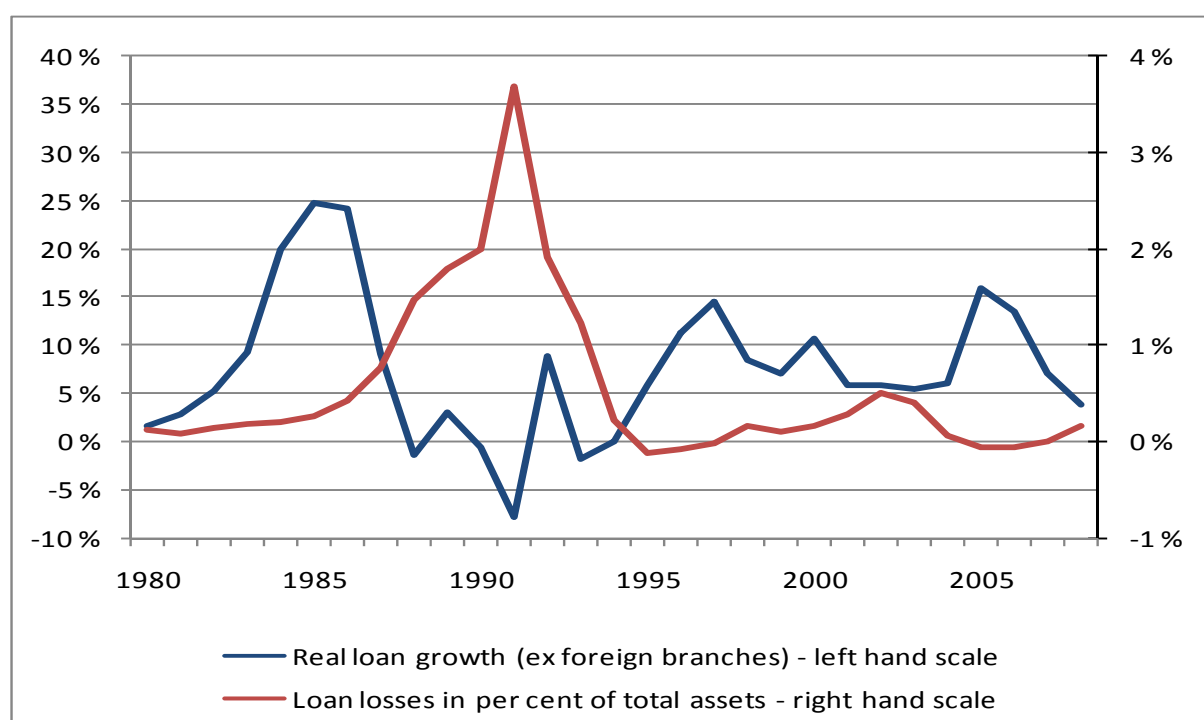


Figure 1: Real loan growth in per cent (left axis) and loan losses in per cent of total assets (right axis) 1980-2008. Source: Statistics Norway and Norges Bank.

By 1992 the three largest Norwegian banks had all been nationalised. This was done by forcing the banks to write down their non-performing loans. The rules were in place and no extra force applied. Shares were written down according to losses on the non-performing loans in the banks' portfolio. This loss of share capital was replaced with government capital. This is the Scandinavian model of crisis resolution that quickly restored well functioning banking industries in Norway, Sweden and Finland. Notice, however, that the subordinated debt in the capital base was not written down at the largest banks, and was effectively protected throughout the crisis. This was a consequence of the government's joint desire to avoid open bank failures, legal restrictions preventing write down of subordinated debt held by foreigners and the explicit aim to 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, and later handled 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 Bank², 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.

4. 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 both on customer deposits and on most loans remained 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 regulated 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 terminated. Monetary policy still kept interest rates at very low levels; 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 illustrated 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 for the funding of the lending boom in the 1980s. Furthermore, an important part of the capital base supporting the lending boom was subordinated debt raised in the international markets.

On the volume side the government initially produced credit budgets indicating how much bank lending should increase each year. 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 entities 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 lending entities did not report to the authorities. The two reserve requirements on

² In 2001 the Finnish-Swedish MeritaNordbanken merged with Danish Unibank and Norwegian Kreditkassen and formed Nordea.

bank lending were abolished in 1984 and 1987, and the obligation to buy government bonds was terminated in 1985. The main reason was that the government had realised how ineffective these regulations were.

In the post-war 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, see 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.³ The savings banks had no formal capital adequacy requirement whatsoever.

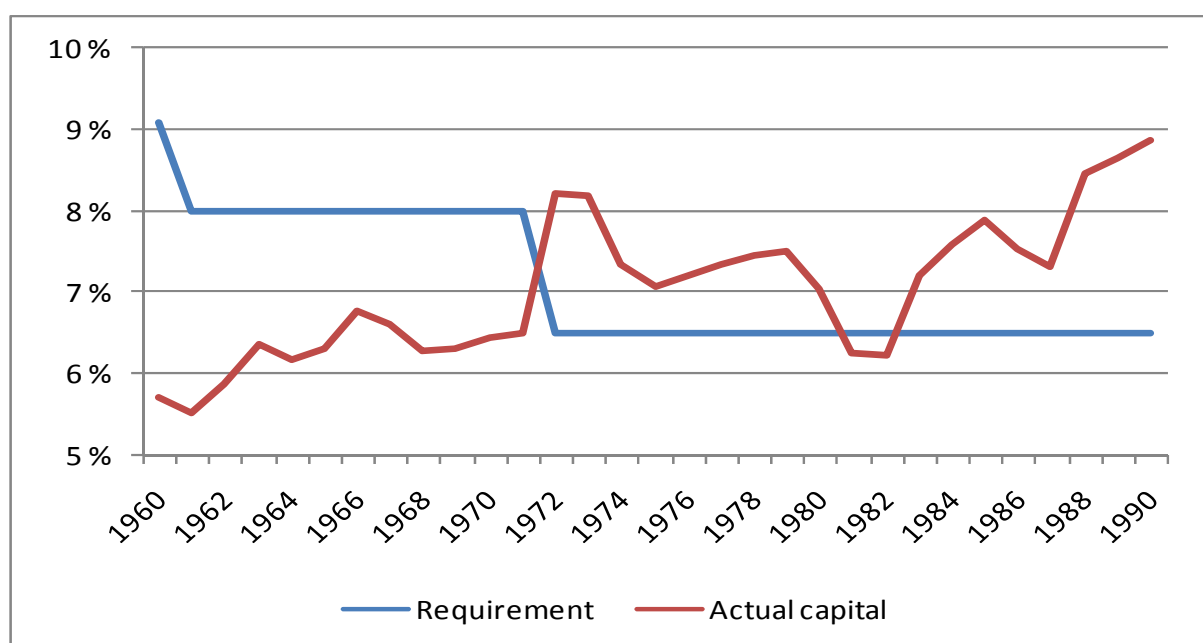


Figure 2: Capital requirements and actual capital held at commercial banks before Basel I. Per cent of stipulated assets. Source: Statistics Norway and NOU 1992:30.

Part of the motivation for these changes was that the commercial banks mostly did not meet the formal requirements before 1972, as illustrated in 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 government⁴ accepted that subordinated debt could be part of capital up to 50 per cent of bank

³ The effective reduction in banks' capital requirements in 1972 has been estimated to around 25%. This reduction would support an increase in their total assets by 33% and represented in this respect a substantial increase in their lending capacity.

⁴ Letter from the Ministry of Finance 18 January 1984.

equity, and from 1987⁵ this was increased to 100 per cent, provided that the new 50 per cent quota was perpetual bonds. By 1986 the approval of subordinated debt as capital was a routine matter that was handled by the newly established Norwegian FSA without the involvement of the Ministry of Finance. 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.

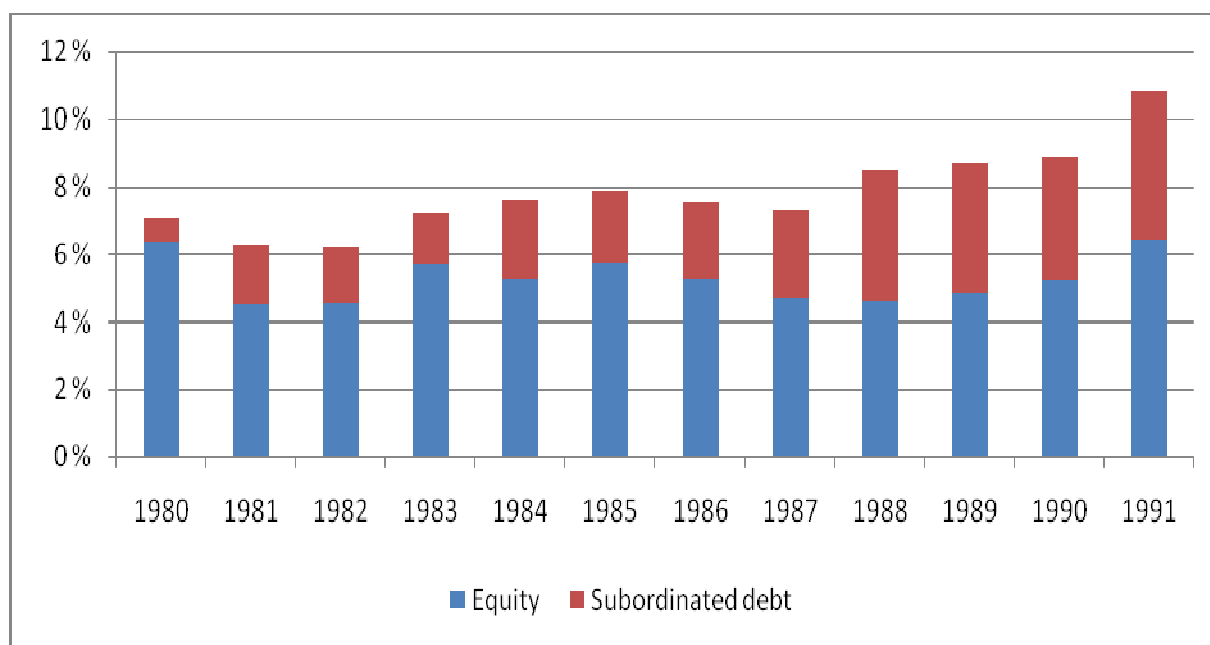


Figure 3: Bank capital at Norwegian commercial banks before Basel I. Source: NOU 1992:30.

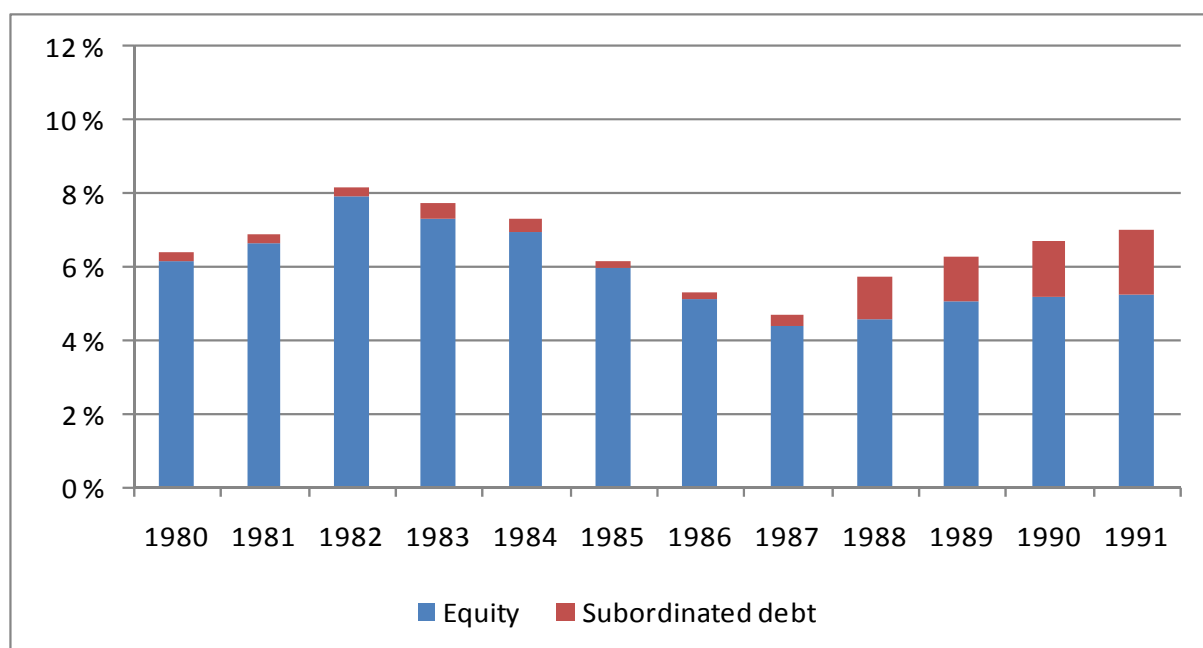


Figure 4: Bank capital at Norwegian savings banks before Basel I. Source: NOU 1992:30.

⁵ Letter from the Ministry of Finance 9 November 1987.

5. 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.⁶ The efficiency of banking supervision was gradually enhanced by more on site inspections. The reasoning behind was that this would increase confidence in the banks and promote savings. During World War I the number of commercial banks increased rapidly, and considerable financial imbalances developed. This spurred some concern, and additional regulations were introduced by the parliament in 1918. The regulations set new requirements for the licensing of new banks and for the expansion of existing ones.

A credit fuelled asset price inflation contributed to a strong boom-to-bust cycle in the economy, and Norway experienced a systemic banking crisis in 1920-28.⁷ One consequence of this crisis was a strengthening of financial supervision in Norway. A new public institution for the common supervision of commercial and savings banks was established in 1924.⁸ Prior to this Norges Bank (The Central Bank of Norway) had been handling the banking crisis on behalf of the authorities during the first half of the 1920s.⁹

Following new legislation in 1956 the mandate for banking supervision was further strengthened and the institution was now named the Inspectorate of Banks. The Inspectorate should primarily oversee that the commercial 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 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 5 which shows the number of on-site inspections per bank over a period of more than 50 years.¹⁰

We see that the number of on-site inspections per bank and year by the Inspectorate of Banks was gradually reduced from around 0.8 around 1960 to almost zero in the mid 1980s. Part of

⁶ See Ecklund and Knutsen (2000, Ch 2 and 3, in Norwegian only) for a detailed discussion.

⁷ See Gerdrup (2003) for more details on the history of financial crises in Norway.

⁸ 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.

⁹ See Ecklund and Knutsen (2000, pp 85-86).

¹⁰ For 1986-2008 ordinary on-site inspections are reported in FSA's Annual Reports. For 1980-1986 ordinary on-site inspections are reported in Note 22 in NOU 1992:30, Report to the Storting no. 39 (1993-94). For previous years the number of ordinary on site inspections can be found in Ecklund and Knutsen (2000).

the background for this was 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, but 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 full integration of financial supervision was taken in March 1986 when the Inspectorate of Banks merged with the Insurance Council to form the Norwegian Financial Supervisory Authority (FSA).¹¹

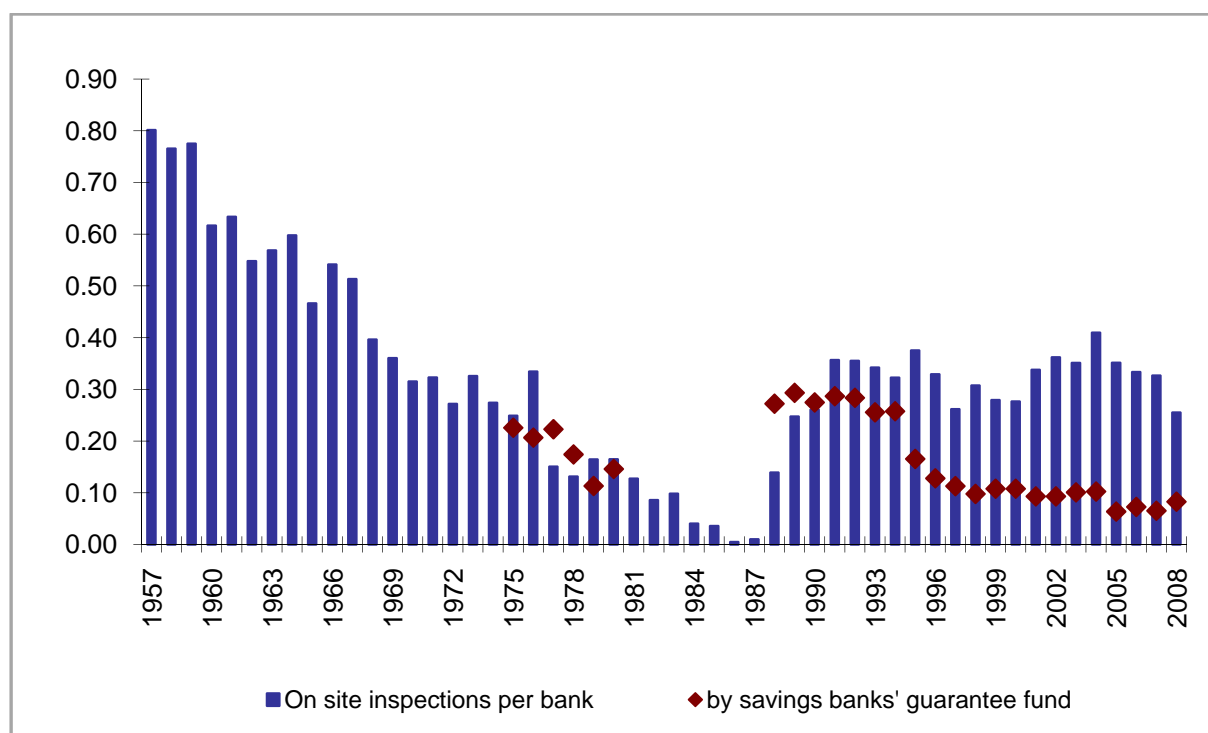


Figure 5: Number of ordinary on-site inspections per bank reported by the Inspectorate of Banks 1957-1985 and the Norwegian FSA 1986-2008, and by the Savings Banks' Guarantee Fund 1975-2003 and the Norwegian Banks' Guarantee Fund 2004-2008. Source: Ecklund and Knutsen (2000) and annual reports from the Norwegian FSA and the Savings Banks' and Norwegian Banks' Guarantee Fund.

We conclude that banking supervision was gradually given lower priority during the regulated post-World War II period in Norway. Resources in the Inspectorate of Banks were shifted away from on-site inspections over to predominantly document-based inspections and to administrative tasks for the Ministry of Finance.¹² Thus, at the time when the lending activities in Norwegian banks peaked in the mid 1980s, the financial supervision in Norway

¹¹ 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.

¹² 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.

was subject to a major reorganization, supervisory resources were used for administrative purposes, and 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 the 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 Norwegian FSA were rarely followed up with adequate policy measures.¹³ The parliamentary commission also criticised the FSA's involvement in approving the increased use of subordinated debt to meet banks' capital requirements.¹⁴ The commission concludes, however, that it would be unreasonable to assume that better functioning supervision would have been sufficient to avoid the banking crisis altogether. But it states that better supervision would have contributed to dampen it.

After these years with initial problems the Norwegian FSA handled the years with crisis management during 1988-1992 reasonably well according to Ecklund and Knutsen (2000, p. 343). We see from Figure 6 that the number of on-site inspections per bank and year has stabilized around 0.3 over the period 1990-2008. 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. At the macro level the FSA would put more emphasis on a macroprudential approach to monitoring the financial stability.

¹³ Report to the Storting no. 17 (1997-98) and Moe et.al (2004, p. 213).

¹⁴ Report to the Storting no. 17 (1997-98, p. 75-76)

6. Capital adequacy after the crisis

In its Annual Report for 1993 the Norwegian FSA evaluated the capital adequacy requirements before and during the banking crisis. Two statements may be worth quoting (Norwegian FSA 1993, p. 14):

“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 Basel 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 (Norwegian FSA 1993, p. 14):

“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 their international competitors would get through Basel I. One thing that Basel I did imply was a more stringent approach to what constituted capital in a banking group. But Basel 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 Basel rules in Norway still shows some signs that the banking crisis had an impact on the regulators. First, we can see this in those cases where the FSA had some leeway to choose risk weightings.¹⁵ Loans to the commercial property industry constituted an important part of total bank losses during the crisis, and the Norwegian FSA responded by imposing a 100 per cent weighting on loans secured by commercial property.¹⁶

¹⁵ FSA Regulation of minimum standards of capital adequacy for financial institutions and investment firms. 22 October 1990.

¹⁶ The standard EEC weighting was 50 per cent, confer Council Directive of 18 December 1989 on a solvency ratio for credit institutions (89/647/EEC).

There had also been losses on residential mortgage loans. The 50 per cent risk weighting for such loans were initially accepted when the loan to value ratio was below 80 per cent, in line with the European standards. However, in 1998 the maximum loan to value ratio was reduced to 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 and hybrid capital were other items 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 capital¹⁷, whereas most other countries had no similar requirement. The FSA also tried to ensure the quality of bank capital by imposing strict requirements to the properties of the hybrid capital in Tier 1. This was formalised only in 2002¹⁸, but had by then long been the practice of the FSA. Only 15 per cent of Tier 1 capital can be hybrid capital. This capital has to be perpetual and it should be written down *pari passu* with the share capital if Tier 1 capital falls below 5 per cent or total capital falls below 8 per cent. Interest payments on subordinated debt and hybrid capital can only be made if the bank has both Tier 1 and total capital ratios not less than 0.2 per cent in excess of the minimum requirement. Any missing interest payments cannot be accumulated for later payment.

Repayment of subordinated debt is in most countries conditional on permission from the FSA. But the Norwegian FSA initially decided 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 where Norway deviated from most other European countries concerns the funds for general banking risks. According to the EU regulations²⁰ these funds 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,²² and in 2001 again to 6 per cent.²³ 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 again extended up to a maximum loan to value ratio of 80 per cent.

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 20/1998, 12 August 1998.

²³ FSA Circular Letter 14/2001, 23 March 2001.

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.

7. 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 Basel 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; see Figure 6 which extends the bank capital series up to the present. Since the distinction between commercial and savings banks is no longer meaningful after the largest bank formally was transformed into a savings bank through a merger in 2003, we only report aggregate ratios for the two groups. Notice that bank capital in the figure is reported relative to total assets and not relative to risk-weighted assets. After the banking crisis subordinated debt has had a more modest role for Norwegian banks than is common across Europe. The use of subordinated debt as capital peaked in 1992 after the pre-crisis build-up, and has come down after the crisis. By the end of 2008 subordinated debt is about 30 per cent of Tier 1 plus Tier 2 bank capital, down from close to 50 per cent in 1992.

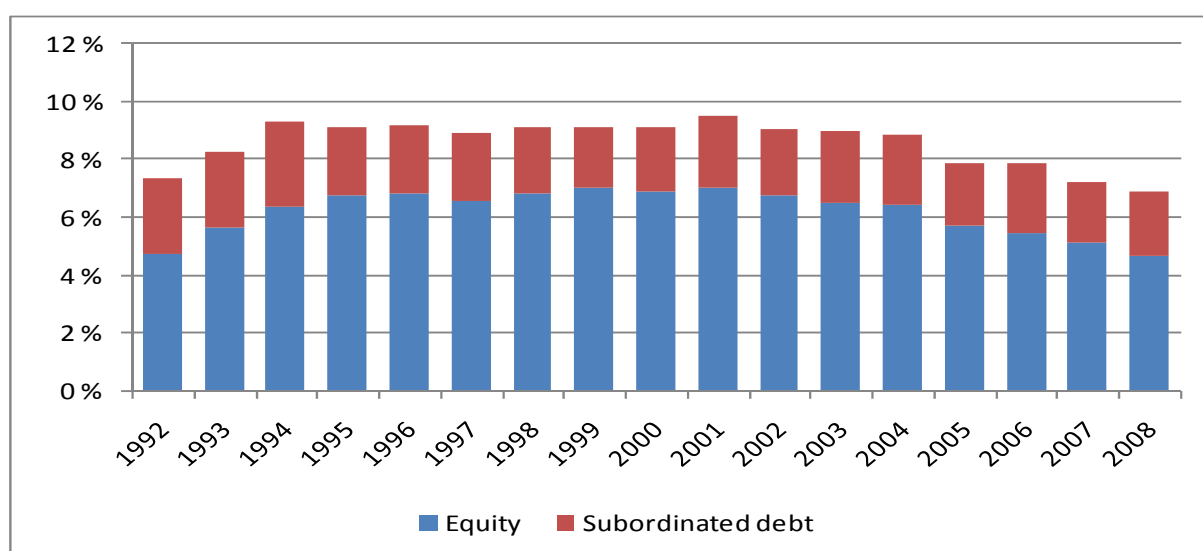


Figure 6: Bank capital in per cent of total assets in Norwegian banks, exclusive of foreign owned branches, after the introduction Basel I. Source: Statistics Norway and Norges Bank.

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 introduced such 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 fewer of the problems that have been exposed with the Anglo-American type of securitisation. This is perhaps an example of a FSA ruling that has prevented some problems on the Norwegian markets.

This restrictive tendency still appears to prevail when Basel 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 Basel 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 Norwegian 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. But they can be seen as part of a pattern.

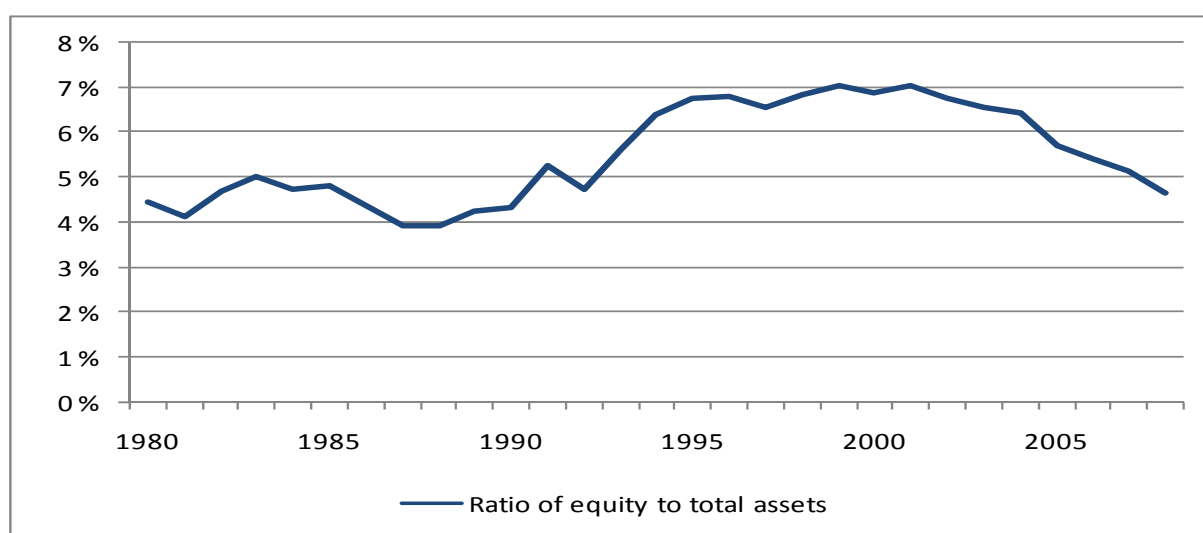


Figure 7: Share capital plus equity funds in per cent of total assets in Norwegian banks, exclusive of foreign owned branches. Sources: Statistics Norway and Norges Bank.

We conclude by looking at figure 7, which shows the leverage ratio of Norwegian banks since 1980. Until the crisis culminated in 1991-92, the banks had on average equity capital

amounting to 4-5 per cent of total assets. The government interventions raised this ratio to above 6 per cent, where it remained until the early 2000s. Since then there has been a downward trend, and some banks are now reporting (in anonymous lending surveys) that their capital base is an effective constraint 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. The leverage ratio of Norwegian banks still remains at a reasonably high level when compared to banks in other jurisdictions. Today there is a renewed focus on strengthening bank capital in most jurisdictions, and Norway is offering to inject new capital into its banks the same way as most other European countries.

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