Reports 37/2010

Tord S. H. Krogh

Credit regulations in Norway, 1970 - 2008

Statistisk sentralbyrå • Statistics Norway
Oslo–Kongsvinger

Reports In this series, analyses and annotated statistical results are published from various surveys. Surveys include sample surveys, censuses and register-based surveys.

ISBN 978-82-537-7913-3 Printed version
ISBN 978-82-537-7914-0 Electronic version
ISSN 0806-2056
Subject: 11.01, 11.13.10

Print: Statistics Norway

Symbols in tables	Symbol
Category not applicable	.
Data not available	..
Data not yet available	…
Not for publication	:
Nil	-
Less than 0.5 of unit employed	0
Less than 0.05 of unit employed	0.0
Provisional or preliminary figure	*
Break in the homogeneity of a vertical series	—
Break in the homogeneity of a horizontal series	|
Decimal punctuation mark	.

Preface

This report was written by Tord Krogh during a student internship at the Research department, Statistics Norway in 2009/2010. It is part of a project – led by Eilev S. Jansen – to describe the evolution of credit conditions in Norway from 1970 to 2008.

There exists no other unified presentation of the regulatory changes in the Norwegian credit markets from 1970 to 2008. This entails a period with strict credit market regulations in the 1970s, the gradual deregulation of credit markets in the 1980s, followed by the subsequent banking crisis in the years around 1990 and the development thereafter up to the advent of the current financial crisis. It is hoped that the present documentation is of interest to a wider audience.

Moreover, the report serves as a source of information for the construction of a *Credit Conditions Index*, which intends to capture variations in the availability of credit to the household sector. A preliminary version of such an index for Norway is found in Krogh (2010).

Acknowledgements: Eilev S. Jansen contributed with vital comments, discussions and guidance. In addition André Anundsen, Sigbjørn Atle Berg, Roger Bjørnstad, Gunnvald Grønvik, Torbjørn Hægeland, Ragnar Nymoen and Olav Stensrud have provided valuable comments and corrections. The help from Arild Eide Johansen and Øivind Jonassen at the Financial Supervisory Authority (FSA) of Norway in finding documents in the archives of the FSA was also appreciated.

Statistics Norway, Oslo/Kongsvinger.

Abstract

Norwegian credit markets were heavily transformed during the 1970s and 1980s. In the early 70s credit policy aimed at "credit planning" by means of a comprehensive set of regulations, while by the end of the 1980s quantitative regulations, interest rate controls and foreign exchange controls had been fully removed.

This report aims at giving a detailed summary of the regulatory changes related to Norwegian credit markets in the period 1970-2008. We have extracted the main content from 4 different series of official documents (Ministry of Finance (1969a-2007a, 1970b-2008b), Norges Bank (1970a-2008a) and Financial Supervisory Authority of Norway (1986-2008)) and used this information to provide a unified presentation of the development. All the regulatory instruments that were used in the 1970s are described, and a detailed chronological description shows *how* and *when* these were applied. We also look at how the regulations were subsequently removed. Accompanying the description are 12 comprehensive tables in the Appendix. These summarise all the central information from the description, and in addition they contain some extra details. For instance, Table A.3 gives the level of the primary reserve requirements at each point in time, just as Table A.7 does for placement requirements, while Table A.6 contains details about all placement requirements that have been in place.

Sammendrag

Det norske kredittmarkedet gikk gjennom voldsomme forandringer på 1970- og 1980-tallet. Omkring 1970 ble det utøvet en penge- og kredittpolitikk som tok sikte på å kontrollere kredittgivningen eksplisitt ved hjelp av et vidt spekter av reguleringer. Innen slutten av 1980-tallet var både de kvantitative reguleringene, rentereguleringen samt valutareguleringen fjernet.

Denne rapporten gir en detaljert sammenfatning av endringene i kredittmarkedsreguleringen i Norge i perioden 1970-2008. Vi har trukket ut hovedinformasjonen fra 4 ulike serier av offisielle dokumenter (Ministry of Finance (1969a-2007a, 1970b-2008b), Norges Bank (1970a-2008a) og Financial Supervisory Authority of Norway (1986-2008)) og brukt dette til å gi en helhetlig presentasjon av utviklingen. De ulike reguleringene som ble brukt på 70-tallet er nøye beskrevet, og i tillegg følger det en kronologisk gjennomgang av *når* og *hvordan* disse instrumentene ble brukt. Videre ser vi på prosessen da disse reguleringene så ble fjernet. I tillegg til denne beskrivelsen legges det ved 12 detaljerte tabeller i Appendikset. Disse oppsummerer den sentrale beskrivelsen fra teksten, i tillegg til å presentere noen ekstra detaljer. For eksempel inneholder tabell A.3 og A.7 nivået på henholdsvis primærreservekravene og plasseringskravet gjennom hele perioden, mens tabell A.6 beskriver alle tilleggsreservekravene som har blitt innført.

Contents

1. Introduction

The ambition of this report is to provide a detailed summary of the development of credit market regulations in Norway, with particular emphasis on regulation of banks. It is necessary to emphasize that this is in large part just a summary of the main sources that have been used. These works will not be cited every time information is presented, but if a reference different from one of these has been used it is stated explicitly. The main sources have been:

- *National Budgets and Revised National Budgets:* Ministry of Finance (1969a-2007a)[1] and Ministry of Finance (1970b-2008b)
- *Annual Reports:* Norges Bank (1970a-2008a)
- *Annual Reports*: Financial Supervisory Authority of Norway (1986-2008)

Ministry of Finance (1970b-1978b) contain appendices discussing the credit policy of the government, and these have been the most important sources for the period 1970-77. In Norges Bank (1970a-1986a) we find thorough descriptions of the credit policy and these have been used as main sources for the period 1978-86. After 1986 these descriptions were omitted from the annual reports, but the reports still contain letters of announcement sent from Norges Bank to the financial institutions, and these are very useful (both before and after 1986). The descriptions of the credit policy found in Ministry of Finance (1985a-2007a) are better than in previous editions of the National Budget and were important sources for the period after 1985. Furthermore, annual reports from the Financial Supervisory Authority of Norway (FSA of Norway) serve as important sources for material on bank losses and market conditions from 1986 and onwards. Letters sent from the FSA to financial institutions are also valuable.[2]

The credit policy conducted in 1970-88 was in large part characterised by the authorities continuously attempting to keep the credit growth under control. To regulate banks primary reserve requirements were adjusted frequently while addition-nal reserve requirements were imposed when the situation was about to get "out of hand" (all requirements are described in Section 2). Both banks and life insurance companies faced placement requirements, forcing them to invest a relatively large share of their capital in bonds. Finance companies and non-life insurance companies were in most of the years up to 1988 regulated with the use of quantitative limits.

This policy was relatively successful in the late 1960s and beginning of the 70s, but later its effectiveness declined steadily. Figure 1.1 illustrates how the operative difficulties of "credit planning" became larger in the 1980s. This figure gives the percentage deviation between the credit supplied during a year relative to what the politicians had put up as bounds in the credit budget (to be explained in Section 2). It indicates how the authorities' grip with the credit market became looser through-out the period, both due to a process of financial innovation (institutions were doing their best to sidestep the rules), change in efforts made to keep the flow of credit within the bounds of the budget and the gradual deregulation that took place.

The figure ends in 1987 and by then most of the quantitative regulations had been removed. Capital and liquidity requirements were still present, but the government had given up controlling the flow of credit.

As a preview of the events documented in Section 4, Table 1.1 provides a calendar of the major regulatory changes related to credit markets the past 40 years. Deregulation began in the end of the 1970s with the withdrawal of some interest rate and foreign exchange controls. It continued with the removal of quantitative regulations during the 1980s, while the most important changes since 1990 have

[1] The National Budget of year *t* is published in year *t-1* and is thus cited as Ministry of Finance (*t*-1).

[2] Most of these are downloadable at http://www.finanstilsynet.no. Letters that are not on the internet are available in the archives of the FSA.

been the introduction of the Basel I (in 1991) and Basel II (in 2007) accords, regulating the international standard of capital requirements.

Figure 1.1. Percentage deviation between the credit supplied and the bounds of the credit budget, 1966-87. Source: Norwegian Official Reports (1989)

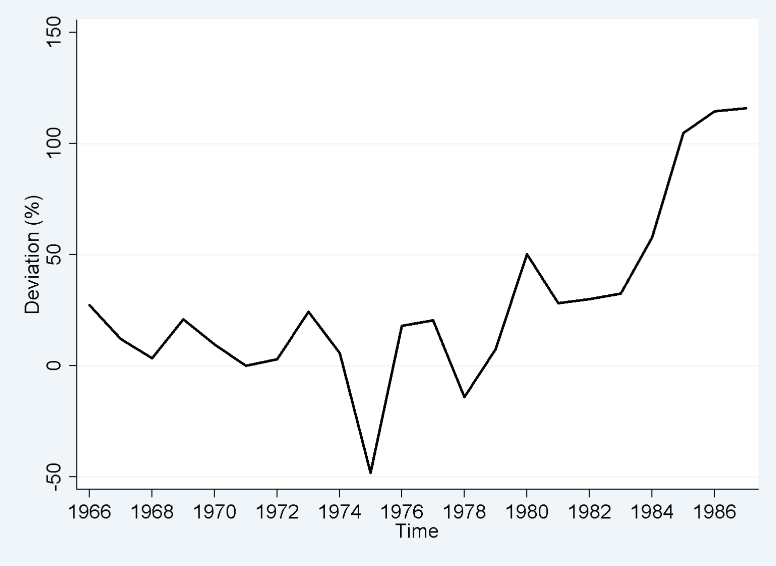

Table 1.1. Calendar of the major regulatory events

December 1977:	Most of the interest rate norms removed - interest rates allowed to float freely.
September 1978:	Wage and price freeze introduced (including interest rates).
November 1978:	Quantitative exchange controls for the banks removed. Zero total position (net spot and forward claims) the only requirement.
December 1979:	Wage and price freeze ended. Interest rates were kept under informal regulation.
September 1980:	Interest rate declarations were introduced as a formal way to dictate interest rates. Less strict than interest rate norms.
October 1980:	Bond issuing fully liberalised.
October 1981:	Bond issuing partly re-regulated - direct regulation of loan associations introduced.
January 1983:	Introduction of direct regulation of guarantees issued by financial institutions for loans in the grey market.
January 1984:	Additional reserve requirements removed. Intended to be a permanent removal.
January 1985:	Banks' placement requirement revoked. Revoked for life insurance companies in July 1985.
September 1985:	Interest rate declarations abandoned. Interest rates allowed to float freely.
September 1985:	License requirement for domestic residents' borrowing abroad removed.
January 1986:	Additional reserve requirements re-introduced.
June 1987:	Banks' primary reserve requirements revoked.
October 1987:	Additional reserve requirements removed permanently.
July 1988:	Last part of the direct regulation of loan associations removed. The regulation of guarantees for loans in the grey market was also removed, as well as the direct regulation of private finance companies and non-life insurance companies.
May 1989:	Foreigners were permitted to invest unlimited in Norwegian bonds.
June 1990:	New set of foreign exchange regulations introduced.
April 1991:	Basel Accord introduced.
December 1996:	The Capital Adequacy Directive (CAD) introduced. An update (CAD-II) came in June 2000.
January 2007:	Basel II implemented.

The remaining of the report is organised in the following way: Section 2 describes the situation in the beginning of the 1970s and what instruments the government used in its conduct of credit policy. Section 3 gives some information regarding the "grey market" for loans that existed outside the balance-sheets of the financial institutions. Section 4 contains a detailed chronological description of credit policy since 1970. The intention of this is to both provide information about how the credit policy was conducted in each year *per se*, and also illustrate the main trends and give a snap shot of the situation almost 40 years ago. This section is accompanied by an extensive set of tables in the Appendix that contain more elaborate descriptions. Section 5 provides some concluding comments.

2. Status of credit regulations in 1970

The credit and monetary policy of the government had two main goals: A low and stable level of interest rates and a careful injection of credit into the economy (see a contemporary description in Eide, 1973). The available credit was primarily to be used for investments and the government wanted to limit households' borrowing for consumption purposes. The basis for credit policy during this period was the Credit Law of 1965. This law specified the instruments available for the authorities and it replaced earlier laws (see Norwegian Official Reports (1980) for a brief description of the law). With the new law, credit policy was to change from being settled with explicit agreements between the government and the financial sector towards more indirect control where the authorities affected the liquidity of the credit market instead.

The main document for the credit policy was the credit budget, of which the government published a comprehensive version every year. The budget specified the amount of credit the authorities found it desirable for the financial institutions to supply in the course of a year, and also how this was to be shared between different parts of the financial system.[3] To make sure that the budget was met the government had several different regulations. In the early 1970s these can be described as follows:[4]

- **Quantitative regulations:** *a)* Primary reserve requirements: Minimum requirement for the percentage of total assets that had to be held as primary reserves (i.e. deposits in Norges Bank, Postal Giro deposits and Post Office Savings Bank deposits (state banks), Treasury notes and notes and coins); *b)* Placement requirements: Requirement to invest a given percentage of the increase in total assets in the bond market; *c)* Additional reserve requirements: Requirement to put aside extra reserves given as a percentage of further growth in lending if lending exceeded a given limit; and *d)* Other direct regulations: The Credit Law also made it possible for the government to set discrete rules for permitted lending growth (i.e. less flexible for the firms but more direct control for the government) where a financial penalty was the result if a company exceeded its limit.
- **Interest rate controls:** The most important interest rates on loans from the banks were regulated by the government through the use of interest rate norms.
- **Foreign exchange controls:** Transactions with and access to foreign exchange was extensively regulated (i.e. capital mobility was low). Any sale or purchase of foreign exchange had to go through one of the authorised foreign exchange banks. Banks' access to lend with foreign banks, as well as their currency holdings, were directly regulated. If businesses or private persons wanted to take up a loan abroad (or a foreign currency loan through a domestic bank), a licence from the authorities was needed. The number of licences was limited and these were in general only given if the purpose of the loan was investments or activities related to exports. For the oil and shipping sectors a licence was not needed. The private sector was not allowed to buy foreign securities and foreigners' access to buy Norwegian securities was very limited as well.[5]

---

[3] The budget was announced together with the National Budget every fall. A revised credit budget was released together with the Revised National Budget in the following spring.

[4] A part of the credit policy that we will not discuss is the state banks. The government operated a total of 9 state banks that had been created to provide credit either to regions or to groups/causes that otherwise would have problems getting affordable credit in the private market like for instance students, fishermen and the agricultural sector. Most of these are still operated at present date. The most important state bank for ordinary households was one granting house mortgages (Husbanken), and it was a part of the home-ownership policy of the government. State banks were quite important as long as credit was rationed, but their role decreased some in relevance when the credit market was deregulated. See Norwegian Official Reports (1995) for a thorough report on the subject of state banks.

[5] Domestic residents could trade foreign securities on the so-called "switch market". This was not of great importance and it was closed in the middle of 1984.

Of the quantitative regulations, *a*) and *c*) were used to control the supply of credit from banks, while both banks and life insurance companies were affected by *b*). Through this the government secured a minimum demand for bonds in the bond market. The supply of bonds was also controlled by the authorities with quantitative limits for the issuing of bonds. *d*) was used actively to limit lending from finance companies and non-life insurance companies.

Besides the regulation that was a part of the active credit policy, is also existed prudential regulation in the form of:

- **Capital requirements:** Minimum requirement for the size of an institution's capital (share capital, reserve funds, retained earnings and subordinated debt) as a percentage of total liabilities (possibly deducted for the capital itself and some other assets - there were some changes over time).
- **Liquidity requirements:** Minimum requirement for the size of an institution's liquid assets as a percentage of total liabilities. Liquid assets were defined basically in the same way as primary reserves. The main purpose was to secure that institutions were able to meet their short-term obligations.

Neither of these requirements were of any importance before the end of the 1980s. The primary reserve requirements normally secured that the liquidity requirements were met as well, and the capital requirement was seldom binding. This is discussed more in Section 4.

3. The grey market

Since credit regulations were concerned with regulating financial *institutions*, it existed an opening for an unregulated market (the "grey market"). In this market money was lent directly from one person to another, usually with finance brokers as intermediaries. Financial institutions were important agents in this market through the issuing of guarantees for loans, making a loan in the grey market less risky, and several firms also had departments that could act as grey loan brokers for their customers.

The grey market is not well-documented in official reports, but a thorough description of the available data is found in Nyborg (1986). This paper discusses several aspects of the grey market, including how the market has developed over time and most importantly whether the grey market can be claimed to have been a "buffer", especially for the banks, acting as a cushion in times of contractionary credit policy.

Attempts to measure the exact size of the grey market suffer from poor data availability, but there exist data on the volume of the guarantees issued by the financial institutions, and also on the loans brokered by finance brokers without guarantees (but these data have incomplete coverage). Based on this it seems like the market had a very modest size in the mid 70s, but it grew faster from around 1979 (Norwegian Official Reports, 1983, Table 10A). According to Table 3.3.1 in Nyborg 1986, guaranteed loans plus other loans registered by brokers reached 10 billion by the end of 1982, almost 14 billion by the end of 1984 and almost 18 billion by the end of 1985. In 1984 this stock of grey loans was at about 4% of the total stock of loans from all financial institutions, ignoring the bond market.[6] The real size of the market was probably somewhat larger, but nothing implies that the market had a substantial size. When it comes to the importance of the guarantees, Table 3.3.2 in Nyborg (1986) shows that as many as 70-80% of the loans were guaranteed around 1984.[7]

When looking at the growth of grey market loans relative to bank loans, the conclusion in Nyborg (1986) is that, even though the movements mirror each other somewhat, the grey market was too small to serve as an important buffer. Hence, even though the grey market would most definitely have continued to grow had it not been for the deregulation of the ordinary credit market, its importance and the "damage" it caused the credit regulations should not be overstated. At the same time, one should not dismiss that the existence of a grey market could have had a psychological effect on policy makers, and possibly served as a motivation for the deregulation if some of them were convinced that the grey market neutralized many of the regulations.[8]

[6] A similar development, but somewhat larger numbers are found in Norges Bank (1983b-1989b). These numbers suggest that the market (nominally) peaked in 1987 at more than 30 billion kroner, amounting to about 5% of the total assets of banks.

[7] The share was even larger prior to 1983, which was the year the government introduced regulation of such guarantees – see Section 4.

[8] See e.g. a letter from Norges Bank to the Department of Finance cited in Department of Finance (1983b), where it was argued that the grey market would seriously weaken the effects of credit regulations if it continued to grow.

4. Institutional development

To fully grasp the extent of the regulatory changes that have taken place and also to acquire some information about how the government's instruments were used, this section will lead us chronologically through the period starting in 1970 and ending in 2008. The description has been divided into sub periods - mainly for expositional reasons - but to some extent the division also highlights which years that share common characteristics.

1970-74: Fine-tuning the economy?

Our description begins in 1970, which in many respects is a fine example of how credit planning was conducted. Early in the year *total* reserve requirements for all banks were increased temporarily, mainly to neutralise the liquidity effect of a change in the tax system (see Table A.5[9]). Later, when the authorities saw that lending continued to grow stronger than planned, the total reserve requirement for commercial banks was increased several times throughout the fall. Furthermore, additional reserve requirements were put in place for commercial banks in the 4th quarter (additional requirements are summarised in Table A.6). The authorities also saw it necessary to limit lending from finance companies, and imposed maximum caps for their lending growth in the last three quarters (these companies would continue to face direct regulation the next two decades, see Table A.8 for the details).

In 1971 the Bretton Woods system (an international system for fixed exchange rates) broke down, and exchange rate markets became very uncertain (Table A.11 provides all the details regarding exchange controls and exchange rate regimes). The main effect in Norway was probably an increase in liquidity as agents sold foreign currency to minimize uncertainty. By the time of summer lending had grown fast, making the government increase the reserve requirements for both commercial and savings banks (this time primary requirements were used instead of total requirements - primary reserve requirements are summarised in Table A.3[10]). That dampened the action somewhat, but the growth increased again later in the fall. However, this was judged by the authorities as driven by export-oriented companies' need to finance their increased inventories, and it was therefore deemed "acceptable". As in 1970 finance companies were given a limit for their growth in lending, but factoring companies were given a higher cap than others since they lend to businesses that need financing while they wait for payments.

Norway joined the European exchange rate cooperation (the so-called "snake") in May 1972 and this brought more certainty regarding future exchange rates. Coming to the fall of 1972, lending from commercial banks had grown faster than the limits of the credit budget and their primary reserve requirement was increased. The savings banks started off the year with slow growth in lending, and their reserve requirement was therefore first cut, but then increased again as lending grew towards the summer and fall.

The beginning of 1973 was also a period with strong growth in lending from commercial banks and in the spring an additional reserve requirement was put in place. It was removed in December, but this spurred a new increase in lending and commercial banks ended up exceeding the limits in the credit budget of 1973 by more than 20 percent. Savings banks had a more balanced development, but to avoid that increased lending from savings banks would neutralise the contractionary effect from the additional reserve requirement their primary reserve requirement was increased.

---

[9] Total reserve requirements were not included in the list of instruments in Section 2 since they were removed already in 1974.

[10] Note that banks in the North (i.e. banks with their main office in one of the northernmost counties (Nordland, Troms and Finnmark) were given a lower reserve requirement. This is shown in Table A.4.

The growth in lending continued to be strong in 1974. However, in the spring it came to be expected that the banks would face something close to a liquidity crisis around June-July and the authorities chose to cut the primary reserve requirements in order to help out. At the same time it was given a strict message to the banks that they had to be careful with further growth in lending and that this was not an easing of credit policy. But lending from commercial banks continued to grow. This was possibly because they wanted to lend out as much as possible before they, as expected, were given an additional reserve requirement (a larger balance sheet would give higher nominal limits). This came in September, and their reserve requirement was also later increased as a strong krone had provided extra liquidity to the banking system. The savings banks' balance sheets continued to grow according to the credit budget, and their primary reserve requirement reached zero when the requirements were cut in June.

In 1974 non-life insurance companies were put under direct regulation for the first time - their regulation was similar to what the finance companies were facing, see Table A.9.

1975-77: Expansionary credit policy

A downturn hit the international economy in 1975, but the Norwegian economy fared fairly well. This was partly due to the government's counter-cyclical policy in which one of the measures was an expansionary credit policy. Banks were encouraged to provide credit for export companies such that they could increase their inventories. The primary requirement for commercial banks was cut and it reached zero in June (it had been zero for savings banks since June 1974). The minimum fraction of total assets that banks were required to hold as bonds was also cut (see Table A.7 for all the info on placement requirements) and the permitted level of lending from the state banks and the size of the credit budget were both increased.[11] Despite these measures lending grew only slightly and, as seen in Figure 1.1, total credit supply ended far below the limits of the budget.

The expansionary credit policy continued into 1976, but towards the end of the year reserve requirements for both commercial banks and savings banks were increased again. This did not prevent total lending from exceeding the bounds of the credit budget. Furthermore, the large lending limits that had been given to state banks as a part of the counter-cyclical policy in 1975 (and parts of 1976) would continue to result in a high growth in lending from state banks the next years as well - due to the implementation lags. This probably had a stronger liquidity effect than what the government initially planned.
Throughout 1977 loans from both types of banks continued to exceed the bounds of the credit budget and their reserve requirements were increased further. In addition, the placement requirements were tightened. Commercial banks saw a small cut in their reserve requirement at the end of the year in reaction to the liquidity situation that occurred because of some turbulence in the exchange rate markets.

1978-79: Tightening of policy, but liberalised exchange controls

A contractionary credit policy was introduced at the end of 1977 and during 1978.[12] To begin with, the interest rate norms were withdrawn (except for some types of mortgage loans) in December 1977, and it entailed that banks were permitted to freely charge any interest rate. The authorities wanted to generate a general increase in the interest rate level to make the real interest rate turn

[11] As another part of the expansionary policy Norges Bank cut the discount rate. This was *not* followed up by a change in the interest rate norms, and can be seen as a change in policy where the ties between the discount rate and the interest rate norms were loosened.

[12] This policy was intended to reduce private consumption growth and to lower wage and price inflation in order to improve the competitiveness of the export industries. In addition to these measures the krone was devalued in February to improve competitiveness directly.

positive[13] and thus curb total demand for credit. Further, the control of the interest rates on the bond market was relaxed considerably (but not the regulation of whom that could issue bonds). During the spring lending ceilings for state banks and private banks were reduced, the placement requirement for life insurance companies was increased and the government made the private banks agree to limit the amount that households were allowed to borrow for consumption purposes.[14] Reserve requirements for banks were reduced through the year, first to compensate for the liquidity withdrawal caused by a foreign exchange intervention by the central bank, and later because lending from the banks kept within the (already lowered) bounds in the credit budget (as seen in Figure 1.1). The requirements for both commercial and savings banks reached zero in August. As previously announced additional reserve requirements were put in place in May, mainly to make sure that loans for consumption purposes really were kept under control. Furthermore, Norges Bank sold for the first time their new short-term market papers (twice in August), and this withdrew even more liquidity ("unclassified" events such as this one are summarised in Table A.12).

The contractionary credit policy became accompanied by a price and wage freeze introduced in September 1978. The freeze also covered interest rates, such that these were under government control again. The freeze lasted until the end of 1979, but the control of interest rates were to be kept and then re-formalised into interest rate declarations the fall of 1980 (see below).

There was also a change in the exchange rate controls in 1978 and the effect was clearly liberalising, at least in the longer term. Before this banks had been given quantitative limits for their lending with institutions abroad. Now it was changed to a requirement that all authorised foreign exchange banks had to have an approximately zero total position (net spot and forward claims) at the end of every day. Hence lending abroad was unlimited for banks as long as their total position was close to zero. Initially this was only a trial system, but it was made permanent a few years later. This change had far-reaching consequences and has been claimed by some to have been one of the most important steps in the deregulation process (see Grønvik, 1994, p. 207). Banks could from now on borrow more extensively abroad and this weakened the traditional link between domestic deposits and domestic loans, reducing the authorities' ability to control the credit supply.

Credit policy continued to be tight in 1979. The understanding between the government and the banks regarding loans for consumption purposes was revised, and they agreed on further reductions in consumption-motivating loans. A- and B-loans were introduced as the new system for central bank loans to the banks. A-loans were quite ordinary central bank loans, but B-loans were loans that came with very strict conditions almost mimicking additional reserve requirements. If a bank's quota for A-loans was spent, taking up B-loans was the only alternative (the system is described with more details in Table A.12). This gave the government another instrument to limit the growth in lending.

In the beginning of the year, the authorities tried to apply only the new market papers from Norges Bank as their instrument to control liquidity. But despite a sale of market papers 5 times during the first 5 months of the year, lending grew faster than what was planned, and the reserve requirements were revived during the summer for both commercial and savings banks. Norges Bank offered to purchase back parts of the market papers they had sold (as a "compensation" for the higher reserve requirement), but the banks did not want to sell much, indicating that their liquidity situation was still quite good. When savings banks' lending continued to

[13] The real interest rate had been negative most of the 70s. As one saw that net debt increased with income, this also had an undesirable distributional effect.

[14] The deal was to reduce this kind of loans by 2,000 mill. kroner during 1978. It was made effective by the fact that Norges Bank required the agreement to be followed if a bank was to get access to the automatic lending from the central bank.

grow, their reserve requirement was increased further and Norges Bank also made automatic lending to the banks temporarily more restrictive. Norges Bank once again offered to purchase market papers and this time savings banks used the option quite extensively. Also commercial banks' lending grew fast and it was planned to increase their reserve requirement. But after negotiations with the banks it was decided to sell market papers instead and the banks bought enough to produce the desired liquidity withdrawal. Later the savings banks were given the same possibility to "swap" parts of their reserve requirement for market papers, which they chose to do, and their requirement was lowered to a level neutralising the net effect on their liquidity from purchasing the market papers. The banks would get yet another possibility to avoid an increased reserve requirement if they bought enough market papers in October. In all these occasions the market papers were used much more actively than was planned when they were introduced two years before. In order to withdraw liquidity more permanently the placement requirement was increased for the banks in November.

By the end of 1979, due to a combination of more restrictive access to loans from Norges Bank and a worsened liquidity situation, commercial banks representing nearly 9/10 of the sector's total assets had taken up the B-loans. This gave Norges Bank good control of their lending the next 6 months. Savings banks had not taken up B-loans to the same extent, but to change this Norges Bank temporarily suspended access to A-loans from November. Finance companies and non-life insurance companies were still under direct regulation, and the latter had their regulation-setup revised (see note in A.9).

1980-81: Deregulating (and re-regulating) the bond market

As in the late 70s, the government was aiming at keeping the growth in prices and costs low through 1980, and this required a tight credit policy. The foundation for this was already laid as many banks had to take up B-loans at the end of 1979. Furthermore, reserve requirements were increased (in the case of savings banks drastically) in January. Through the spring, lending kept within the bounds and the suspension of A-loans ended in March.

Coming closer to the summer it was evident that banks needed more liquidity to meet their obligations. The authorities did not see it as necessary to get more banks in B-loan position yet, so they chose to cut the reserve requirements for both types of banks. The liquidity situation improved later in the summer and the authorities warned that reserve requirements would be increased if lending grew too fast. In both June and July new market papers were sold and this withdrew a lot of liquidity. But by the time of August, only 1 out of 4 commercial banks were still in B-loan position, and in July and August lending had started to grow more rapidly making the government increase the primary reserve requirements in September.[15] Access to A-loans was restricted for the period of September-October as an additional measure. The reduction in liquidity was partly neutralised since Norges Bank offered to purchase market papers from banks, as they had done earlier, but still the tightening was enough to put commercial banks representing 60% of their sector's lending in B-loan position by mid-September. The rest of the year it was mostly a need for making savings banks reduce their growth in lending, but since their primary reserve requirement had hit its legal maximum, the authorities attempted to keep the interest rate in the interbank market high through the use of currency swaps. In total the banks ended up exceeding their lending limits, despite heavy-handed use of instruments from the authorities.

There were three other events in 1980 that are of particular interest. The first was that the banks agreed to offer 6,000 mortgages with better conditions than normal mortgages, so-called PSV-loans. This was a first step towards involving the banks

[15] At this point, the Credit Law did not allow for a higher primary reserve requirement for savings banks (10%) while the limit for commercial banks (15%) was not yet reached. See Table A.3.

even more in financing the expansion of the housing stock, and as compensation the banks' lending bounds were increased by the same amount as all the PSV-loans in total.[16] Secondly, the Minister of Finance began issuing interest rate declarations (see Table A.12) as a new form of administratively controlling the interest rate level for regular loans.[17]

Lastly, from the 1st of October 1980, the regulation of bond issuing was liberalised. This was in principle a complete liberalisation of the supply side of bonds and private businesses as well as loan associations were free to issue as many bonds as they liked. The demand for bonds continued to be stimulated by the placement requirement, which was kept unchanged. The effect of the deregulation was, not surprisingly, a large increase in the flow of credit in the bond market, and it was stronger than what the government had envisaged. To reduce the demand for bonds the placement requirement for banks was cut in half at the end of the year, but the end result was still that the total flow of credit ended at a level almost 50% above the bounds of the credit budget.

In 1981 it looked like bank lending turned more towards households and municipalities, probably because many firms got access to credit in the bond market. In the beginning of the year several banks were still in B-loan position, but the number declined through the first quarter. Since the authorities had given up most of the control of the bond market they had to focus even more on controlling the extension of regular loans. As a consequence additional reserve requirements were once again put in place in May for both commercial and savings banks. This time only repayment loans to municipalities, wage earners and self-employed were covered by the regulation. One month earlier, the reserve requirement for commercial banks had been cut to improve liquidity and to give commercial and savings banks the same reserve requirement. After the additional requirements were put in place, reserve requirements for both types of banks were reduced because of a seasonal pattern in the liquidity conditions. By the end of June a large part of commercial banks had taken up B-loans and this gave the authorities even more control. In the fall total lending did not grow too fast, but lending grew quite fast for the types of loans not covered by the additional requirements, so the reserve requirements were raised in November. This forced more banks to take up B-loans, but in total the banks still ended up exceeding their lending bounds for this year.

In October 1981 the government saw it necessary to reintroduce some regulations in the bond market. Loan associations, who had been responsible of about half of the bonds issued from the private sector and municipalities the last 12 months, were denied to issue any new bonds the rest of the year. However, businesses were still free to issue bonds, making the market still more liberal than prior to 1980.

1982: Awaiting changes

The additional reserve requirements imposed in May 1981 were still in place when 1982 started. To reduce the demand for bonds further, banks' placement requirement was cut another time. New regulations for the bond market were presented in March 1982, but these were far from as strict as those that existed prior to 1980, even though loan associations were kept under direct regulation. Hence, despite that the liberalisation from 1980 had been partly reversed, it is fair to say that deregulation of the bond market was well under way (see Table A.12 for details). The growth in lending was strong at the beginning of the year, and to withdraw liquidity Norges Bank used currency swaps and sold market papers during January. It was mostly the savings banks that were responsible for the

[16] PSV is an acronym for the Norwegian sentence "På Spesielle Vilkår" which means "On Special Terms". The arrangement continued for several years, even though it is not mentioned explicitly later in the text.

[17] This was a formalisation of the control that had been kept after the price freeze ended in 1979.

strong growth in lending. The Credit Law did not allow for an increase in their primary reserve requirement, so to hinder further expansions the additional reserve requirements were revised to cover all types of loans and from now on only savings banks. Commercial banks were off the hook since one still had the chance to increase their reserve requirement if that was necessary.

During the spring, the money market rate reached quite high levels. This reflected both an anticipation of future credit policy and also banks' unwillingness to take up B-loans even in a tight liquidity situation because of the strings attached to such loans. Reserve requirements were cut in May when the state's own transactions caused a liquidity-withdrawal, but they were increased back during the summer to dampen the growth in lending. From July the government eased the restrictions that accompanied B-loans somewhat, and this made more banks "accept" the B-loan conditions. During the fall many banks entered B-loan position, and this allowed the reserve requirement to be cur cut again for both types of banks in November.

1983-85: Deregulation continues

The additional reserve requirement for savings banks expired at the end of 1982 and banks' placement requirement was cut in February 1983 to deregulate the demand for bonds further. More important, the regulation of loan associations was relaxed when the quantitative limits for bonds sold to the non-financial private sector were removed.[18] In addition a *new* regulation was introduced in 1983. As already discussed in Section 3, an unregulated credit market based on direct loans between individuals had developed. Up until now, no regulations were designed to control the amount of credit in this market. In January 1983 this changed. From now on the guarantees that financial institutions issued for loans in the grey market were directly regulated. The guarantees could at the end of the year not have increased in real terms compared to the level in the 3rd quarter of 1982. With this the regulators were hoping to avoid that a tightening of ordinary credit only lead to a leak over to the grey market.

Just as the year before, the government wanted to avoid a very high money market rate. At the same time it also desired to use only indirect instruments in the credit policy and this implied that a higher money market rate was necessary to dampen the growth in lending. One attempt to balance these two considerations was to sell market papers with an interest rate low enough to avoid too much of an effect on the money market rate, and this was done in January 1983. Still, towards the end of April the savings banks had exceeded their lending limits by a great amount, but the lending from commercial banks had stayed very close to the bounds (many of them were still in B-loan position). The government chose to let the former consideration dominate and used *direct* regulations to dampen growth, imposing an additional reserve requirement for savings banks in July. In addition the Minister of Finance issued a new interest rate declaration in June where the interest rate level was lowered.[19] Since lending was under control the primary reserve requirement for savings banks was cut in July to the same as what commercial banks were facing (theirs was reduced a few months earlier). In July it was decided to suspend the B-loan system. The system was not as efficient as originally hoped for (see Table A.12).

By the time of July commercial bank lending had started to grow quite fast and an additional reserve requirement was imposed. During the rest of the year the authorities spent their energy focusing on the money market rate, and used market papers and swaps to control liquidity in the desired direction. It is also worth noting

[18] This made it easier to save money in the bond market. As previously noted, a well-functioning bond market would make it considerably simpler to limit the growth of the grey credit market. One was probably hoping to channel more private savings over the bond market instead of the grey market from now on.

[19] Furthermore finance companies involved in factoring or leasing were put under direct regulation. This was the first time leasing was regulated. See Table A.8 for the development.

that while the private sector (excluding those with a placement requirement) had bought almost no bonds before 1980, it was in 1983 purchasing bonds for more than 4 billion kroner.

From the beginning of 1984 the additional reserve requirement for the commercial banks was removed, and this was actually intended to be a permanent removal of such direct regulations. For precautionary reasons the primary reserve requirements were increased at the same time. That the guarantees issued for loans in the grey market had been put under regulation (see description above) caused some difficulties for the task of controlling credit flows because loans that were previously in the unregulated market were moved to the banks' balance sheets. This made it hard to measure the real growth of credit. In any case, lending grew strongly in January, and then strong, but not dramatically strong, the next three months. The government saw it necessary to increase the reserve requirements in March. The trend was similar through the summer, and the requirements were raised again in September. At this point, the direct regulation of factoring and leasing had ended (see Table A.8), but both types of lending were given a reserve requirement instead (this requirement is shown in Table A.10). To avoid a too strong withdrawal of liquidity Norges Bank offered to purchase back the market papers bought by the banks in July. The strong growth in lending continued throughout the year, but no new measures were taken to dampen the growth, besides that Norges Bank sold market papers for more than 3 billion kroner in October.

Several other changes occurred in 1984. Placement requirements were cut in the beginning of the year, and the bond market continued its healthy development from 1984. Liberalisation of exchange controls took two new steps in June. First, mostly symbolically, the limit on how much currency a resident could purchase when going abroad was removed and also the limit on how much one could invest in foreign properties. Second, and more important, domestic residents were from now on allowed to invest as much as they wanted in foreign stock markets, but investments in non-listed stocks and in bonds were still regulated. In addition the licence requirement for direct investments in Norway was removed. But to reduce the supply of credit from abroad, foreigners' access to invest in bonds was withdrawn in November (earlier they could invest up to 1 mill. kroner).

Liberalisation of the bond market continued in 1985. Up until then new bonds had a been required to have a minimum maturity of 12 months, but now *certificates* (bonds with a maturity up to 12 months) were allowed to be traded.[20] Also, the placement requirement for banks was revoked from the 1st of January 1985, and it was set to zero for life insurance companies and pension funds at the same time (and subsequently revoked in July 1985). Furthermore, in February domestic residents and companies were permitted to invest in foreign bonds denominated in foreign currency (but only up to a limit of 1 mill. kroner for private residents and up to 5 mill. for companies). Two new steps came in the fall of 1985: In September the Minister of Finance stopped issuing interest rate declarations, and the interest rates were now floating freely. Furthermore, the requirement that domestic residents needed a license to take up loans abroad (through the foreign exchange banks) was also removed.

Despite the deregulation the authorities had not given up the goal of keeping the growth in credit balanced, and the reserve requirements were increased in February 1985 to dampen the growth in lending. This tightening was far from enough, and lending exceeded the bounds in the budget considerably by the end of April. The reserve requirement was increased again in July, but this can not be seen as a strong tightening since the basis of calculation for the requirement was changed at

[20] At the same time government certificates were introduced, and this reduced the need for Norges Bank's market papers, and these were sold for the last time in January 1985.

the same time, and this counteracted much of the effect (see Table A.12). The rest of the year there was a surge in lending, and few contractive policies from the government.[21]

1986-87: End to quantitative regulation of banks

In 1986 the government stood ready to use their instruments to curb the growth in lending somewhat.[22] The reserve requirement for both banks and financing companies were increased during the first quarter. Another tightening came when the basis of calculation for the reserve requirement was expanded somewhat.

Despite previous intentions, an additional reserve requirement was given to both commercial and savings banks from early in the year, and it was tightened in the summer (see Table A.6). The reserve requirement for banks was reduced twice later in the year, probably because the use of the additional requirements gave enough control. A primary reserve requirement was introduced for life insurance companies in March, and it was increased further in June (see Table A.10). In January the direct regulation of the guarantees given by financial institutions in the grey market was reintroduced (the previous regulation had been removed in the second half of 1984). The guarantees were limited to stay below the level at the end of 1985. To accommodate this regulation, the licensing-process for guarantees given by foreign financial institutions was made very restrictive. However, all these attempts to in some way re-regulate the credit market could not stop the flow of credit from reaching a level more than twice the bounds of the credit budget (again, see Figure 1.1).

In May, following a large fall in the oil price, the krone was devalued by 12 percent. This was to be the last devaluation of the krone before it was allowed to float from December 1992 (the change in peg in 1990 was effectively not a devaluation). Around this period, banks were experiencing a rough liquidity situation,[23] and the money market rate was very high. In response, Norges Bank changed its system for automatic lending and the system was updated several times the rest of the year (see Table A.12).

The additional reserve requirement was kept from the start of 1987 (with a few minor changes) and the regulation of the guarantees was kept with no changes at all. On the other hand, more deregulation was under way. In June all the primary reserve requirements were revoked (besides that for finance companies which was revoked in October). Furthermore, the additional reserve requirement was removed the 9th of October, marking the complete removal of quantitative regulation of banks.

The year of 1987 was also the last time the government "bothered" to put up a credit budget. The budget was abandoned from 1988, even though one could argue that the budget had been mostly symbolic the last few years.[24] When the year 1987 ended, there were very few regulations left. The guarantees issued by financial

---

[21] At the time it was also suggested that some of the credit growth was caused by loans that were invested directly in various financial instruments, leading to an increase in the credit multiplier (a profitable activity due to a very favorable tax-treatment of debt and the returns from some assets).

[22] In May 1986 it was a change of government and the Labor party (Arbeiderpartiet) succeeded the center-right coalition lead by the Conservative party (Høyre). This did not change the credit policy drastically - as is noted in Ministry of Finance (1987b) the new government admitted that even though it disagreed with the choices of the former government, it was now too late to reverse the deregulation process.

[23] This was related to the fact that Norwegian banks found a large share of their funding abroad (Financial Supervisory Authority of Norway, 1986). A discussion of changes in the banks' balance-sheets over time would be an interesting supplement to this document.

[24] Instead of a credit budget the authorities started to announce a target zone for the desired level of credit growth. Every year a relatively wide zone for the planned growth in credit supplied to the private sector and municipalities would be spelled out, and the credit policy would be adjusted to keep the growth within the bands. This was far from as detailed as the credit budget.

institutions for loans in the grey market were still regulated, as was lending from private finance companies and non-life insurance companies. There were also bounds for the loan associations' lending for housing-purposes, primary industries and power plants. However, these last regulations were not given much more time and both were removed from the 1st of July 1988. It can be argued that this marks the completion of the deregulation. At the end of the year it was also made easier for companies to take up long-term loans denominated in foreign currency (Table A.11 has the details).

The banking crisis

From around 1987/88 to 1992/93, Norway suffered a major banking crisis. Reinhart and Rogoff (2008) labels it as one of the world's "big five" banking crises in the post-war period. It forced many banks to close down and the government had to take over the ownership of some of the largest banks in Norway. In this section we will focus on some non-regulatory events, and return to regulatory changes in the next section. It will only give a brief sketch of the events and for more thorough presentations of the Norwegian banking crisis see e.g. Norwegian Official Reports (1992) or Moe, Solheim, and Vale (eds.) (2004).

The first sign of weaknesses in the banking sector came in 1987 when the commercial banks (seen in total) suffered net losses for the first time in many years. This was caused by both an increase in losses on loans but also a stock market collapse in October. The Oslo Stock Exchange index dropped by more than 40%, and this pushed it back to its levels of 1984/85. Gross losses for both commercial and savings banks had jumped from around 2,000 mill kroner in 1986 to just below 4,500 mill kroner in 1987. The tendency of increasing losses for the banks continued in 1988. 5 banks saw their entire capital base being wiped out that year and total losses for commercial and savings banks increased to 8,700 mill. kroner. The commercial banks were still facing a net loss and savings banks' profits were close to negative. The losses of finance companies were also increasing rapidly. The Commercial Banks' Guarantee Fund had to, for the first time in many years, guarantee for all liabilities of a bank, the regional bank Sunnmørsbanken.

In 1989 total losses for the banks amounted to 10,400 mill. kroner. It was especially the losses of savings banks that pushed the total up to its new level. However, net results were actually better than in 1988 and they turned positive for both types of banks as gains from the stock market gave a boost to revenues, but there were large differences within the sector. The commercial bank Norion Bank became, at the 30th of October 1989, the first bank since 1923 to be put under administration. It was later decided to liquidate the bank. Several other banks also struggled. Many failed and their remaining parts were in most cases merged with larger banks. Finance companies had suffered big losses over the last years, but total losses in 1989 were smaller than in 1988 (1,400 vs. 2,000 mill. kroner). Loan associations were still in an acceptable situation, but their losses had also started rising.

The banking problems escalated in 1990, and the results of the banks were the worst since WWII. This is also the year it is commonly assumed that the banking crisis erupted. Both commercial and savings banks had net losses, and their total gross losses ended at more than 12 billion kroner. For commercial banks this amounted to a net profit of -0.77% of the average total assets. The sum of non-accrual loans was almost as large as the total losses and this gave warning about difficult times ahead. Several banks had grave problems and were either guaranteed by the Commercial Banks' Guarantee Fund or the Savings Banks' Guarantee Fund and many near-failing banks were merged with others. Finance companies continued to lose money, but lost less than the year before. Loan associations also began to see larger losses, but continued to have a positive net result. The stock market peaked at a new record-high level in the beginning of August, only to drop again by almost a third by the end of the year. This made the financial situation for banks even worse. There was also evidence indicating that the amount of loans over the grey market had been reduced drastically.

Losses peaked in 1991. Banks faced total losses of almost 20 billion kroner. The Government Bank Guarantee Fund was established to provide loans to the two bank sectors' own Guarantee Funds such that they were able to prop up enough guarantees for all the banks that were in trouble. Later the fund was also allowed to invest directly in problem banks. To provide capital to relatively sound banks as well, The Government Bank Investment Fund was created to invest directly in banks on close to commercial terms. By 1992 it was clear that even though the losses had peaked in 1991, there were still problems remaining. The banking sector lost a total of roughly 12 billion kroner (i.e. still very large, but far less than in 1991) and the savings banks actually made a net profit during the year. The banks that had been supported by the government in the crisis had been given clear requirements with respect to cutting administrative costs and reaching a positive net result as soon as possible. 1992/93 can be regarded as the last years of the banking crisis. In 1993 the banks' net results had improved a lot since 1992, both due to lower losses and gains from increasing asset values. Economic activity had started to pick up in Norway, and was expected to do so internationally as well.

1988-93: Regulatory changes during the banking crisis

After quantitative regulations had been removed the regulation that was left consisted mainly of the capital and the liquidity requirements (these are described in Section 2). Prior to the end of 1980s these requirements were not that important, as already noted. Primary reserve requirements normally made sure that liquidity requirements were met while capital requirements were seldom binding. Berg and Eitrheim (2009) argue that the regulators did not see it as necessary to enforce strict capital requirements in the 1970s and 80s. As a consequence, the capital requirement was relaxed on several occasions. In 1984 and 1987 changes were made to permit a larger share of a bank's capital to consist of subordinated debt, which in many cases was raised internationally (again, see Berg and Eitrheim (2009)). However, from 1988 and onwards, the capital requirement was to become the main regulatory instrument.

An update of the capital requirements came in 1988 when it was decided to let savings banks be subject to the same requirement as what commercial banks had already faced for a long time.[25] Table A.1 summarises all the changes in the capital requirements. Insurance companies were given one as well, but with a smaller percentage requirement. The liquidity requirement for banks was updated from the start of 1989 (see Table A.2).

Even though the deregulation was basically finished, the liberalisation of capital flows continued in 1989. In May foreigners were again allowed to buy listed bonds in Norway and this time without any limits. In July the authorities gave domestic residents permission to buy shares in foreign securities funds. Finally, in December foreigners were allowed to issue bonds on the Norwegian bond market. The liberalisation was finalised in 1990 when a new set of foreign exchange regulations was presented, but the practical implications of this change were modest. Previously all transactions had to be explicitly permitted. From now on the premise would be the opposite: All transactions were permitted unless they were forbidden. Furthermore, the fixed exchange rate arrangement was changed in October and the krone was from now on pegged to the European Currency Unit (the "ecu"). This was mostly a formal change since kroner had been pegging Deutsche Mark informally, and for some time it did not affect the effective exchange rate at all.

[25] The requirement was to keep the capital ratio at a minimum of 6.5% of total liabilities (minus the capital itself and some near risk-free assets).

A substantial change occurred in 1991 when the Basel Accord was implemented. This was a set of regulations worked out by the Bank for International Settlements (BIS), and represented a major step towards international coordination of bank regulation, even though some variation of requirements across countries were permitted. The most important change relative to the previous Norwegian rules was the system of putting weights on different assets according to their presumed riskiness when calculating a risk-weighted basis of calculation (to be used instead of total assets minus the capital itself), in addition to a requirement of consolidation within groups of financial companies. Mortgages were given a favourable risk-weight of 50% provided that the loan-to-value (LTV) ratio was less than 80%. A bank's own capital would now have to be at least 8% of this risk-weighted basis of calculation. The rules were in some ways stricter than the old, for instance due to a consolidation requirement, but the risk-weighted capital requirement itself was slacker than the old (again, confer Berg and Eitrheim (2009)). The new rules were to be implemented gradually over the course of a few years.

The tax system was reformed in 1992. One of the significant changes was a drastic reduction in the capital tax rate - the marginal rate was reduced from 40.5% to 28% while the average effective reduction was from around 34% to 28%. The effect was therefore a higher net-of-tax interest rate and possibly increased sensitivity for interest rate changes among households.

The currency market was dominated by uncertainty and a panic through the fall of 1992. In September the Finnish mark, which also had been pegged to the ecu, was put under huge pressure by speculators and the peg was left the 8th of September. The Swedish krona was the next target, and their peg was left the 19th of November. The turn came to the Norwegian krone and the 10th of December the krone was temporarily allowed to float, this too after a speculative attack. The system with a floating krone was made permanent from the 8th of January the following year. The monetary policy would still be concerned with keeping the exchange rate "stable" but not fixed.

1994-99: Steady growth

Norway joined the European Economic Area (EEA) in 1994, and some minor adjustments were made to Norwegian rules such that they were in accordance with those of the EEA. The banking sector had resumed a condition of normality, and the credit authorities were happy with the development. All banks were by now fulfilling the capital requirements, and after a long period where the banks were in a net debt position versus Norges Bank, the situation was now the opposite. This was both because of changes in the general conditions, but Norges Bank also wanted this to happen to reduce their own exposure and risk and it had started to require collateral for the D-loans it extended. The result of the change in the net position of banks was that, contrary to earlier when the interest rate on D-loans had formed a lower bound in the interbank market, the sight deposit rate now formed the lower bound, while the D-loan rate formed an upper bound (see Table A.12).

As a supplement to the capital requirements the Capital Adequacy Directive (CAD) was introduced in 1996.[26] While the capital requirements that already existed were motivated by the desire to limit credit risk, CAD was meant to limit market risk. Financial instruments were given risk weights and then the weighted sum would form the basis of calculation for the extra capital requirement introduced (8% of the basis). This requirement came in addition to the already existing capital requirement and the capital used to cover the latter could not be used to cover the new one as well. The directive had a very modest effect.

After the banking crisis, the Norwegian economy entered a period of strong economic growth, accompanied by strong growth in bank lending. The authorities

[26] This directive was implemented in the whole European Economic Area.

judged that even though the capital requirements were fulfilled, core capital's share of the own capital was uncomfortably low, and they were also worried about the increasing share of mortgages extended with a very high LTV ratio.[27] In 1998 two measures were taken to stop this. First, a house mortgage would only be given the 50% risk weight if the LTV ratio was less than 60%. Secondly, banks would only be allowed to take up new subordinated debt with fixed maturity if their core capital was at least 7% of the basis of calculation for the capital requirement (this had already been informally practiced by Finanstilsynet). These two measures, together with a clear message to the banks about the need to tighten credit, dampened the credit growth in 1998.

The Asian crisis affected both the Norwegian stock exchange and the value of the krone. The main stock index dropped by 40% in October 1998, and the krone was heavily depreciated. Still, the economy did not receive any severe shocks, and growth continued through both 1998 and 1999.

2000-08: Basel II and international crisis

The decade started off dramatically with the burst of the dot-com bubble in the fall of 2000 and the 9/11-attacks in 2001. Both events lead to falling stock indices world-wide and weaker growth internationally. Still, the Norwegian economy fared fairly well. Not as dramatic, but still of some interest, regulations kept on changing too. An updated Capital Adequacy Directive was implemented in 2000 (CAD-II). In 2001 the risk-weight for house mortgages with an LTV ratio between 60 and 80% was set back to 50%, as the change in 1998 was meant to be temporary. An important change in monetary policy came in March 2001 as inflation targeting was introduced. Some form of implicit inflation targeting had already been conducted for a few years, but this marks an important shift in policy.

The Norwegian economy suffered a minor downturn around 2003, mostly due to a combination of high interest rates (a tight monetary policy to fight inflation), with a very strong krone as a result and thus weak export prospects, and a fall in oil investments. It did not affect the banking sector to any large degree.

In the mid 2000s we were also witnessing an increase in both the availability and popularity of so-called "flexible mortgages". These are home equity credit lines that allow home-owners with a low LTV ratio to increase the debt secured in their house and keep the fresh money as a "credit line" they can draw on - sort of a cheap credit card with your house as security. This has made housing wealth much more liquid.

The latest regulatory change came in 2007 with new capital requirements based on the Basel II Accord. This accord was much more complex and detailed than its predecessor. For all the details, see Basel Committee on Banking Supervision (2004). The Accord can be divided into three subcategories, or pillars. The first pillar is concerned with the capital requirements - the equivalent to the old Basel Accord, but with some new and important features. Among these was the possibility for institutions to use their own risk models to calculate their capital requirement (so-called Internal Ratings Based). For those without their own model it was still a standard system for risk-weights assigned to different assets, much like the old system, but for mortgages with an LTV below 80% the risk-weight was reduced from 50% to 35%. Furthermore, house mortgages with a greater LTV and other commercial loans (up to some maximum limit) were given a risk-weight of 75%. The second pillar covered the rules regarding the supervisory review process. Lastly, the third pillar contains regulations to ensure market discipline through disclosure requirements. A detailed description of the Accord is beyond the scope of this document, but for our purpose it's important to at least note that one

[27] The core capital is mainly the share capital, reserve funds, retained earnings and primary capital. That this ratio was low meant that a large part of the banks' capital consisted of subordinated debt, a less stable way of funding.

important effect of the new rules was a reduced capital requirement for most financial institutions (Financial Supervisory Authority of Norway, 2007), mostly due to the changes within the first pillar.

When the credit crunch began around the summer of 2007 the Norwegian financial markets were not affected that much. Norwegian banks had a relatively small exposure to sub-prime mortgages in the US. When the world economy was thrown into the financial crisis in the fall of 2008, the situation naturally got worse in Norway as well, but no domestic banks got into any grave problems. As many banks relied on lending abroad, both Norges Bank and the government had to step up with extra-ordinary measures to secure liquidity, and this helped calm the situation. The fall of 2008 deserves, just as the banking crisis, a much more extensive treatment than the one given here, but that would be outside the focus of this report.

5. Final comments

As already noted, this report serves as a background paper for Krogh (2010), which estimates a preliminary credit conditions index for Norway using the framework and methodology of Fernandez-Corugedo and Muellbauer (2006). In that setting qualitative information regarding the institutional development is essential since any sensible estimate of such an index should match the historical facts. This document provides some evidence for what one should expect of the index.

There exist some other studies which look at the process of financial deregulation. Kaminsky and Schmukler (2003) contains a wide survey of how financial liberalisation has taken place in 28 different countries, including Norway. The authors distinguish between the liberalisation of the capital account, the domestic financial system and stock markets. Periods are labelled as either repressed, partially liberalised or fully liberalised regimes. In their composite index (taking all three measures into account) the Norwegian financial market was partially liberalised from September 1985, and fully liberalised from January 1988. This fits well with the information presented here.

If a credit conditions index proves useful for empirical purposes, a qualitative description as that found here will be of interest in the future as well. The description should therefore be both extended and updated when time comes. There is no reason to believe that regulation of financial markets will remain statically at present standards. The financial crisis has highlighted that there might exist regulatory flaws and a lot of work is in progress to improve the current framework. Some preliminary proposals are have already been published by BIS (Basel Committee on banking Supervision, 2009, 2010).

References

Basel Committee on Banking Supervision (2004): “International Convergence of Capital Measurement and Capital Standards: A Revised Framework,” Available at: http://www.bis.org/publ/bcbs107.pdf.

---------- (2009): “Consultive document: Strengthening the resilence of the banking sector,” Available at http://www.bis.org/publ/bcbs164.pdf.

---------- (2010): “Consultive document: Sound practices for backtesting counterparty credit risk model,” Available at: http://www.bis.org/publ/bcbs171.pdf.

Berg, S. A. and Ø. Eitrheim (2009): “Bank Regulation and Bank Crisis,” Working Paper 2009/18, Norges Bank.

Eide, L. (1973): “The Norwegian Monetary and Credit System,” Norges Bank Occasional Papers, 1.

Fernandez-Corugedo, E. and J. Muellbauer (2006): “Consumer credit conditions in the United Kingdom,” Working Paper 314, Bank of England.

Financial Supervisory Authority of Norway (1986-2008): “Årsmelding (Annual Report),” Available in English for the period 1993-2008. All editions available at: http://www.finanstilsynet.no.

Grønvik, G. (1994): “Bankregulering og bankatferd 1975-1991 (Bank regulation and bank behaviour 1975-1991),” Norges Bank Occasional Papers, 22.

Kaminsky, G. L. and S. L. Schmukler (2003): “Short-Run Pain, Long-Run Gain: The Effects of Financial Liberalization,” Working Paper 9787, National Bureau of Economic Research.

Krogh, T. S. H. (2010): “A credit conditions index for Norway,” Master’s thesis, University of Oslo.

Ministry of Finance (1969a-2007a): “St. prp. nr. 1, Nasjonalbudsjettet (The National Budget),” Ministry of Finance.

---------- (1970b-2008b): “St. prp. nr. 2, Revidert Nasjonalbudsjett (The Revised National Budget),” Ministry of Finance.

Moe, T. G., J. A. Solheim, and B. Vale (eds.) (2004): “The Norwegian Banking Crisis,” Norges Bank Occasional Papers, 33.

Norges Bank (1970a-2008a): “Årsmelding (Annual Report),” Norges Bank, Available in English.

---------- (1983b-1989b): “Vedlagte tabeller (Tables in the Appendix),” Penger og Kreditt (Norges Bank), 4/19xx.

Norwegian Official Reports (1980): “Rentepolitikk (Interest rate policy),” NOU 1980:4, Ministry of Finance.

---------- (1983): “Om mål og virkemidler i penge- og kredittpolitikken (Targets and instruments for the credit and monetary policy),” NOU 1983:29, Ministry of Finance.

---------- (1989): “Penger og kreditt i en omstillingstid (Money and credit in changing times),” NOU 1989:1, Ministry of Finance.

---------- (1992): "Report by the Commision on the Banking Crisis," NOU 1992:30E, Ministry of Finance.

---------- (1995): "Statsbankene under endrede rammevilkår (The new role of state banks)," NOU 1995:11, Ministry of Finance.

Nyborg, K. (1986): "Det grå kredittmarkedet (The 'Grey' Credit Market)," Working paper, Ministry of Finance.

Reinhart, C. M. and K. S. Rogoff (2008): "Is the 2007 U.S. Subprime Crisis So Different? An International Historical Comparison," American Economic Review, 98, 339–344.

Appendix A: Tables

Table A.1. Capital requirements

The requirements for commercial banks, savings banks, finance companies and loan associations.

Up until 1988	Commercial banks: A bank's capital had to be at least 6.5% of its total liabilities minus the capital itself and also minus some near risk-free assets. Finance companies and loan associations: A company's capital had to be at least 10% of the sum of its loans and guarantees issued. Savings banks: No capital requirements. Capital was defined as share capital, supplementary capital and allowances for possible loan losses. As pointed out in Berg and Eitrheim (2009), commercial banks did not fulfil their capital requirement until after 1972, and this happened just because the requirement was made slacker this year (prior to 1972 the requirement was 8% and one did not subtract anything from total liabilities when calculating the requirement). Later the capital requirement was relaxed on several occasions and in 1984 and 1987 changes were made to permit a larger share of a bank's capital to consist of subordinated debt. From 1984 the authorities accepted subordinated debt as a part of the bank capital up to 50% of bank equity. From 1987 the limit was set to 100%, conditional on half of this being perpetual bonds (Berg and Eitrheim, 2009).
June 1988	Savings banks were given the same requirement as what commercial banks were facing. The requirement would be gradually imposed until the end of June 1992.
April 1991	New set of regulations (based on Basel I) implemented. The main points were the following: Any financial institution's own capital was defined as the sum of its core capital, supplementary capital and allowances for possible loan losses. The core capital consisted of share capital, reserve funds, retained earnings and primary capital. The supplementary capital consisted of its subordinated debt, allowances for write-ups and tax-conditional provisions. The supplementary capital can not be greater than the core capital. Furthermore, subordinated debt with a fixed maturity can not exceed 50% of the core capital. These limitations were supposed to secure a minimum level of quality of the own capital. The capital requirement was based on a risk-weighted basis of calculation. Assets were given a weight of either 0%, 20%, 50% or 100%. For instance, claims on governments from within the OECD-area had a weight of 0%. House mortgages with a loan-to-(conservative)-value ratio of less than 80% had a weight of 50%. Most other loans, like a regular loan to a business got a 100% weight. Some posts that were not on the bank's balance sheet were also included in the basis of measurement. The capital requirement was that any financial institution's own capital had to be at least 8% of the basis of calculation. The new rules also contained requirements for consolidation of the accounts when one financial firm owns (parts of) another.
June 1992	The definition of a financial institution's own capital was updated. It was now defined as a firm's core capital, supplementary capital and general reserve allowances. The latter term was a little bit broader than the term used previously (allowances for possible loan losses). Furthermore, supplementary capital was limited to be no greater than the sum of the core capital and the general reserve allowances. Subordinated debt with fixed maturity could not exceed 50% of the sum of the core capital and the general reserve allowances.
March 1996	The categories for the different risk weights were updated. Just minor changes.
December 1996	The Capital Adequacy Directive (CAD) was implemented. This was an extra capital requirement which was meant to limit the market risk of financial institutions. The components of an institution's market portfolio were given risk weights, and the weighted sum formed the basis of calculation. An institution's own capital would have to be at least 8% of the basis of calculation. This requirement came in addition to the already existing capital requirement (i.e., the same capital could not be used to cover both requirements).
July 1998	House mortgages with a loan-to-value between 60 and 80% got an increased risk weight (from 50 to 100%).
August 1998	To make the banks increase the core capital's share of their own capital, they would now only be permitted to take up new subordinated debt with fixed maturity if their core capital was at least 7% of the basis of calculation for the capital requirement (they would potentially accept ratios down to 6.5% as well, but only if the institution in question met with very strict criteria).
June 2000	A new Capital Adequacy Directive (CAD-II) was implemented. The new regulations included details for how to handle positions in commodity-related contracts. It also opened up the opportunity for institutions to use their own Value-at-Risk (VaR) models to calculate their reserve requirement, under the condition that their model was approved by Finanstilsynet.
March 2001	The change from August 1998 was formalised to the following: Banks would, as a main rule, not be allowed to take up subordinated debt with fixed maturity unless their core capital equals at least 7% of the basis of calculation for the capital requirement. A core capital coverage down to 6% could be sufficient, but that was up to the Finanstilsynet to decide on a case-by-case basis.
April 2001	House mortgages with a loan-to-value ratio between 60 and 80% were given back their 50% risk weight (confer the change in July 1998).
January 2007	The Basel II Accord was implemented. For the full-blown description of BIS, see Basel Committee of Banking Supervision (2004). The Accord can be divided into three subcategories, or pillars. The first pillar is concerned with the minimum capital requirements. This was the equivalent to the old Basel Accord, but with some new and important features. Among these was the possibility for institutions to use their own risk models to calculate their capital requirement (so-called Internal Ratings Based). For those without their own model, there was still a standard system for risk-weights assigned to different assets, much like the old system, but for mortgages with an LTV below 80% the risk-weight was reduced from 50% to 35%. Furthermore, house mortgages with a greater LTV and other commercial loans (up to some maximum limit) were given a risk-weight of 75%. The second pillar covered the rules regarding the supervisory review process. Lastly, the third pillar contains regulations to ensure market discipline through disclosure requirements. It is not realistic to give a good description of the Accord in this document, but for our purpose it's important to at least note that one important effect of the new rules was a reduced capital requirement for most financial institutions (Financial Supervisory Authority of Norway, 2007), mostly due to the changes within the first pillar.

Table A.2. Liquidity requirements after May 1989*

Requirement for commercial and savings banks.

May 1989	A bank's liquid assets (notes and coins, deposits at Norges Bank, deposits in the Postal Giro and the Post Office Savings Bank (two state banks), Norwegian treasury notes and bonds, plus government guaranteed bonds (not including those bonds used to cover the capital requirements)) had to be at least 8 of its total liabilities.
November 1991	Liquidity requirement reduced to 6 of total liabilities.
September 1995	The definition of liquid assets was expanded to also include the smallest of either 1) A bank's access to D-loans, minus the loans taken up, or 2) The assets deposited at Norges Bank as collateral for D-loans, minus the loans taken up.
January 1999	The definition of liquid assets was changed: instead of including the smaller of the two alternatives specified in September 1995, one now included the collateral provided to Norges Bank for D-loans minus the D-loans the bank had.
July 2006	The quantitative liquidity requirement was removed. Instead all financial institutions were required to "always have enough liquid assets to cover their liabilities when due". If Finanstilsynet finds that the liquidity risk in a company is too large it can impose special requirements.

*There were liquidity requirements before May 1989 as well, but these were not of particular importance as we also had the various reserve requirements in place.

Table A.3. Primary reserve requirements for banks in the south

% of total assets that had to be held as primary reserves (deposits in Norges Bank, deposits in the Postal Giro and the Post Office Savings Bank (two state banks), Treasury Notes, and notes and coins).

"." implies no change. The number in parenthesis is the requirement for banks with less than 1 billion kroner in total assets.

Date	*Commercial*	*Savings*	Date	*Commercial*	*Savings*	*Savings*
Pre 1970	0	0	09.12.1977	7	.	.
01.02.1970	4	.	01.01.1978	4	5	5
21.04.1970	0	.	01.06.1978	3	3	3
01.07.1971	.	3	01.08.1978	0	0	0
01.08.1971	4	3.5	01.06.1979	.	3	3
01.09.1971	.	4	05.07.1979	3	.	.
01.10.1971	5	.	15.08.1979	.	9	9
01.12.1971	6	.	16.10.1979	.	3	3
01.02.1972	.	3	14.01.1980	6	10	10
01.04.1972	.	0	01.06.1980	5	8	8
01.09.1972	.	3	01.09.1980	13	10	10
01.10.1972	7	.	01.04.1981	10	.	.
01.11.1972	8	.	15.05.1981	8	8	8
01.06.1973	.	4	16.11.1981	10	10	10
17.09.1973	.	5	01.05.1982	8	8	8
01.04.1974	.	4	01.07.1982	12	8.5	8.5
01.06.1974	6	0	01.11.1982	8	6	6
14.10.1974	8(.)	.	01.01.1983	7	7	7
17.02.1975	6(4)	.	01.04.1983	4	.	.
01.04.1975	5(3)	.	01.07.1983	.	4	4
01.06.1975	4(0)	.	01.01.1984	5	5	5
20.06.1975	0(.)	.	05.03.1984	7	7	7
01.07.1976	3.5	.	01.09.1984	10	10	10
10.08.1976	.	2.5	01.02.1985	11	11	11
15.09.1976	4.5	.	01.07.1985	15	15	15
15.11.1976	.	3.5	01.02.1986	17	17	17
17.01.1977	5.5	4.5	01.06.1986	10	10	10
16.05.1977	6.5	5.5	15.12.1986	5	5	5
01.07.1977	8	6	01.06.1987	Revoked	Revoked	Revoked
01.11.1977	9	7				

Notes:

"South" means that the institution does not have its main office in the North: see note in Table A.4 for the definition of North.

Note for 1978: In July the basis of calculation was changed in order to improve Norwegian banks' competitiveness: Loans in foreign currency extended after the 1st of July 1978, pursuant to a Norwegian currency licence to either domestic or foreign agents, is taken out of the basis.

Note for 1982: In June the basis of calculation was changed. Loans in kroner to the oil sector extended after the 7th of May 1982 was taken out of the basis.

Note for 1985: In the middle of the year the basis of calculation for the reserve requirement was changed; from now on only drawn loans and credit in the form of bonds or certificates to businesses, individuals or municipalities would matter. This meant that for instance government bonds and state certificates were taken out of the basis. Considered separately, this would work just as a reduced reserve requirement.

Note for 1986: The basis of calculation for the reserve requirement was changed again; now the loans to loan associations were included as well.

Table A.4. Primary reserve requirements for banks in the north

% of total assets that had to be held as primary reserves (deposits in Norges Bank, deposits in the Postal Giro and the Post Office Savings Bank (two state banks), Treasury Notes, and notes and coins).
"." implies no change.

Date	*Commercial*	*Savings*
Pre 1970	0	0
01.02.1970	3	.
21.04.1970	0	.
01.07.1971	.	3
01.08.1971	4	3.5
01.09.1971	.	4
01.10.1971	.	2
01.04.1972	.	0
01.10.1972	5	.
01.11.1972	6	.
01.02.1974	0	.
01.06.1987	Revoked	Revoked

Notes:
"North" means that the institution has its main office in one of the three northernmost counties; Nordland, Troms or Finnmark. This geographic discrimination was a part of the district policy.

Table A.5. Total reserve requirements for banks

% of total assets that had to be held as total (primary (i.e. deposits in Norges Bank, deposits in the Postal Giro and the Post Office Savings Bank (two state banks), Treasury notes and notes and coins) + secondary (government bonds and government guaranteed bonds)) reserves.

Date	*Commercial*	*Savings*
Pre 1970	12 (11)	18 (16)
01.01.1970	13 (12)	.
01.02.1970	14 (13)	.
21.04.1970	13 (12)	.
01.08.1970	14 (13)	.
11.09.1970	15 (14)	.
15.10.1970	16 (15)	.
01.09.1974	Revoked	Revoked

Notes:
For commercial banks, the number in parenthesis is the requirement for banks with less than 1 billion kroner in total assets. For savings banks it is the requirement for banks with between 10 and 50 million kroner in total assets, while savings banks with less than 10 million kroner did not have a requirement.
Note that even though these requirements were revoked in 1974, the primary reserve requirements were kept for 13 more years.

Table A.6. Additional reserve requirements for banks
Direct regulation of banks' growth in lending (contrary to primary requirements which were indirect instruments). Each bank got a limit for future growth and if exceeded it had to put additional reserves on an account in Norges Bank.

November 1970	Only for commercial banks. A bank with more than 500 mill. kroner in total assets could not increase its lending compared to the level 12 months before with more than 9% by the end of December 1970, 8.5% by the end of January 1971 and 8% by the end of March 1971 and onwards. If it had less than 500 mill. kroner in total assets, the limits were 13% by the end of December 1970, 12% by the end of January 1971, 9% by the end of April 1971 and 8% by the end of May 1971 and onwards. If limits were exceeded the bank had to keep 50% of any further growth in lending as an additional reserve. This requirement was in effect until mid-1971.
May 1973	Only for commercial banks. A bank in the South with more than 2,000 mill. kroner in total assets could not increase its lending compared to the level 12 months before with more than 11% by the end of May, 10% by the end of June and 9.5% by the end of July and onwards. A bank in the south with less than 2,000 mill. kroner in total assets had limits equal to 14%, 11% and 9.5%. If the limits were exceeded, 50% of any further growth had to be kept as an additional reserve. Banks in the north got a little bit slacker requirements. This regulation was in effect until the December the same year.
September 1974	Only for commercial banks. Lending could not increase, compared to the level by the end of July 1974, with more than 3%. If the limit was exceeded, 50% of any further growth had to be kept as an additional reserve. Lasted until the end of the year.
May 1978	For both commercial and savings banks. The limits varied for different banks, with positive discrimination for banks in the North and for specific types of loans. Among the loans excepted was house mortgages. Lasted until the end of the year.
May 1981	For both commercial and savings banks. Only repayment loans to municipalities, wage earners and self-employed were regulated and could increase with 9% percent compared to the permitted level 12 months before. Controls started the 30th of September, and afterwards every month. Ended in March 1982
March 1982	Only for savings banks. The first control was in the end of June, and banks in the South (North) were allowed to increase their lending with 12% (16%) compared to the level 12 months before. The limits were gradually decreased until October when the limits were 8% (12%). Lasted until the end of the year.
June 1983	Only for savings banks. The first control was in the end of September, and banks in the South (North) could increase their lending with 14% (16%) compared to lending 12 months before. The limits were linearly reduced until December when the limits were 11% (13%). Lasted until the end of the year.
July 1983	Only for commercial banks. The first control was in the end of September, and banks in the South (North) could increase their lending with 13.5% (17.5%) compared to lending 12 months before. The limit was linearly reduced until December when the limits were 10.5% (14.5%). Lasted until the end of the year.
January 1986	For both commercial and savings banks. The first control was in the end of March. The basis of calculation for the requirement was a function of the different types of loans covered by the basis of calculation for the primary reserve requirements. For every bank the average of these loans in June, July and August 1985 would form the basis. In addition the average of the total growth in the banking sector for these types of loans in the period of June, July and August until end of December 1985 was added to the basis for every bank. Banks could increase their lending with 10% compared to the basis. For growth within the limits, 10% of it had to be put on an account in Norges Bank. For further growth the requirement was 20%. The plan was to let the requirements last until the end of the year
June 1986	An update of the latest requirement: For growth in lending up to 8%, 15% of the growth had to be put on an account in Norges Bank. For further growth the requirement was 25%.
January 1987	It was decided to keep additional reserve requirements imposed one year ago. The only change was the basis of calculation. It was still based on the lending forms covered by the basis of calculation for the primary reserve requirements. For every bank, 122% of the average of these loans in June, July and August 1985 would form the basis. Other than that, the regulation was similar, and the limits were the same as the updated ones that came in June 1986.
June 1987	The regulation from January was revised; building loans with conversion were taken out of the basis of calculation. The basis of the requirements would from now on be 129% of the average of the basis of calculation for primary requirements and outstanding building loans, at the end of June, July and August 1985. From this total, the outstanding building loans from the end of 1986 were subtracted. For a growth in lending up until 8 compared to the basis, 10% of the growth had to be put on an account in Norges Bank. For further growth the requirement was 25%. In July the basis was raised by 10%, and the limit was raised from 8% to 13%. The additional reserve requirements were revoked from the 9th of October 1987.

Table A.7. Placement requirements
% of growth in total assets that had to be invested in bonds (the placement requirement), up until the fraction of total assets held as bonds reached a certain ceiling (the max fraction).
"." implies no change.

	Commercial and savings banks		Life insurance companies and pension funds	
Date	Placement req.	Max fraction	Placement req.	Max fraction
Pre 1970	33	30	0	0
01.01.1970	.	.	40	60
09.05.1975	.	23	.	.
01.07.1976	.	25	.	.
21.01.1977	35	27	50	.
12.04.1978	.	.	60	.
30.11.1979	60	30	.	.
31.12.1980	30	.	.	.
01.01.1982	20	.	40	.
28.02.1983	15	.	.	.
01.01.1984	0	.	30	.
01.01.1985	Revoked	Revoked	0	.
01.07.1985	.	.	Revoked	Revoked

Notes: It was one difference between the requirement for commercial banks and that for savings banks. The latter type had a higher ceiling (40%) in the period up until the 2nd of March, 1973. From then they faced the same requirements.

Note for life insurance companies and pension funds: Pension funds were actually given placement requirements already in 1969, while life insurance companies had an informal deal for a placement requirement with a lower rate. Starting from the 1st of January 1970 the requirements were the same.

As well as with reserve requirement, there were some exceptions for institutions in the North, but these are not shown explicitly in the table. From the 1st of July 1971, banks in the North had their requirement cut to 15%, and from the 1st of January 1972, life insurance companies and pension funds had theirs cut to 20%. From the 1st of January 1982, the rates were 10 and 20%, respectively. In 1983, it was cut to 5% for banks. Beginning in 1984 it was set to zero for banks and 15% for life insurance companies. When the requirements were removed for banks in the South, the requirements were removed for those in the North as well.

Table A.8. Regulation of finance companies

% growth in lending permitted. For each year these were cumulative limits, i.e. the limit for the 4th quarter was the permitted growth for the entire year. The limit for the 2nd quarter was similarly the permitted growth for the first half of the year. If limits were exceeded punishment interests had to be paid to Norges Bank.

"-" implies that the quantity in that specific quarter was not regulated (but the whole year can still have been regulated). The number in parenthesis was the limit for factoring companies when it differed from the general limit. Leasing was usually not regulated. See note below.

Year	Q1	Q2	Q3	Q4	Compared to
1970	-	8	8	8	The level 31/3-70
1971	-	-	-	11 (20)	B
1972	12 (25)	12 (25)	12 (25)	12 (25)	The level permitted in 1971
1973	9 (20)	9 (20)	9 (20)	9 (20)	A
1974	9 (20)	9 (20)	9 (20)	9 (20)	A
1975	10 (22)	10 (22)	10 (22)	-	A
1976	13 (22)	13 (22)	-	-	C
1977	-/2 (3)	-/4 (6)	-/6 (9)	9 (13)	C/D
1978	-	-	-	2.5	C
1979	-	-	-	2.5	Permitted lending 12 months before
1980	-	-	-	4.5	C
1981	-	6 (15)	6 (15)	5 (14)	C
1982	-	8/4 (-)	8/8 (-)	8/8 (-)	C/D
1983	-	8/4 (-)	-	8/8 (-)	C/D
1983	Factoring:	-	12	12	Either factoring lending at the end of 1982 or factoring lending 12 months before.
1983	Leasing:	-	45	45	Either leasing lending at the end of 1982 or leasing lending 12 months before.
1984	8/4 (10)	8/4 (10)	8/8 (-)	8/8 (-)	C/D
1984	Leasing:	10	-	-	Leasing lending at the end of 1983.
1985	8/4 (-)	8/4 (-)	10/10 (-)	10/10 (-)	C/D
1986	10/5 (-)	10/5 (-)	10/10 (-)	10/10 (-)	C/D
1987	10/5 (-)	10/5 (-)	10/10 (-)		C/D
1987				10(-)	The largest of the lending at the end of the 4 different quarters in 1986.
1988	10(-)	10(-)	Revoked	-	The largest of the lending at the end of the 2 different quarters the first half of 1987.

Notes:

A, B and C refers to various ways used to calculate permitted growth:

A: The stock of loans 12 months earlier.

B: The stock of loans at the end of the previous year.

C: The smallest of actual and permitted stock of loans 12 months earlier.

D: The smallest of actual and permitted stock of loans at the end of the previous year.

The two types of loans "leasing" and "factoring" were given special treatment: Leasing was in general not regulated; the table is explicit about it when leasing is regulated. Factoring often got slacker limits; the number in parenthesis gives the limit for factoring companies when this is not the same as for other forms of lending. Starting in mid 1984, both types were regulated through the use of primary reserve requirements instead. See Table A.10 for this development.

For the last two quarters of 1985, the companies could alternatively increase their lending with 10 mill. kroner compared to lending 12 months before or lending at the end of last year, if this was more than what the percentage limit permitted them. A similar option was given the next years. In 1986 the limit was a growth of 5 (2.5) mill. compared to lending 12 months before (or the end of last year) in the first two quarters, and 5 (5) mill. the last two quarters. In 1987 the sums were 7 (3.5) mill. in the first two quarters and 7 (7) in the last two. In the two first quarters of 1988 the limit was 15 mill. kroner compared to the largest of the lending at the end of the 2 first quarters in 1987.

Note for 1977 and 1982-87: The companies could choose to keep within x/z% growth compared to C/D.

Note for 1978: Starting the 1st of January 1978, private financing companies had to obtain a licence to be permitted to continue their business.

Note for 1979: The reason for using permitted instead of actual lending when calculating the growth was because the financing companies agreed to lend out much less than their limits in 1978 to limit borrowing for consumption purposes.

Note for 1983: The two extra lines for factoring and leasing were special regulations that were announced at the same time as the additional reserve requirements for banks (see Table A.6) and overrules the previous regulations.

Note for 1987: Starting in the 3rd quarter, controls are now monthly, not just quarterly.

Note that very small companies were exempted from all these limits.

Table A.9. Regulation of non-life insurance companies

% growth in lending permitted. These are cumulative limits, i.e. the limit for the 4th quarter in any given year is the permitted growth for the entire year. The limit for the 2nd quarter is similarly the permitted growth for the first half of the year. If limits are exceeded, punishment interests have to be paid to Norges Bank.
"-" implies that the quantity in that specific quarter is not regulated (but the whole year can still be regulated).

Year	Q1	Q2	Q3	Q4	Compared to
1974	-	6	6	6	A
1974	-	-	14	9	(An update)
1975	4	6	6	8	B
1975	-	8	10	10	(An update)
1976	6	9	12	12	D
1976	-	-	-	40	The growth in total assets during 1975 (An alternative to the last regulation)
1977	-	6	-	11	D
1978	-	5	-	5	D
1979	-	3	-	4.5-6.75	D
1980	-	3	-	6 -12	D
1981	-	-	-	6 -18	D
1982	-	-	-	6 -24	D
1983	-	-	-	2.5-12.5	D
1984	-	2.2-11	-	4 -20	D
1985	-	2.5-12.5	-	5 -25	D
1986	-	2.5-12.5	-	5 -25	D
1987	-	2.5-12.5	-	5 -25	D
1988	-	2 -10	Revoked	-	D

Notes:
A, B and D refers to various ways used to calculate permitted growth:
A: The stock of loans 12 months earlier
B: The stock of loans at the end of the previous year
D: The smallest of actual and permitted stock of loans at the end of the previous year.
Note for 1976: The second row for 1976 was an alternative regulation that came in June 1976; the companies could choose which of the two to follow.
Note for 1979: The rules were revised in 1979 and the limits from 1979Q4 and on are given as bands. The novelty is that, in addition to a `static' rule of a given percentage growth in lending every year, a `dynamic' term is added. Every company would now be allowed to increase lending by a given percentage of the average growth in premium income the last 4 years, in addition to the growth permitted by the static rule. This dynamic term was limited to be no greater than a given constant times the static rule. Hence companies ended up with a band of possible permitted levels.

Table A.10. Primary reserve requirements for finance companies (only leasing and factoring) and life insurance companies (in the south)

% of total assets that had to be held as primary reserves
"." implies no change

Date	*Finance*	*Life insurance*
Pre 1970	*	*
01.09.1984	7	*
01.02.1985	11	*
01.02.1986	14	*
01.03.1986	.	2.5
15.06.1986	.	5
01.06.1987	9	Revoked
15.10.1987	Revoked	.

Notes:
Private financing companies could not be given a reserve requirement before 1984, but a change in the Credit Law this year opened up the possibility. This was also the case up until 1986 for life insurance companies.

Table A.11. Exchange control, exchange regulation, and exchange rate policy*

Early 1970s	Banks' lending and deposits in or from foreign banks was regulated; bounds for the supply of credit from abroad were specified in the credit budget.
May 1972	Norway joined the 'snake' exchange rate cooperation (which included the EEC-countries and Sweden).
February 1978	The krone was devalued 8 percent (within the snake cooperation).
November 1978	New rules for the foreign exchange banks' net holdings were introduced as a temporary trial system. The total position (which equals net spot debt and net forward claims) at the end of every day had to be approximately zero (there was some tolerance for small deviations). All other lending in foreign currency was still required through a licence-requirement.
December 1978	The snake cooperation was to be replaced by a new European currency cooperation. Norway backs out instead, and forms its own fixed-rate system where the base is a basket of most important exchange rates.
January 1980	The limit for the value of a currency-foreigner's portfolio in Norway was increased from 50,000 kroner to 1 mill. kroner.
April 1980	It was decided to keep the trial regulation of foreign exchange banks with some formal limits as what one considered as sufficiently close to a zero position. These limits were subject to several changes later on (but these changes were of little importance).
June 1982	The authorities allowed the banks to lend out, in kroner, up to 3 billion kroner per year to the oil industry (which up until now had been financed through lending abroad). To improve the competitiveness of the banks, these loans were taken out of the basis of calculation for the primary and additional reserve requirements. In 1983 the limit was raised to 4.5 billion kroner. In 1985 the limit was raised to 5 billion kroner, and now the loans could be both to the oil industry and loans to abroad (with no need for a licence). Statoil's lending was kept outside the limits. In 1987, the arrangement ended. The main purpose in 1982 was to limit the supply of liquidity caused by large surpluses on the current account, but from now on this did not seem necessary, so from 1987 there were given few licences for loans to foreigners denominated in kroner.
June 1982	Foreigners were now permitted to invest as much they wanted in stocks of listed companies. For listed bonds, there was still a limit of 1 mill. kroner. Note that it was portfolio-investments that were liberalised. To invest directly, one still needed a licence.
August 1982	The weight of the US dollar in the currency basket was reduced from 25 to 11% (and European currencies were given a larger weight). This was in effect a small devaluation of the krone since the dollars had appreciated considerably lately.
September 1982	The krone was devalued by 3% (relative to the currency basket).
September 1983	Foreign exchange banks were permitted to trade with some forms of currency options.
June 1984	The limit for how much currency one could purchase before going on vacation was revoked (previously the limit was 10,000 kroner per trip). The limit for how much one could spend on holiday cottages abroad was also revoked (previously the limit was 400,000 kroner). The ban against financing this through lending abroad was also removed, but one still needed a licence to take up the loan.
June 1984	Domestic residents were permitted to make unlimited investments in stocks of listed companies abroad (as portfolio-investments, not direct investments). For non-listed companies, the licensing-process was liberalised, but not completely. It was still not permitted to invest in foreign bonds denominated in foreign currency, but second-hand eurokrone bonds could be purchased. Earlier, the only way to trade foreign securities was over the 'switch market', but now this market was shut down (it was not useful any longer). Furthermore, the licence-process for direct investments was removed and was only replaced by a system of mandatory reporting of the investments.
November 1984	Foreigners access to invest in bonds for a value up to 1 mill. kroner was withdrawn. From now on insurance companies were the only foreign agents that could invest in the bond market, and these were only given permission if it was in order to fulfil their reserve requirements.
January 1985	Norges Bank started to deposit some of its foreign exchange reserves in domestic foreign exchange banks. The main cause was probably to ease the banks' access to foreign exchange. The deposits could not account for more than 1.5% of the banks' total assets. In January 1986 the limit was raised to 2%. This arrangement ended in May 1986, as one saw that the central bank's reserves were getting too small.
February 1985	Domestic residents and companies were permitted to invest in foreign bonds denominated in foreign currency, but not more than 1 million and 5 million kroner, respectively.
September 1985	Domestic agents were no longer required to acquire a licence before a domestic bank could extend a loan to them denominated in foreign currency.
February 1986	The foreign exchange banks were permitted to issue commercial papers abroad. Furthermore, since guarantees given by financial institutions for loans in the unregulated credit market already were under direct regulation (see Table A.12, the licensing-process for guarantees by foreign financial institutions was made very restrictive to accommodate the domestic credit policy. This was continued in 1987 and 1988.
11th of May 1986	The krone was devalued with 12 percent (the target of the index is changed from 100 to 112). The weights were unchanged. This was to be the last devaluation of the krone (before it started to float in 1992)
November 1988	Companies listed on the stock market were given permission to take up long-term loans denominated in foreign currency without a licence from Norges Bank, provided that the loan was larger than 1 mill. kroner and that the company's share capital was at least 500,000 kroner. In February 1989, the regulation for smaller firms was relaxed as well. Any company planning large investments in production capacity would now obtain a licence more easily than before, provided that the loan was larger than 1 mill. kroner.
May 1989	Foreigners were given full access to purchase listed bonds in Norway.
July 1989	Domestic residents were given full access to purchase shares in foreign listed and non-listed securities funds.
December 1989	Foreigners were given full access to issue bonds in Norway. Still, purchasing these would be regarded as purchasing a foreign asset and to do so, one still needed a licence.

June 1990	A new set of foreign exchange regulations was presented. Earlier any transactions was forbidden, unless otherwise stated. Now the premise was the opposite: all transactions were permitted, unless otherwise stated. The most important of the few regulations left was that only authorised foreign exchange banks could service payment transfers between domestic and foreign agents, and this was also the only type of institution that could buy and sell foreign currency. In addition to the foreign exchange banks, other financial companies (i.e. banks or financing companies) could engage in commercial trading of foreign exchange, but the latter category would have limits for their net position of spot and forward claims. Foreigners were given full access to issue and buy certificates alongside the previous permission to issue and buy bonds.
22nd of October 1990	The fixed exchange rate arrangement was changed. The krone would now be fixed towards the European Currency Unit (Ecu). The value is set to 7.9940 kroner for one ecu, which was neutral compared to the old system (no devaluation or revaluation). The margin for acceptable deviations was +/- 2.25 percent.
10th of December 1992	The fixed exchange rate arrangement was given up. At first the margins were suspended and the krone was temporarily permitted to float. From the 8th of January 1993 it was a permanent decision. The monetary policy would still be conducted with the goal of a stable exchange rate around the level at which the peg was left, but in a flexible manner.
January 1994	As Norway joined the European Economic Area (EEA), financial institutions within the EEA would be permitted to trade foreign exchange in Norway if they had their authorisation from another EEA country.

*Main events and changes are listed: the table is far from complete with respect to all the regulatory changes through the period, but it's worth to include some events to grasp the main impression of the development.

Table A.12. Other events of relevance

7th of September 1972	A temporary price freeze was initiated. Lasted until the end of December.
1st of March 1977	Norges Bank introduced its new short-term market papers (3 months). These were intended to be an instrument that could be used to neutralise short-term fluctuations in the liquidity situation of banks. The papers were sold for the first time in August 1978.
December 1977	The interest rate norms were withdrawn, except for some types of mortgages. The interest rate setting in the bond market was also made more flexible.
Beginning of 1978	The government initiated an agreement with the banks which involved limiting the amount that households were allowed to borrow for consumption purposes. In total it would be a reduction in the order of 2,000 mill. kroner in 1978.
February 1978	Temporary price freeze. Replaced by a more comprehensive freeze from September (see below).
12th of September 1978	Temporary wage and price freeze. Lasted until the end of 1979.
1st of January 1979	The rules for the banks' automatic access to loans in Norges Bank were changed. In the old system, automatic loans (A-loans) were given in a fairly liberal manner, but with progressive interest rates based on the maturity and the size of the loan. The new system kept the A-loans, but reduced the total scale of them, and added a new type of loans that had more strings attached (B-loans). The intention of the new system was that A-loans would provide the necessary liquidity for seasonal variations, while if banks had to take up B-loans, they would be put under strict regulations that in principle would be close to additional reserve requirements (but a bit more flexible).
1979	The understanding between the government and the banks was re-understood and the banks agreed to reduce lending for consumption purposes by 500 mill. kroner in 1979 (making the total reduction over the last two years 2,500 mill. kroner).
1st of November 1979	Norges Bank temporarily suspended the access to A-loans. The suspension ended in March 1980.
1980	The banks agreed to offer 6,000 mortgages each year with better conditions than ordinary non-housing mortgages (PSV-loans). As a compensation, the government increased the lending bounds by an equivalent amount. This arrangement was kept for several years.
Fall of 1980	The Ministry of Finance started to issue interest rate declarations where it was specified what the Minister considered to be an acceptable interest rate level. This was close to the old interest rate norms, but offered the banks a bit more flexibility since only the average interest rate level within a few categories mattered; within the categories rates could vary more. The first declaration was issued the 1st of September 1980. The interest rate on PSV-loans and convertible mortgages would still follow interest rate norms. This formalised the control that had remained over interest rates after the wage and prize freeze ended.
1st of October 1980	The regulation of who that could issue bonds was liberalised: businesses and loan associations were given unlimited access to issue bonds. The interest rate was also allowed to float freely. This lead to a surge in credit supplied over the bond market.
2nd of October 1981	Loan associations, except for associations financing ships and an association providing credit for exporting firms ('Eksportkreditt'), were not permitted to issue more bonds the rest of the year (hence, partly a re-regulation of the bond market).
14th of October 1981	The Conservative Party (Høyre) won the election and took over the government office from the Social Democrats (Arbeiderpartiet). The new government wanted to deregulate the Norwegian economy further, including the financial markets. It stayed in position for about 5 year (the government included two other parties from the summer of 1983).
12th of March 1982	New regulations for the bond market were released. A loan association were in 1982 permitted to issue bonds with a value equal to 1/7 (1/9) of what it issued in 1981 if the bonds were issued publicly (privately). Bonds with the purpose of financing houses, municipalities or power plants were regulated more strictly and an association needed a permission from the Ministry of Finance in order to issue such. A permission was also necessary if bonds were not sold an institution that needed them to fulfil its placement requirement.
1st of January 1983	Direct regulation of the guarantees that financial institutions issued for loans in the grey market was introduced. At the end of the 2nd, 3rd and 4th quarter of 1983, the guarantees could not be more than 64%, 67%, and 70% higher than the level at the end of the 3rd quarter 1981. At the same time the guarantees had to be at least 20%, 30%, and 40% lower than the level at the end of the 3rd quarter of 1982.
10th of February 1983	New regulations for the bond market were released. A loan association could in 1983 issue bonds with a value equal to 40%, 30% and 30% of the amount issued in 1982 in the first, second and third 4-months period, respectively. It is interesting to note that the associations did not need a permission to sell bonds to the regular non-financial public any longer (provided that the sales were reported to Norges Bank every month). This regulation was kept until the end of 1984.
July 1983	The system with B-loans was suspended and only A-loans were kept.
1st of July 1984	Direct regulation of the guarantees given by the financial institutions in the unregulated credit market ends. Up until now, the guarantees in 1984 had been permitted to grow with 3% compared to the level at the end of 1983.
1st of January 1985	New regulations for the bond market. A market for bonds with less than 12 months maturity was introduced (market for certificates). The first government certificates were sold the 28th of January. The extra regulation of some forms of lending was kept; if the bond was to finance purchase of houses, buildings or projects that were finished before 1980, the oil sector, the shipping sector, the primary industries, municipalities or power plants (which were owned by municipalities), it had to be approved by the Ministry of Finance. The sum of all approved bonds was to be kept within pre-set bounds.
25th of September 1985	The government stopped the issuing of interest rate declarations (i.e., the interest rates were permitted to float freely), but the interest rate on PSV-loans continued to follow a norm.

1986	The system for banks' automatic lending in Norges Bank was changed several times during 1986. The 1st of March the old system with progressive interest rates depending on the size of the loan (step-wise increases with 4 steps) was replaced by a system with only one interest rate. Every bank could get short-term loans for 2 months at value up to 300% of the basis of calculation for their reserve requirement. In Mid-April it was decided to increase the limit to 500%, starting from the period March-April because of a tight liquidity situation. The 5th of May the setup was changed again because of massive turbulence in the foreign exchange markets (and pressure on the krone). The limit was cut to 100%, but at the same time an extra-ordinary access to loans was introduced: When their limit was reached, the banks could get access to unlimited loans from Norges Bank (where the interest rate charged can be changed every day). The system went basically back to the pre-May setup from the 1st of July, but this time with a limit at 600%, but the interest rate charged could still be changed every day. In October another change came, and now the lending period was cut from 2 to 1 month. The limit was also reduced to 400%. 1987 also began with a new minor change; now the basis of calculation 2 months ago would matter for the banks' access to loans from Norges Bank. A special system was established for banks that have been in business for less than 2 months.
January 1986	Direct regulation of guarantees issued by financial institutions in the unregulated credit market was reintroduced. In every quarter, the guarantees issued could not be exceed 95% of the total guarantees outstanding at the end of 1985.
May 1986	Financial institutions were, if given a special permission from the Ministry of Finance, permitted to issue bonds in order to get subordinated debt.
January 1987	The direct regulation of guarantees issued by financial institutions in the unregulated credit market from 1986 was kept (the exact same, i.e. in every quarter, the guarantees given could not exceed 95% of the total guarantees outstanding at the end of 1985).
May 1987	Banks' access to loans from Norges Bank was expanded and updated. Now there would be two types of loans: D-loans (one-day loans) and F-loans (fixed-interest loans for a period of up to 12 months). The intention with the latter kind was to reduce the impact of changes in short-term interest rates on mortgage loans. In the beginning Norges Bank would offer F-loans with a pre-set interest rate, but in October it started a system with auctions instead.
July 1987	Banks and finance companies were given permission to freely issue bonds with a maturity up to 24 months. Loan associations were permitted to issue certificates (but the regulation of certain lending purposes from 1985 was still active). In April 1989, the time-limit was raised to 36 months, and then it was removed in July 1990.
January 1988	The direct regulation of guarantees issued by financial institutions in the unregulated credit market from 1986 was kept (the exact same, i.e. in every quarter, the guarantees given could not exceed 95% of the total guarantees outstanding at the end of 1985). The regulation was then revoked from the 1st of July 1988.
April 1988	Banks' access to loans in Norges Bank was revised: The basis of calculation for access to D-loans was changed to be each bank’s total assets minus its holding of D-loans. In August the F-loan access was revised too; now commercial banks could get F-loans equal to three times their capital, while the limit was four times their capital for savings banks.
May 1988	A new type of loans from Norges Bank to the banks was introduced: G-loans. These were not a part of the liquidity facility of the central bank, but politically motivated. The loans had a favourable interest rate (for the banks) and were intended to compensate the banks for their promise to cut the interest rate on various house mortgages. This was a temporary arrangement and was ended in the spring the year after.
July 1988	The bounds for the loan associations regarding loans for house-purchases, primary industries and power plants were removed.
December 1988	D-loan access was temporarily made more restrictive; for now it depended on the banks' balances at the end of 1987.
March 1989	The remaining limitations (bounds) for the loan associations were removed. This especially concerned lending to municipalities.
December 1990	New basis of calculation for the access to D-loans and F-loans. The basis of calculation would be the bank's own funds minus its subordinated debt. The limits for F-loan access was changed: for F-loans with a maturity shorter than 12 months the limit was 400% of the basis, and the loans could be no greater than 20% of the bank's total assets. For longer maturities the limit was 200% of the basis and 10% of the total assets.
July 1991	New limits for the access to F-loans. It was cut from 400 to 350% for loans with a maturity shorter than 12 months, and from 200 to 175% for longer maturities. At the same time the basis of calculation was updated and a bank's own funds are now measured according to the rules from April 1991 in Table A.1.
November 1991	Norges Bank introduced a temporary arrangement with "G-deposits". These were deposits Norges Bank would offer to private banks and it came with favourable interest rates (for the banks). This was done to reduce the banks' financing costs. The arrangement was phased out in November 1992.
Tax year of 1992	The tax system was reformed (it was passed by the Storting in 1991). Main change was a flatter tax system with a broader tax base. Marginal rate on capital income was educed from 40.5% to 28% (the average effective reduction was at least 5 percentage points smaller). Marginal rates on wage income was reduced as well.
October 1992	Norges Bank introduced a counterpart to F-loans, namely F-deposits. These were deposits made by the banks in Norges Bank to a fixed interest rate. Furthermore the access to F-loans was cut down to 100% of the basis of calculation (and still no greater than 20% of a bank's total assets).
November 1992	Norges Bank temporarily limited the access to D-loans by 50%.
November 1992	Norges Bank temporarily increased the access to F-loans as a reaction to turbulence in the foreign exchange markets. The access was set back to its level from October 1992 after February 1994.

November 1993	Norges Bank overhauled its system for providing liquidity to the banks. The goal was to reduce the banks' net debt position vis a vis Norges Bank. If banks were net depositors instead, the sight deposit rate would start acting as a floor for the money market rate while the D-loan rate will be a roof, and the policy of Norges Bank would have to adjust to this. Starting from the 1st of November 1994, banks would have to provide collateral for their D-loans. As collateral for a loan, Norges Bank would accept F-deposits, government bonds and certificates, and government guaranteed bonds or certificates at 95% of face value. Bonds from municipalities and loan associations were accepted at 85% of face value. Temporarily, a bank's access to D-loans would amount to its F-deposits the same day plus 4 times the other collateral it provided. From the 1st of September 1995, the access was cut to just its F-deposits and other collateral provided (i.e. loans had to be a 100% guaranteed).
December 1993	As Norway joined the European Economic Area (EEA), foreign banks with their main office in the EEA got access to D-loans, provided that they had offices in Norway and provided bank services in the country.
August 1996	Foreign banks (i.e. banks with a main office abroad and not just in the EEA) got access to D-loans, provided that they had offices in Norway and provided bank services in the country. Furthermore, Norges Bank expanded what it accepted as collateral for D-loans to cover bonds and certificates either issued or guaranteed by foreign governments from within the OECD-area. What the central bank accepted as collateral was then updated several times the rest of the period, but the details will not be given in this document.
October 1996	Norges Bank introduced a system with repurchase agreements for government papers as a way to provide liquidity to the money market. This would partly replace the F-loans, but the latter system was kept as well.
June 1997	Norges Bank changed its system for banks' access to loans and deposits. D-loans were split in two: intra day loans and overnight loans (the old D-loans corresponded to the latter). Norges Bank required collateral for both types of loans, but intra day loans were free of interest.
July 1999	Norges Bank started to require collateral for F-loans as well. The same type of collateral was required for F-loans as for the overnight loans.
March 2001	A new monetary policy regime was introduced in Norway: Norges Bank got the responsibility for conducting flexible inflation targeting with a target at 2.5%.
May 2001	Up until now there had been limits for how large a bank's cumulative debt in Norges Bank could be. Now these limits were removed such that a bank could borrow as much as it wanted as long as it provided collateral for the loans.

List of figures

List of tables