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Norway: Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Banking Supervision, Insurance Regulation, and Payment Systems

This Financial System Stability Assessment on **Norway** was prepared by a staff team of the International Monetary Fund and the World Bank as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on **May 12, 2005.** The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of **Norway** or the Executive Board of the IMF.

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NORWAY

Financial System Stability Assessment

Prepared by the Monetary and Financial Systems and European Departments

Approved by Michael Deppler and Stefan Ingves

May 12, 2005

This Financial System Stability Assessment (FSSA) is based on work undertaken during the Financial Sector Assessment Program (FSAP) for Norway, which included visits to Oslo in October 2004 and January-February 2005. The findings were further discussed with the Norwegian authorities during the Article IV consultation mission in March 2005. The team comprised Mark Swinburne (mission chief), Thordur Olafsson (deputy mission chief), Ritu Basu, Nigel Davies, Jan Woltjer, and Virginia La Torre, all IMF/MFD; Etibar Jafarov (IMF/EUR); Peter Pfund (formerly Swiss Federal Office of Private Insurance), Saul J. Carpio (U.S. OCC); and Jacob Hostrup Andersen (Danish FSA). The main findings are as follows:

- Norway's financial system appears sound and well managed. Short-term vulnerabilities appear low overall, given improved macroeconomic conditions and historically low interest rates, coupled with generally prudent and transparent policies. Beyond the short term, however, rising household debt levels are the most important potential risk factor and will need to be watched closely.

- Although global equity price movements have helped them rebuild their balance sheets over the last couple of years, life insurance companies and pension funds remain susceptible to market risks. This sector continues to face longer-term challenges from the combination of low interest rates and a historical reliance on guaranteed-return products.

- Stronger risk management measures to reduce liquidity pressures are needed in the securities settlement system and also the retail payments system. Continued monitoring of contagion risks of other sorts is also needed.

- Overall, supervision of financial institutions in Norway is active, effective, and closely in line with EU norms. Nevertheless, it would be desirable to further strengthen the *de jure* operational autonomy of the supervisory agency in a few respects, and there are a few areas where further specification of requirements or guidelines should be completed. Crisis management arrangements are generally well developed, but more work is needed regionally in relation to cross-border conglomerates, and locally in respect of the largest individual bank. In time, reviews of deposit insurance arrangements, and state ownership in the largest bank, would be desirable.

The main authors of this report are Messrs Swinburne and Olafsson, and Ms. Basu, with contributions from other team members.

FSAPs are designed to assess the stability of the financial system as a whole and not that of individual institutions. They have been developed to help countries identify and remedy weaknesses in their financial sector structure, thereby enhancing their resilience to macroeconomic shocks and cross-border contagion. FSAPs do not cover risks that are specific to individual institutions such as asset quality, operational or legal risks, or fraud.

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GLOSSARY

BCP(s)	Basel Core Principles for Effective Banking Supervision
BIS	Bank for International Settlements
CLS	Continuous Linked Settlement
CPSIPS	CPSS Core Principles for Systemically Important Payments Systems
CPSS	Committee on Payment and Settlement Systems
DB / DC	Defined benefit / defined contribution pension schemes
DNB-NOR	Largest bank in Norway (merger of Den Norske Bank and Gjensidge NOR in 2003)
EEA	European Economic Area
FSAN	Financial Supervisory Authority of Norway (KreditTilsynet)
FX	Foreign exchange
GPF	Government Petroleum Fund
ICP(s)	International Association of Insurance Supervisors (IAIS) Insurance Core Principles
IOSCO	International Organization of Securities Commissions
IRS	Interest rate swap
LTV	Loan-to-value ratio
MOF	Ministry/Minister of Finance
NB	Norges Bank (the central bank)
NBO	Norges Bank's RTGS settlement system
NICS	Norwegian Interbank Clearing System
NOK	Norwegian Krone (approx 6.6 to the US$ at time of writing)
NPLs	Non-performing loans
OTC	Over-the-counter
RTGS	Real time gross settlement (payment system)
SME	Small and medium-size enterprises
VAR	Value-at-risk
VPO	Norway's securities settlement system (SSS)
VPS	Norway's central securities depository (CSD) and operator of VPO

EXECUTIVE SUMMARY

1. **Norway's financial system appears sound, well managed, and competitive, and shorter-term vulnerabilities appear low overall.** Improved macroeconomic conditions and historically low interest rates, coupled with generally prudent and transparent frameworks for monetary, fiscal and financial stability policies contribute to financial stability. In addition, the existence of the Government Petroleum Fund (GPF) provides significant insulation against the effects of sharp movements in oil prices. Financial sector regulation is closely in line with EU norms, as required by Norway's participation in the European Economic Area (EEA).

2. **Beyond the shorter term, rising household debt levels and associated house price inflation are the most important potential risk factors that need to be watched.** This is well recognized by the authorities. Indeed, a notable strength is the authorities' work on potential financial sector risks—Norway was one of the first countries to construct and publish financial stability analyses.

3. The main findings of the FSAP are:

- Norwegian banks generally have sound capital positions, strengthened risk management processes and improving profitability. Stress testing confirmed that, overall, the larger banks should be able to absorb fairly comfortably the credit quality deterioration that would follow from large but plausible shocks to key macro variables. Market risks for banks appear minor.

- Nevertheless, if household debt continues growing rapidly, the system may in the future be more vulnerable to substantial shocks to interest rates, household income/employment, or house prices. Both the debt burden and household assets are unevenly distributed, with vulnerabilities more concentrated among younger, lower income groups. Indirect effects on banks via the impact of reduced household demand on the corporate sector may be more important than the direct channel through household mortgage defaults.

- Life insurance companies and pension funds remain susceptible to market risks, even though global equity price movements have helped them improve their positions over the last couple of years. This sector continues to face longer-term challenges (as it does in other countries) from the combination of low interest rates and the historical reliance on guaranteed-return products. Non-life insurance has clearly improved its overall position over the last couple of years.

- Some features of the financial system that could cause contagion and systemic risk in extreme circumstances need careful monitoring and further risk reduction measures. A priority is the implementation of stronger risk management measures in the securities settlement system. The smaller value payments system would also benefit from stronger arrangements to reduce liquidity pressures. Continued monitoring of potential contagion risks through cross-sectoral and cross-border ownership linkages is needed, although direct inter-institutional exposures through markets appear moderate overall. More could be done to facilitate collateralization of interbank exposures.

- Overall, supervision of financial institutions in Norway is active and effective. It would be desirable to further strengthen the *de jure* operational autonomy of the supervisory agency in a few respects, and there are a few areas where further specification of requirements or guidelines should be completed. Payments system oversight should be further formalized and key details made more public.

- Coordination between the Norwegian financial stability authorities and their Nordic counterparts has been exemplary to date. The current prospect of a major regional bank converting its regional subsidiaries into branches has brought a new need for revised agreements on the precise allocation of responsibilities for crisis management and potential last resort lending, as well as the definition of home and host country responsibilities for day-to-day supervision. This process is already well underway. Further work on crisis management arrangements is also needed in respect of the largest bank in Norway (DNB-NOR), taking account of its roughly 1/3 government ownership.

- The parameters of the deposit guarantee arrangement (which has very generous coverage limits by regional and European standards), and the government ownership stake in DNB-NOR should both be reviewed before long.

Box 1. Main Recommendations of the FSAP

Key short-term stability-related issues

- Continue carefully monitoring the evolution of household debt and the housing market; and examine whether banks have concentrations of exposures to more vulnerable sub-groups of household borrowers.

- Given the reduced risk weighting of mortgages under Basel II, carefully consider whether additional capital requirements for banks should be required under "Pillar 2".

- Continue to carefully monitor the risk of spillovers, in extreme events, resulting from the two-tier payments arrangements, and examine the scope for increasing the use of collateral in interbank market exposures

- In the securities settlement system, ensure that measures are taken to reduce market and liquidity risk in VPO, in the event of a key bank failing to settle. And in the retail payments system, examine the scope for shifting more payments from NICS Retail to the NBO system, and/or for introducing more settlement cycles in NICS Retail during the day.

- Continue working with other Nordic authorities on the evolving framework for cross-border crisis management and coordination of last resort lending; and domestically, ensure appropriately coordinated contingency plans in the unlikely event of a major problem at the largest, partly state-owned, bank.

- Formalize more regular high-level meetings between FSAN, MoF and NB on financial stability issues, and consider establishing a formal tripartite financial stability MoU on respective roles and responsibilities.

Key structural and longer-term issues

- Reexamine key aspects of the deposit guarantee arrangements, including whether and how to achieve greater international comparability in coverage levels.

- Examine whether the clearing of medium and smaller interbank payments in NICS SWIFT-net could be phased out.

- Review the continued desirability of state ownership in DNB-NOR. In the interim, consider further entrenching appropriate commercial autonomy and accountability for the bank through clearly specifying--in law, regulation or at least in a public policy statement--the principles that will be followed with respect to the government's relationship with DNB-NOR.

Refinements to supervisory arrangements and other technical recommendations

- Increase the level of powers delegated to FSAN in respect of licensing and similar authorizations, and for issuing prudential regulations and supervisory decisions; strengthen and make more explicit some aspects of the regulations relating to, e.g., connected lending, treatment of insiders, and enforcement measures; and complete the development of risk management guidelines for various other types of risks.

- Formalize and publish supervisory requirements and standards for payments and securities settlement systems, and formalize monitoring, in NB's Payment System Department, of NBO's compliance with standards.

Further strengthen NB risk management arrangements in relation to the collateral it accepts from banks.

I. Potential Sources of Risk

4. **The Norwegian financial system is relatively small, and relatively concentrated, but competition is active and consolidation is continuing.** The system is generally domestically-oriented, with exposure to foreign risk factors arising more from the very open nature of the Norwegian economy, rather than direct exposures to foreign customers. Foreign (especially Nordic) ownership is also important in the banking system, having increased significantly in recent years and now being relatively high by regional standards. The sector is dominated by conglomerates, though they are relatively small compared to those in other European countries, and their ownership and trading linkages are quite varied. Figure 1 depicts some of the main features of the system, and the Statistical Appendix gives more detail.

A. Macroeconomic Environment

5. **Macro-economic conditions have significantly improved since mid-2003 and are favorable for the near-term financial stability outlook.** Monetary policy was rapidly eased from late-2002, and the previous exchange rate appreciation reversed. Coupled with a generally improving world economy and high oil prices, these developments are stimulating economic growth and helping to underpin bank credit quality.[1] Generally prudent and transparent monetary and fiscal policy frameworks contribute to financial stability, as does the Government Petroleum Fund (GPF), which provides a significant degree of insulation from sharp changes in oil prices.[2]

6. **Credit risk is the main source of risk for Norwegian banks.** Credit to mainland Norway rose above 170 percent of mainland GDP by end 2004, about 8 percentage points higher than the previous peak level reached during the banking crisis in the late 80s-early 90s. The largest exposures are to households (mostly mortgages), property management, shipping, services, trade, and manufacturing sectors. Potential risks, therefore, arise from significant declines in property prices as well as a weakening in income or worsening in the competitiveness of the enterprise sector. While historically low interest rates have reduced short-term credit risks, they may be contributing to a build-up of risks for the medium and long term.

7. **External factors impinge on Norwegian banks' credit risk mainly indirectly, given the rather low direct cross-border credit exposures.** The economy and financial

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[1] See the Article IV Staff Report for more detail on the macroeconomic background.

[2] Norway, the third largest exporter of oil, invests most oil revenues in foreign assets through the GPF. This helps insulate the economy and the financial sector from oil-related boom-bust cycles and sharp exchange rate fluctuations. The GPF does not provide complete insulation, however, and there are a range of channels through which the effects of oil market developments are still felt, including activity in oil-related industries, confidence effects, some fiscal injections, and potential "Dutch disease" effects on non-oil industries.

Figure 1. Key Features Of The Financial System

The level of bank intermediation is lower than elsewhere in Europe,..........

Comparison of sectoral shares (in percent of GDP)

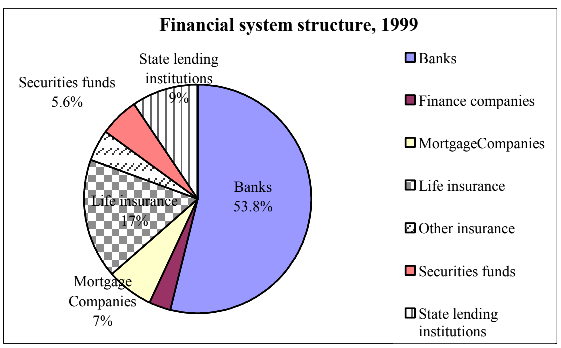
	Euro area		US		Norway	
	1999	2003	1999	2003	1999	2003
Total Bank Assets	181	243	99	67	114	139
Bank deposits 1/	78	69	55	56	59	67
Debt securities issued by the non-financial corporate sector 2/	4	8	26	28	..	8
Stock market capitalization 3/	90	50	193	141	40	56

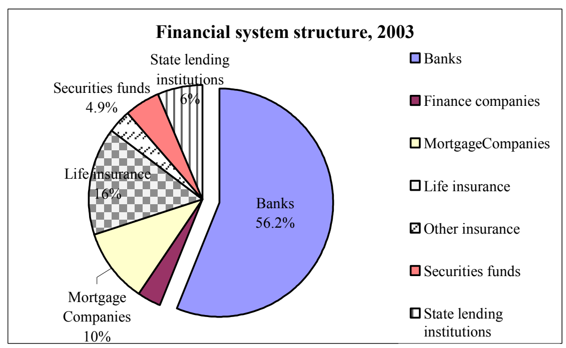
Source: Norges Bank FSR 2004, Statistics Norway, BNB FSR 2002, 2004; ECB FSR 2004,

1/ For 2003 bank deposits from domestic non-financial private sector.
2/ For 2003, euro area, data as of September 2003.. For Norway, data represents bondholdings, issued by state-owned and private enterprises. For private alone this number declines to 2.6 of GDP, Table 15, NB Economic Bulletin 04/04.
3/ Norway includes both listed and unlisted companies. 2003 figures reflect the oil related boom in Norway, relative to Europe.

but banks are nevertheless the largest financial market intermediaries by far in Norway, followed by life insurance.

Share in Percent of Total Financial Sector Asset

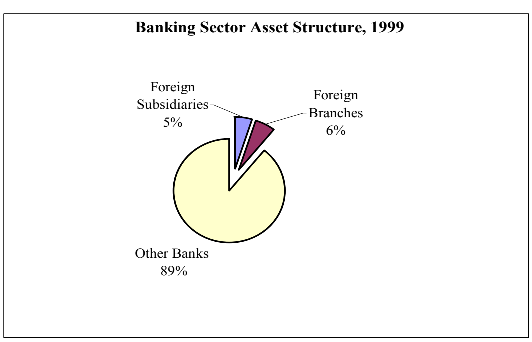


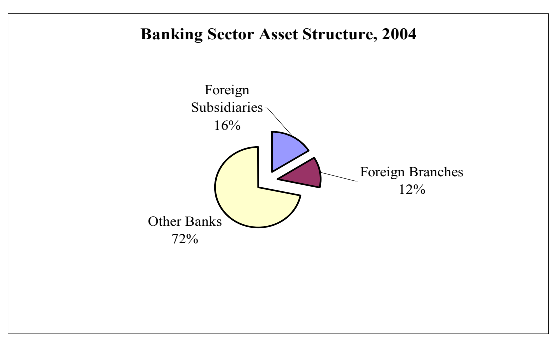


Source: Norges Bank.

The share of foreign banks has grown significantly, and is now quite high by regional standards (see also Figure 3 in the Statistical Appendix).

Share in Total Banking Sector Assets, In Percent

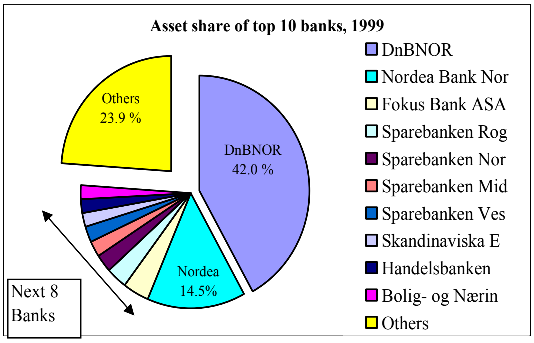


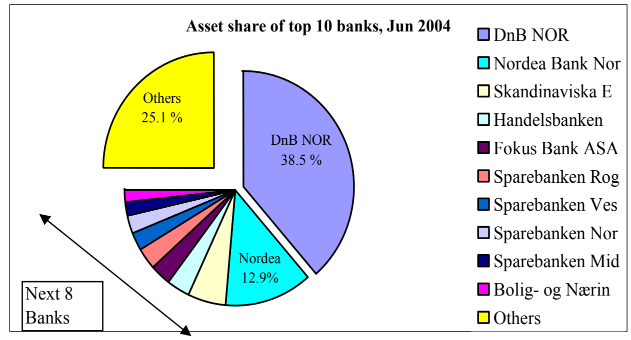


Source: Norges Bank.

Figure1 contd.

The top two banks continue to hold a large market share, but competition is active..........

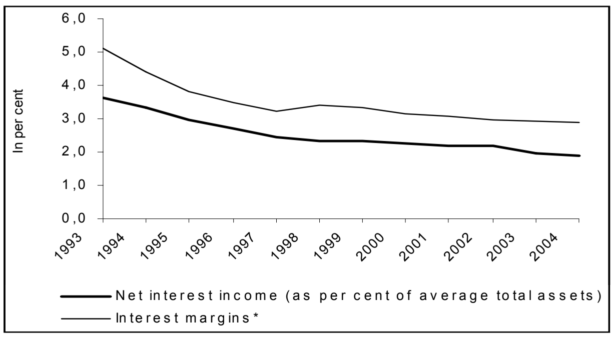




Source: Norges Bank.

.........as indicated partly by pressure on interest margins.

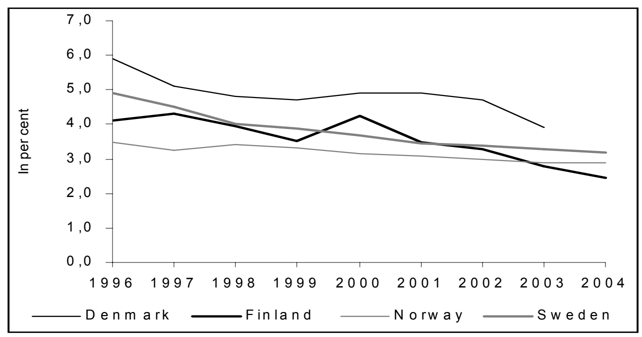
Norwegian banks` net interest income and margins



* As of September 30, 2004

Sources: FSAN and Norges Bank.

Interest margins in the Nordic area



Sources: FSAN and Nordic supervisory authorities.

Financial markets are characterized by a conglomerate structure which allows earnings and risk diversification, but leaves room for cross-sectoral contagion. (Shares in respective markets, in %, December 2004) 1/

	Banks (in percent of total assets)	Finance & Mortg Companies (in % of Total assets)	Life Insurance (in % of total assets)	Non-Life Insurance (in % of gross premiums)	Total group* (in % of total assets
DnB NOR **	38.8	7.6	32.9	29.3	32.6
Nordea Norge	13.6	5.6	5.6	0.0	10.2
Sparebank 1 Group***	11.6	0.7	2.9	7.4	8.1
Storebrand	1.4	0.0	26.1	0.2	5.9
Terra Group***	6.3	0.1	0.0	0.5	3.8
Total financial groups	**71.6**	**14.0**	**67.4**	**36.9**	**60.6**
Other companies	28.4	86.0	32.6	63.1	39.4
Total market	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
of which:: Foreign branches in Norway	9.6	8.4	0.0	29.3	
of which: foreign subsidies	17.1	20.6	5.0	15.7	

Source: FSAN.

*Total conglomerate corresponds to the combined total assets of the various lines of business in the table. The table does not show an exhaustive list of the activities in Norwegian financial conglomerates. For example, unit-linked insurance, securities funds and asset management have been excluded.

**No Non-life insurance arm as such, but a strategic collaboration with an insurer.

*** Market shares include the parent banks.

1/ See also Table 4 in the Statistical Appendix for a related comparison of groups' assets by line of business.

system are open, with energy products dominating total exports. Accordingly, important external risk factors are adverse developments in the global economy, interest rates, and stock prices,[3] as well as substantial changes in oil and some other commodity prices, as these feed through to the local economy.

B. Major Counterparties

8. **Household borrowing has been growing strongly and is one of the most important sources of potential risk for banks.** Households account for about 70 percent of gross lending, well up from the 60 percent level of the early 1990s. About 80 percent of household loans are mortgages, and about 85 percent carry floating interest rates (only Finland has a higher ratio in the region). In addition, the share of new mortgages with high loan-to-value (LTV) ratios has increased since 2002, though it appears to have dropped slightly in 2004 and is lower on average than in several other countries.

- The rising ratio of household debt to disposable income is not an immediate vulnerability given current historically low interest rates. The debt ratio is expected to soon exceed the levels of the early 90's banking crisis, [4] but households' interest burden has declined in recent years, and is significantly lower than crisis period levels. Also, aggregate household wealth and financial assets have been growing strongly and still exceed the debt by a reasonable margin. (Figure 2.)

- If current trends continue, however, households will be increasingly vulnerable to a sharp downturn in incomes / employment, or sharper than expected rises in interest rates from the current historically low levels. A recent analysis by the Financial Supervisory Authority of Norway (FSAN) suggested that an increase in interest rates to the levels of 2001 would increase the share of loans for which the interest burden is more than 20 percent of income, from 11 percent of total loans to about 56 percent. Furthermore, beneath the aggregate level, debt and assets are unevenly distributed, with younger groups with low and middle incomes likely to be most affected.[5] In addition, a sharper correction in house prices cannot be ruled out. Although prices have not increased as much as in some other countries in recent periods, and decelerated somewhat in recent months as housing starts increased, they are still increasing at an annual rate of around 10 percent (Figure 3).

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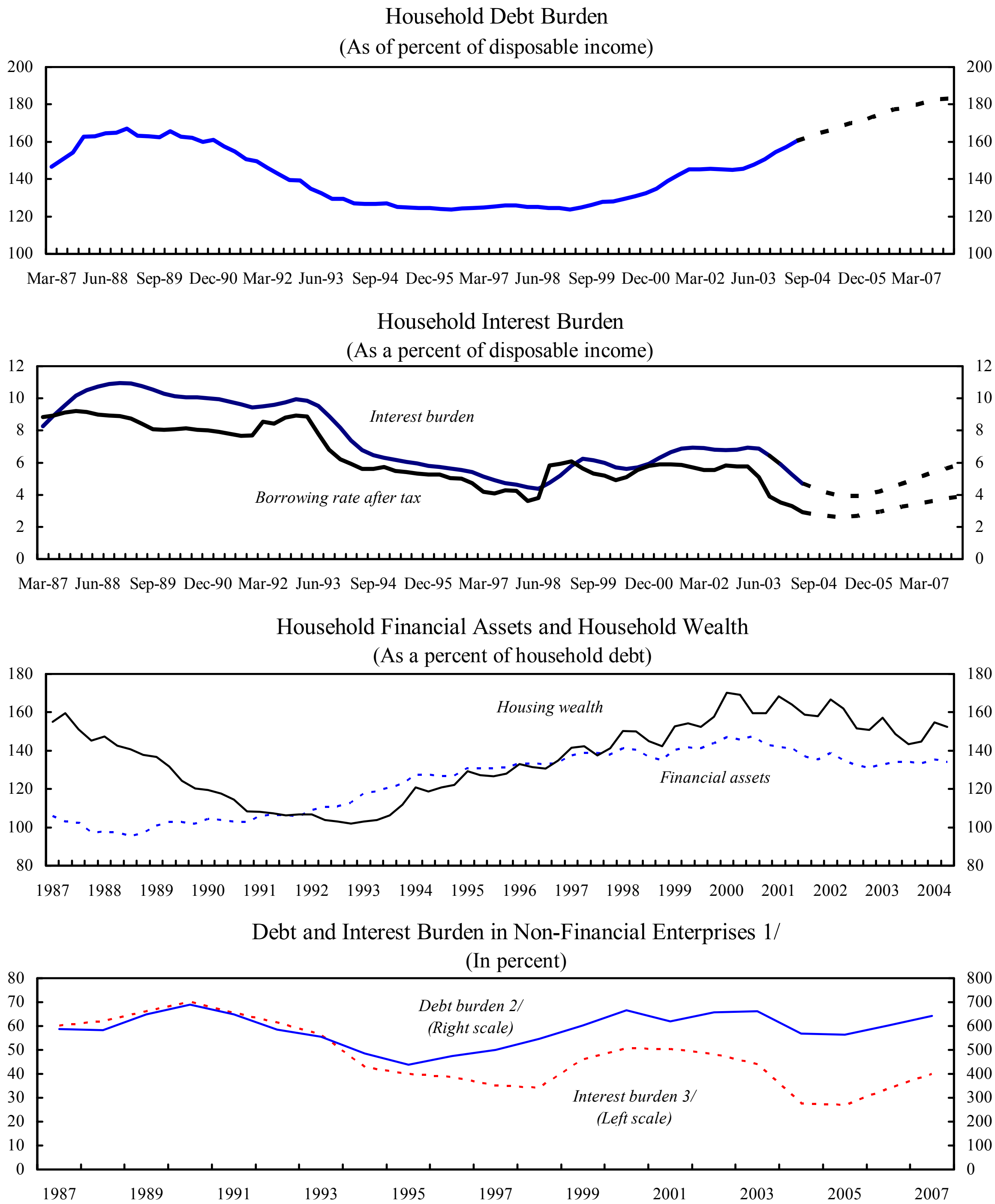
[3] These would be especially relevant to the life insurance and pensions sector.

[4] Since 2000, credit to households has increased by about 11 percent a year on average, with home lending increasing by roughly 15 percent in 2005.

[5] The mission recommended further examination of whether important banks had any particular concentration of exposures to more vulnerable groups of households.

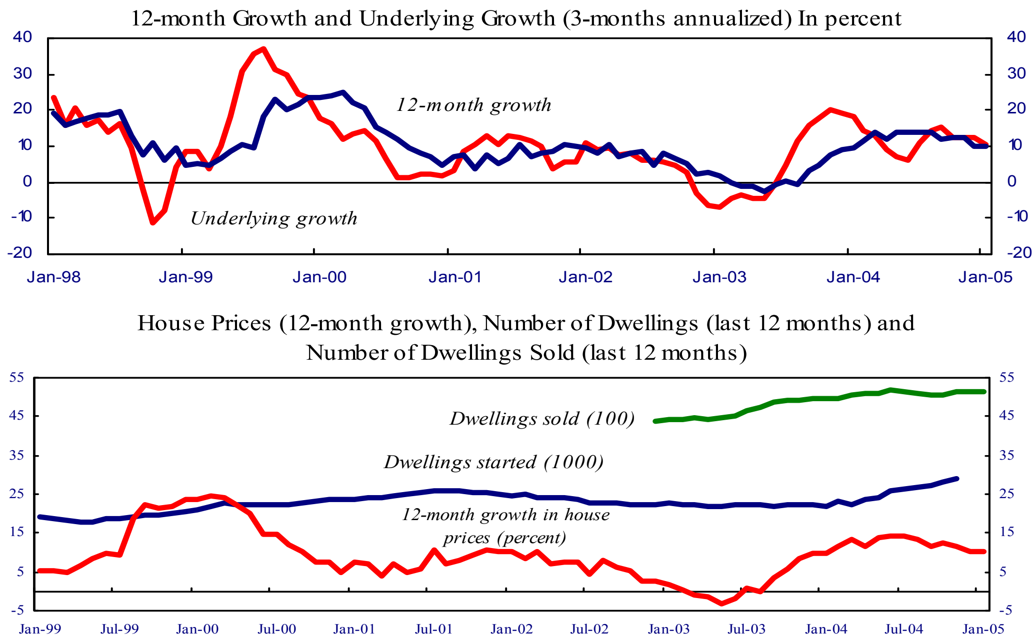
Figure 2. Household Debt and Corporate Balance Sheets *



1/ Except enterprises in the oil and gas industry and shipping.
2/ Debt as a percentage of cash surplus.
3/ Interest expense as a percentage of cash surplus plus interest expense.

* Norges Bank forecasts included in panels 1, 2 and 4 are based on their broader economic forecasts.
Source: Norges Bank.

Figure 3. House Price Trends



Source: Norges Bank.

9. **Enterprise sector borrowing remains an important source of risks for banks despite their declining exposure**. Overall, enterprise debt and interest burden has declined in the last couple of years as corporate borrowing slowed due to weak investment demand, and enterprise profitability improved strongly after mid-2003. With improving economic prospects, credit to enterprises started to pick up from mid-2004. However, profitability problems could re-emerge if competitiveness worsened or growth stalled.

- The property management, fishery and fish farming sectors, where banks' previous losses were concentrated, as well as shipbuilding, are considered more risky sectors due to their inherent volatility. Though the overall exposure to some of these sectors is quite modest, recent experience has shown that it can be substantial in some individual, smaller banks. Commercial property exposures are larger, but the sector has been quite weak for some time, and has only recently started to improve.

- In addition, if problems were to arise from household debt and the housing market, it is possible that the larger effect on banks would be through their exposure to the enterprise sector, since households would likely reduce their consumption in such circumstances, before they would default on housing loans.[6]

[6] During the last banking crisis, for example, the enterprise sector made the largest contribution to banks' total loan losses, while the deterioration in household credits quality was not as marked.

II. Strengths and Vulnerabilities

A. Institutions

Banks

10. **The favorable macro-economic developments have translated into improved bank earnings in 2003 and 2004, driven especially by a reduction in loan losses to very low levels.**[7] The overall capital adequacy ratio has been quite stable at a solid 12 percent. Underlying this performance, however net interest income and margins have continued to decline as in other countries in the region, (Figure 1 above). This represents a longer-term challenge in terms of continuing pressures for efficiency and cost containment. Table 1 gives some comparative data.

11. **Direct market risk exposures are relatively small for banks, as are funding and liquidity risks, although the latter have been rather more of a challenge for small banks.** There is a relatively high level of funding through local and foreign money and capital markets (partly reflecting funding abroad by foreign branches), but currency risks are generally well hedged, and liquidity risk is still assessed as relatively low. Foreign currency lending by banks is also limited (fairly static at around 10 percent of lending). Banks are nevertheless somewhat exposed to market risk indirectly, through their banking groups', and to a smaller extent banks' own, exposure to insurance companies. Many of the smaller banks, at a competitive disadvantage individually on the funding front as well as more broadly, have formed alliances with varying degrees of integration—a trend that seems likely to continue. Pending proposals to introduce mortgage bonds ("covered bonds") and other forms of securitization should also help to meet future funding challenges.

12. **Risk management in banks has generally strengthened considerably in the last decade.** Property lending for example now includes a more careful assessment of the likely income stream of projects, while a standard credit assessment tool for mortgage lending is to test for the effect of a 500 basis point increase in the mortgage interest rate. Though this varies by the size of the bank, several of the banks have sophisticated internal risk management systems. Looking ahead, several banks' seem to be anticipating that they will be able to reduce regulatory capital in the context of Basel II, through the adoption of lower risk weights for mortgage exposures--indeed, the anticipation may have already contributed to the strong growth in mortgages. Under Basel II, FSAN will need to consider carefully whether, and to what extent, additional capital requirements might be needed under Pillar 2, to offset the reduced weight on mortgages.

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[7] Non-performing loans (NPLs) are likewise low at about 1.3 percent of gross lending, and the ratio of NPLs net of reserves to Tier I capital is about 11-12 percent for all definitions of bad loans and reserves.

Table 1. All Banks: Peer Comparison, Bankscope 2003

	Norway	Peer Other Nordic	EU 15
Capital			
Tier 1 Capital /Asset	6.0	6.0	5.0
Earning and Profitability			
ROAA	0.8	0.8	0.5
Interest Income/Total Revenue	76.6	76.6	75.1
Growth rate of Interest Income	-13.3	7.1	0.0
Net Interest Earnings/Average Asset	2.1	1.8	1.4
Asset Quality 1/			
Concentration (Top 5 banks' asset/total banking sector asset)	64.9	77.7	44.5
Liquidity			
Net Loans/Deposit	134.4	86.9	78.6
Liquid asset/customer and short term funding	20.3	39.0	35.5

Source: Bankscope.

1/ A partial, qualitative analysis from Moody's (Norway, Banking System Outlook, August 2004) showed the asset quality outcome was less favorable in Norway in 2003, than Denmark (best), Finland, and Sweden, on account of increased corporate bankruptcies from a strong krone in previous years, default of Finance Credit following an alleged fraudulent accounting case, and a troubled fish-farming industry as a result of high competition from Latin America.

13. **Two important structural features of the Norwegian banking system also have potential implications for financial stability.** First, banks in Norway—including savings banks, and foreign subsidiaries and branches—are often organized as parts of wider groups that also include mortgage companies, finance companies, securities funds and life and non-life insurance companies. (Figure 1, last panel.) The normal regulatory firewalls consistent with EU standards apply, and in normal times such structures lend themselves to risk diversification and probably make the groups better prepared to deal with foreign competition. In more extreme situations, they could increase risks of inter-market contagion and increase moral hazard by expanding perceptions of "too big to fail". Second, though less so than in some neighboring countries, Norway's banking system is relatively concentrated, and in particular the largest domestic financial conglomerate, DNB-NOR continues to hold a very substantial market share. Its importance is further increased through its role as the settlement bank for many smaller banks in the system.

Insurance and Pensions

14. **While the much smaller non-life insurance sector has had markedly improved results in the last couple of years,[8] life insurance companies and pension funds have improved less, and continue to face significant challenges.** The life insurance sector is

[8] Following the global equity price decline and substantial worsening in their results in 2001-02, life insurers' buffer capital recovered from 3.4 percent in 2002 to 6.4 percent of total assets in 2004. Most of that improvement occurred in 2003.

dominated by private pension products, 95 percent of which carry a guaranteed rate of return to policyholders.[9] As in a number of other countries, the principal vulnerabilities for the insurance sector arise out of the requirement to achieve this specified return, in the local currency and for the duration of in-force policies which may span several decades, while also covering actuarial risks and administrative costs in an environment where higher returns are more difficult to achieve consistently than they may have seemed in the past. There are several considerations here:

- Norway does not have an extensive capital market and there appears to be a shortage of longer-term NOK investment opportunities, which gives rise to several types of asset-liability mismatches.
- This shortage of local investment opportunities forces insurers to look abroad for suitable assets, and to find effective hedges for the additional currency exposure. (A prudential regulation limits unhedged foreign currency exposure to 20 percent of the underlying asset or liability, and the industry appears to be at this limit.)
- The sector remains susceptible to low interest rates and also to other market risks, especially for equity prices and property prices.

15. **These factors place an important premium on sound risk management by life insurance institutions, and effective oversight by supervisors.** For the medium and longer-run, a range of pension system reforms are pending, as discussed in section IID, below.[10]

Stress Testing [11]

16. **The stress tests indicated that banks are quite resilient overall, even in the face of the particularly severe scenario involving significant terms of trade deterioration and exchange rate depreciation, coupled with a significant rise in domestic interest rates and a substantial decline in house prices.**[12] (See Box 2 and Appendix) Comparing estimated losses from the more severe scenario with the baseline capital adequacy ratio (CAR) of 11.8 percent, the bank-by-bank stress testing suggests the overall CAR for banks

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[9] The approximate aggregate guaranteed rate of return is currently about 3.7 percent, but this will decline further over time following a late-2003 regulation lowering the maximum allowed guaranteed return on premiums from 4 to 3 percent of premiums paid.

[10] In addition, the Article IV staff report discusses the broader pensions reform environment, including the public pensions system.

[11] It should be noted that all the following comparisons against baseline capital/solvency ignore the fact that some of the losses would be absorbed through reduced profits rather than reduced capital.

[12] The decline in nominal house prices over the three scenario years amounts to over 40 percent, and is higher still relative to the baseline scenario. (Appendix) By way of comparison, it is estimated that house prices declined by about 1/3 in real terms between 1988 and 1992.

Box 2: Summary of Stress Testing Results

- Banks' sensitivity to credit risk is much stronger than to market risk factors, reflecting the importance of the banking book vis-à-vis trading activities. Also, the effects of interest risk on the banking book are mitigated because of the large share of floating rate loans which transfers the direct risk from banks to households. The most adverse single factor shock is an upward shift in the interest rate yield curve, but even such a shock does not have an appreciable impact on banks' CAR. In 4 of 8 cases there were significant offsetting derivative positions for gains and losses which rendered interest rate effects largely neutral. Direct equity and foreign exchange risk on the trading book were also limited.

- Banks on average are able to withstand the two scenarios designed to test the system's sensitivity to multiple-factor domestic and external macroeconomic shocks. In the most extreme scenario, banks' CAR declines from 11.8 to 10.9 percent over the 1 year horizon, on average, and ends up close to the 8 percent CAR rate in the longer run, when evaluated against current capital stock. While this is only an approximation (e.g., it abstracts from profits) it can be interpreted as the lower bound subject to plausible estimation errors. The results obtained from the stress tests performed on the 8 largest banks seem to suggest a less severe financial outcome at the system level, but some individual banks appeared less resilient to these shocks than the average.

Impact of Stress Tests on Banks' CAR

Shocks and Scenarios 1/		CAR (in percent)
Initial condition		11.8
Market Risk		
Interest rate (Including banking book risk)	+500 bps	11.6
	- 100 bps	11.9
Equity(trading book)	+40%	11.9
	-40%	11.8
Exchange rate (trading book)	+20%	11.8
	-20%	11.8
Credit Risk		
House prices (partial credit risk)	-25 %	11.7
Domestic inflation crisis	Over 1 year	11.2
	Over 3 years	9.8
Domestic inflation crisis (Top-down)	Over 1 year	11.5
	Over 3 years	10.2
Terms of Trade crisis	Over 1 year	11.0
	Over 3 years	9.1
Terms of Trade crisis (Top-Down)	Over 1 year	10.9
	Over 3 years	8.0

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Change in Solvency Ratios of Life and Non-Life Insurance Companies (percentage points) 1/(Numbers in parentheses are exposures of each asset class to total assets or (for item 5) liabilities.)

Shocks and Scenarios	Life Insurance Companies' Change in Solvency Ratio	Non-Life Insurance Companies Change in Solvency Ratio
Initial solvency ratio	157.6	338.7
1. Equity – 40 %	-119.0 (14)	-25.0 (11)
2. Interest rate + 500 bps	-65.0 (29)	-27.0 (54)
3. Exchange rate +20 %	-5.0	0.0
4. Property -25 %	-45.0 (9)	-16.0 (5)
5. Increased provisions	-42.0 (4)	-95.0 (34)

- Reflecting their exposure to equities, life insurance companies are worst hit by the equity price shock,. This leads one company to lose all its buffer capital and to violate the capital adequacy requirement, unadjusted for reductions in risk weighted assets. This is followed by interest rate, property, and provisions (for disability) shocks. These companies appear to be largely hedged against exchange rate shocks.
- Non-Life Insurance are most sensitive to the provisions shock (15 percent increase in general provisions combined with 20 percent increase in workers compensation and motor liability provisions). This reflects the 34 percent exposure vis-à-vis total liabilities. Interest risk is mitigated to some extent due to lower duration of interest sensitive assets relative to life companies.
- Interest rate risk could be exacerbated if the held-to-maturity bond portfolio is marked to market (33 (4) percent life (non-life) company assets). The decline in the domestic and international interest rate however, since the time this portfolio was acquired (at an average 5.7 percent), has led to considerable mitigating hidden reserves. The results for insurance companies exclude this and other potential mitigating factors such as fluctuation reserves, supplementary provisions, the part of profit to date not included in capital (only 50 percent included by regulation), reduced bonuses for life companies. Likewise, for non-life companies, the part of profit to date not included in capital and the fluctuation provision in excess of the minimum requirement are not taken into account.

1/ Solvency Ratio is available capital/required capital (in percent). An alternative comparison, against buffer capital, gives qualitatively similar results.

would decline to some 11 percent after one year and to about 9 percent after three years. Of course, not all banks are equally resilient, and the worst individual bank outcome for this scenario was a decline in the CAR to 5 percent over three years. As a cross check on the plausibility of the bottom-up results, a regression-based “top-down” analysis was undertaken at the aggregate level. The results were broadly similar— an overall CAR of 10.9 percent after one year for the terms-of-trade decline / depreciation scenario, and 8 percent after three years. Smaller losses were incurred in the purely domestic scenario, with more moderate interest rate increases and house price declines, while the effects of the single factor shocks (mostly reflecting market risks) were smaller still, given banks’ relatively small unhedged market exposures.

17. **For insurance companies, the stress testing showed that market risks were much more central than for banks**. For life companies, susceptibility to a significant equity price decline was particularly marked, with the solvency ratios of major companies declining substantially and one of the main companies violating the life company CAR applying in Norway. To a lesser degree, life companies were also sensitive to interest rate risk, as well as to changes in provision requirements, and property prices. For non-life companies, solvency ratios were higher than for life offices to start with, and the effects of the shocks were also generally more muted, except for changes in provision requirements.

B. Markets and Systemic Liquidity Arrangements

18. **Although small, money and forex markets appear to be relatively well-functioning and adequately liquid in normal times.** There have been no instances of significant disturbances in recent years. Foreign exchange settlement risks have significantly been reduced since 2003 through Norway joining the Continuous Linked Settlement (CLS) system. About 10-11 market players quote firm FX prices, although it is not a formalized primary dealer system. The short-term interbank money market is less active, with price quotations generally indicative rather than firm, and a few large players dominating the market. But there have been no signs of monopolistic behavior and market participants have been able to distribute liquidity amongst themselves with limited recourse to NB’s facilities. Trading in both FX-related and interest rate derivatives is active, and surveys indicate the markets are liquid.

19. **Uncollateralized exposures in the money market are reportedly relatively limited overall, but are nevertheless frequent and require continued close monitoring because of the potential for contagion risks.** The authorities are well aware of the need to continue monitoring such risks carefully. A 2001–02 survey of counterparty exposures indicated that few banks have uncollateralized interbank market exposures that would result in significant problems for them in the event of counterparty failure to settle. Nevertheless, it would be useful for the authorities to examine ways to further encourage the collateralization of interbank exposures. Continuation of the counterparty risk surveys, and publication of their results in an aggregated form, would also be desirable.

20. **Banks maintain a large share of excess reserves with the central bank in its overnight facility.** This facility is remunerated at the central banks' sight deposit rate. Banks also hold quite substantial amounts of collateral that can be used for intraday or longer credit from NB. In times of emergency, this collateral would serve as the first line of defense of the system and is judged to be adequately liquid.

21. **NB's monetary and exchange operating procedures are sound and effective overall, but some further refinements would be beneficial.** NB has successfully used its monetary policy instruments (mainly collateralized loans) to ensure that short-term market rates closely follow its sight deposit rate. Prudent risk management practice would suggest that some further controls may be needed for securities accepted as collateral, even though NB closely monitors the collateral it accepts and has never encountered difficulties in practice. In particular, NB should further limit the use of bank bonds as collateral (implement the planned reduction of the 50 percent limit to 35 percent), make the requirements for domestic and foreign bonds similar, and introduce a maximum exposure limit to a single issuer.

22. **Banks are not subject to a reserve requirement, but there is a 6 percent liquid asset requirement.** The requirement is rather outdated, probably discourages more deliberate liquidity management in smaller banks, and is no longer binding overall (though it may be for some individual banks). The authorities should replace the quantitative liquid asset requirement with the more qualitative prudential guidelines for liquidity risk management being developed.

C. Infrastructure

Payments and Securities Settlement Systems

23. **The infrastructure for payments is highly developed and efficient, and the systemically important RTGS system, NBO, complies in full with the international standard.** Although not considered systemically important, the NICS system for smaller interbank and retail payments is nevertheless quite large (some 28 percent of payments by value), and stronger arrangements are needed to reduce liquidity pressures in the event the participant with the largest obligation to pay is unable to settle. The authorities should examine whether the liquidity risks in the NICS system can be reduced by shifting larger and time-critical corporate client-to-client payments to NBO, and by having more settlement cycles during the day. Over time, the authorities should also review whether the separate netting of interbank payments in the NICS system (SWIFT-net) is still efficient, and whether it could be eliminated by reducing the minimum size of such transactions eligible for gross settlement.

24. **The two-tiered nature of the payment systems in Norway brings with it some additional contagion risks.** Around 120 smaller banks ("level 2 banks") settle indirectly the through a settlement services provider (a direct clearer) with accounts at the NB—especially largest bank, DNB-NOR, which accounts for almost 40% of the banking market. The tiered

arrangement is voluntary, in that no smaller banks have been denied direct access to NBO or NICS, and does not limit competition in the banking industry. Nevertheless, a significant problem in a settlement service provider has the potential to spill over into liquidity problems in a large number of smaller banks.[13] The authorities should continue to carefully monitor the risk of spillover from settlement services providers to the large number of small "level 2" banks in the payments system.

25. **Likewise, the infrastructure for clearing and settlement of securities, which also has a tiered structure, needs strengthened risk management arrangements.** While the system is protected against the default of a broker through guarantees from applicable settlement banks, there are no risk management measures in place in the event a bank is unable to settle its position. Due to the concentrated payment flows in the tiered structure, a default of the largest participant could cause substantial problems in the form of a large amount of non-settlements, with the potential for further knock-on effects. The authorities should ensure that measures are taken to reduce market and liquidity risk in the securities settlement system, particularly in the event of a key bank failing to settle—e.g., by facilitating the transfer of participants' positions in such a bank to another settlement agent.

26. **Oversight of payments and securities settlement systems is generally sound, but could be further strengthened by formalizing and making more transparent a few aspects.** In particular, supervisory requirements and standards could be formalized and published on the websites of the responsible supervisor; and compliance of NBO with the Core Principles should be regularly monitored over time by the Payment System Department.[14]

Corporate Governance, Accounting and Auditing

27. **Corporate governance, accounting and auditing arrangements appear well developed and generally adequate to minimize risks to the financial sector from a lack of financial integrity—though of course continued vigilance is needed, as one recent case demonstrated.** The corporate governance regime in Norway is sound, with provisions contained in primary legislation and subsidiary regulations, and an additional Corporate Governance Code recently adopted by the Oslo Stock Exchange for all entities that have traded instruments. For financial services companies, compliance is subject to numerous checks; supervision by on-site inspection, external audit, internal audit, and for insurance companies, a control committee. Likewise, accounting, auditing and actuarial standards and professions are well developed, in conformity with international standards and best practices. Accountants and auditors are licensed and supervised by FSAN.

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[13] This risk is partially mitigated by the fact that most small banks already have an account at NB serving as a contingency arrangement to re-route future payments, should their settlement agent fail.

[14] This department is not involved in the operation of NBO but oversees payment systems outside the central bank.

28. **Norway's observance of FATF Principles for Anti–Money Laundering and Combating the Financing of Terrorism (AML/CFT) is being assessed by FATF** according to the agreed methodology approved by the Boards of the Fund and the Bank. Field work has been completed and the ROSC from the FATF assessment will be circulated to the Board once it is final. The staff will provide a short update to the Board prior to the Board meeting on the status of the FATF assessment including, if available, a short summary of the FATF findings.

D. Strategic Risks and Structural Issues

Pensions reform and capital market development

29. **The reforms to the pensions system that are underway will have an important impact over time.** Recent or pending legislation includes measures to facilitate some movement away from guaranteed rate defined benefit (DB) private pensions schemes; allow more options for risk-sharing between insurers and policyholders and allow for a reduction in the market risk taken by the insurance companies; and require more transparency in premium-setting, including as to the premium related to the guaranteed return. There is also a proposal for mandatory occupational pensions for the entire workforce, to be supplied mainly by life insurers. Since some 57 percent of the workforce currently does not contribute to occupational pensions schemes, there is the potential for a substantial increase in longer-term savings. The new mandatory schemes, mainly covering SMEs, would more likely be DC schemes that entail more risk-taking by the pension participants. The above measures, by themselves, would tend to reduce the risks faced by life insurers and pension funds. But the relatively thin domestic securities markets will likely remain a challenge for institutions' asset-liability management, especially if there is also increased demand for DB pensions as a side effect of the broader pension reform process (rather than the specific measures above).

30. **Further measures to facilitate a deeper domestic capital market would therefore be of benefit for the life insurance and pensions sector, as well as from other perspectives.** For example, domestic corporates who do not have a liquid domestic bond market to tap would benefit, and there would be a more general stability advantage from reducing the high dependence of the system on banks as intermediators of savings. Some industry representatives assert that the best solution to the problem would be for the government to issue sufficient long-term bonds to induce a durable liquid market in longer-term NOK instruments. But there is no fiscal or monetary policy imperative to do this, and it would raise many other complications. However, the introduction of "covered bonds" and other forms of securitization will work in the right direction, and the authorities should complete the framework for these as soon as possible. Further privatization of state-owned entities would also work in the same direction.

Competition, entry, and state ownership

31. **Norwegian financial institutions are facing active competition, and supervisors will need to monitor the implications of this including likely further consolidation over**

time. There do not appear to be substantial artificial barriers to competition in or between the different sectors, and foreign entry into banking has increased significantly in recent years and is now higher than in many other European countries.[15] Many smaller savings banks are grouping together, more or less tightly, as noted previously. Although savings banks, as mutuals, cannot be directly acquired by other entities, they have the option of demutualizing if they wish, to facilitate this.

32. **The government holds roughly 1/3 of the shares in DNB-NOR, but has commendably distanced itself from day-to-day management decisions of the bank.** It was also careful to undertake its share purchases in a transparent, market-based fashion when it topped up its shareholding to the legally specified level after it was diluted in the recent merger. Nevertheless, there are a range of longer-term risks that arise from this state ownership. First, there is the risk that the policy of non-interference could change at some stage in the future, as the political environment and personalities change, with potential implications for efficient resource allocation in the financial sector and, in the extreme, the soundness of the bank. Second; significant state ownership may add to the perception that the bank is "too big to fail" and this may heighten moral hazard-type risks or, more simply, give DNB-NOR an unwarranted competitive advantage in ratings or funding costs. Third, a less active "market for corporate control" in DNB-NOR's case might in the longer-run weaken governance or competitiveness.[16] There is also the more general issue that state ownership does not contribute to the broadening of domestic securities markets in Norway, at a time when such a broadening would be beneficial.

33. **The above issues should be carefully considered in the next stock-take of the government's role in the bank.** The preferable policy response to these longer-term issues would be divestiture of DNB-NOR. In the interim, to address the (real or perceived) risk of a future policy reversal on the bank's commercial autonomy, the authorities should consider arrangements that would further "entrench" commercial autonomy for DNB-NOR, while to the extent possible ameliorating some of the other potential side-effects of state ownership. Options include a law, regulation or at least a clear, public statement quite specifically defining the principles behind the government's day-to-day relationship with the bank.

III. THE FINANCIAL STABILITY POLICY FRAMEWORK

34. **Following the financial crisis of the early 1990s, Norway's financial stability framework has been strengthened in a variety of ways.** Inter alia, financial system surveillance has been further developed, and geared towards the identification and assessment of potential risks and vulnerabilities for the system. NB's and FSAN's financial stability-related publications are exemplary and there is an increased emphasis on

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[15] See Figure 3 in the Statistical Appendix

[16] The Government's current share gives it a veto over take-overs.

transparency in the financial policy framework more generally. Likewise, monetary policy is conducted in a transparent fashion, aided by several recent institutional reforms, as is NB's role as the government's agent for the GPF.[17] However, at the operational level, some market comments suggest there may be a need to publicly explain somewhat further the role of the exchange rate in NB's inflation targeting regime.

Regulation and Supervision

35. **Some refinements could usefully reinforce the current, strong banking supervision arrangements and FSAN's *de facto* operational independence.** In particular, to help ensure that effective operational independence is maintained in the future (e.g., as personalities and political conditions evolve), it would be desirable to:

- increase the level of powers formally delegated by the MoF to the FSAN in respect of initial licensing of institutions (and exchanges), as well as authorization of new activities or acquisitions;
- increase the level of powers formally delegated by the MoF to the FSAN for issuing prudential regulations and supervisory decisions;
- consider mechanisms to reduce the real or perceived scope for undue governmental influence in the appeal process for administrative complaints (e.g., publicly clarifying circumstances when MoF would, or would not, overrule FSAN),

36. **In addition, the BCP assessment resulted in a few other suggestions for refinements.** The main recommendations were, first, to continue to bed down and fully implement the new, more formal internal systems that were agreed in late 2004, to ensure that ethical standards are maintained, and seen to be maintained, within FSAN. And second, to make more explicit some aspects of the regulations on connected lending and the treatment of insiders; expand enforcement and incentive tools; and complete the development of risk management guidelines for certain additional types of risk, including liquidity and market risks.

37. **Regarding the ICPs, similar recommendations were made about increased delegated authority for the FSAN.** There is also the general need to ensure careful ongoing oversight of the risk management challenges facing the insurance and pensions sector, arising from the relative shortage of suitable NOK assets. Additionally, insurance supervisors should introduce, as planned, the EU intermediary directive and the consumer protection regulation covering disputes between clients and intermediaries.

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[17] This has contributed to the absence of significant disorderly conditions in exchange markets, under Norway's floating exchange rate regime of recent years.

38. **A review of securities regulation was also undertaken during the FSAP, without a full assessment of the IOSCO standard.** This brief review found that the laws and regulations governing the securities markets are comprehensive and modern; supervision is robust and conducted in a coherent manner by highly qualified staff of FSAN; and the procedures are transparent.

39. **The authorities could consider formalizing somewhat further the coordination between the three institutions involved in financial stability** (FSAN, MoF, and NB), both for normal situations and to provide the higher-level institutional underpinnings for processes that would be followed in the event of a crisis. This could take the form of more regular senior-level meetings of the three organizations to discuss financial stability issues. A formal tripartite MoU, setting out respective roles and responsibilities, could be a useful additional instrument, at least from the point of view of transparency.

Safety Nets, Financial Conglomerates, and Crisis Management

40. **Norway's deposit insurance arrangement is very generous by regional and European standards.**[18] The government feels that the current scheme, recently amended to combine the previous savings and commercial bank schemes, is well designed. However, in an increasingly competitive and internationalized banking industry, a systematic review of the scheme in the fairly near future would be desirable to ensure that it continues to make the best contribution to financial system stability and efficiency in the evolving financial sector environment. Such a review should be coordinated with any regional or EU-level review that might eventuate. The coverage differential is highlighted by the current proposal from the largest Nordic area bank (Nordea) to convert its regional subsidiary banks into branches of the parent. But the issues for such a review are broader than this and inter-related. In addition to the coverage levels, a systematic review should include other key parameters of the arrangement such as issues of risk sharing, pricing, and competitive neutrality as between different types of locally incorporated banks, foreign branches and even direct cross-border banking relationships. Harmonizing coverage levels more closely with other countries, if that was found to be desirable, would need to be done carefully, and in a phased manner.

41. **The Nordea proposal has also highlighted the need to look again at various other aspects of financial stability policy, both from Norway's own perspective and on a region-wide basis.** In particular, it raises issues about different authorities' roles in crisis management for a locally important branch operation, and potential last resort lending to it, as well as the definition of home and host country responsibilities for day-to-day supervision. Close coordination between the Norwegian authorities and their other Nordic counterparts is needed to resolve the precise allocation of responsibilities in these areas, a process that is already well underway.

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[18] The coverage is equivalent to ca € 230,000, compared to the minimum deposit insurance level within the EU/EEA of € 20,000, and is roughly eight times higher than in Sweden.

42. **The NB's general role as a lender of last resort appears to be well defined in the NB's Act and regulation, which provide the Bank the necessary flexibility to react to different situations.** NB has recently publicly clarified the broad parameters of its general emergency lending policies, in a manner that strikes a balance between transparency of broader principles and the need for a degree of "constructive ambiguity" about specifics.

43. **A key remaining task for NB is to continue working with other Nordic central banks to elaborate mechanisms for emergency liquidity support to cross-border financial conglomerates like Nordea.** To some extent this is addressed in the existing MoU between the Nordic central banks on the management of financial crisis in a Nordic bank with activities in two or more Nordic countries, but this needs to be refocused to cover the case of Nordea Norway becoming a branch. This task is underway.

44. **Crisis management arrangements, guidelines and checklists are generally well developed, but further elaboration is needed to address the special challenges likely to arise with the largest and most systemically important bank, as well as potential cross border threats.** Given the roughly 1/3 state ownership of DNB-NOR, discussed more broadly above, the role of the government in crisis management needs to more fully specified in the contingency plans. The size and systemic importance of that bank will likewise pose special challenges for the authorities if a financial crisis were ever to occur in the conglomerate. The authorities should develop appropriate contingency plans that take account of these special circumstances. Another important aspect is to address eventual cross-border financial threats that might arise within large financial conglomerates.

Observance of Financial Sector Standards and Codes— Summary Assessments

The annex contains summary assessments of three international standards and codes relevant for the financial sector.[19] The assessments have helped to identify the extent to which the supervisory and regulatory framework is adequate to address the potential risks in the financial system.

The following detailed assessments of financial sector standards were undertaken:

- The Basel Core Principles for Effective Banking Supervision (BCP), by Mr. Saul Carpio (USA-OCC) and Mr. Jacob H. Andersen (The Danish FSA);
- IAIS Insurance Core Principles (ICP), by Mr. Nigel Davies (IMF-MFD), and Mr. Peter Pfund (former Head of Insurance Supervisory Authority, Switzerland); and
- The Core Principles for Systemically Important Payment Systems (CPSIPS), by Mr. Jan Woltjer (IMF-MFD).

The BCP and IAIS assessments were carried out during a mission to Norway from October 14 to 26, 2004, and the CPSIPS assessment was carried out from January 17 to February 3, 2005. All the assessments were based on the laws, regulations, policies and practices in place at the time the assessments were made.

The assessments were based on several sources including:

- Self-assessments by the supervisory authorities;
- Reviews of relevant legislation, regulations, policy statements and other documentation;
- Detailed interviews with the supervisory authorities;
- Meetings with the Ministry of Finance, Norges Bank and other authorities and independent bodies; and
- Meetings with financial sector firms and associations.

Basel Core Principles for Effective Banking Supervision

Institutional and macroprudential setting, market structure—overview

45. Norway's financial services are concentrated in financial conglomerates and dominated by banking institutions. As at mid-2004, there were 141 banks and 8 branches of foreign banks in Norway. Banks and branches of foreign banks held about 75 percent and 4 percent, respectively, of total domestic loans. The favorable macro-economic developments have translated into improved performance for the banking sector over 2003 and 2004, although in terms of profits, banks' performance was still below that of the1993-2000 period. Banks appear to be well capitalized with a capital adequacy ratio of 12.2% and nonperforming loans have fallen to an historically low level of less than 1% of total loans.

46. The conglomeration structure and the significant presence of foreign (Nordic) banks leaves the Norwegian banking system exposed to both cross-sectoral and regional economic developments. Further, risk factors that may impinge on bank soundness relate especially to the potentially volatile sectors of housing and other property, fisheries and fish farming, and

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- [19] The assessment of the FATF Recommendations for Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT), was undertaken by a team from FATF in January 2005. The ROSC from this assessment will be sent separately to the Board.

shipping. In particular, of the main categories of private sector credit, household borrowing for housing appears to be the greatest source of potential risks for banks, and is a concern receiving the attention of bank supervisors.

47. Responsibility for financial stability is shared between Norges Bank, the FSAN, and the Ministry of Finance. The MOF is primarily responsible for the regulatory framework, while Norges Bank is responsible for monetary and exchange rate policy, and efficient payment systems and financial markets. The FSAN supervises the banking, insurance, pension, equity, and other financial services sectors and licenses and regulates accountants and auditors.

General preconditions for effective banking supervision

48. Norway's framework of laws, accounting and transparency practices, and financial sector regulation do not constrain the maintenance of preconditions necessary to carry out effective banking supervision. A framework for addressing financial distressed institutions is in place and vigilance over financial institutions' corporate governance is evident. Corporate governance and financial transparency are contributing to increasing levels of market discipline in Norway's banking sector. The government's ownership in the banking sector has shrunk materially, although it retains a large stake on DnB NOR, the largest bank in the country. As a member of the European Economic Area, Norway is required to implement EU financial services Directives that foster stronger and more transparent prudential rules into Norwegian legislation.

Main Findings

49. Norway's banking supervisory system exhibits a number of strengths, including well-articulated supervisory objectives and adequate legal authority. The FSAN is considered a competent agency with a sound record of integrity of operations and the capacity to conduct effective bank supervision.

Objectives, Autonomy, Powers, and Resources (CP-1)

50. Norwegian laws provide a clear framework, objectives and responsibilities for carrying out bank supervision. Industry participants and financial authorities in Norway affirm that, in fact, bank supervisory decisions are free of undue external interference. However, this review suggests that several actions to further strengthen the institutional arrangements among the FSAN and the MOF are advisable to preserve and increase the actual and perceived authority and independence of the FSAN, given the advanced nature of the financial system. The recommendations include: continuing to foster the transparency of FSAN budgets; fully implementing newly agreed measures related to training and reporting, to continue building a culture of ethics among FSAN employees; selectively expanding the licensing and rule-making authority delegated to the FSAN, and ensuring and clarifying that FSAN's decisions to foster banks' safety and soundness are not undermined if appealed to the MOF.

Licensing and Structure (CPs 2-5)

51. Permissible activities of financial institutions are well established, prudential standards for evaluating applications to license establishments, and rules for changes in ownership and investments are adequate. The licensing authority rests with the Ministry of Finance, with significant input and recommendation from the FSAN.

Prudential Regulations and Requirements (CPs-6-15)

52. The financial authorities have established prudential regulations and requirements that to a large extent are in line with the Core Principles and established best practices. For instance, capital adequacy ratios are applied and reported on a solo and consolidated basis, requirements on banks' credit policies are evaluated, asset concentrations are identified and various risks and risk management systems are subjected to review. However, some enhancements can be made to strengthen requirements addressing loan loss provisioning, connected lending and country risk management.

Methods of Ongoing Supervision (CPs 16–20)

53. The FSAN utilizes off-site and on-site activities to meet supervisory objectives. The information available to the FSAN for monitoring and early detection of institutions with weaknesses in financial strength is adequate and timely. The FSAN conducts comprehensive and continuous off-site monitoring, which is integrated closely with on-site inspection planning. However, the review practices and methods applied to on-site inspections are not sufficiently formulated in an updated on-site inspection manual. The FSAN has initiated a project to develop a more a risk- based supervision approach toward the larger financial institutions. In light of the rapid changes in the banking industry and risk management methodologies, the FSAN should continue to keep the adequacy of resources under review.

Accounting Standard (CP-21)

54. The FSAN is empowered to require financial institutions to submit financial information, arrange audits in conformance with prescribed rules and furnish access of banks' records to FSAN for inspection. Accounting rules and regulations are in line with EU Directives. Norwegian authorities are in the process of implementing the new EU Regulation adopting international accounting standards.

Remedial Measures (CP-22)

55. The ability to issue Orders under Norway's Financial Supervision Act, including higher capital ratios than the minimum and restrictions on credit extension, buttresses supervisory actions. However, further tools specifically backed by legal authority can strengthen existing enforcement powers. These include: Orders to force financial institutions to arrange good risk management practices, restrict activities of financial institutions in unsatisfactory condition and empower the FSAN with authority to set adequate individual loan loss provisions and reserves as indicated in CP-8.

Cross-Border Banking (CPs 23–25)

56. The regulatory framework for globally consolidated supervision over internationally active financial groups is satisfactory. Coordination and exchange of information with foreign supervisors to cover foreign operations by Norwegian banks and operations in Norway by foreign financial groups is adequate. Table 1: Recommended Action Plan to Improve Compliance of the Basel Core Principles.

Authorities' Response

57. The authorities underlined that in the Norwegian system for public administration, FSAN is an administrative agency, acting under the general responsibilities of the Ministry of Finance. The activities of FSAN are managed by an independent board and a director general appointed by the King in Council for periods of 4 and 6 years respectively. The objective is that FSAN shall be in a position to exercise its supervisory function independently of government or industry interference. In accordance with the general system for administrative complaints and review, decisions made by FSAN in the exercise of its supervisory functions may – by complaints from parties concerned – be submitted for review by the Ministry of Finance.

58. With respect to institutional arrangements for supervision, the authorities noted that the issue of delegating licensing and authorization authority is examined frequently. But they cautioned that a constitutional system where the minister is responsible to the legislature for financial supervision limits the possibilities for excluding ministerial oversight and decisionmaking. The recommendations in this area seems to be based on a perceived fear of "undue political influence" when decisions are taken at the ministerial level. The authorities pointed out, however, that decisions taken by the Ministry will always be based on a recommendation from FSAN, which always will be available to an applicant, and normally will be publicly available. Thus a decision taken by the ministry will be much more transparent than a decision taken by FSAN. The risk of incorrect decisions is general and not limited to ministries. It follows from Norwegian law that administrative decisions are subject to court review. Decisions that are not taken correctly may be found to be invalid. The authorities maintain that the focus on the risk for incorrect decision making at the ministry level, as opposed to in FSAN, is unwarranted. Further, they maintain the view that FSAN should remain unpolitical, and not be charged with decisionmaking in cases deemed to be of a political nature.

59. The authorities also noted that Norwegian budget procedures have been developed to enable the Storting (parliament) to establish sound general spending levels and to prioritise resource allocation based on a comprehensive proposal from the Government. The budget for financial supervision is part of these procedures, and a relaxation of fiscal discipline is not foreseen.

Table 1. Recommended Actions in the Area of Banking Supervision

Reference Principle	Recommended Action
CP-1.2 Independence/Ethics	Although current arrangements comply with the standard, some further refinements should be considered. 1. Ministry of Finance (MOF) and the Financial Services Agency of Norway (FSAN) should continue to foster a more transparent process to determine the levels of FSAN's annual budgets. 2. Consider establishing more explicit criteria for the composition of FSAN's Board of Directors with the aim of higher independence through a balance of industry, supervisory and public interest representation. 3. In line with newly agreed policies, initiate periodic training sessions and regular reporting to the FSAN Board of Directors on employees' and directors' transactions and activities with regulated entities.
CP-1.3 Legal Framework	Although again current arrangements comply with the standard, further refinements should be considered in the following areas:. 1. Expand FSAN's licensing and regulation-making authority delegated from the MOF. 2. MOF should explicitly set, a high standard in reviewing cases appealing FSAN supervisory decisions.
CP-8 Loan Loss provisions	FSAN should have explicit authority to increase loan loss provisions in order to strengthen pro-active measures to address bank weaknesses
CP-10 Connected Lending	Regulations governing connected lending should explicitly require that loans granted to bank insiders be in accordance with the bank's usual business terms and conditions. The scope of definition of governing bodies should also be applied to business exposures with persons related to members of governing bodies by marriage or kinship, and to business exposures with companies in which such persons are members of the board or management.
CP-11 Country Risk	The FSAN should be given the authority to establish guidelines for the effective management of country and transfer risk. The regulation should explicitly address reserves against transfer/country risks.
CP-13 Other Risks	FSAN should complete development of risk evaluation guidelines in key risk areas with the broader goal of compiling an effective, up-to-date bank supervision manual.
CP-22 Remedial Measures	Several remedial tools specifically backed by legal authority should be added as described below: Orders to force financial institutions to arrange good risk management practices in accordance with provisions set down by FSAN; Orders or explicit restrictions on financial institutions in unsatisfactory condition withholding approval to open new offices, expand into new products, or acquire new businesses; and, Orders to empower the FSAN with authority to set adequate individual loan loss provisions (also included I CP –8).

IAIS Insurance Core Principles

Institutional and macroprudential setting—overview

60. The Norwegian Financial Services sector is concentrated and dominated by conglomerates. The conglomerates are, however, small compared to those in other European countries, and their ownership and trading linkages relatively mixed; being through both strategic alliances and ownership. Market concentration, conglomeration and business globalization increase the risk of systemic contagion. (See last panel of Figure 1 in the main text.)

61. Pensions products in the Norwegian private insurance sector, whose assets amount to over 90 percent of the life sector total, carry a guaranteed annual return. Pillar 2 and pillar 3 pension schemes that carry a guarantee constituted 74.9 and 16.8 percent of life insurance funds respectively at September 2003. The product analysis is given in the table below.

Table 2. Pension schemes as of December 31, 2003 in life insurance companies* and management companies for securities funds

Type	Number of premium-paying contracts	Life insurance funds (NOK Million)
Defined-benefit pension schemes (DB)	16 264	113 400
Defined-contribution pension schemes ** (DC)	1 857	690
Transferred from DB to DC	127	376

* Municipal pension schemes not included.
** Of which in management companies: No. of contracts: 87, managed assets: NOK 39 million
Source: Norwegian Financial Services Association.

62. Norway is characterized by a stable institutional infrastructure, but the life and non-life sectors have different features. There is evident competition in the life and pensions sector, with all participants keen to provide occupational (Pillar II) pension schemes to the as yet uncovered portion of the working population, which amounts to some 55 percent thereof. The new schemes offered are likely to be defined contribution, where the consumer bears greater risk. Results from the non-life sector suggest that premium rates are sufficient to allow an adequate underwriting profit across all participants, while return on equity is sensitive to capital requirements.

General preconditions for effective insurance supervision

63. This assessment takes place against a background of improving macro-economic conditions, which should also be generally favorable for the financial stability outlook. After a period of tight monetary conditions, an appreciating exchange rate and sluggish economic growth, beginning in 2003 the Norwegian economy experienced a substantial easing of interest rates, with consequent reversal of the exchange rate appreciation. These

developments together with the turnaround in the world economy are likely to culminate in stronger Norwegian economic growth in the near term and have a positive effect on financial institutions.

64. As a member of the EEA, Norway is required to transpose EU Directives into Norwegian legislation. As a consequence, there is a constant push to improve prudential rules, accounting standards and sound supervision in the financial sector.

Main findings

65. The FSAN is a public sector agency and effectively accountable to the MoF under the Norwegian constitution. The relationship between MoF and FSAN entails that the former has *de jure* power to make supervisory decisions, and reserve the right to make decisions based on a governmental agenda. There is no evidence that these arrangements have adversely impinged on the operations of FSAN. Nevertheless, the recommendations set out in the Table 3 provide a framework for greater transparency and autonomy in the budgetary and supervisory processes and improve compliance with international best practice. The recommendation is based on a change to the Board of Directors to one where the balance of power equates the interests of the consumer, the regulated community and the supervisor. Such a Board should always act in a transparent manner, and should be the ultimate supervisory decision maker.

66. The predominance of long term pension products and the relatively small size of the Norwegian capital market entail currency and duration mismatches in the pension sector. In addition, the insurance sector has higher large exposure limits than the banking sector. FSAN are well aware of these issues, together with the attendant systemic and prudential threats. Remedial action would include the design of capital requirements to cover mismatches and large exposures, together with the encouragement of products that pass risk to the consumer, thus protecting the financial strength of pension providers. The provision of such products would require strengthening the conduct of business rules, much of which is already underway, and the implementation of a corporate governance code specifically for insurers that addresses the interests of policyholders.

Table 3. Recommended Actions in the Area of Insurance Supervision

Reference Principle	Recommended Action
Supervisory authority i.e., CP 3	
As a public-sector agency, FSAN will always be accountable according to the Norwegian constitution. Currently, this entails a lack of budgetary autonomy and a requirement to acquiesce to MoF supervisory decisions.	The authorities could consider establishing more explicit criteria for the composition of FSAN's Board of Directors; aiming at greater independence through a balance of industry, supervisory and public interest representation. Such a Board could be the ultimate supervisory decision maker, and greater budgetary autonomy could be delegated to it. This would improve transparency in both supervisory and budgetary decisions.
Supervisory process i.e., CP 4	
MoF reserves the right to make all but the most standard of supervisory decisions, and has the right to use "political" criteria. This could entail a lack of transparency in decision making. This factor also impinges on ICPs 6, 15 and 16.	Codify the relevant decision-making criteria, and delegate all decision making rights to FSAN.
Suitability of persons i.e., CP 7	
If a notifiable person such as an owner or senior manager ceases to fulfill "fit and proper" requirements, there is no obligation on the insurer to inform FSAN.	Implement appropriate "whistleblowing" regulations for insurers.
Investments i.e., CP 21	
Currency and duration mismatches arise because of the shortage of local investment opportunities to closely match the long-term pension obligations. Currency mismatches are limited by regulation, although this regulation is the most generous permissible under EU Directive. Similarly, insurers are allowed higher large exposure limits than banks. These conditions increase susceptibility to systemic contagion, but are well known to FSAN.	A complex situation that would involve a range of possible measures including: a capital element specifically measured to cover known mismatches; greater use of products such as DC pensions where risk is borne by the consumer, and if this recommendation became common market practice, the Conduct of Business Principles (ICPs 24, 25, 26) could be strengthened in advance.
Consumer protection i.e., CP 25	
Handling of disputes between clients and the intermediaries is currently not covered by the Norwegian Bureau for Insurance Disputes (NBID) which concerns itself with insurer / insured relationships. A regulation to remedy this gap in consumer protection is currently in draft.	Promulgation of the draft regulation should account for the likelihood of risk borne by consumers.
Anti-money laundering i.e., CP 28	

Reference Principle	Recommended Action
The revised FATF recommendations are not currently transposed into Norwegian law because they will be reflected in the Third EU Money Laundering Directive, which is not yet implemented.	If the Directive is not likely to be implemented in the near future, regulations should be introduced in advance of the Directive to give effect to the FATF recommendations.

Authorities' response

67. As for the BCP summary assessment. The authorities underlined that in the Norwegian system for public administration, FSAN is an administrative agency, acting under the general responsibilities of the Ministry of Finance. The activities of FSAN are managed by an independent board and a director general appointed by the King in Council for periods of 4 and 6 years respectively. The objective is that FSAN shall be in a position to exercise its supervisory function independently of government or industry interference. In accordance with the general system for administrative complaints and review, decisions made by FSAN in the exercise of its supervisory functions may – by complaints from parties concerned – be submitted for review by the Ministry of Finance.

68. With respect to institutional arrangements for supervision, the authorities noted that the issue of delegating licensing and authorization authority is examined frequently. But they cautioned that a constitutional system where the minister is responsible to the legislature for financial supervision limits the possibilities for excluding ministerial oversight and decisionmaking. The recommendations in this area seems to be based on a perceived fear of "undue political influence" when decisions are taken at the ministerial level. The authorities pointed out, however, that decisions taken by the Ministry will always be based on a recommendation from FSAN, which always will be available to an applicant, and normally will be publicly available. Thus a decision taken by the ministry will be much more transparent than a decision taken by FSAN. The risk of incorrect decisions is general and not limited to ministries. It follows from Norwegian law that administrative decisions are subject to court review. Decisions that are not taken correctly may be found to be invalid. The authorities maintain that the focus on the risk for incorrect decision making at the ministry level, as opposed to in FSAN, is unwarranted. Further, they maintain the view that FSAN should remain unpolitical, and not be charged with decisionmaking in cases deemed to be of a political nature.

69. The authorities also noted that Norwegian budget procedures have been developed to enable the Storting (parliament) to establish sound general spending levels and to prioritise resource allocation based on a comprehensive proposal from the Government. The budget for financial supervision is part of these procedures, and a relaxation of fiscal discipline is not foreseen.

Payments and Securities Settlement Systems: CPSS Core Principles for Systemically Important Payment Systems (CPSIPS)

General

70. This CPSIPS assessments focused on the main payments system in Norway, Norges Bank Oppgjønsystem (NBO). Without undertaking formal assessments, the assessor also reviewed the Norwegian Interbank Clearing System (NICS) which, though not considered a systemically important system, nevertheless handles a significant volume of smaller transactions; and also the securities settlement systems in Norway. The emphasis in these two analyses was on risk management issues, and the main conclusions are included in the main text of the FSSA.

Institutional and Market Structure

71. The main institutions involved in payment systems policy are Norges Bank and the two Banking Associations in Norway, i.e. Norwegian Savings Bank Association and the Financial Services Association. Norges Bank has three different kinds of involvement in payment systems issues: (i) operational involvement; (ii) oversight function on payment systems; and (iii) a catalyst role inducing changes in the field of payments through supportive actions aiming at facilitating private sector initiatives and creating a platform for consultation and discussions with the financial sector. The two Banking Associations formulate the banking industry's policy in payment systems, set interbank standards, and sustain self-regulation of the payments business via agreements on cooperation between banks and rules for payment services and interbank clearing and settlement.

72. The infrastructure for payments consists of (i) a Real Time Gross Settlement System (RTGS) for interbank large value payments; (ii) a netting system for medium and smaller size SWIFT or interbank payments; and (iii) a multilateral clearing system for retail payments. Norges Bank, the Central Bank of Norway, is the system provider of the RTGS system, NBO. This system settles all interbank payments above NOK 25 million. The NBO is considered a systemically important payment system. The Norwegian Interbank Clearing System (NICS), an ACH owned by the two banking associations in Norway, clears interbank payments below that limit. NICS also processes and clears all retail payments on a multilateral basis, and offers data communication services for NBO. The bulk of the large value payments to be settled on a gross basis in NBO are sent in via the propriety data communication network of NICS. In addition, the NICS platform provides participants of NBO with information on their balances, payments in the queue, available liquidity and so on. Neither the netting scheme for Swift payments, nor the netting scheme for retail payments are considered systemically important. However, the value of the retail payments cleared via NICS is relatively high (NOK 14,409 billion or around 27% of all payments in 2004).

73. There were 149 banks (including foreign branches) registered in Norway in mid-2004, and 147 active in payments systems as at early 2005. A large number of them are small

or very small savings banks with only local activities. 121 of these smaller banks use one of the larger banks as their settlement bank. The settlement bank offers liquidity management services to its clients, settles all client transactions via the account the smaller banks have opened with their settlement agent, grants credit lines to its clients for cash management purposes and is responsible for settling their domestic large value transactions with other banks in the NBO-system via its own account with Norges Bank. In addition, it guarantees and settles the position of these so-called level 2 banks in the clearing of retail payments. DnB-NOR and Swedbank Oslo offer these settlement services.

74. The infrastructure for retail payment is highly developed and very efficient for its users. In 2003 over 78% of all giro transactions were electronically initiated by the customers via ATM terminals, telebanking, the internet, or as direct debit. In particular, the use of internet banking is rapidly growing due to general availability of personal computers and electronic invoicing facilities.

75. In 1984, banks have introduced charges for payment services. This fee structure reflects the actual differences in the costs of the various payment instruments and forms an adequate incentive to the public to use the most efficient payment means. Due to this price-policy, the amount of paper based payment instruments has dramatically fallen to around 5% of all giro transfer orders, and the use of checks has diminished to negligible proportions. Fees cover up to 70% of the operational costs of the banks. Since 2002, the use of float (withholding of incoming or outgoing payments by banks during a certain period to create interest income) is forbidden by law, which not only has promoted the transparency of the cost of payment services for customers but has also reduced the processing time substantially.

Prerequisites for Effective Payment Systems Oversight

76. Norway fulfills all prerequisites for effective payment clearing and settlement systems. The private sector plays an important role both in the provision of payment instruments and in payment clearing services. Cooperation between banks is well established and the common infrastructure is the basis for the individual banks supply of payment services to the market. The relationship between Norges Bank and the banking sector is well-structured and cooperative.

77. The legal framework for payments is sound. There are clear procedures in case a bank will default, and a well-established crisis management is in place. Accounting practices are up to standard and the infrastructure is highly automated and secure. Governance structures allow all banks to bring their opinions forward. Fraud and delays are minimal. Mechanisms for dispute resolution are in place and respected.

Main Findings/Summary

78. The system complies with all 10 Core Principles. There were only minor recommendations made that could lead to a further improvement of the existing system and

the change-over to a new system. With respect to the Responsibilities of Norges Bank, full compliance could be reached by regularly monitoring the compliance of the existing system, as well as the plans for the new system, and to charge the Payment System Department to oversee the NBO. This department, which is not involved in the operational process, is already responsible for the oversight of payment systems outside the central bank.

79. The operations of the NBO-system are embedded in a solid legal framework of laws and contractual arrangements that are complete, reliable and enforceable in all relevant circumstances. Irrevocability and finality are clearly defined in the law and in the rules of the system and are ensured even in case an insolvency procedure is opened against a participant in the system. Collateral arrangements in payments and securities settlement systems are fully enforceable. A small improvement could be made by requiring a legal opinion from banks outside the European Economic Area that apply to become participant in the system.

80. The available documentation and the publications of Norges Bank enables participants to understand the system's impact on each of the financial risks they bear through participating in the NBO-system. However, some additional improvements are possible in the areas of accessibility and the ability to survey the rules and regulations around the system, which, at present, are spread out over a number of contractual agreements between the participants and the system provider.

81. As an RTGS-system with queuing facilities which settles in central bank money, NBO offers protection against credit risk. Liquidity risk is addressed through unlimited intraday credit provided against a broad range of Norwegian and foreign collateral. Due to the abundant liquidity and an optimization procedure, which continuously tries to net queued payments, the system is very fluent and queuing time in NBO is short.

82. The Norges Bank has established an effective security policy and has defined clear objectives to ensure a high degree of operation reliability. Risks are assessed proactively, and appropriate measures are taken to control these risks. Adequate business continuity measures and back-up systems are in place. However, the secondary site of the NICS-system that provides the participants of NBO with liquidity management information is not able to cope with a wide area disaster, and it could be considered whether this forms a vulnerability of the infrastructure.

83. The NBO-system has the usual features of RTGS-systems for sending, queuing and inquiry built in. In addition, an optimization procedure promotes the throughput in the system and helps to solve imminent gridlocks. In terms of practicality, NBO provides all the characteristics of a modern RTGS system that appears to fit the needs of its users, and fulfils the public interests by reducing systemic risks and offering an efficient channel for the execution of monetary policy. Taking into account the public good factor in the system, cost recovery has almost been achieved in 2005, and will be fully achieved next year. The transaction fees are at an acceptable level compared with systems in other countries.

84. The access rules for the NBO-system are clear, publicly disclosed, fair and objective. The access criteria do not have a restrictive impact on competition.

85. The NBO-system's governance arrangements are effective, accountable, and transparent. Adequate consulting procedures with the banking industry are in place around major decision-making procedures.The public is well informed about the roles of Norges Bank and its objectives in the payments area. The Norges Bank also informs the public about all new developments and envisaged changes. There is no clear assignment of responsibility in the organization of Norges Bank with respect to the compliance of the NBO-system with the Core Principles, and no formal procedures are in place to monitor regularly that the system complies with these international standards.

86. Norges Bank is charged by law with the oversight of payment systems, and has adequate instruments and resources at its disposal to carry out this task. However, additional improvement is possible by enhancing the transparency of the oversight policy by codifying and working out the requirements for different categories of payment systems and system providers.

87. The Norges Bank, as overseer of payment systems, participates in international consultation meetings and cooperates closely with Kredittilsynet, the Supervisory Authority in Norway on the oversight of payment systems and securities settlement systems. MoUs with other Nordic central banks are signed on exchange of information and crisis management in the event of a problem in a financial institution that is active in two or more countries.

Authorities' Response and Next Steps

88. Norges Bank notes that the IMF shares the central bank's own evaluation that the NBO RTGS system complies in full with the CPSS Core Principles for Systemically Important Payment Systems. Norges Bank will work to achieve further improvements in the system on the basis of the comments and recommendations given.

89. The central bank will cooperate with the banking industry to examine measures to further improve the efficiency of NBO. Norges Bank, as licensing authority and overseer of the NICS payment system, has recently expressed towards NICS Operator Office that the bank would like to see larger time critical transactions transferred from the net settlement to the NBO RTGS system. Norges Bank has also taken steps towards NICS Operator Office to make them consider the vulnerability of the infrastructure in case of a wide area disaster.

90. Norges Bank will examine how formal internal procedures can be improved to ensure a continuous monitoring of compliance of the central bank's own system with international standards. The central bank will also enhance transparency regarding the bank's oversight responsibility. In connection with the introduction of the renewed RTGS system (planned for launch in 2006-2007), a more comprehensive overview of information relating to the settlement system will be published.

Table 4. Recommended Actions in the Area of Systemically Important Payment Systems

Subject	Main Findings and Recommended Corrective Action Plan
Well-founded legal basis in all relevant jurisdictions (CP 1)	Specify in the rules and regulations, that banks from outside the European Economic Area (EEA) when applying for access to the NBO-system, have to provide a legal opinion with respect to possible conflicts of law.
Understanding of the system's impact on risks; and procedures for the management of risks (CPs 2-3)	Enlarge the survey ability and publish the rules and regulation for the system on website of Norges Bank.
Final settlement; inability to settle by the participant with the largest single settlement obligations (CPs 4-5)	None
Assets for settlement (CP 6)	None
Security and operational reliability; and contingency arrangements (CP 7)	Consider the vulnerability of the infrastructure due to the fact the contingency facilities of the NICS-system could not deal with a wide area disaster.
Practical for the markets and efficient for the economy (CP 8)	Analyze in cooperation with the banking industry whether the efficiency and practicality of the NBO-system, or the new system that will replace the NBO in 2007, could be enlarged. Within this context it could be studied: (i) to remove the agreement among banks on coordinated exchanges of transactions between 12.30 pm and 13.30 pm; (ii) to abolish the netting of interbank payments below NOK 25 million; and (iii) to use the NBO for time-critical and larger client-to-client payments. Intensify the existing coordination and cooperation between Norges Bank, the NICS-system providers, and all other relevant parties within the context of the rescheduling and updating of both the NBO-system and the NICS-system.
Objective and publicly disclosed criteria for participation (CP 9)	None
Governance of the system should be effective, transparent and accountable (CP 10)	None
Responsibility A - *The central bank should define clearly its payment system objectives and should disclose publicly its role and major policies with respect to systemically important payment systems.*	None
Responsibility B - *The central bank should ensure that the systems it operates comply with the core principles.*	Introduce procedures to monitor regularly the present NBO-system and ensure that the plans for the new system comply with the Core Principles.
Responsibility C - *The central bank should oversee observance with the core principles by systems it does not operate and it should have the ability to carry out this oversight.*	Enhance the transparency of the oversight policy for payment systems by codifying the requirements for the different types of systems and publishing them on the website of Norges Bank.
Responsibility D - *The central bank, in promoting payment system safety and efficiency through the core principles, should cooperate with other central banks and with any other relevant domestic or foreign authorities.*	None

Methodological Aspects of Stress Testing in the Norway FSAP

Stress tests were performed to assess the sensitivity to various severe but historically plausible macroeconomic shocks. Coverage was of eight banks, three life insurance companies and three non-life companies that held some 66 percent, 86 percent, and 61 percent, respectively, of total sectoral assets.

The following shocks and scenarios were used. The choice of scenarios was made after the Norges Bank simulated several macro scenarios using its aggregated inflation forecasting and related loss model for enterprises and households. Parameters related to the selected scenarios were then passed on to the banks. The banks then implemented, using their own internal models, scenario analysis using the given parameters from the model generated scenarios to generate portfolio loss estimates associated with the underlying shocks.

A. Single-Factor Shocks

	Banks	Life and non-life Insurance Companies
Interest rate	• +500 bps parallel shift in yield curves • -100 bps parallel shift in yield curves	• +500 bps parallel shift in yield curves • -100 bps parallel shift in yield curves
Equity	• +/- 40 percent change in all relevant stock indices	• +/- 40 percent change in all relevant stock indices
Exchange rate	• +/- 20 percent change in NOK vis-à-vis other currencies	• +/- 20 percent change in NOK vis-à-vis other currencies
House prices (Partial measure of Credit risk)	• -25 percent change in house prices (only partial representation of credit risk)	• -25 percent change in property prices (only partial representation of credit risk)
Disability Provisions		• +50 (for life), +15 or +35(for non-life) percent change in provisions for future disability pensions

B. Multi-variate Scenarios

For banks, two sets of analysis were done for the two chosen scenarios. First a top-down analysis was carried out by the central bank, and second a bank-by-bank analysis by each of the selected 8 banks, under the guidance of the FSAN. The use of two different types of methods, each with its own strengths and limitations, provided a means of cross checking aggregate results.

Scenario 1. Domestic wage inflation and interest rate increase

NB raises its key interest rate by 5 percentage points in a 2-year time horizon as inflationary expectations rise (for example, because of high wage growth). The change in inflation and the NB's key interest rate cause changes in nominal money-market rates as well as real interest rates. The NOK appreciates due to the increase in the domestic 3-month money-market interest rate relative to the corresponding international interest rate. Both the increase in domestic interest rates and the NOK appreciation have a direct negative effect on the domestic output gap. Hence, domestic real GDP growth declines (relative to baseline). As a result, household consumption and investment weaken, and unemployment increases. House prices decline primarily as a result of the higher interest rate, but also as a result of higher unemployment and lower households' total wage income. Stock and commercial prices decline as well.

Scenario 1. Percentage change from previous year.
Deviation from baseline in percentage points in parentheses

Variable	2005	2006	2007
Real GDP	2.4 (-0.8)	1.6 (-1.2)	1.9 (-0.1)
Real household consumption	2.9 (-1.7)	0.6 (-3.3)	0.0 (-2.6)
Unemployment rate (level)	4.5 (0.4)	4.9 (1.1)	5.0 (1.2)
Consumer prices[1]	1.8 (0.4)	2.2 (0.5)	2.7 (0.5)
Interest rate (level)[2]	5.3 (3.0)	6.9 (3.7)	6.2 (2.2)
House prices	-6.7 (-10.2)	-6.4 (-8.3)	2.8 (-0.3)

[1] Adjusted for tax changes and excluding energy prices. [2] 3-month money market interest rate.

Scenario 2. Terms of trade deterioration (perhaps due to decline in oil price)

The NOK depreciates against all currencies by 20 percent as oil prices halve. A long-lasting decline in the oil price reduces consumer-confidence and it affects fiscal policy negatively, due to the fiscal policy-rule. Initially, the nominal NOK depreciation causes a depreciation of the real exchange rate, and increases inflation in consumer prices. NB increases its key rate by 5 percentage points in response. A positive effect on the output gap from the depreciation of the real exchange rate dampens the negative effects, but the additional negative effect from a reaction in consumption and fiscal policy, clearly dominates. As a result household consumption falls strongly compared to the baseline in all three years, real GDP growth grows at a much lower pace in 2005 and 2006, but picks up again in 2007. The development in 2007 reflects that the depreciation of the NOK to some degree levels off, and the increase in expected inflation is reduced, which again causes a reversal of the interest rate. Unemployment increases in all three years. Households' disposable income falls over time, and even though debt growth rapidly comes down, households debt burden increases, and so does their interest burden. House prices fall. From 2004 to 2007, the fall is 33 per cent. The large fall (relative to the baseline scenario), reflects a higher interest rate in most of the simulation period, a higher unemployment rate, lower wage growth, and a decline in consumer confidence. As most of these effects level out over time, the fall in house prices declines.

Scenario 2. Percentage change from previous year.
Deviation from baseline in percentage points in parentheses

Variable	2005		2006		2007	
Real GDP	-0.3	(-3.5)	-0.7	(-3.5)	2.4	(0.4)
Real household consumption	0.4	(-4.2)	-2.6	(-6.5)	-2.2	(-4.8)
Unemployment rate (level)	6.0	(1.9)	7.7	(3.9)	7.8	(4.0)
Consumer prices[1]	1.8	(0.4)	2.8	(1.1)	2.5	(0.3)
Interest rate (level)[2]	7.3	(5.0)	5.4	(2.2)	3.1	(-0.9)
House prices	-20.2	(-23.7)	-14.7	(-16.6)	-2.1	(-5.2)

[1] Adjusted for tax changes and excluding energy prices. [2] 3-month money market interest rate.

Table 1. Norway: Asset Shares of Institutional Groups
(In percent of mainland GDP)

	1999	2000	2001	2002	2003
Banks	114	121	125	130	139
o/w foreign branches	7	8	10	11	15
o/w foreign subsidiaries	6	6	23	23	23
Finance companies	6	7	8	8	8
Mortgage companies	14	19	22	23	26
Life insurance companies	36	35	35	36	38
Other insurance	9	9	9	8	9
Securities funds	12	13	11	9	12
State lending institutions	20	16	16	16	16
Total	211	220	226	230	248

Sources: Norges Bank and Fund staff estimates.

Table 2. Norway: Number and Size of Banking Institutions

	1999	2000	2001	2002	2003	Jun-04
Banks operating in Norway (including foreign branches or subsidiaries)	153	152	151	152	151	149
Number of majority state-owned banks 4/	1	1	0	0	0	0
Norwegian banks structure						
Branches of Norwegian banks at home 1/	1443	1333	1167	1032	1044	884
Branches of Norwegian banks abroad 2/	12	12	7	7	7	8
Foreign banks structure						
Subsidiaries of foreign banks in Norway 3/	2	2	2	2	2	2
Branches of foreign banks in Norway	9	9	8	8	8	8
Branches of foreign subsidiaries and foreign branches in Norway	87	85	231	237	223	225
			In million NOK			
Total assets of banks 4/	1,175,275	1,331,139	1,456,132	1,569,007	1,723,628	1,833,311
o/w majority state-owned banks 4/	297,629	321,994	-	-	-	-
o/w subsidiaries of foreign banks in Norway	58,366	64,062	262,659	275,645	288,173	295,917
o/w branches of foreign banks in Norway	69,022	84,167	117,749	129,857	184,130	222,066

Source: Norges Bank.

1/ Fokus Bank and Bergensbanken excluded in 1999 and 2000. Fokus Bank and Nordea Bank Norway excluded 2001-2004.
2/ Nordea Bank Norway excluded 2001-2004.
3/ Fokus Bank and Bergensbanken in 1999 and 2000. Nordea Bank Norway and Fokus Bank 2001-2004.
4/ Central government owned 60.6 percent of the DnB shares in 1999 and 2000. This share was reduced to 47.3 percent in 2001, 47.8 percent in 2002, 31.4 percent in 2003, and 33.7 percent in Q2 of 2004.

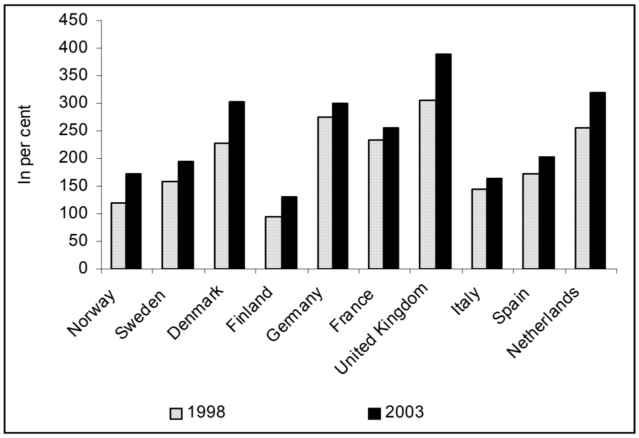
Table 3. Norway: Bank Financial Soundness Indicators (FSIs)
(In percent)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Capital													
Regulatory capital/ RWA	9.84	13.41	14.03	13.44	12.94	12.15	12.18	12.02	12.12	12.59	12.15	12.36	12.16
Tier 1 Capital/ RWA	6.08	8.48	9.50	10.13	9.87	9.30	9.35	9.31	9.13	9.69	9.60	9.72	9.76
Earning and Profitability													
ROAA	-0.56	0.93	1.26	1.32	1.09	0.97	0.77	1.08	1.06	0.77	0.40	0.58	0.85
ROAE	-10.65	17.02	19.80	20.11	15.91	14.73	11.57	15.79	15.60	11.57	6.18	9.61	14.62
Interest income /Interest income + Operating income	92.41	86.67	90.16	86.03	85.54	84.26	88.45	87.20	87.26	89.27	91.79	86.74	82.54
Net interest earnings/Average asset	3.36	3.40	3.22	2.94	2.66	2.33	2.31	2.34	2.19	2.09	2.13	1.90	1.77
Operating expense/Average asset	2.64	2.51	2.58	2.80	2.62	2.31	2.19	2.08	1.95	1.84	1.76	1.63	1.55
Asset Quality													
Non-performing loan (NPL)/ Gross lending	8.85	7.70	5.36	4.06	3.01	2.13	1.42	1.29	1.20	1.31	1.83	1.59	0.97
Loan loss provision/NPL	34.66	28.22	27.58	44.58	40.96	39.26	39.60	37.83	32.02	33.69	29.21	33.12	36.75
NPL net of loan loss provision /Tier 1 capital	103.21	71.06	45.42	24.95	19.73	15.37	10.29	9.84	10.25	10.88	17.12	14.31	8.24
Concentration													
Total loans/Total assets	77.65	81.17	80.59	80.85	77.13	80.09	80.85	79.71	80.30	80.86	80.48	79.50	81.32
Mortgages/Total loans	38.05	41.20	44.54	44.79	47.45	46.12	46.09	46.76	46.34	47.01	49.22	52.02	55.61
Non-financial enterprises (incl. unincorporated enterprises/households)/ Total loans	43.95	42.42	41.63	42.22	40.26	40.57	39.20	38.55	39.42	38.46	36.57	33.84	32.09
of which top four sectoral concentration													
Commercial services and property management/ Total loan	14.17	14.97	15.48	15.49	14.59	15.45	14.67	15.03	16.19	16.34	16.32	15.55	15.37
Retail trade hotels and restaurants/ Total loan	6.92	6.31	6.21	6.14	6.26	6.06	5.79	5.18	4.88	4.81	4.22	3.93	3.63
Manufacturing and mining/ Total loan	4.79	4.48	4.29	4.53	4.45	4.70	4.77	4.31	4.75	4.27	3.96	3.34	2.87
Agriculture, fishing etc/ Total loan	3.86	3.92	3.84	3.82	3.64	3.53	3.47	3.41	3.45	3.64	3.64	3.49	3.28
Foreign currency/Total loans	14.18	12.19	10.08	9.13	8.89	9.50	10.95	10.90	12.00	11.67	9.97	10.34	8.37
Foreign sector/Domestic sector loans	5.64	5.42	4.80	4.77	5.51	5.73	5.34	5.78	4.83	4.65	3.89	3.95	3.68
Large exposure/Tier1 capital 1/	…	…	…	…	…	…	99.55	118.36	113.80	128.19	128.97	109.93	76.77
Funding and Liquidity													
Total deposits/Liability and equity	76.07	76.50	77.49	75.65	75.21	69.95	65.42	65.75	63.93	64.14	66.20	62.52	63.00
Deposits of non-financial sector/Liability and equity	64.54	66.73	67.54	66.15	59.76	54.03	52.17	52.42	50.84	51.06	50.95	47.83	49.34
Deposits from foreign financial institutions/Liability and equity	4.49	5.07	4.28	3.94	9.90	11.72	9.83	9.68	9.44	9.10	10.78	10.54	9.78
Bonds/Liability and equity	6.87	7.29	6.62	6.18	7.16	10.47	13.78	12.21	13.71	14.72	13.78	16.29	16.95
Other liabilities/Liability and equity	2.99	3.03	3.18	3.66	3.54	3.72	3.93	3.39	3.69	3.58	6.25	7.90	7.04
Foreign currency liability and equity/ Total liability and equity	15.77	13.56	12.04	10.50	15.48	19.74	20.64	21.22	22.88	22.79	20.78	24.26	23.22
Foreign borrowing by banks/Liability and equity	5.89	6.77	5.79	5.55	11.52	13.53	12.13	12.42	11.99	12.16	13.74	12.89	12.45
Loans net of provisions/Deposits	95.82	99.40	99.05	103.23	99.98	112.43	121.60	119.46	123.94	124.25	119.55	125.21	127.47
Liquid asset/Short-term liability	105.82	115.16	111.89	88.73	79.81	59.30	58.82	62.54	61.07	60.01	56.46	58.91	59.26
Memorandum Items													
Household debt/ GDP	76.32	72.38	69.86	67.71	65.43	64.88	68.18	67.59	62.30	66.27	72.67	77.66	…
Assets of top five banks/Total banking sector asset	67.03	64.73	62.87	61.50	59.60	60.77	60.07	61.39	60.44	59.66	58.86	59.63	60.85

Source: Norges Bank.

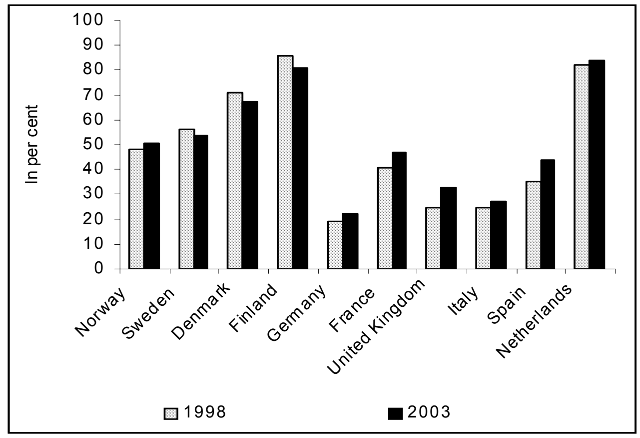
1/ Large exposures refer to one or more credits exposures to the same individual or group that exceed 10 percent of regulatory capital (before weighting). The total number of large exposures is not allowed to exceed 800 percent of regulatory capital. Other liabilities are trade creditors, trust certificates, expenses accrued, not fallen due, income paid, not earned, payable tax and tax liability, provisions, and other liabilities.

Figure 1. Credit institutions' total assets in relation to GDP



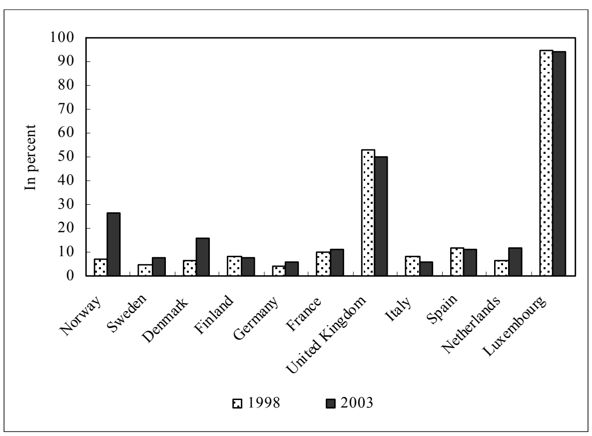
Source: ECB/FSAN.

Figure 2. Concentration in the credit market *



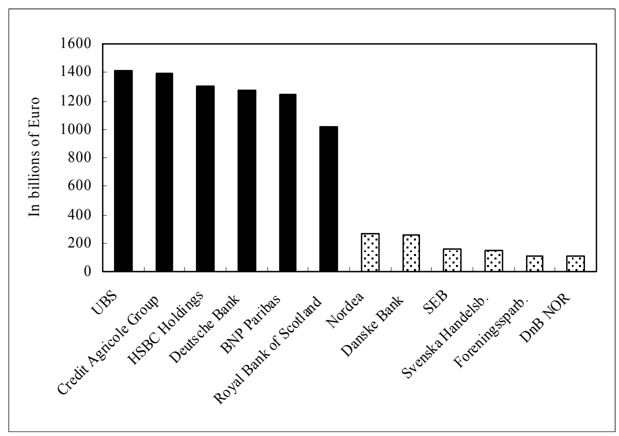
Source: ECB/FSAN.
* Five largest credit institutions` share of aggregate total assets.

Figure 3. Comparison of Foreign Banking Presence
(Foreign branches' and subsidiaries' total assets as % of aggregate credit institutions' assets)



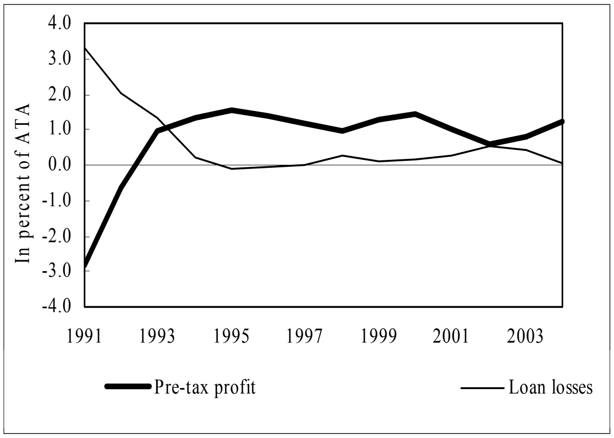
Sources: ECB, FSAN

Figure 4. Largest European and Nordic Financial Conglomerates (total assets, 2003)



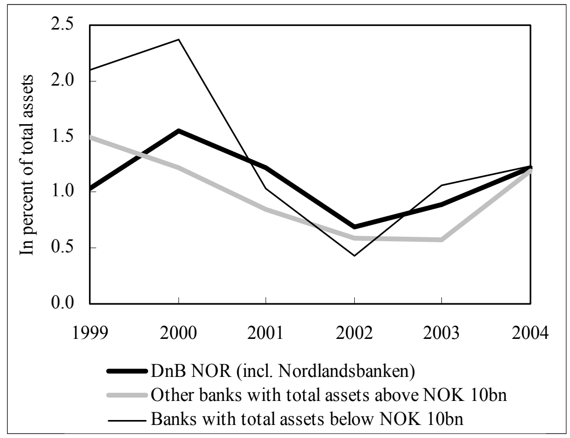
Sources: FSAN (The Banker / Annual Reports)

Figure 5: Banks' loan losses and results before tax



Source: FSAN

Figure 6: Banks' results before tax, by bank size



Source: FSAN

Table 4.Total Assets in Financial Groups by Line of Business (%, June 2004)

	Banks	Finance companies	Mortgage companies	Life insurance	Total group
DnB NOR	77.9	2.4	1.8	17.8	100.0
Nordea Norge	81.5	1.9	7.0	9.6	100.0
Sparebank 1 alliance[2]	93.1	1.5	0.0	5.4	100.0
Storebrand	16.5	0.0	0.0	83.5	100.0
Terra alliance[3]	99.7	0.3	0.0	0.0	100.0
Fokus Bank	66.1	0.0	33.9	0.0	100.0

[1] 'Total group' is equivalent to the combined total assets in the various lines of business in the table. The table does not show an exhaustive list of the activities of Norwegian financial groups. For example, unit-linked insurance, securities funds and asset management have been excluded

[2] The Sparebank 1 alliance comprises Sparebank 1 Gruppen AS and the 18 Norwegian banks that own the group

[3] The Terra alliance comprises Terra Gruppen AS and the 85 banks that own the group

Source: NB

Table 5: Life Insurance Companies Financial Indicators

	2001		2002		2003		2004	
	NOKm	% of ATA	NOKm	% of ATA	NOKm	% of ATA	NOKm	% of ATA
Premium revenues for own account	38 305	9.6	42 780	10.5	44 990	10.3	56 998	11.8
Net revenues from financial assets	3 890	1.0	7 275	1.8	36 441	8.3	31 812	6.6
Claims	27 737	7.0	27 882	6.8	29 610	6.8	31 639	6.5
Change in technical provisions	20 314	5.1	23 946	5.8	29 327	6.7	37 655	7.8
Result before new supplementary provisions, allocation to policyholders and tax	936	0.2	-2 434	-0.6	11 201	2.6	11 689	2.4
Change in fluctuation reserves	-6 630	-1.7	-1 025	-0.3	6 818	1.6	3 488	0.7
Value-adjusted result before new supplementary provisions, allocation to policyholders and tax	-5 694	-1.4	-3 459	-0.8	18 019	4.1	15 177	3.1
	NOKm	% of TA	NOKm	% of TA	NOKm	% of TA	NOKm	% of TA
Total assets	394 656		414 154		459 188		508 991	
Bonds held to maturity	72 548	18.4	124 673	30.1	166 206	36.2	165 405	32.5
Equities and units (current assets)	80 127	20.3	30 497	7.4	55 440	12.0	79 812	15.7
Money market instruments and bonds (current assets)	145 945	37.0	155 530	37.6	134 297	29.3	155 791	30,6
Buffer capital	17 973	4.5	14 274	3.4	25 266	5.5	32 477	6.4

Source: FSAN

Table 6: Non-life Insurance Companies Financial Indicators

	2001		2002		2003		2004	
	NOKm	% PFO	NOKm	% PFO	NOKm	% PFO	NOKm	% PFO
Premium revenue for own account	14 424		16 326		18 746		20 985	
Allocated investment return	1 789	12.4	1 846	11.3	1 526	8.1	1 029	4.9
Claims expenses for own account	12 033	83.4	13 286	81.4	14 807	79.0	14 368	68.5
Operating expenses for own account	3 501	24.3	3 963	24.3	4 245	22.6	4 316	20.6
Change in contingency provisions etc	766	5.3	1 224	7.5	1 061	5.7	1 064	5.1
Result of technical account	-61	-0.4	-276	-1.7	186	1.0	2 289	10.9
Net financial revenues	320	2.2	1 048	6.4	4 749	25.3	1 508	7.2
Allocated investment return (transferred to technical account)	1 789	12.4	1 846	11.3	1 526	8.1	1 029	4.9
Result of ordinary operations	-1 553	-10.8	-1 175	-7.2	3 404	18.2	2 764	13.2
	NOKm	% of TA	NOKm	% of TA	NOKm	% of TA	NOKm	% of TA
Total assets	39 184		40 674		48 745		55 278	
Equities and units (current assets)	7 265	18,5	1 544	3,8	3 141	6,4	2 619	4,7
Bonds and money market instr. (total)	12 718	32,5	22 487	55,3	26 148	53,6	35 876	64,9
Technical provisions	25 166	64,2	28 157	69,2	32 062	65,8	35 676	64,5

PFO: premium revenue for own account
Source: FSAN