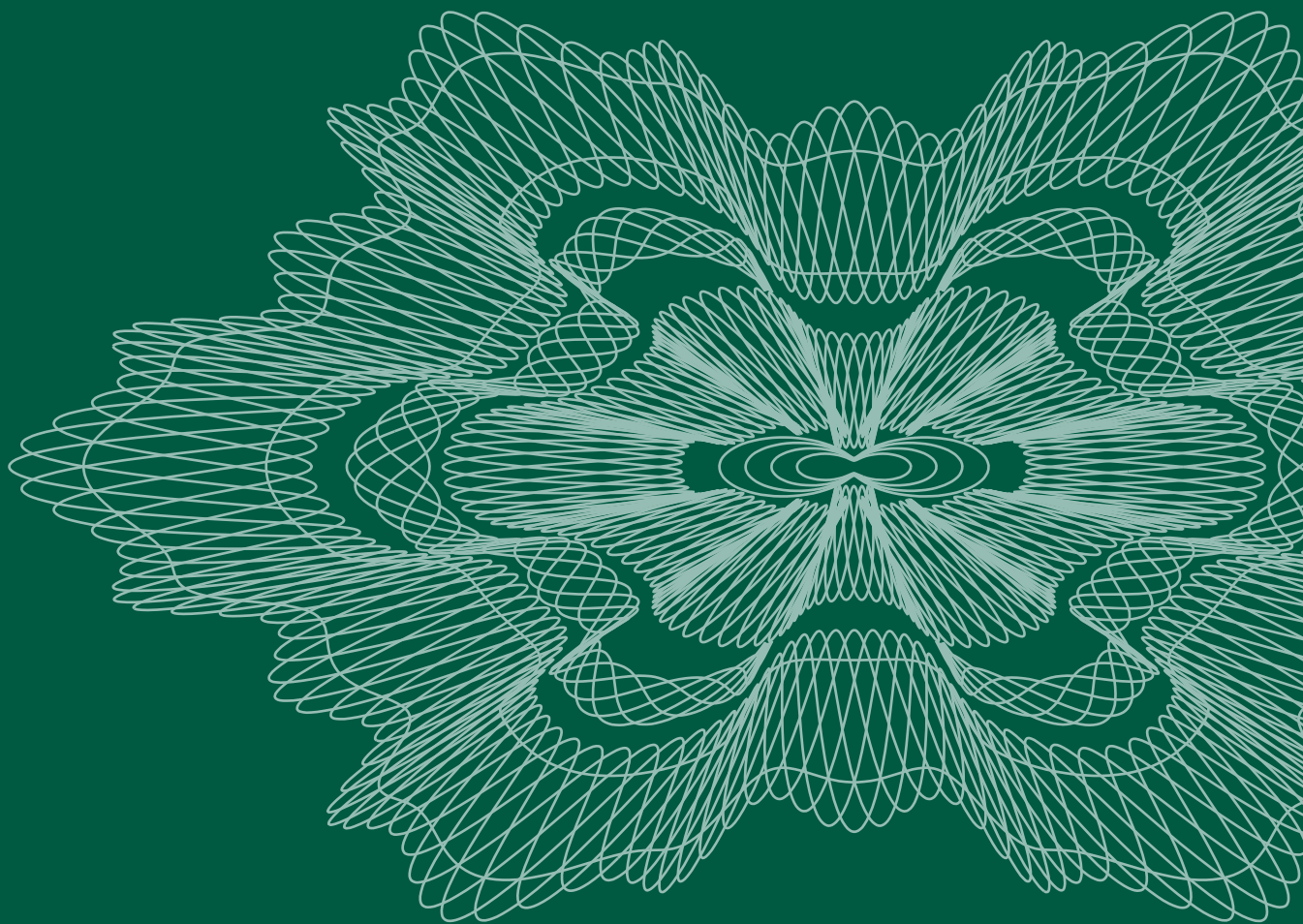




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Measuring market risk in Norwegian financial institutions

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This article discusses two methods for analysing market risk in the Norwegian banking sector and in life insurance companies. The two methods, Value at Risk (VaR) and stress tests, are commonly used in individual institutions, but have been adjusted here for use on the available aggregate statistical data from the banking and insurance sector. The methods have to be simplified for use on these aggregate data, but the analyses nevertheless provide an indication of the vulnerability of the institutions viewed as a whole. Our analyses show that the market risk of commercial and savings banks, viewed in relation to total assets, is low. The market risk of life insurance companies is higher, but has fallen in recent years.

1 Introduction

Market risk is the risk of assets declining in value as a result of fluctuations in market prices. Financial institutions' portfolio of financial instruments consists of equities, fixed income instruments (bonds, notes and short-term paper) and derivatives. Market risk for equities relates to the possibility of equity prices falling, and for fixed income paper to the possibility of interest rates rising. The market risk associated with derivatives depends on the specific derivative position. For special derivative positions, even small changes in the prices of the underlying assets may result in a sharp fall in the value of the derivatives.

There are substantial differences between market risk in Norwegian banks and life insurance companies, a fact that has been fully illustrated by the sharp fall in equity prices in recent years. Norwegian banks own a relatively small amount of fixed income paper and very few equities (see Table 1)¹, so the direct impact on banks of the fall in equity prices has been limited. Because of their long-term obligations, life insurance companies invest a substantial share of their capital in equities and

long-term bonds. At the end of 1999, over 30 per cent of their total assets were invested in equities. They were severely hit by the fall in equity prices, and had to sell equities to reduce their risk. In 2002, they purchased considerable amounts of bonds. This, along with the reclassification of some securities from the category fixed income paper held as current assets, brought about a sharp increase in the category 'bonds to be held to maturity', and they accounted for 30 per cent of total assets by end-2002.² About two-thirds of these bonds had maturities after 2005. 'Bonds to be held to maturity' are to be regarded as fixed assets, and are not included in the insurance companies' holdings in Table 1.³ The reclassification of bonds to the category 'to be held to maturity' reduces market risk in the short term, but may also reduce the flexibility of fixed income management.

There are several methods for measuring market risk. In this article, Value at Risk (VaR) and stress tests are presented. VaR is a measure of the market risk associated with 'normal' fluctuations in securities markets, while stress tests are used to measure the effect of dramatic price changes.

Table 1 Composition of financial institutions' securities portfolios at 31 December 2002 ⁺

	Commercial banks	Savings banks	Life insurance companies
Total assets (TA)	NOK 887.9 billion	NOK 681.3 billion	NOK 414.2 billion
Share of TA in securities portfolio	8.7 %	7.0 %	39.6 %
<i>Composition of securities portfolio</i>			
Norwegian fixed income paper	61.7 %	66.7 %	52.8 %
Foreign fixed income paper	31.3 %	21.2 %	28.5 %
Norwegian equities	5.7 %	11.7 %	7.6 %
Foreign equities	1.3 %	0.6 %	11.1 %

⁺ Banks' securities portfolios include securities classified as both current assets and fixed assets. Life insurance companies' securities portfolios include only securities classified as current assets.

Source: Norges Bank, banking and insurance statistics

* Valuable comments from Ketil J. Rakkestad and Bent Vale are gratefully acknowledged.

¹ One reason for the low equity share is that Section 24 of both the Commercial Banks Act and the Savings Banks Act stipulates that the recorded value of banks' holdings of equities and units must not exceed 4 per cent of their total assets. The Norwegian Banking, Insurance and Securities Commission may grant exemption from this provision.

² The regulation relating to annual accounts etc. for insurance companies defines 'bonds to be held to maturity' as bonds that the company has the intention and means to hold to maturity. The general rule is that when bonds classified as 'hold to maturity' are reclassified or sold, the company may not classify new bonds as 'hold to maturity' for the next three accounting years.

³ Fixed assets are assets intended for permanent ownership or use. Other assets are current assets.

Value at Risk (VaR)

VaR is a measure of the potential loss of value of a portfolio of assets in a given period of time for a given confidence level. Example: A VaR sum of NOK X, given a one-sided confidence level of 95 per cent and a period of 1 day, means that the probability of a fall in value in excess of X during the next 24 hours is 5 per cent. This means that on average losses can be expected to exceed VaR every 20th day.⁴

Most VaR models use historical data to estimate a probability distribution for the return on the portfolio. Given assumptions about the confidence level and time horizon, VaR is then estimated on the basis of this probability distribution.

Stress testing

Stress tests are used to estimate the change in value of the portfolio in the event of predefined market shocks. Common stress test scenarios are sharp falls in equity prices and steep rises in interest rates (see Fender and Gibson (2001)). Stress test scenarios should involve dramatic, but not totally improbable price movements. When choosing scenarios, it is usual to study previous situations with stress in financial markets. However, the choice of a concrete scenario is highly subjective.

The Norwegian Banking, Insurance and Securities Commission, for instance, uses two stress test scenarios to assess the risk-bearing capacity of life insurance companies (see the Banking, Insurance and Securities Commission (2003)). The first scenario consists of a 20 per cent price fall in equity markets, while the other consists of a 20 per cent price fall in equity markets combined with a general rise in interest rates of 1 percentage point.

2 Our VaR model

This chapter provides a brief description of fundamental assumptions in the model. We use a parametric VaR model.⁵ This involves an assumption that the return on assets follows a specific type of probability distribution, in this case normal distribution. The parameters that determine the normal distribution are estimated from historical price data as described below.

The return for a period is measured as the logarithmic price change, and the logarithmic price changes are assumed to be normally distributed. In principle, the expected return and the standard deviation of the expected return should be estimated for each asset. The expected return for a period is normally estimated as the average return, \bar{r}_i , over a certain number of periods. Our VaR model is based on daily data, and we choose to set the expected daily return equal to zero. This has proved to be a reasonable approach, as the difference between 0

and the 'actual' daily return is small, and there is considerable uncertainty associated with the estimation of returns (see Luenberger (1998)).

Our VaR model uses an exponentially weighted moving average of historical observations to estimate future variances and covariances (see Rakkestad, 2002). The formula for calculating the standard deviation (volatility) of asset i for the last V periods is:

$$(1) \quad \sigma_{i,t+|t|} = \sqrt{\frac{1-\lambda}{1-\lambda^V} \cdot \sum_{u=1}^V [\lambda^{u-1} \cdot (r_{i,t+1-u} - \bar{r}_i)^2]}$$

where $\sigma_{i,t+|t|}$ is the estimate after period t for the volatility of asset i in period $t+1$, $r_{i,t}$ is the logarithmic return on asset i in period t and $\lambda \in (0, 1)$ is the weighting parameter. The lower the value of λ , the greater the effect on the latest return figures. Our VaR model uses $\lambda = 0.94$. In calculating the daily volatility in (1), the average for the sample is set at 0, $\bar{r}_i = 0$, and return data for $V = 250$ days are used. However, using $\lambda = 0.94$ means that far fewer days are effectively used, because very little weight is attached to the most remote observations. The covariances between different assets are calculated in the same way as in (1).

The estimated volatility of the return for a period can be converted to the estimated volatility of the return over T periods by means of the formula: $\hat{\sigma}_{i,t+T|t} = \sqrt{T} \cdot \hat{\sigma}_{i,t+|t|}$. In the VaR model, this formula is used to convert daily volatility to estimated volatility for a 10-day time horizon. Conversion is carried out in the same way for the covariances.

Ideally, the volatility of each asset, as well as the covariances between the returns on the different assets, should be taken into account when calculating VaR for portfolios. With large securities portfolios it is often impractical to take account of all the assets in this way. The calculation process can be simplified by assigning assets to a smaller number of reference categories. We use this type of assignment in our VaR model. The market values of the assets assigned to the various reference categories as a share of the total market value of the portfolio are represented by portfolio weights which together form a portfolio weight vector. The estimated volatility of the portfolio is found by pre- and post-multiplying the covariance matrix for the reference categories by the portfolio weight vector. The return profile of the portfolio is then given by the normal distribution with expectation 0 and the estimated standard deviation (volatility). The VaR of the portfolio is then calculated on the basis of this normal distribution.

⁴ $\frac{1}{1-0.95} = 20$

⁵ The model is based largely on the VaR model RiskMetrics developed by JP Morgan (see RiskMetrics Group (1996) eller <http://www.riskmetrics.com/research.html>).

3 Underlying data

To run a VaR model, both holdings data and market data are required. For stress tests, holdings data are sufficient. Daily market data are readily available from various suppliers of data, but both the frequency and the quality of the available holdings data are lower. An account is provided below of available holdings and stress test data for Norwegian banks and life insurance companies.

Banking statistics

The data source for banks is Report 11 in Official accounts reporting for banks and finance enterprises. This report is based on quarterly reporting and contains some holdings and stress test data for individual banks. Stress test data are reported to provide an indication of the market risk of banks' holdings of securities.

The banking statistics data on equities and fixed income instruments are split up into data on Norwegian and foreign securities, respectively. For equities, only the total market value of the holdings of each bank is supplied. It would have been desirable to have information regarding country and sectoral distribution of equities, but the available information can be used to provide a rough estimate of the market risk of the equity holdings. The statistics on fixed income paper are more detailed. The breakdown into five maturity intervals makes it possible to reach more precise conclusions regarding the market risk associated with fixed income paper.

The stress test data contain changes in the value of the fixed income paper given interest rate increases of 1 and 2 percentage points. There is also information about the change in value of equity and interest rate derivatives for a 30 per cent fall in equity prices and for interest rate increases of 1 and 2 percentage points.

Insurance statistics

The data source for the insurance companies is Report 11 in Official accounts reporting for insurance companies. Unlike the banking statistics, the insurance statistics are broken down by country, showing companies' holdings of equities, fixed income paper and units in securities funds that are classified as current assets. This provides a useful basis for assessing the market risk associated with the equity holdings of life insurance companies. In contrast to the banking statistics, there is no overview of the maturities of fixed income holdings. The lack of information about maturity composition means that estimates of the interest rate risk of life insurance companies will be approximate. Because fixed income paper represents a higher share of their total holdings than previously, interest rate risk represents a

larger share of the total market risk of life insurance companies today. The insurance statistics contain the same kind of stress test data as the banking statistics.

Adaptation of the VaR model to the underlying data

The coverage of banking and insurance statistics data has been taken into account in the development of the VaR model. There are insufficient statistics on derivative positions to allow derivatives to be included in the model. Derivative positions in a portfolio may result in either increased or reduced market risk compared with the same portfolio without derivatives. This depends on the reason for using derivatives in the portfolio. The fact that the VaR model does not include the effect of derivatives on market risk is therefore a drawback. Because of inadequate underlying data, exchange rate risk is not taken into account either.⁶

Assignment to reference categories

In order to simplify the calculation process in our VaR model, the different types of assets are assigned to a limited number of reference categories. Because of the different data coverage of the two sets of statistics, different reference categories are used for banks and for life insurance companies.

Reference categories with maturities of 0, 1 and 10 years are used for banks' fixed income paper. Holdings in each of the maturity intervals in the banking statistics are assigned to the two closest reference categories in such a way that the average maturity for the assigned holdings is equal to the average maturity of the holdings in question. In all, the VaR model for banks operates with eight reference categories: one for Norwegian equities, three for Norwegian fixed income securities and the same four categories for foreign securities.

The insurance statistics show companies' holdings of all equities, fixed income securities and units in securities funds classified as current assets, broken down by country. We have found it appropriate to use three geographical regions: Norway, Europe, and the US plus the rest of the world. There is no direct information on the maturities of fixed income securities, but the information regarding the change in value of fixed income securities in the event of a general rise in interest rates of one percentage point is used to estimate the average duration of fixed income securities holdings at about 4 years. All fixed income securities are assumed to have this maturity. This results in a total of six reference categories in the VaR model for life insurance companies: one for Norwegian equities, one for European equities, one for US equities and three corresponding categories for fixed income securities.

⁶ As a result of Section 13 of the Regulation relating to insurance companies' investment management, the exchange rate risk of life insurance companies is nevertheless limited.

Reference indices

Each reference category must be linked to a reference index. The equity categories are linked to broad market indices, while the fixed income categories are linked to government securities with the appropriate maturity. The underlying data for the reference indices are the index values for equity indices and yields for fixed income securities. The yield of a fixed income security with n years to maturity is converted to a price on the basis of the assumption that the yield applies to a zero coupon bond ⁷.

Through the allocation of assets to reference categories, the VaR model is based on the assumption that developments in the value of the securities holdings of financial institutions mirror developments in the reference indices chosen.

This is a somewhat unrealistic assumption, as the equity holdings are not as well diversified as the equity indices chosen, whereas the holdings of fixed income securities are more broadly diversified than the government securities chosen.

4 Results

In calculating VaR for financial institutions, a one-sided confidence level of 99 per cent and a time horizon of 10 trading days (2 weeks) have been used. Securities holdings at 31 December 2002 and price movements up to 16 May 2003 form the basis for the calculations. The fact that such relatively old holdings data have to be used in the model is a weakness. It will affect the results from banks to a limited extent, as experience shows that there are small changes in the composition of their holdings from one quarter to the next. The composition of life insurance companies' holdings changes more frequently, so a lack of updated holdings data may affect the quality of the results reported for these companies.

The stress test used for financial institutions is a 30 per

cent fall in equity prices combined with a 1 percentage point general rise in interest rates. With this scenario, it is possible to use the banking and insurance statistics stress test data that relate to changes in the value of holdings of fixed income securities and equity and interest rate derivatives. The fall in value of equity holdings as a result of a 30 per cent fall in equity prices is calculated on the basis of the holdings data.

Market risk in banks

Volatility estimates at 16 May 2003 indicate that VaR constitutes a very small share of the securities portfolio value of both commercial and savings banks (see Table 2). VaR is somewhat higher for savings banks, because equities make up a somewhat larger share of their portfolio and the maturity of their fixed income securities is a little longer. The reported VaRs indicate a less than 1 per cent probability of the securities holdings of commercial and savings banks' falling more than 0.6% and 1.0%, respectively, during the next 2-week period. By way of comparison, the corresponding VaR estimates were 1.7% and 2.7% at end-September 2001. The difference can be attributed largely to higher volatility (wider price fluctuations) in September 2001, and illustrates how VaR is influenced by volatility in securities markets.

The stress test also indicates that market risk in savings banks is higher than in commercial banks. Although the decline in the value of the securities portfolio is estimated at 6.5%, this is equivalent to less than 0.5% of savings banks' total assets. The main reason for the relatively large difference between savings and commercial banks is the higher equity holdings of savings banks, which are 'severely penalised' by the stress test. All in all, market risk in banks is low because of their very limited equity holdings and relatively limited holdings of fixed income securities.

Table 2 Estimated market risk, based on holdings at 31 December 2002 and price movements up to 16 May 2003.

	Commercial banks	Savings banks	Life insurance companies
Value of securities portfolio	NOK 77.6 billion	NOK 47.4 billion	NOK 164.0 billion
Total assets	NOK 887.9 billion	NOK 681.3 billion	NOK 414.2 billion
Value at Risk (VaR)			
Volatility of securities portfolio (annualised)	1.3 %	2.2 %	3.6 %
VaR (as a percentage of portfolio value)	0.6 %	1.0 %	1.7 %
VaR (as a percentage of total assets)	0.05 %	0.07 %	0.7 %
Stress test			
Decline in value (as a percentage of portfolio value)	2.2 %	6.5 %	8.2 %
Decline in value (as a percentage of total assets)	0.2 %	0.4 %	3.2 %

Source: Norges Bank, banking and insurance statistics

⁷ A zero coupon bond is a bond that does not pay any interest during its life. The price of such a bond is therefore always lower than the nominal value of the bond. In practice, large portions of the bond portfolio will consist of bonds with fixed coupon payments.

Securities classified as both current and fixed assets are included in the analysis of market risk in banks. Information on the maturity of fixed income securities makes too small a distinction between current assets and fixed assets for it to be possible to separate them in the analysis. Whether equities classified as fixed assets should be excluded from the analysis is an open question. One argument for including them is that a large portion of the equities classified as fixed assets are priced regularly in organised market places. If the analysis had only been based on equities classified as current assets, the equity holdings of commercial and savings banks would have been reduced by 90 per cent and 69 per cent, respectively. This would have resulted in substantially lower market risk than that reported in Table 2.

Market risk in life insurance companies

The estimates for VaR in life insurance companies are based only on securities classified as current assets. This means that bonds classified as 'hold to maturity', which now account for over 30 per cent of total assets, are not included in the estimates.

The fall in equity prices combined with the sale of equities has sharply reduced the share of life insurance companies' equity holdings in the past three years. This has contributed to reducing market risk. However, VaR as a percentage of portfolio value is still higher than for banks, due to the larger share of equities and longer maturity for fixed income securities. At 16 May 2003, VaR amounted to less than 1 per cent of total assets. The stress test shows a more pronounced effect for life insurance companies than for banks, particularly in terms of the decline in value in relation to total assets.

The notes to the companies' financial statements are a source of further information about the maturities of life insurance companies' holdings of fixed income securities. In the notes, fixed income securities are grouped into three maturity intervals. We have used the information in the notes at 31 December 2002 for one of the large life insurance companies to assign securities to categories with maturities of 0, 1, 5 and 10 years, broken down by region. This maturity classification is assumed to be representative for Norwegian life insurance companies as a whole, and is used in an alternative application of the VaR model. In this application, the three original reference categories for fixed income securities (based on regions) are replaced by twelve reference categories (3 regions combined with 4 maturities). This analysis results in a VaR of 1.4 per cent of the portfolio value, which is less than the result in Table 2. To further improve the prediction capability of the model, it would have been desirable to have more information about the

maturity interval 1-5 years, as a substantial share of life insurance companies' fixed income securities falls within this interval, and there is a large difference in market risk between 1-year and 5-year fixed income securities.

Strengths and weaknesses of the methods

One strength of VaR is that the method takes account of the covariance between different assets (reference categories) and hence the risk reduction achieved through diversification. However covariance is not constant over time. In a crisis situation, previously observed correlations may change radically and the volatility of the equities may increase sharply. In such situations, stress tests are preferable for assessing market risk. It is usual to assume full correlation between different price changes in stress tests, which can be a useful approach in crisis situations.

The assumption in the VaR model that logarithmic price changes are normally distributed is a little dubious. Innumerable empirical surveys show that the probability distributions of logarithmic changes in prices for financial assets are more centred and have heavier tails than the normal distribution. This suggests that the VaR figures reported for the 99% level are on the small side. Another weakness of VaR is that the calculated loss of value only applies to a given confidence level. Thus, VaR provides no indication of properties further out in the tail of the probability distributions.

In many cases, stress tests are a simple way of revealing vulnerability to different risk factors. However, they have a tendency to overdramatise the situation, as they do not take account of the fact that a sharp impact on prices will trigger actions which in the great majority of cases will be capable of mitigating the detrimental effects. Moreover, changes in markets and in exposure to various risk factors may make stress test scenarios outdated in relation to the risk situation in question.

Despite the weaknesses pointed out above, both VaR and stress tests are valuable aids for assessing market risk. As with all use of models, it is important to know what assumptions they are based on and to understand the consequences of these assumptions. Whereas VaR estimates can be said to be based on the assumption that recently observed price fluctuations are representative of price fluctuations in the immediate future, stress tests allow for dramatic price movements which may only occur at intervals of several decades. Stress tests are therefore a good supplement to VaR estimates, and the two methods should be used together to assess market risk.

6 Conclusion

This article has considered the question of market risk in Norwegian financial institutions at an aggregate level with the aid of two analytical methods, VaR and stress testing. It has been necessary to adapt the methods used to the available data, and in consequence there is more uncertainty than normal associated with the results. Not surprisingly, the analysis shows that market risk first and foremost is an important factor in life insurance companies. Market risk in banks is low.

References:

- Fender, Ingo and Michael S. Gibson (2001): "Stress testing in practice: a survey of 43 major financial institutions". *BIS Quarterly Review*, June 2001.
- The Norwegian Banking, Insurance and Securities Commission (2003): *Tilstanden i finansmarkedet 2002* (State of the financial market 2002)
- Luenberger, David G. (1998): *Investment Science*. New York Oxford University Press
- Rakkestad, Ketil Johan (2002): "Estimering av indikatorer for volatilitet" (*Estimation of volatility indicators*). Working Paper 2002/3. Norges Bank
- RiskMetrics Group (1996): "RiskMetrics Technical Document". Fourth edition

The reliability of today's financial macro-indicators

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Norges Bank's key rate (sight deposit rate) is set on the basis of information concerning developments in a number of economic and financial variables. In order to provide the optimal basis for monetary policy decisions, it is important that these key indicators show results that are as correct as possible at the earliest possible point in time. The credit indicators C2 and C3, the money supply M2 and household net lending are important financial variables underlying monetary policy decisions. This article presents an analysis of the data quality of these indicators when they are initially published. Figures for household net lending in Norges Bank's financial accounts are also compared with corresponding data calculated in the income account in the national accounts, which have been used as a reference in this discussion.

We conclude that there are relatively small revisions to the C2 and M2 figures, and that the size of the revisions has been gradually reduced over the past few years. For credit from foreign sources, and thereby for C3, revisions of the figures are larger and more frequent. Household net lending is also revised over time, but the initially published figures capture the main features of the final figures relatively well.

Introduction

The quality of initially published data for an indicator is often referred to as its "real time properties". More precisely, the real time properties of an information source refer to its ability to measure the "true" movements in the area covered at the earliest possible point and in the most accurate manner possible. An indicator where it is unlikely that initially published figures will be subsequently revised, where any corrections can be expected to be minor and where the change from one period to the next that is indicated by the figures is seldom reversed as a result of revision, may be said to have good real time properties.

Monetary policy decisions (interest rate setting) are taken on the basis of information concerning developments in a number of economic and financial variables, which is combined to provide a picture of the inflation outlook. The interest rate is set on the basis of the relevant information that is available at the time the decision is taken. A necessary precondition for setting the "right" interest rate is therefore that the real time properties of these variables are good. The credit indicators C2 and C3, the money supply M2 and household financial accounts are important financial variables underlying monetary policy decisions. An analysis of real time properties for these financial indicators is therefore of particular interest from a monetary policy point of view.

In July 2003, the International Monetary Fund (IMF) published Report on the Observance of Standards and Codes, which includes an in-depth data quality assessment of a range of Norwegian statistics compiled by the Ministry of Finance, Norges Bank and Statistics

Norway. One of the areas assessed was monetary statistics, including money supply and credit indicator statistics, and the Norwegian statistics achieved a very high score in most data fields. The IMF has a number of criteria that must be met before a statistics producer can be said to follow best international practice. One of these criteria is that revisions of the various statistics are regularly analysed and the results published. A detailed description of what the IMF regards as sound revisions policy is provided in Carson, Khawaja and Morrison (2003, pp. 13–19).

Principles for analysis

In a monetary policy context, figures for both levels and growth rates for credit indicators and the money supply are of interest. However, the assessment of ongoing economic developments is primarily concerned with growth rates. In our study of the real time properties of the credit indicator C2 and money supply M2, we have therefore based our study on the published monthly figures for growth rates in the period January 1997-June 2003, focusing on any differences between initial and "final" figures. In addition, we have studied these differences to discover any systematic deviations. As a measure of the degree of revision, we study the difference in percentage points between initial and final figures for twelve-month growth rates. Under Norges Bank's revisions policy, the time series for credit and money supply variables are routinely revised in the monthly publications. This means that the latest publication contains the figures that in our view are most correct at any given

time. To establish more precisely how much of the difference between initial and final growth rates is due to revisions in the source data, however, the final figures (the answer) must be adjusted to accommodate changes in definitions, methods and sources. The idea is that the definitions, methods and sources that were used when the figures were initially published, i.e. in real time, are used for the whole period.

There are no “absolutely final figures” in a series of economic figures. It will always be possible to change the figures at a later stage as a result of revisions in the source data (ordinary revisions) or when series are readjusted after the introduction of new definitions, methods and sources. These reorganisations are made to obtain more correct and consistent historical series. In our experience, most ordinary revisions in C2 and M2 occur in the first three months after initial publication, while there are very few revisions later than this. Our normal practice will therefore be to regard the time series for C2 and M2 published in June 2003 as the “final answer” for a study period up to March 2003.

For credit from foreign sources, and thereby also C3, publication involves a time lag that is just over a month longer than for C2 and M2. At the time of writing, data have only been published for credit from foreign sources and C3 up to end April 2003, and in principle final figures only up to end January 2003. In this article, we have therefore chosen to regard figures up to end December 2002 as final for C2, M2, credit from foreign sources and C3.

Another set of key statistics underlying monetary policy decisions is household financial accounts. These statistics provide a description of households’ financial position and summarise this sector’s behaviour in financial and credit markets by calculating net lending for this sector.

Real time properties are analysed by comparing initial figures for net lending with the most recently published time series. So far, the financial accounts have not been subject to major structural revisions, and the revisions discussed in this article are therefore ordinary revisions of the figures.

Net lending in the financial accounts is also compared with household net lending as calculated in the income account of the national accounts (Statistics Norway). We have not attempted to comment on the real time properties of the income account¹, but have used the income account as a reference in our discussion of the financial accounts. One of the main issues is whether the accounts reflect the same overall picture or whether the differences have widened over time. The differences between these two methods of calculating net lending have been relatively substantial in periods. Factors that may serve to explain some of the differences observed are also discussed in this article.

1. Real time properties of credit indicators

Introduction

As explained above, the real time properties of the credit indicators C2 and C3 are assessed based on an analysis of the degree of revision. Definitions and symbols used for the credit indicators are described in a separate box. For editorial reasons, the real time properties of the credit indicator C1 have not been analysed in this article. Nor have the revisions been decomposed by credit source or borrowing sector.

In the period 1997-2000, data for credit from foreign sources and C3 were only published every quarter, although figures for all the months in each quarter were included. For the period before 2001, the figures for these two indicators for the first two months in each quarter had therefore already been revised when they were published for the first time. For these series, only the figures for the last month in the quarter are real first version figures when published for the first time. For

Definitions and symbols used for the credit indicators

Norges Bank’s credit indicators C1 and C2 are approximate measures of the size of the domestic gross debt of the public (households, non-financial corporations and municipalities). C1 is limited to domestic gross debt in NOK, while C2 also includes gross domestic debt in foreign currencies. Credit indicator C3 is more comprehensive than C2, as it is an indicator of the public’s total gross indebtedness to domestic and foreign sources in both NOK and foreign currencies.

Sources of domestic credit in NOK (C1) are loans in NOK to the public from banks, state lending institutions, finance companies, life and non-life insurance companies, mortgage companies, private and municipal pension funds, the Norwegian Public Service Pension Fund and Norges Bank. C1 also includes the public’s bond and short-term paper debt in the domestic market.

Domestic credit (C2) comprises, in addition to C1, the public’s borrowing in foreign currency from Norwegian financial corporations.

Total credit (C3) consists, in addition to C2, of the sum of public borrowing from foreign sources with the exception of foreign shareholdings in Norwegian enterprises. This is consistent with the definitions of C1 and C2, which also exclude equities.

¹ Statistics Norway explains the revisions from preliminary to final figures when new versions of the current national accounts are published. Statistics Norway has also analysed the revisions of the figures in connection with the general revision and numerical revisions of the figures in 1995 and 2002.

Table 1. Revisions of twelve-month growth for credit indicator C2. Percentage points

Year	Annual average for degree of revision	Smallest revision (numerical value)	Largest revision (numerical value)
1997	0.18	0.0	0.4
1998	0.16	0.0	0.3
1999	0.20	0.0	0.5
2000	0.11	0.0	0.3
2001	0.13	0.0	0.3
2002	0.07	0.0	0.2

credit from foreign sources and C3, therefore, we have only been able to compare figures for the quarterly months for the period before 2001. As from 2001, credit from foreign sources and C3 have been published every month and are therefore treated in the same way as C2.

Results for C2 – domestic credit

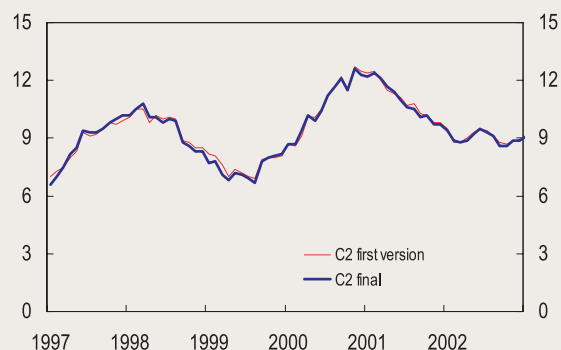
Table 1 shows annual averages for the degree of revision and the smallest and largest revisions for individual months in C2, measured in percentage points throughout, based on published statistics for the period 1997-2002. As mentioned earlier, the degree of revision indicates the change in percentage points in the relevant indicator's twelve-month growth from initial publication of the figures until they were finalised for each month. The annual average for the degree of revision shows the arithmetic average for the degree of revision for all the months in the year in question.

As shown in Table 1, twelve-month growth in C2 was revised by approximately 0.2 percentage point on average for the months in 1997, 1998 and 1999. The annual average has since been reduced and was 0.07 percentage point in 2002. The largest revisions in monthly figures for each year have also gradually been reduced in the course of these six years, while the smallest revisions have been 0.0 percentage point throughout the study period.

Only twice in the course of the six-year period has the sign for the change in growth rates from one month to the next been reversed as a result of revision. The initially published growth rates have thereby provided a very good indication of the direction of changes in growth rates in the period.

Chart 1 shows final annual rates and first-version annual rates for C2, and shows that only very slight revisions are made to C2. Nor are there any indications that revisions are systematic. In other words, there does not seem to be a tendency for initially published growth rate figures to either overestimate or underestimate the "final" figures.

Chart 1 Final annual rates and first-version annual rates for credit indicator C2. Per cent



Source: Norges Bank

Results for credit from foreign sources

Table 2 shows annual averages for the degree of revision and smallest and largest revisions for individual months in credit from foreign sources, measured in percentage points throughout, based on published statistics for the period 1997-2002.

Twelve-month growth in credit from foreign sources was revised by an average 3.90 percentage points for the months in 1997. The annual average for the degree of revision fell in 1998 and 1999, but increased sharply again in 2000. In 2001 and 2002, the degree of revision was lower again, close to the 1999 level. The year 2001 is the last year figures from the census of foreign assets and liabilities² were used. When these figures are also included for 2002, the degree of revision will probably increase for this year.

The maximum and minimum values for the degree of revision in credit from foreign sources generally follow the same pattern as the average figures.

Table 2. Revisions of twelve-month growth for credit from foreign sources. Percentage points

Year	Annual average for degree of revision	Smallest revision (numerical value)	Largest revision (numerical value)
1997	3.90	1.8	6.3
1998	2.98	0.4	4.9
1999	1.70	0.8	2.7
2000	4.70	2.8	6.0
2001	1.68	0.6	3.1
2002	2.30	0.1	3.7

² Stock data for credit from foreign sources are calculated by combining stock data from the census of foreign assets and liabilities (annual data) with data for transactions and valuation changes (monthly data) from the balance of payments statistics.

Table 3. Revisions of twelve-month growth for Credit indicator C3. Percentage points

Year	Annual average for degree of revision	Smallest revision (numerical value)	Largest revision (numerical value)
1997	0.65	0.3	1.0
1998	0.55	0.1	1.0
1999	0.33	0.1	0.7
2000	1.23	0.9	1.5
2001	0.53	0.0	1.0
2002	0.57	0.0	0.9

Results for C3 – total credit

Table 3 shows annual averages for the degree of revision and smallest and largest revisions for individual months in C3, measured in percentage points throughout, for the period 1997-2002.

The degree of revision in C3 lies, as might be expected, between the degree of revision in C2 and the degree of revision in credit from foreign sources and closest to the C2 results. The degree of revision in C3 has tracked the degree of revision in credit from foreign sources. The annual average for the degree of revision fell in 1998 and 1999 and rose in 2000, falling again in 2001 and 2002, although not to the low level reached in 1999.

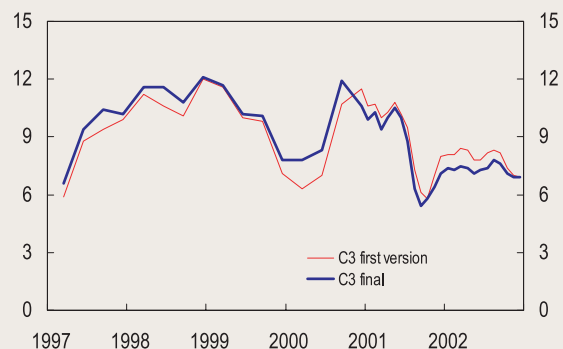
The maximum and minimum values for the degree of revision in C3 have gradually improved through the six-year period with the exception for the temporary deterioration in 2000. In particular, the size of the smallest revision was reduced from 1997 to 2002.

Only four times in the course of the six-year period has the sign of the change in growth rates from one month to the next been reversed as a result of revision. In other words, the initially published growth rates have generally indicated the correct direction of growth from month to month in the study period.

Chart 2 shows final annual rates and first-version annual rates for C3.

Charts 1 and 2 show that there are generally larger revisions in C3 than in C2. As we have seen, revisions are in particular the result of changes in the figures for credit from foreign sources. The C3 chart also shows that growth in C3 was largely revised upwards in the period 1997-2000. In other words, the final growth rate figures were higher than the initial figures that were published. The chart indicates that C3 has been revised downwards as from 2001. The reason for these deviations is that additional information concerning credit from foreign sources often has to be supplied at a later time due to incomplete information at the time of initial publishing.

Chart 2 Final annual rates and first-version annual rates for credit indicator C3. Per cent



Source: Norges Bank

Source of “ordinary” revisions

The main data source for credit indicators is official financial statistics, where most data are transferred electronically to statistical authorities (Statistics Norway and Norges Bank) via financial corporations’ computer centres. Ordinary revisions will therefore have to include ongoing revisions due to incorrect entries or incorrect use of codes in the reporters’ accounting and statistical systems, errors in connection with delivery/receipt of data between reporters and computer centres, errors in connection with delivery/receipt of data between reporters/computer centres and statistical authorities and any errors in data processing by statistical authorities. Generally, revisions in these data are small in number and size.

The credit indicators are also based on statistics from the Norwegian Central Securities Depository, Norges Bank’s bond issue statistics and the Norwegian Public Service Pension Fund. Revisions in the figures from these sources will also result in ordinary revisions.

For some of the credit sources for C2, data are only available every quarter or at the end of each year. Figures must be estimated for the intermediate months. This applies to

- bond debt (quarterly figures only prior to 2002, but monthly figures as from 2002)
- life insurance companies’ lending (monthly data prior to August 2000, quarterly as from August 2000)
- non-life insurance companies’ lending (quarterly figures)
- pension fund lending (annual data)
- intercompany loans (annual data, but not included in C2 as from figures for January 2000)

Revisions in C2 growth stemming from these sources are not necessarily related to the quality of the primary data, but may also reflect insufficient accuracy in the estimates.

Because of the transition to quarterly source data for life insurance companies' lending, figures for the intermediate months must be estimated. In isolation, this results in a somewhat higher degree of revision in C2 than previously. The fact that we no longer update pension fund lending monthly on the basis of sample figures, but as of January 2001 only make estimates for these figures, has the same effect. As previously, the figures are subsequently revised when the annual total figures are available. The degree of revision has been, however, reduced somewhat by the introduction of monthly figures for bond debt as from 2002.

There is a considerable difference between underlying data for domestic credit and credit from foreign sources. Data for domestic credit are mainly based on uniform accounts statistics for financial enterprises, which are only revised to a very limited extent. Data for credit from foreign sources are based on balance of payments statistics and the annual censuses of foreign assets and liabilities. Due to the complexity of data collection, data often have to be subsequently revised or supplemented, and these revisions can sometimes extend back over a lengthy period.

Adjustments

The "final answer", used in the comparison with initially published growth rates, is calculated on the basis of the last published time series ("unadjusted final answer"). In addition, these growth rates are adjusted for changes made in definitions, methods and sources in the course of the period to establish more precisely how much of the difference between initial and "final" growth rates is due to "ordinary" revisions.

The only adjustment in the credit indicators in the period 1997-2002 was made when the Norwegian Public Service Pension Fund was included in C2, and thereby also in C3, from July 2000 and incorporated in the data back to December 1995. The revisions as a result of this have been disregarded in this analysis.

C3 in more detail

All annual growth rates for the period December 2000-September 2001 for credit from foreign sources were revised down by about 2.5 percentage points in October 2001. This was due to corrections of errors in reports from a major reporter. These revisions resulted in turn in a downward revision of C3 growth by about 0.6 percentage point. However, other revisions have subsequently been made for credit from foreign sources that have had the opposite effect and have thereby neutralised the impact of this large revision.

The figures have also been influenced to some extent by the fact that the censuses of foreign assets and liabilities for the years 1998, 1999 and 2000 were only

incorporated into the data as from the publication of the C3 figures for January 2002. Even though the transaction figures for credit from foreign sources are not influenced by the census figures, the revisions in the stock data change the growth rates. However, this effect did not apply to any great extent to the period before December 1999. It should also be mentioned that the degree of revision was influenced by Statistics Norway's revisions of the national accounts figures, completed in summer 2002. This resulted in changes in transaction data, on which the figures for credit from foreign sources are based, as from March 2002. The revisions increased the growth rates for credit from foreign sources by up to 0.9 percentage point and the growth rates for C3 by 0.1 to 0.2 percentage point.

2. Real time properties of the money supply

Introduction

As from October 2000, the broad money supply concept (M2) is defined as the stock of notes and coins, unrestricted bank deposits and certificates of deposit owned by households, non-financial corporations, municipalities and "financial corporations other than banks and state lending institutions". Prior to October 2000, M2 also included "unutilised credit facilities."

The analysis of M2 studies the degree of revision in "change-based" growth rates, i.e. growth rates based only on changes in stock data in contrast to the analysis of credit indicators, which focuses on "transaction-based" growth rates. Transaction-based growth rates differ from change-based growth rates in that stock changes are adjusted for changes in the exchange rate and statistical breaks. The reason why we have not focused on transaction-based growth rates for the money supply is that these were first introduced as from September 2002. The length of this article does not permit an analysis of the real time properties of the other money supply aggregates (M0 and M1) or of which financial instruments have resulted in revisions, or to what extent some subsectors of the money-holding sector are revised more than others. This analysis only focuses on the real time properties of the broad money supply concept (M2) for 1997-2002, assessed on the basis of an analysis of the revision as it is defined for the credit indicators.

Results for the money supply

Table 4 shows annual averages for the degree of revision and the smallest and largest revisions for individual months in M2, measured in percentage points throughout, based on published statistics for all the months in the years 1997-2002.

Table 4. Revisions of twelve-month growth for the money supply (M2). Percentage points

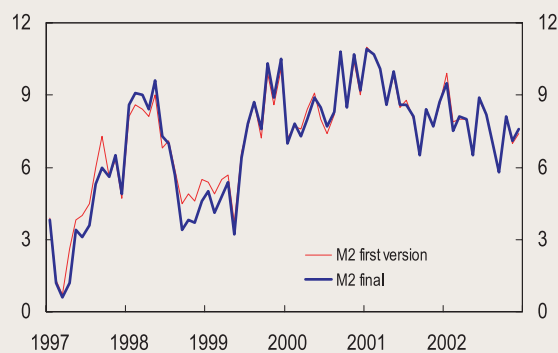
Year	Annual average for degree of revision	Smallest revision (numerical value)	Largest revision (numerical value)
1997	0.53	0.0	1.4
1998	0.61	0.1	1.1
1999	0.38	0.0	0.8
2000	0.21	0.0	0.5
2001	0.08	0.0	0.2
2002	0.12	0.0	0.4

The table shows that the annual average for the degree of revision has been low for the past few years. In particular, the degree of revision has been clearly lower in the past two years, i.e. after the introduction of the new money supply definitions in October-November 2000. This applies to both the annual averages and the maximum and minimum values.

In addition, it has never been the case that the sign for the change in growth rates from one month to the next has been reversed as a result of revisions after this readjustment. This means that initially published growth rates have provided a good indication of the direction of changes in growth rates in the period.

Chart 3 shows final annual rates and first-version annual rates for the money supply (M2). The chart shows that there are relatively small revisions to the money supply (M2), i.e. that there is very close correspondence between the developments described by the initially published growth rates and those reflected in the “final” growth rates (the answer). The chart also shows that the difference between the curves has been reduced over the past few years. Nor is there any indication that initially published growth rates tend to either overestimate or underestimate the final figures.

Chart 3 Final growth rates and first-version annual rates for the money supply (M2). Per cent



Source: Norges Bank

Source of “ordinary” revisions

As for credit indicator statistics, official financial statistics are the main source for monetary statistics. The same kind of revisions as mentioned during the discussion of credit indicator statistics are therefore applied to these statistics and the revisions are generally small in number and size.

Changes in additional sources – used in calculating stocks of notes and coins and holdings of certificates of deposit (CDs) as a result of inadequate sectoral information for these financial instruments – may also contribute to “ordinary” revisions in M2.

Adjustments

The “final answer”, compared with the initially published growth rates, is calculated from the growth rates from the last published time series for M2 (“unadjusted final answer”). This is then adjusted for changes in definitions, methods and sources in the course of the period.

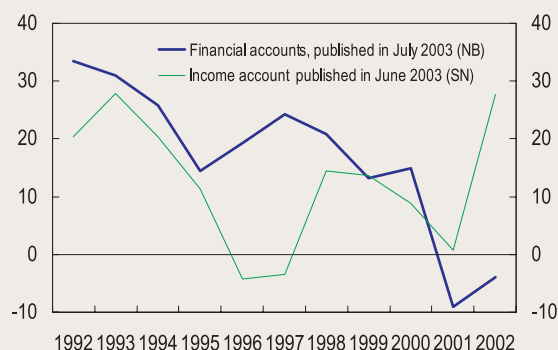
The most important change in definition is due to the reorganisation of money supply statistics in October 2000, in which “unutilised credit facilities” were removed from the broad money supply concept (M2). This reorganisation was based on the recommendations of an internal working group at Norges Bank and is in line with international recommendations for the calculation of money supply aggregates, cf. IMF (2000). In addition, corrections are made for the inclusion in the money supply of CDs in foreign currencies from November 2000. These were included because they are close substitutes for corresponding stocks in NOK. In addition, new sources were used from the same time. The third factor adjusted for is a change in the calculation of “unutilised credit facilities”, made in January 2000. This change consisted of including figures for a bank that had previously been excluded from the calculations.

3. Real time properties of household net lending

Differences between income account and financial accounts

Household net lending is estimated in both the income account of the national accounts (Statistics Norway) and the financial accounts (Norges Bank). In principle, the figures for net lending in the income and financial accounts should be identical, but in practice some discrepancies are observed which vary in magnitude over time. It is important to point out initially, however, that these discrepancies are due to errors and deficiencies in both sets of accounts, and that neither provides a final answer.

Chart 4 Annual figures for household net lending. Income account (Statistics Norway) and financial accounts (Norges Bank). In billions of NOK



Sources: Statistics Norway and Norges Bank

Chart 4 shows annual figures³ for household net lending in the two sets of accounts for the years 1992 to 2002. As the chart shows, the accounts present roughly the same overall picture for the whole ten-year period 1992-2001, with the exception of the three years 1992, 1996 and 1997.

The figures for 2002 differ substantially, however. According to the income account, household saving rose sharply compared with the previous year, and more than the whole of this increase was attributable to net investments in financial assets, while investment in non-financial assets showed a decline in nominal value on the previous year (see box). Household financial accounts, on the other hand, indicate a far weaker trend for investment in financial assets. The results of the two methods of calculation differed by as much as NOK 32 billion in 2002, which is the largest discrepancy in the whole period. However, it is important to point out that figures for 2002 are preliminary in both accounts.

Definitional relationships underlying net lending in the two accounts are described in a separate box. The methods used for quantification differ. The income account is based on household income and expenses, and net lending is estimated as a residual item without an explanation in the accounts as to which financial transactions they are based on. The opposite approach is used in the financial accounts. Net lending is estimated as the difference between investments in financial assets (financial instruments) and debt raised during the accounting period. In contrast to the income account, the financial accounts explain the changes in net lending as a direct result of changes in behaviour in financial and credit markets for households.

In both the income and the financial accounts, net lending is estimated as a residual on the basis of large gross figures. The estimates are sensitive to statistical errors, and relatively small adjustments to the gross fig-

Definitions of household net lending

In billions of NOK

Income account (Statistics Norway)	2001	2002
Disposable income	671,9	721,9
+ Adjustment for saving in pension funds	12,5	14,7
- Consumer expenditure	657,0	685,2
= Saving	27,4	51,4
- Net investment in non-financial assets etc.	26,7	23,7
= Net lending	0,7	27,7
Financial accounts (Norges Bank)	2001	2002
Assets	1339,9	1392,5
- Liabilities	982,8	1073,3
= Net financial assets	357,1	319,2
Net change in financial assets on previous year	-44,7	-37,9
- Valuation changes (gains less losses, other changes)	-35,7	-34,0
= Net lending	-9,0	-3,9

Comments:

1. In the income account, net lending is estimated as the difference between all income and expenses including consumer expenditure and expenditure on investment in non-financial assets.

2. In the financial accounts, net lending is calculated on the basis of aggregate financial assets and liabilities at the beginning and end of the accounting period. Changes in holdings are adjusted for capital gains and losses and other changes in financial assets and liabilities that are not due to households' own investments.

Source: Statistics Norway and Norges Bank

ures may have a substantial impact on investments in financial assets. For example, the value of household net lending in the financial accounts was only 0.16 per cent of households' aggregate assets and liabilities in 2002. Since the figures for net lending are so much lower than the figures on holdings, even a small percentage margin of error in the asset and liability calculations will change net lending substantially, not least if the revisions to assets and liabilities have the opposite effect.

Special factors that may explain the discrepancies between the income and financial accounts

In addition to factors that are due to very different statistical sources, there are five factors in the current

³ Household financial accounts are published quarterly, but we have chosen to look at annual figures to allow comparison with the income account, which is only published annually.

statistical system that may explain the discrepancies between the income and financial accounts.

First, different emphasis is placed on the figures on changes and levels in the preliminary versions of the income and financial accounts. In the national accounts, a description of developments receives priority, and the focus is on time series and figures on changes. In practice this means that revised figures on changes are incorporated continuously, whereas the incorporation of revised figures on levels is often postponed until large structural revisions (for example general revisions), which are carried out periodically. The focus in the financial accounts is on stock data, and revised figures on levels are incorporated continuously. One of the reasons is that net lending is quantified based on stock data for financial instruments. Good stock data is an important precondition for the precise calculation of net lending. The different emphasis placed on figures on changes and figures on levels therefore results in differences in revisions policy, which creates differences between the accounts when the figures are published.

Second, different calculation principles can explain discrepancies. For example, some substantial differences can be observed between the two accounts in the quantification of net lending figures for individual sectors. These differences can probably to a large extent be attributed to non-harmonised methods of calculation.

A third factor that may result in discrepancies is differences in definitions and classifications. There are differences of this kind between the income and financial accounts (different sectoral definitions) and between statistics that cover the same areas/sectors in the economy.

Fourth, there are differences in the time of recording. Deviations arise because part of the underlying data (financial accounts statistics for the public sector and part of the balance of payments statistics) is based on the cash principle. Differences in accruals arise when the date of payment for the cash flow (used in the cash principle) occurs in a different accounting period from the time of the transaction. In the financial accounts, the main principle is that transactions are registered when they fall due (time of transaction) and not when the payment associated with the transactions is settled.

The fifth and last factor that can explain discrepancies between the income and financial accounts is differences in valuations. These differences arise because the accounts statistics, for example, use value concepts other than market value, which is a key concept in the financial accounts. An example of this is the calculations of market value for investments in unquoted shares in the household financial accounts. For listed securities, the market value of transactions is registered directly in available statistics.

Revisions in the income account and financial accounts

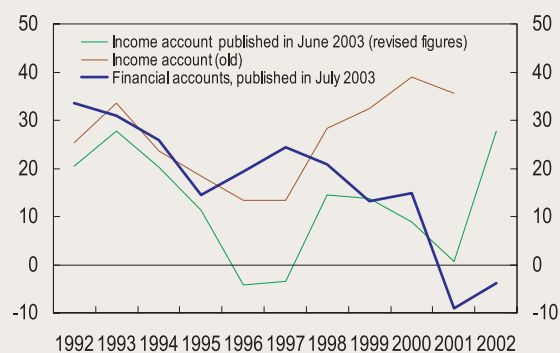
In the past ten years, the national accounts have been subject to two large structural revisions, while revisions of a similar scope have not yet been carried out in the financial accounts. The first large revision was the general revision of the national accounts, completed in 1995. New definitions were incorporated in the general revision, and new statistics, previously only used in part, were systematically incorporated in the national accounts. After the general revision, a revision of figures was carried out, and new structural statistics for the business sector were incorporated. In the following, we shall focus on the overall picture before and after the revision of figures that was completed in 2002. In the financial accounts, the focus will be on a comparison of initially published and final figures.

The income account – revision of figures

Chart 5 shows household net lending before and after the revision of the figures in the national accounts, and the most recent figures from the financial accounts. Net lending in the income account has been revised downwards for the whole period. The revisions for the period 1996–2001 are particularly large. Net lending in the income account for the years 2000 and 2001 was revised downwards by NOK 30 billion and NOK 35 billion respectively.⁴

The chart shows a substantial reduction in the differences between the income and financial accounts for household net lending in the years 1991–2001, following the revision of figures. The overall picture for the other years showed little change, with the exception of 1996 and 1997, where the discrepancies increased following the revisions. However, there is particular uncertainty

Chart 5 Annual figures for household net lending before and after the revision of the national accounts figures and according to the financial accounts. In billions of NOK



Sources: Statistics Norway and Norges Bank

⁴ Revisions of net lending in the household income account are explained by revisions of disposable income, consumer expenditure and investments in non-financial assets. For a detailed review of the results following the figures revision, reference is made to Statistics Norway's own revisions analysis (Statistics Norway 2002).

surrounding the estimates for investments in unlisted equities in the financial accounts for these two years.

The results of the revision of figures are positive for the quality assessments of both the income and the financial accounts. As a result of the incorporation of new statistics in the national accounts for the past ten-year period, the income account describes an overall picture of household lending that is supported by the calculations in Norges Bank's financial accounts. The chart shows that the final accounts converge to a greater extent than the preliminary versions towards a common main picture. In this respect, the final national accounts figures from Statistics Norway are very important reference points for the financial accounts.

Real time properties of net lending in household financial accounts

Chart 6 shows the first and last version of net lending in the household financial accounts, and the most recent figures from the income account. The latest version refers to the annual figures published in connection with the release of the financial accounts for the first quarter of 2003. In the chart, this version of the financial accounts figures is compared with the figures initially published. We can use the figures for 2000 as an example. Net lending for this year was estimated at NOK 12.3 billion when figures were initially published in April 2001. When the July 2003 figures were published, net lending had been revised upwards by a good NOK 2.5 billion.

The chart shows that the first preliminary figures are reasonably consistent with the overall picture indicated by the last published figures. The chart also shows that the discrepancy between preliminary and "final" figures was largest at the beginning of the period (1992 to 1994) and in 2001. It is also clear that the first preliminary net

lending figures in the period 1994-2000 were lower than the "final" figures. The picture changed in the period 2001-2002. Preliminary net lending figures for these years were gradually revised downwards as new information was incorporated into the financial accounts.

Sources of "ordinary" revisions in household financial accounts

The official financial statistics are the most important source for quantifying assets and liabilities in household financial accounts. As mentioned previously, these primary statistics have sound real time properties.

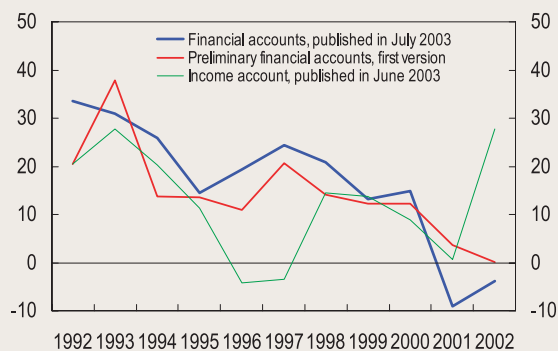
Statistics from the Norwegian Central Securities Depository are a key component in the calculation of household net lending. They provide direct information (transaction figures) about household investments in listed securities, and the high quality of these statistics and the official financial statistics is the most important reason for the sound real time properties of the financial accounts.

The statistics on foreign assets and liabilities are based on balance of payments statistics and annual censuses of foreign assets and liabilities. The size of households' foreign assets and liabilities is moderate compared with their other assets and liabilities in the financial accounts, but nevertheless cause considerable revisions. This is because the household figures are determined as shares of the assets and liabilities of a large combined sector (other Norwegian sectors) that is dominated by private non-financial corporations. In addition, delays in censuses of foreign assets and liabilities in the period 1998 to 2001 led to larger revisions than normal, because during this period the financial accounts were based on projections of the asset and liability figures for 1997.

The basis for the calculation of the financial accounts also includes the annual statistics for general government assets and liabilities and the assets and liabilities of government-owned non-financial corporations. The statistics are available with a lag of one to two years, and the incorporation of new annual figures is reflected in revisions of the financial accounts. The first set of statistics has become increasingly important for household financial accounts because lending from the Norwegian Public Service Pension Fund has increased sharply in recent years. The incorporation of final figures led to a substantial upward revision of the preliminary estimates for household loan debt. This is the reason that we have now chosen to use the monthly data on lending from the Norwegian Public Service Pension Fund which is collected in connection with C2 calculations.

Estimated variables are another type of data in the basis for household financial accounts. The two most important estimated variables are tax assets and liabilities and unlisted equities. Tax assets and liabilities are

Chart 6 Annual figures for household net lending according to the preliminary and last published versions of the financial accounts and according to the income account. In billions of NOK



Sources: Statistics Norway and Norges Bank

estimated as the difference between accrued taxes (assessed taxes) and tax transactions recorded in general government accounts. Statistics for taxes that have been paid are available monthly, while the figures for assessed taxes are annual and are incorporated later. In the preliminary financial accounts, accrued taxes are estimated on the basis of calculations and projections. These figures are therefore subject to considerable revision.

Estimates of investments in unlisted equities are based on inadequate background information. There are many indications that our calculation methods have resulted in excessively high figures for investments in these securities in the years 1996 and 1997, and this probably explains a good part of the discrepancy in relation to the income account for these years. We have therefore revised down estimated investments in unlisted equities in the years around the turn of the millennium.

References:

Carson, Carol S., Sarmad Khawaja and Thomas K. Morrison (2003): “*Revisions policy for official statistics: a matter of governance*”. Paper presented at the 54th Session of the International Statistical Institute, Berlin, Germany. IMF (2003).

Eurostat (ESA 1995): European System of Accounts.

UN (SNA 1993): System of National Accounts.

IMF (2000): Monetary and Financial Statistics Manual.

IMF (2003): Norway: “*Report on the Observance of Standards and Codes – Data Module; Response by the Authorities; and Detailed Assessment Using Data Quality Assessment Framework*”.

Norges Bank (2002): “*Revisjoner i kredittindikatorene*” (Revisions to the credit indicators). The Norwegian text is available at <http://www.norges-bank.no/stat/revstudie/revisjon.htm>

Norges Bank (2003): “*Revisjoner i pengemengden*” (Revisions to the money supply). The Norwegian text is available at <http://www.norges-bank.no/stat/revstudie/revisjon.htm>

Norges Bank (2003): “*Revisjoner i husholdningenes finansregnskap*” (Revisions to household financial accounts). The Norwegian text is available at <http://www.norges-bank.no/stat/revstudie/revisjon.htm>

Statistics Norway (2002): “*Revised national accounts figures: Stronger growth in the 1990s*”. Economic Survey no. 2/2002.

Centennial coins commemorating the end of the union of Norway and Sweden

In 2005 it will be a hundred years since the union of Sweden and Norway was dissolved, and Norges Bank will be issuing a series of commemorative coins in 2003, 2004 and 2005. The coin series will comprise three gold and three silver coins. The first pair, consisting of one gold and one silver coin, is being issued in autumn 2003, on 27 November. On the same in 1905, King Haakon VII swore allegiance to the Norwegian Constitution in the Storting (national assembly). The next pair of coins will be issued in 2004, on 23 September, the date that the treaty to dissolve the union was signed in Karlstad, Sweden, in 1905. The last pair will be issued on 7 June 2005, the centennial of the Storting resolution to dissolve the union. The gold coins have a nominal value of NOK 1500 and will be minted in an issue limited to 10 000 coins. The silver coins will have a nominal value of NOK 100. Those issued in 2003 and 2004 will be minted in an issue limited to 65 000 coins, and those issued in 2005 will be minted in an issue limited to 100 000 coins.

The motif on the obverse of all the coins is the same : a triple portrait of the three kings who reigned in the course of the century, with the motto they shared: ALL FOR NORWAY, below the portrait. The motif was

designed by Øyvind Hansen, a former coin engraver at the Royal Norwegian Mint. The motifs on the reverse of the coins are the results of a contest, and illustrate a century of change in Norway. The reverse of the silver coins depicts the development from agriculture, via the oil boom to the age of IT - a macroperspective in which the different epochs are reflected in a series of illustrations each on a broad horizontal band spanning the coin. The motifs on the reverse sides of the gold coins parallel those of the silver coins, but the artist has employed a micro-perspective. The motifs on the reverse of the gold coins were designed by sculptor Tomasz B. Ozdowski, and those on the silver coins by sculptress Danuta Haremska.

The coins will be struck at Den Kongelige Mynt AS (Royal Norwegian Mint). Their issue is taking place through a collaboration between Norges Bank and Hundreårsmarkeringen – Norge 2005 AS, the company in charge of the official programme, and also for the marketing and sale of the coins.

The illustrations below show the coins that will be issued on 27 November 2003.

Coin data:

Gold coin:

Diameter: 27 mm
Weight: 16.96 g
Alloy: 917/1000 Au, remainder Ag
i.e. 15.55 g fine gold (1/2 ounce)
Edge: Plain

Silver coin:

Diameter: 39 mm
Weight: 33.8 g
Alloy: 925/1000 Ag (Sterling silver)
i.e. 31.1 g fine silver(1 ounce)
Edge: Plain



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Norges Bank publishes more detailed statistics on its website, www.norges-bank.no. The Bank's statistics calendar, which shows future publication dates, is only published on this website.

Financial institution balance sheets

Table 1. Norges Bank. Balance sheet.^{1) 2)} In millions of NOK

	31.12.2002	31.05.2003	30.06.2003	31.07.2003	31.08.2003
FINANCIAL ASSETS					
Foreign assets	841 614	968 013	1 032 852	1 045 744	1 082 306
International reserves ^{3) 4)}	224 226	244 938	248 194	258 144	255 806
Government Petroleum Fund investments	608 475	713 809	775 144	777 845	816 365
Other foreign assets	8 913	9 266	9 514	9 755	10 135
Domestic claims	16 120	16 807	17 158	16 853	28 464
Bearer bills	2 088	3 690	3 492	3 671	14 833
Bearer bonds	10 750	10 979	11 045	10 871	10 848
Loans to banks	3	3	0	3	0
Loans, deposits and earned interest	2 121	1 824	2 058	1 389	2 264
Other domestic claims	1 158	311	563	919	519
Stocks and assets	1 597	1 526	1 520	1 512	1 497
Stocks	22	19	21	21	14
Assets	1 575	1 507	1 499	1 491	1 483
Costs	0	52 875	110 410	109 502	141 589
TOTAL ASSETS	859 331	1 039 221	1 161 940	1 173 611	1 253 856
LIABILITIES AND CAPITAL					
Foreign liabilities	62 773	79 379	69 115	79 463	71 271
IMF holdings of NOK	8 888	9 239	9 487	9 729	10 109
Other foreign liabilities	53 885	70 140	59 628	69 734	61 162
Counterpart of SDR allocation	1 583	1 588	1 706	1 684	1 744
Notes and coins in circulation	44 955	41 244	41 253	41 101	40 724
Domestic deposits	720 367	824 124	884 681	891 815	944 478
Treasury	52 492	99 655	67 269	80 193	87 506
Government Petroleum Fund	608 475	713 809	775 144	777 845	816 365
Banks	59 053	10 428	41 174	33 503	40 373
Other deposits	347	232	1 094	274	234
Interest accrued, not yet due, to the Treasury	0	576	0	116	248
Other domestic debt	4 214	4 852	7 960	6 133	4 293
Equity	25 439	25 439	25 439	25 439	25 439
Valuation adjustments	0	41 435	106 117	98 054	131 302
Income	0	20 584	25 669	29 806	34 357
TOTAL LIABILITIES AND CAPITAL	859 331	1 039 221	1 161 940	1 173 611	1 253 856
Items not included in this balance sheet:					
Foreign currency sold forward	14 550	25 120	24 948	30 690	35 658
Foreign currency purchased forward	15 806	26 486	26 799	31 481	36 286
Derivatives sold	159 417	147 855	177 700	151 012	146 975
Derivatives purchased	168 005	151 830	196 193	161 124	151 320
Allotted, unpaid shares in the BIS	310	310	310	310	310

¹⁾ Some presentational changes have been made in the monthly balance sheet report, to apply as from April 2003.

The periods shown for comparison have been revised accordingly.

²⁾ The periods shown for comparison in Table 2 have not been revised.

³⁾ International reserves include fixed income instruments subject to repurchase agreements.

⁴⁾ Securities and gold are valued at fair market value.

Table 2. Norges Bank. Specification of international reserves¹⁾. In millions of NOK

	31.12.2002	31.05.2002	30.06.2003	31.07.2003	31.08.2003
Gold	2 806	2 598	2 702	2 776	3 112
Special drawing rights in the IMF	2 190	2 213	2 381	2 348	2 461
Reserve position in the IMF	6 886	6 580	7 509	7 049	7 268
Loans to the IMF	834	790	818	789	811
Bank deposits abroad	87 914	97 579	84 212	105 803	102 670
Foreign Treasury bills	567	731	697	698	692
Foreign certificates	-	1 352	1 697	1 216	1 176
Foreign bearer bonds ²⁾	104 573	115 433	121 209	114 046	116 100
Foreign shares	16 357	20 333	24 859	25 491	26 889
Accrued interest	2 053	-2 670	2 111	-2 071	-5 373
Short-term assets	-	-	-	-	-
Total	224 180	244 939	248 195	258 145	255 806

¹⁾ See footnotes in Table 1.

²⁾ Includes bonds subject to repurchase agreements

Source: Norges Bank

Table 3. State lending institutions. Balance sheet. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Cash holdings and bank deposits	2 255	2 439	2 803	2 285	2 172
Total loans	183 194	186 121	188 076	190 941	190 988
Of which:					
To the general public ¹⁾	180 934	183 852	185 801	188 608	188 726
Claims on the central government and social security administration	-	-	-	-	-
Other assets	8 999	7 914	6 193	8 218	6 736
Total assets	194 448	196 474	197 072	201 444	199 896
Bearer bond issues	39	38	34	33	29
Of which:					
In Norwegian kroner	39	38	34	33	29
In foreign currency	-	-	-	-	-
Other loans	182 964	185 776	187 482	191 156	191 056
Of which:					
From the central government and social security administration	182 964	185 776	187 482	191 156	191 056
Other liabilities, etc.	4 549	6 165	5 232	5 921	4 500
Share capital, reserves	6 896	4 495	4 324	4 334	4 311
Total liabilities and capital	194 448	196 474	197 072	201 444	199 896

¹⁾ Includes local government administration, non-financial enterprises and households

Sources: Statistics Norway and Norges Bank

Table 4. Commercial and savings banks. Balance sheet. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Cash	4 644	4 393	5 063	4 030	4 515
Deposits with Norges Bank	39 084	54 048	57 760	58 547	40 119
Deposits with commercial and savings banks	19 366	14 807	16 026	17 763	29 494
Deposits with foreign banks	43 561	21 194	29 596	23 390	37 061
Treasury bills	3 440	5 898	4 289	6 395	8 866
Other short-term paper	14 206	15 104	15 770	10 034	7 129
Government bonds etc. ¹⁾	5 174	8 644	3 128	2 576	3 702
Other bearer bonds	86 001	89 697	93 450	97 752	103 103
Loans to foreign countries	49 960	49 303	46 264	49 024	49 951
Loans to the general public	1 073 189	1 089 520	1 096 291	1 117 134	1 144 220
Of which:					
In foreign currency	84 160	85 118	81 765	84 446	89 541
Loans to mortgage and finance companies, insurance etc. ²⁾	87 059	94 208	96 485	96 749	107 062
Loans to central government and social security admin.	369	434	671	557	528
Other assets ³⁾	100 495	94 411	104 214	153 179	161 268
Total assets	1 526 548	1 541 661	1 569 007	1 637 130	1 697 018
Deposits from the general public	734 771	723 986	757 519	758 326	788 394
Of which:					
In foreign currency	21 553	21 387	20 129	21 768	22 286
Deposits from commercial and savings banks	22 498	18 503	19 369	21 917	28 990
Deposits from mortg. and fin. companies, and insurance etc. ²⁾	52 998	39 453	46 049	45 463	46 820
Deposits from central government, social security admin. and state lending institutions	8 696	7 729	8 611	9 652	7 341
Funds from CDs	72 744	75 165	78 559	80 688	65 564
Loans and deposits from Norges Bank	3 536	8 065	8 812	9 560	7 436
Loans and deposits from abroad	183 855	219 437	213 583	211 976	215 215
Other liabilities	341 305	342 156	331 124	395 495	430 726
Share capital/primary capital	25 839	28 106	28 157	28 399	28 553
Allocations, reserves etc.	75 688	73 242	72 430	74 069	74 094
Net income	4 618	5 819	4 794	1 585	3 885
Total liabilities and capital	1 526 548	1 541 661	1 569 007	1 637 130	1 697 018
Specifications:					
Foreign assets	151 662	118 426	125 352	137 511	160 566
Foreign debt	360 357	377 881	370 392	415 804	431 302

¹⁾ Includes government bonds and bonds issued by lending institutions.

²⁾ Includes mortgage companies, finance companies, life and non-life insurance companies and other financial institutions.

³⁾ Includes unspecified loss provisions (negative figures) and loans and other claims not specified above.

Sources: Statistics Norway and Norges Bank

Table 5. Commercial and savings banks. Loans and deposits by sector¹⁾. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Loans to:					
Local government (incl. municipal enterprises)	10 224	10 267	10 107	9 817	8 759
Non-financial enterprises ²⁾	369 751	366 660	358 995	366 176	371 478
Households ³⁾	693 213	712 593	727 189	741 141	763 983
Total loans to the general public	1 073 189	1 089 520	1 096 291	1 117 134	1 144 220
Deposits from:					
Local government (incl. municipal enterprises)	46 315	42 381	43 925	42 627	40 540
Non-financial enterprises ²⁾	207 857	212 912	225 443	219 261	221 815
Households ³⁾	480 599	468 693	488 152	496 438	526 038
Total deposits from the private sector and municipalities	734 771	723 986	757 519	758 326	788 394

¹⁾ Includes local government administration, non-financial enterprises and households.

²⁾ Includes private enterprises with limited liability etc., and state enterprises.

³⁾ Includes sole proprietorships, unincorporated enterprises and wage earners, etc.

Sources: Statistics Norway and Norges Bank

Table 6. Mortgage companies. Balance sheet. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Cash and bank deposits	4 405	5 735	3 089	4 291	5 964
Notes and certificates	1 359	289	3 504	2 869	5 742
Government bonds ¹⁾	915	1 097	656	657	941
Other bearer bonds	58 931	54 788	48 002	51 650	56 652
Loans to:					
Financial enterprises	24 465	24 834	28 001	30 150	31 018
The general public ²⁾	165 700	168 558	182 011	187 251	193 656
Other sectors	11 796	10 230	9 907	9 435	9 941
Others assets ³⁾	-1 041	2 361	1 063	4 413	4 788
Total assets	266 530	267 892	276 233	290 716	308 702
Notes and certificates	34 145	33 295	29 981	33 809	37 832
Bearer bonds issues in NOK ⁴⁾	60 651	62 151	62 711	59 839	58 688
Bearer bond issues in foreign currency ⁴⁾	85 404	83 090	89 079	94 823	103 171
Other funding	70 832	73 542	79 839	83 824	91 733
Equity capital	11 881	12 134	11 554	12 345	12 683
Other liabilities	3 617	3 680	3 069	6 076	4 595
Total liabilities and capital	266 530	267 892	276 233	290 716	308 702

¹⁾ Includes government bonds and bonds issued by state lending institutions.

²⁾ Includes local government administration, non-financial enterprises and households.

³⁾ Foreign exchange differences in connection with swaps are entered net in this item. This may result in negative figures for some periods.

⁴⁾ Purchase of own bearer bonds deducted.

Sources: Statistics Norway and Norges Bank

Table 7. Finance companies. Balance sheet. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Cash and bank deposits	1 847	1 481	1 861	1 651	2 154
Notes and certificates	104	114	97	123	125
Bearer bonds	0	0	0	0	0
Loans ¹⁾ (gross) to:	86 746	87 086	86 433	88 919	90 443
The general public ²⁾ (net)	83 101	83 675	83 239	85 718	87 258
Other sectors (net)	3 455	3 205	3 051	3 018	3 059
Other assets ³⁾	2 213	2 480	2 283	2 474	2 618
Total assets	90 910	91 161	90 674	93 167	95 340
Notes and certificates	675	600	600	0	0
Bearer bonds	115	65	65	65	40
Loans from non-banks	10 108	10 287	10 673	10 989	11 128
Loans from banks	63 721	63 537	62 940	64 945	67 645
Other liabilities	8 300	8 541	9 178	9 359	8 575
Capital, reserves	7 991	8 131	7 218	7 809	7 952
Total liabilities and capital	90 910	91 161	90 674	93 167	95 340

¹⁾ Includes subordinated loan capital and leasing finance.

²⁾ Includes local government administration, non-financial enterprises and households.

³⁾ Includes specified and unspecified loan loss provisions (negative figures)

Source: Norges Bank

Table 8. Life insurance companies. Main assets. In millions of NOK

	31.03.2002	30.06.2002	30.09.2002	31.12.2002	31.03.2003
Cash and bank deposits	16 315	26 875	14 956	21 163	16 066
Norwegian notes and certificates	31 834	33 710	33 146	37 337	36 903
Foreign Treasury bills and notes	3 002	2 327	7 735	13 084	11 667
Norwegian bearer bonds	106 898	110 717	112 449	121 379	131 346
Foreign bearer bonds	79 495	84 144	105 789	96 277	99 165
Norwegian shares, units, primary capital certificates and interests	45 802	36 262	32 295	32 730	31 619
Foreign shares, units, primary capital certificates and interests	61 490	47 309	33 189	30 236	32 757
Loans to the general public ¹⁾	23 014	23 173	23 201	23 123	23 827
Loans to other sectors	738	1 447	680	656	680
Other specified assets	54 083	53 242	56 971	54 315	56 116
Total assets	422 671	419 206	420 411	430 300	440 146

¹⁾ Includes local government administration, non-financial enterprises and households

Source: Statistics Norway

Table 9. Non-life insurance companies. Main assets. In millions of NOK

	31.03.2002	30.06.2002	30.09.2002	31.12.2002	31.03.2003
Cash and bank deposits	7 454	7 539	7 285	7 861	7 843
Norwegian notes and certificates	5 057	5 647	6 055	7 949	10 727
Foreign notes and certificates	372	405	862	860	927
Norwegian bearer bonds	13 454	16 308	15 730	14 752	13 880
Foreign bearer bonds	13 244	13 706	14 582	14 138	13 758
Norwegian shares, units, primary capital certificates, interests	9 983	8 244	7 312	6 804	6 781
Foreign shares, units, primary capital certificates, interests	11 024	7 625	7 715	3 960	5 004
Loans to the general public ¹⁾	854	826	875	918	1 021
Loans to other sectors	144	349	138	212	281
Other specified sectors	45 498	41 916	41 499	40 541	44 725
Total assets	107 084	102 565	102 053	97 995	104 947

¹⁾ Includes local government administration, non-financial enterprises and households.

Source: Statistics Norway

Table 10a. Securities funds' assets. Market value. In millions of NOK

	31.03.2002	30.06.2002	30.09.2002	31.12.2002	31.03.2003
Bank deposits	4 171	4 769	3 566	3 713	4 161
Treasury bills, etc. ¹⁾	957	1 184	1 525	2 928	4 099
Other Norwegian short-term paper	19 014	19 440	21 541	21 140	20 794
Foreign short-term paper	0	0	0	0	0
Government bonds, etc. ²⁾	4 322	3 949	4 144	2 776	3 504
Other Norwegian bonds	24 679	25 014	24 730	23 883	25 060
Foreign bonds	0	0	0	0	0
Norwegian equities	32 948	26 795	19 327	20 017	16 988
Foreign equities	47 943	38 969	31 188	32 385	30 910
Other assets	2 313	2 130	1 698	1 711	1 690
Total assets	136 346	122 250	107 721	108 553	107 207

¹⁾ Comprises Treasury bills and other certificates issued by state lending institutions.

²⁾ Comprises government bonds and bonds issued by state lending institutions.

Sources: Norges Bank and Norwegian Central Securities Depository

Table 10b. Securities funds' assets under management by holding sector. Market value.
In millions of NOK

	31.03.2002	30.06.2002	30.09.2002	31.12.2002	31.03.2003
Central government and social security administration	354	379	414	421	440
Commercial and savings banks	3 358	3 442	2 672	2 631	2 191
Other financial corporations	15 770	12 762	10 623	11 175	11 131
Local government admin. and municipal enterprises	7 860	8 106	7 953	8 058	8 960
Other enterprises	23 859	21 840	20 742	21 116	21 454
Households	80 392	71 165	61 212	60 922	58 632
Rest of the world	3 536	3 340	2 889	3 012	3 183
Total assets under management	135 129	121 034	106 505	107 337	105 991

Sources: Norges Bank and the Norwegian Central Securities Depository

Securities statistics

Table 11. Shareholdings registered with the Norwegian Central Securities Depository (VPS), by holding sector. Estimated market value. In millions of NOK

Holding sector	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Central government and social security administration	238 711	198 032	214 025	196 897	230 564
Norges Bank	0	0	0	0	2
State lending institutions	4	3	13	14	14
Savings banks	3 065	2 930	3 007	2 886	3 176
Commercial banks	10 852	6 976	6 834	18 007	18 521
Insurance companies	26 253	21 378	19 756	17 917	21 053
Mortgage companies	81	67	71	34	32
Finance companies	4	3	3	2	2
Mutual funds	29 221	20 820	21 637	18 491	23 310
Other financial enterprises	30 829	38 781	49 245	47 802	48 594
Local government administration and municipal enterprises	5 252	3 746	3 355	3 182	3 805
State enterprises	8 608	7 705	8 340	7 830	6 354
Other private enterprises	141 432	128 089	129 578	117 654	137 008
Wage-earning households	45 330	39 778	41 941	40 108	44 307
Other households	2 354	1 862	1 918	1 791	2 005
Rest of the world	247 474	198 284	186 552	151 501	193 777
Unspecified sector	949	1 011	943	705	487
Total	790 420	669 464	687 217	624 820	733 011

Sources: Norwegian Central Securities Depository and Norges Bank

Table 12. Share capital and primary capital certificates registered with the Norwegian Central Securities Depository, by issuing sector. Nominal value. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Savings banks	9 126	11 280	11 284	11 284	11 422
Commercial banks	15 724	15 725	15 595	15 845	15 845
Insurance companies	1 124	2 758	2 525	2 525	2 525
Mortgage companies	2 194	2 194	2 194	2 194	2 194
Finance companies	5	5	5	5	5
Other financial enterprises	11 097	19 806	20 048	20 238	20 114
Local government administration and municipal enterprises	2	2	2	2	2
State enterprises	18 508	18 463	18 468	18 268	18 268
Other private enterprises	45 265	45 019	44 817	46 108	49 646
Rest of the world	5 571	5 677	5 489	5 716	5 631
Unspecified sector	0	0	0	0	0
Total	108 618	120 929	120 426	122 184	125 652

Sources: Norwegian Central Securities Depository and Norges Bank

Table 13. Net purchases and net sales (-) in the primary and secondary markets of shares registered with the Norwegian Central Securities Depository, by purchasing, selling and issuing sector¹⁾. Estimated market value. In millions of NOK

Issuing sector	Purchasing/ selling sector																Unsp. sector	Total ²⁾
	Cent.gov't and social security	Norges Bank	State lending inst.	Sav. banks	Comm. banks	Insur. companies	Mort. companies	Fin. companies	Secur. funds	Other financ. enterpr.	Local gov't & munic. enterpr.	State enterpr.	Other private enterpr.	Wage-earning households	Other households	Rest of the world		
Commercial banks	-1	0	0	-44	1 653	-136	0	0	25	-267	-20	1	-152	-238	-13	-100	-6	701
Insurance companies	0	0	0	-1	0	0	0	0	0	0	0	0	1	0	0	-1	0	0
Mortgage companies	0	0	0	3	-3	0	0	0	0	0	0	0	0	0	0	0	0	0
Finance companies	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other financial enterpr.	-55	0	0	-77	1 072	79	1	0	-100	17	-7	-50	-633	-274	-80	116	-13	-5
Local gov't. admin. and municipal enterprises	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
State enterprises	60	0	0	8	1 525	132	-4	0	-28	60	25	-1	-141	-30	11	-1 604	-3	11
Other private enterprises	-972	2	1	93	3 282	-655	-22	0	-1 264	207	-10	-2 486	5 589	-1 843	-196	3 946	25	5 698
Rest of the world	62	0	0	4	1 601	16	0	0	34	-221	-4	0	-834	-35	14	-783	5	-140
Unspecified sector	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	-906	2	1	-14	9 130	-563	-25	0	-1 333	-204	-17	-2 535	3 831	-2 420	-264	1 575	8	6 265

¹⁾ Issues at issue price + purchases at market value – sales at market value – redemption value.

²⁾ Total shows net issues in the primary market. Purchases and sales in the secondary market result in redistribution between owner sectors, but add up to 0.

Sources: Norwegian Central Securities Depository and Norges Bank

Table 14. Bondholdings in NOK registered with the Norwegian Central Securities Depository, by holding sector. Market value. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Central government and social security administration	26 865	26 175	26 709	24 658	25 942
Norges Bank	7 030	6 710	7 034	6 765	3 863
State lending institutions	193	183	166	162	145
Savings banks	30 617	35 112	33 813	34 185	37 036
Commercial banks	39 727	42 225	44 209	42 956	49 945
Insurance companies	168 546	170 384	182 923	195 999	204 979
Mortgage companies	13 671	15 575	14 968	15 084	17 522
Finance companies	30	27	67	65	58
Mutual funds	29 653	29 554	28 227	30 124	31 639
Other financial enterprises	4 198	3 706	4 061	7 650	7 993
Local government administration and municipal enterprises	15 819	18 640	18 591	20 350	22 568
State enterprises	2 317	2 600	2 951	3 060	2 976
Other private enterprises	23 191	22 624	22 092	23 544	25 578
Wage-earning households	16 390	16 470	16 512	16 987	17 232
Other households	5 082	5 154	5 042	5 846	6 341
Rest of the world	59 773	66 338	66 810	72 625	71 333
Unspecified sector	689	708	574	580	216
Total	443 790	462 187	474 748	500 640	525 366

Sources: Norwegian Central Securities Depository and Norges Bank

Table 15. Bondholdings in NOK registered with the Norwegian Central Securities Depository, by issuing sector. Nominal value. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Central government and social security administration	139 771	141 793	124 640	139 843	144 841
State lending institutions	231	220	199	194	173
Savings banks	71 795	75 289	77 604	81 534	90 704
Commercial banks	64 116	67 557	68 756	70 310	68 764
Insurance companies	915	915	435	435	435
Mortgage companies	67 012	69 988	70 703	66 840	64 573
Finance companies	550	500	500	500	500
Other financial enterprises	2 300	2 300	3 796	3 708	2 667
Local government administration and municipal enterprises	43 590	44 402	43 981	48 756	48 600
State enterprises	14 688	15 621	35 060	33 454	33 024
Other private enterprises	38 186	37 020	36 338	36 476	41 156
Households	23	23	81	196	196
Rest of the world	10 001	11 721	13 332	13 780	14 230
Unspecified sector	0	0	0	0	239
Total	453 178	467 349	475 425	496 026	510 101

Sources: Norwegian Central Securities Depository and Norges Bank

Table 16. Net purchases and net sales (-) in the primary and secondary markets for NOK- denominated bonds registered with the Norwegian Central Securities Depository, by purchasing, selling and issuing sector.¹⁾ Market value. In millions of NOK

2003 Q2	Purchasing/ selling sector																	Total ²⁾
	Cent.gov't and social security	Norges Bank	State lending inst.	Sav. banks	Comm. banks	Insur. com-panies	Mort. com-panies	Fin. com-panies	Secur. funds	Other financ. enterpr.	Local gov't & munic. enterpr.	State enterpr.	Other private enterpr.	Wage-earning house-holds	Other house-holds	Rest of the world	Unsp. sector	
Central government and social security admin.	-1 789	-3 570	0	187	3 927	14 854	418	0	1 152	288	660	-37	84	-75	3	4 274	0	20 377
State lending inst.	0	0	-21	-1	-2	-1	0	0	0	0	0	0	0	0	0	0	0	-25
Savings banks	456	0	0	3 322	2 332	3 091	1 786	-5	1 847	-20	506	43	878	13	415	-1 058	-3	13 600
Commercial banks	-526	0	0	-665	3 641	-499	-870	-5	198	118	189	-11	-454	205	125	-1 235	3	214
Insurance companies	0	0	0	1	-5	0	0	0	-5	0	0	0	6	5	-1	-1	0	0
Mortgage companies	-112	0	0	-806	-1 444	-2 583	1 429	0	-363	-484	-12	-60	-378	-101	-13	-537	-4	-5 469
Finance companies	0	0	0	-40	0	6	0	0	-5	0	9	0	29	0	2	0	0	0
Other financial enterprises	0	0	0	-71	-7	-756	0	0	4	1	81	0	-215	-28	-10	6	0	-994
Local gov't. admin. and municipal enterprises	124	0	0	235	99	3 033	-76	1	406	16	1 947	-6	-1	22	234	-7	0	6 027
State enterprises	-195	0	0	601	-264	-778	-2	0	132	-213	61	2 163	251	4	284	-1 086	0	959
Other private enterprises	-830	0	0	191	-1 025	928	-83	0	89	1 278	300	15	2 907	85	82	332	-2	4 266
Households	0	0	0	0	0	20	0	0	0	26	0	0	31	6	2	0	3	88
Rest of the world	0	0	0	16	-46	44	-15	0	-188	-6	28	0	42	196	14	809	4	898
Unspecified sector	0	0	0	0	239	0	0	0	0	0	0	0	0	0	0	0	0	239
Total	-2 871	-3 570	-21	2 970	7 443	17 358	2 587	-9	3 266	1 003	3 769	2 107	3 180	333	1 137	1 498	1	40 180

¹⁾ Issues at issue price + purchases at market value – sales at market value – redemption value.

²⁾ Total shows net issues in the primary market. Purchases and sales in the secondary market result in redistribution between owner sectors, but add up to 0.

Sources: Norwegian Central Securities Depository and Norges Bank

Table 17. NOK-denominated short-term paper registered with the Norwegian Central Securities Depository by holding sector. Market value. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Central government and social security administration	5 845	6 635	3 806	9 037	11 198
Norges Bank	2 219	2 590	2 298	2 177	3 513
State lending institutions	0	0	0	0	0
Savings banks	3 435	3 846	4 424	3 878	3 890
Commercial banks	13 546	16 610	14 890	10 721	9 589
Insurance companies	44 160	45 333	52 320	49 107	50 388
Mortgage companies	2 569	1 682	1 238	3 525	5 014
Finance companies	48	61	30	33	41
Mutual funds	22 577	25 183	26 054	25 834	27 000
Other financial enterprises	1 900	2 196	2 722	3 518	2 758
Local government administration and municipal enterprises	8 918	7 352	6 526	5 860	3 543
State enterprises	4 784	6 078	1 510	12 847	6 696
Other private enterprises	6 442	6 877	7 038	5 456	3 786
Wage-earning households	191	232	274	301	258
Other households	1 331	1 137	1 049	1 387	1 376
Rest of the world	11 846	12 457	10 980	10 814	8 838
Unspecified sector	8	7	22	6	5
Total	129 819	138 277	135 180	144 502	137 893

Sources: Norwegian Central Securities Depository and Norges Bank

Table 18. Outstanding short-term paper, by issuing sector.¹⁾ Nominal value. In millions of NOK

Issuing sector	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Central government and social security administration	33 000	41 500	51 500	62 500	64 500
Counties	1 076	1 026	474	622	502
Municipalities	3 722	3 140	4 285	4 241	4 814
State lending institutions	0	0	0	0	0
Commercial banks	21 744	18 867	18 434	14 357	8 090
Savings banks	36 311	39 616	40 538	37 629	30 133
Mortgage companies	3 572	3 497	1 787	4 255	6 767
Finance companies	625	600	600	0	0
Other financial enterprises	0	0	0	0	0
State enterprises	8 905	11 242	6 555	3 170	2 960
Municipal enterprises	10 039	9 522	8 526	6 944	6 626
Private enterprises	13 423	11 446	8 412	10 152	7 799
Rest of the world	1 225	1 700	2 500	3 190	4 220
Total	133 642	142 156	143 611	147 060	136 411

¹⁾ Comprises short-term paper issued in Norway in NOK by domestic sectors and foreigners and paper in foreign currency issued by domestic sectors.

Source: Norges Bank

Credit and liquidity trends

Table 19. Credit indicator and money supply

	Volume figures at end of period NOKbn			Percentage growth				
				Over past 12 months			Over past 3 months Annualised rate ⁴⁾	
	C2 ¹⁾	C3 ²⁾	M2 ³⁾	C2 ¹⁾	C3 ²⁾	M2 ³⁾	C2	M2
December 1994	893.5	1 075.8	501.3	2.3	1.3	5.8	2.8	1.3
December 1995	936.0	1 123.6	530.3	4.9	5.2	6.0	5.4	1.3
December 1996	992.5	1 213.4	564.4	6.0	5.3	6.4	7.7	4.5
December 1997	1 099.1	1 363.7	578.5	10.2	10.2	1.8	10.1	3.0
December 1998	1 192.8	1 521.5	605.3	8.3	12.2	4.4	6.3	5.4
December 1999	1 295.0	1 697.2	670.1	8.4	8.0	10.5	9.7	8.4
December 2000	1 460.9	1 921.1	731.8	12.3	10.6	8.8	11.8	7.4
December 2001	1 608.2	2 078.1	795.2	9.7	7.1	9.3	8.8	10.9
April 2002	1 647.2	2 117.9	800.1	8.9	7.4	8.7	8.7	4.7
May 2002	1 655.3	2 108.8	805.7	9.2	7.1	7.3	9.9	5.5
June 2002	1 667.9	2 108.6	844.5	9.5	7.3	9.8	10.3	8.5
July 2002	1 674.5	2 117.1	837.1	9.3	7.4	9.0	10.3	8.9
August 2002	1 682.9	2 120.5	826.4	9.1	7.8	7.6	8.8	4.0
September 2002	1 690.7	2 123.0	820.7	8.6	7.6	6.3	7.8	3.2
October 2002	1 701.7	2 140.0	844.7	8.6	7.1	8.6	7.5	3.6
November 2002	1 723.9	2 156.7	829.2	8.9	6.9	7.8	8.4	10.1
December 2002	1 724.7	2 151.8	855.5	8.9	6.9	8.3	9.5	9.7
January 2003	1 734.6	2 157.7	866.6	9.1	6.8	6.3	9.3	8.0
February 2003	1 744.8	2 182.6	858.8	8.8	6.8	6.2	8.5	2.4
March 2003	1 756.6	2 196.9	854.4	8.7	6.4	5.5	6.8	0.6
April 2003	1 765.3	2 211.4	844.6	8.2	5.9	5.9	6.9	1.2
May 2003	1 779.7	2 212.9	850.8	8.4	6.2	5.8	6.8	2.4
June 2003	1 795.9		870.3	7.7		2.8	7.5	3.4
July 2003	1 797.6		870.1	7.6		3.8		

¹⁾ C2 = Credit indicator. Credit from domestic sources; actual figures.

²⁾ C3 = Total credit from domestic and foreign sources; actual figures.

³⁾ M2 = Money supply.

⁴⁾ Seasonally adjusted figures

Source: Norges Bank

**Table 20. Domestic credit supply to the general public¹⁾, by source. In millions of NOK.
12-month growth as a percentage**

	31.12.2000		31.12.2001		31.12.2002		31.07.2003	
	Amount	%	Amount	%	Amount	%	Amount	%
Private banks	938 076	13.8	1 030 694	9.6	1 097 144	8.2	1 148 603	6.8
State lending institutions	167 921	3.9	176 494	5.1	185 932	5.3	187 478	3.5
Norges Bank	575	1.6	603	4.9	741	8.0	693	-3.4
Mortgage companies	144 846	20.4	167 698	15.6	182 006	10.9	196 215	17.6
Finance companies	66 809	12.1	79 474	14.6	83 239	9.9	86 671	7.4
Life insurance companies	23 047	-8.0	24 482	0.2	23 124	-5.5	23 830	2.8
Pension funds	4 796	-3.9	3 742	7.1	3 742	0.0	3 742	0.0
Non-life insurance companies	1 649	24.8	934	-43.4	919	-1.6	1 020	21.4
Bond debt ²⁾	82 838	9.7	89 671	8.2	107 399	19.8	112 526	25.3
Notes and short-term paper	24 259	27.0	23 752	-2.1	26 145	10.1	22 410	-38.9
Other sources	6 038	27.4	10 624	76.0	14 295	34.6	14 439	16.6
Total domestic credit (C2)³⁾	1 460 854	12.3	1 608 168	9.7	1 724 686	8.9	1 797 627	7.6

¹⁾ Comprises local government administration, non-financial enterprises and households.

²⁾ Adjusted for non-residents' holdings of Norwegian private and municipal bonds in Norway.

³⁾ Corresponds to Norges Bank's credit indicator (C2).

Source: Norges Bank

Table 21. Composition of money supply. In millions of NOK

Actual figures at end of period	Notes and coins	Transaction account deposits	M1 ¹⁾	Other deposits ²⁾	CDs	M2 ³⁾	Change in M2 last 12 months, total
December 1994	40 454	172 154	210 108	286 081	5 116	501 305	25 290
December 1995	42 069	178 653	217 727	296 799	15 731	530 257	28 952
December 1996	43 324	208 072	247 937	294 741	21 686	564 364	34 107
December 1997	46 014	227 382	269 597	278 741	30 200	578 538	14 174
December 1998	46 070	237 046	279 188	292 820	33 321	605 329	26 791
December 1999	48 020	300 131	343 496	295 822	30 803	670 121	64 792
December 2000	46 952	328 816	371 340	326 351	34 152	731 843	61 722
December 2001	46 633	344 109	386 147	370 172	38 899	795 218	63 375
April 2002	40 746	337 329	374 096	381 891	44 146	800 133	59 463
May 2002	40 785	342 667	379 393	379 315	47 000	805 708	49 073
June 2002	41 900	378 726	416 494	381 452	46 540	844 486	68 794
July 2002	40 945	365 142	401 902	389 106	46 078	837 086	63 619
August 2002	40 649	349 274	385 825	394 607	45 931	826 363	54 280
September 2002	40 188	350 270	386 502	388 380	45 822	820 704	44 864
October 2002	40 024	358 125	394 210	404 464	45 998	844 672	62 994
November 2002	40 783	349 028	385 824	398 522	44 822	829 168	55 224
December 2002	44 955	360 563	400 845	409 433	45 201	855 479	60 261
January 2003	41 157	360 620	397 901	426 302	42 438	866 641	45 614
February 2003	40 236	359 575	396 153	421 505	41 162	858 820	46 422
March 2003	39 718	363 231	399 373	412 803	42 185	854 361	41 487
April 2003	40 151	354 817	391 088	417 289	36 193	844 570	44 437
May 2003	41 244	360 530	397 834	416 159	36 786	850 779	45 071
June 2003	41 253	386 637	423 927	414 996	31 328	870 251	25 765
July 2003	41 101	380 558	417 464	421 654	30 993	870 111	33 025

¹⁾ Narrow money, M1, constitutes the money-holding sector's stock of Norwegian notes and coins plus the sector's transaction account deposits in Norges Bank, commercial banks and savings banks (in NOK and foreign currency).

²⁾ Excluding restricted bank deposits (BSU, IPA, withholding tax accounts, etc).

³⁾ Broad money, M2, constitutes the sum of M1 and the money-holding sector's other bank deposits and CDs (in NOK and foreign currency) excluding restricted bank deposits (BSU, IPA, withholding tax accounts, etc).

Source: Norges Bank

Table 22. Household financial balance. Financial investments and holdings, by financial instrument. In billions of NOK

	Financial investments					Holdings				
	Year			Q1		Year			At 31 Mar.	
	2000	2001	2002	2002	2003	2000	2001	2002	2002	2003
Bank deposits, etc. ¹⁾	33.1	39.5	47.3	16.4	5.0	441.0	480.6	527.9	497.0	533.0
Bonds, etc. ²⁾	7.8	6.7	1.9	0.7	1.4	18.2	21.5	22.9	22.1	24.4
Shares, etc. ³⁾	4.5	6.8	5.0	1.6	1.4	174.7	173.0	165.0	177.7	163.3
Units in securities funds	11.7	2.3	0.1	1.1	0.2	85.7	78.1	66.5	86.9	64.2
Insurance claims	23.0	32.9	34.4	11.2	8.9	455.1	471.7	490.2	481.9	498.9
Loans and other assets ⁴⁾	9.3	4.8	4.9	12.0	14.7	110.2	115.0	120.0	127.1	134.7
Total assets	89.4	93.0	93.5	43.1	31.7	1 284.8	1 339.9	1 392.5	1 392.6	1 418.4
Loans from commercial and savings banks	66.5	68.7	72.4	10.6	14.2	591.9	659.8	727.2	669.4	741.1
Loans from state lending inst. and Norges Bank	7.7	8.5	8.3	4.0	3.2	141.4	149.1	156.7	153.0	159.7
Loans from private mortgage and finance companies	6.2	14.3	13.2	3.7	4.5	53.5	67.7	80.1	71.2	84.6
Loans from insurance companies	-2.5	-0.5	-0.1	-0.1	0.5	16.7	16.2	16.2	16.2	16.6
Other liabilities ⁵⁾	-3.4	11.0	3.5	-7.6	-8.3	79.4	89.9	93.1	82.1	84.8
Total liabilities	74.6	102.0	97.5	10.6	14.2	883.1	982.8	1073.3	992.0	1 087.1
Net	14.9	-9.0	-3.9	32.4	17.5	401.8	357.1	319.2	400.6	331.3

¹⁾ Notes and coins and bank deposits.

²⁾ Bearer bonds, savings bonds, premium bonds, notes and short-term Treasury notes.

³⁾ VPS-registered (registered with the Norwegian Central Securities Depository), non-registered shares and primary capital certificates.

⁴⁾ Loans, accrued interest, holiday pay claims and tax claims.

⁵⁾ Other loans, bonds and notes, tax liabilities, and accrued interest.

Sources: Norges Bank and Statistics Norway

Table 23. Money market liquidity. Liquidity effect from 1 January to end period. In millions of NOK

Supply+/withdrawal-	1.1 - 31.12		1.1 - 31.8	
	2001	2002	2002	2003
Central government and other public accounts (excl. paper issued by state lending institutions and government)	-115 094	5 950	17 822	5 301
Paper issued by state lending institutions and government	8 514	-13 598	-17 318	-41 259
Purchase of foreign exchange for Government Petroleum Fund	120 300	56 545	38 785	14 620
Other foreign exchange transactions	91	421	421	0
Holdings of banknotes and coins ¹⁾ (estimate)	424	1 741	5 941	4 131
Overnight loans	-126	0	0	0
Fixed-rate loans	-6 011	-15 140	-15 140	0
Other central bank financing	-8 135	-18 700	-39 885	18 755
Total reserves	-37	17 219	-9 374	1 548
Of which:				
Sight deposits with Norges Bank	-37	17 219	-9 374	1 548
Treasury bills	0	0	0	0
Other reserves (estimate)	0	0	0	0

¹⁾ The figures are mainly based on Norges Bank's accounts. Discrepancies may arise between the bank's own statements and banking statistics due to different accruals.

Source: Norges Bank

Interest rate statistics

Table 24. Nominal interest rates for NOK. Averages. Per cent per annum

	1-month		3-month		12-month		Interest rate on banks' overnight loans in Norges Bank	Interest rate on banks' sight deposits with Norges Bank
	NIDR	NIBOR	NIDR	NIBOR	NIDR	NIBOR		
	April 2002	6.9	6.7	6.9	6.8	7.2			7.0	8.5	6.5
May 2002	6.9	6.7	7.1	6.9	7.5	7.3	8.5	6.5
June 2002	7.0	6.9	7.3	7.1	7.7	7.5	8.5	6.5
July 2002	7.3	7.2	7.4	7.3	7.6	7.4	8.9	6.9
August 2002	7.3	7.1	7.4	7.3	7.5	7.3	9.0	7.0
September 2002	7.3	7.1	7.3	7.1	7.2	7.0	9.0	7.0
October 2002	7.3	7.1	7.3	7.1	7.0	6.8	9.0	7.0
November 2002	7.3	7.1	7.3	7.1	6.9	6.7	9.0	7.0
December 2002	7.1	6.9	6.8	6.6	6.4	6.1	8.7	6.7
January 2003	6.4	6.2	6.2	6.0	5.9	5.6	8.3	6.3
February 2003	6.1	5.9	5.9	5.7	5.5	5.3	8.0	6.0
March 2003	5.8	5.6	5.7	5.5	5.4	5.2	7.6	5.6
April 2003	5.6	5.4	5.5	5.3	5.2	5.0	7.5	5.5
May 2003	5.3	5.2	5.1	4.9	4.7	4.5	7.0	5.0
June 2003	4.7	4.5	4.3	4.0	3.8	3.6	6.8	4.8
July 2003	4.1	4.0	3.6	3.5	3.4	3.2	6.0	4.0
August 2003	3.5	3.3	3.3	3.1	3.4	3.2	5.4	3.4

Note: NIDR = Norwegian Interbank Deposit Rate, a pure krone interest rate

NIBOR = Norwegian Interbank Offered Rate, constructed on the basis of currency swaps

Source: Norges Bank

Table 25. Short-term interest rates¹⁾ for key currencies in the Euro-market. Per cent per annum

	DKK	GBP	JPY	SEK	USD	EUR	Interest rate differential
							NOK/EUR
April 2002	3.6	4.1	0.1	4.3	1.9	3.4	3.3
May 2002	3.7	4.1	0.0	4.4	1.9	3.4	3.3
June 2002	3.7	4.1	0.0	4.4	1.8	3.4	3.6
July 2002	3.6	4.0	0.0	4.4	1.8	3.4	3.8
August 2002	3.5	3.9	0.0	4.3	1.8	3.3	3.8
September 2002	3.4	3.9	0.0	4.3	1.8	3.3	3.8
October 2002	3.4	3.9	0.0	4.3	1.7	3.2	3.8
November 2002	3.2	3.9	0.0	4.1	1.4	3.1	3.9
December 2002	3.0	4.0	0.0	3.8	1.4	2.9	3.5
January 2003	2.9	3.9	0.0	3.8	1.3	2.8	3.1
February 2003	2.8	3.7	0.0	3.7	1.3	2.7	2.9
March 2003	2.6	3.6	0.0	3.5	1.3	2.5	2.9
April 2003	2.6	3.6	0.0	3.5	1.3	2.5	2.6
May 2003	2.5	3.6	0.0	3.3	1.2	2.4	2.4
June 2003	2.2	3.6	0.0	2.9	1.1	2.1	1.8
July 2003	2.1	3.4	0.0	2.8	1.1	2.1	1.2
August 2003	2.1	3.5	-0.1	2.8	1.1	2.1	0.9

¹⁾ Three-month rates, monthly average of daily quotations.

Sources: OECD and Norges Bank

Table 26. Yields on Norwegian bonds¹⁾. Per cent per annum

	3-year		5-year		10-year	
	Gov't	Private	Gov't	Private	Gov't	Private
April 2002	6.6	7.2	6.6	7.1	6.7	7.2
May 2002	6.9	7.3	6.8	7.3	6.8	7.3
June 2002	7.1	7.5	6.9	7.4	6.8	7.4
July 2002	6.8	7.2	6.7	7.1	6.6	7.1
August 2002	6.5	7.0	6.4	6.9	6.3	6.9
September 2002	6.2	6.7	6.1	6.6	6.1	6.6
October 2002	6.1	6.7	6.1	6.6	6.2	6.7
November 2002	6.0	6.6	6.0	6.5	6.1	6.6
December 2002	5.6	6.3	5.7	6.3	5.9	6.4
January 2003	5.3	5.9	5.4	6.0	5.7	6.1
February 2003	4.9	5.4	5.0	5.5	5.3	5.6
March 2003	5.0	5.3	5.1	6.3	5.2	5.7
April 2003	4.9	5.3	5.0	6.3	5.3	5.8
May 2003	4.4	5.2	4.6	5.7	5.0	5.6
June 2003	3.7	4.9	4.0	4.9	4.5	4.9
July 2003	3.8	4.8	4.3	5.3	4.9	5.2
August 2003	3.9	4.8	4.4	5.4	5.0	5.2

¹⁾ Whole-year interest rate paid in arrears. Monthly average. As of 1 January 1993 based on interest rate on representative bonds weighted by residual maturity.

Source: Norges Bank

Table 27. Yields on government bonds¹⁾ in key currencies. Per cent per annum

	DEM	DKK	FIM	FFR	GBP	JPY	USD	Interest rate differential
								NOK/DEM ²⁾
April 2002	5.2	5.5	5.4	5.3	5.2	1.4	5.3	1.5
May 2002	5.2	5.5	5.5	5.3	5.3	1.4	5.2	1.5
June 2002	5.1	5.4	5.3	5.1	5.1	1.4	4.9	1.7
July 2002	4.9	5.2	5.2	5.0	5.0	1.3	4.6	1.6
August 2002	4.7	4.9	4.9	4.7	4.7	1.3	4.2	1.7
September 2002	4.5	4.8	4.7	4.5	4.5	1.2	3.9	1.6
October 2002	4.6	4.9	4.7	4.6	4.6	1.1	3.9	1.6
November 2002	4.6	4.9	4.7	4.6	4.6	1.0	4.1	1.6
December 2002	4.4	4.7	4.5	4.4	4.5	1.0	4.1	1.5
January 2003	4.2	4.5	4.3	4.2	4.4	0.8	4.0	1.4
February 2003	4.0	4.3	4.1	4.0	4.2	0.8	3.9	1.3
March 2003	4.1	4.3	4.2	4.1	4.3	0.7	3.8	1.2
April 2003	4.2	4.5	4.3	4.2	4.4	0.7	4.0	1.1
May 2003	3.9	4.1	3.9	3.9	4.1	0.6	3.5	1.1
June 2003	3.7	3.9	3.8	3.7	4.0	0.6	3.3	0.8
July 2003	4.1	4.2	4.1	4.0	4.3	1.0	4.0	0.8
August 2003	4.2	4.4	4.2	4.2	4.5	1.1	4.4	0.8

¹⁾ Government bonds with 10 years to maturity. Monthly average of daily quotations.

²⁾ Differential between yields on Norwegian and German government bonds with 10 years to maturity.

Sources: OECD and Norges Bank

Table 28. Commercial and savings banks. Average interest rates and commissions on utilised loans in NOK to the general public at end of quarter. Per cent per annum.

	Loans, excl. non-accrual loans							
	Total loans	Local government	Non-financial public	Non-financial private	Households	Credit lines	Repayment loans	
			enterprises	enterprises		Overdrafts and building loans	Housing loans	Other loans
2002 Q2								
Commercial banks	8.15	7.90	7.97	8.40	7.99	9.73	7.86	8.06
Savings banks	8.51	7.34	7.72	8.97	8.38	10.80	8.11	8.80
All banks	8.33	7.63	7.91	8.62	8.21	10.18	8.01	8.39
2002 Q3								
Commercial banks	8.59	7.79	8.03	8.82	8.47	10.53	8.32	8.38
Savings banks	8.98	7.60	8.12	9.33	8.89	11.34	8.60	9.22
All banks	8.79	7.70	8.05	9.02	8.71	10.87	8.48	8.75
2002 Q4								
Commercial banks	8.49	7.60	7.73	8.57	8.47	10.39	8.34	8.19
Savings banks	8.91	7.49	7.85	9.16	8.85	11.16	8.58	9.11
All banks	8.71	7.55	7.76	8.80	8.69	10.73	8.48	8.59
2003 Q1								
Commercial banks	7.52	6.48	6.67	7.66	7.47	9.45	7.32	7.30
Savings banks	7.94	6.48	6.98	8.32	7.84	10.25	7.56	8.26
All banks	7.74	6.48	6.75	7.92	7.68	9.81	7.46	7.71
2003 Q2								
Commercial banks	6.60	6.43	5.39	6.62	6.61	8.32	6.43	6.40
Savings banks	7.09	5.40	6.88	7.54	6.97	9.33	6.69	7.50
All banks	6.85	6.01	5.78	6.99	6.81	8.79	6.58	6.87

Source: Norges Bank

Table 29. Commercial and savings banks. Average interest rates on deposits in NOK from the general public at end of quarter. Per cent per annum

	Total deposits	Local government	Non-financial public	Non-financial private	Households	Deposits on transaction accounts	Other deposits
			enterprises	enterprises			
2002 Q2							
Commercial banks	5.27	6.07	6.25	5.43	5.05	4.62	6.05
Savings banks	5.32	6.70	6.78	5.70	5.06	4.09	6.09
All banks	5.29	6.45	6.42	5.53	5.06	4.40	6.08
2002 Q3							
Commercial banks	5.77	6.37	6.57	6.02	5.54	5.20	6.40
Savings banks	5.83	6.91	6.78	6.06	5.66	4.57	6.54
All banks	5.80	6.70	6.64	6.03	5.60	4.95	6.48
2002 Q4							
Commercial banks	5.74	6.22	6.23	5.85	5.62	5.18	6.36
Savings banks	5.85	6.60	6.53	5.89	5.75	4.55	6.53
All banks	5.79	6.46	6.36	5.86	5.69	4.92	6.46
2003 Q1							
Commercial banks	4.89	5.17	5.22	4.82	4.90	4.30	5.53
Savings banks	4.89	5.63	5.57	4.97	4.78	3.73	5.52
All banks	4.89	5.46	5.35	4.88	4.83	4.06	5.52
2003 Q2							
Commercial banks	3.92	4.24	3.89	3.70	4.03	3.18	4.78
Savings banks	3.84	4.51	4.28	3.92	3.76	2.64	4.56
All banks	3.88	4.42	4.03	3.78	3.87	2.95	4.65

Source: Norges Bank

Table 30. Life insurance companies. Average interest rates by type of loan at end of quarter. Per cent per annum

	Housing loans	Other loans	Total loans
30.06.2002	7.9	7.1	7.5
30.09.2002	8.0	7.1	7.5
31.12.2002	7.8	7.0	7.3
31.03.2003	6.9	6.4	6.7
30.06.2003	5.7	6.0	5.9

Source: Norges Bank

Table 31. Mortgage companies. Average interest rates, incl. commissions on loans to private sector at end of quarter. Per cent per annum

	Housing loans	Loans to private enterprises	Total loans
30.06.2002	7.5	7.6	7.2
30.09.2002	7.8	7.8	7.4
31.12.2002	7.8	7.7	7.3
31.03.2003	7.2	7.2	6.7
30.06.2003	6.6	6.8	6.3

Source: Norges Bank

Profit/loss and capital adequacy data

Table 32. Profit/loss and capital adequacy: commercial banks¹⁾. Percentage of average total assets

	2001	2002	Q2	
			2002	2003
Interest income	7.6	7.3	7.2	6.3
Interest expenses	5.8	5.5	5.3	4.7
Net interest income	1.8	1.9	1.8	1.7
Total other operating income	1.1	0.8	0.8	0.8
Other operating expenses	1.9	1.8	1.7	1.6
Operating profit before losses	1.0	0.9	0.9	0.8
Recorded losses on loans and guarantees	0.3	0.5	0.2	0.6
Ordinary operating profit (before taxes)	0.7	0.4	0.7	0.3
Capital adequacy ratio ²⁾	11.7	11.1	11.5	11.0
Of which:				
Core capital	8.7	8.4	8.9	8.2

¹⁾ Parent banks (excluding branches abroad) including Postbanken and foreign-owned branches.

²⁾ As a percentage of the basis of measurement for capital adequacy.

Source: Norges Bank

Table 33. Profit/loss and capital adequacy: savings banks.
Percentage of average total assets

	2001	2002	Q2	
			2002	2003
Interest income	8.1	7.8	7.6	7.0
Interest expenses	5.6	5.3	5.1	4.6
Net interest income	2.5	2.5	2.4	2.4
Total other operating income	0.7	0.5	0.6	0.7
Other operating expenses	1.8	1.8	1.8	1.7
Operating profit before losses	1.4	1.2	1.3	1.4
Recorded losses on loans and guarantees	0.3	0.4	0.2	0.4
Ordinary operating profit (before taxes)	1.2	0.8	1.1	1.0
Capital adequacy ratio ¹⁾	13.8	13.5	13.0	13.1
Of which:				
Core capital	11.0	11.1	10.5	10.7

¹⁾ As a percentage of the basis of measurement for capital adequacy.

Source: Norges Bank

Table 34. Profit/loss and capital adequacy: finance companies¹⁾.
Percentage of average total assets

	2001	2002	Q2	
			2002	2003
Interest income	10.3	9.7	9.3	9.2
Interest expenses	6.0	5.6	5.4	4.6
Net interest income	4.2	4.1	3.9	4.6
Total other operating income	2.8	2.5	2.3	2.2
Other operating expenses	4.4	4.1	3.9	3.9
Operating profit before losses	2.6	2.5	2.4	2.8
Recorded losses on loans and guarantees	0.5	0.6	0.5	1.0
Ordinary operating profit (before taxes)	2.1	1.9	2.0	1.9
Capital adequacy ratio ²⁾	11.3	10.9	10.9	10.0
Of which:				
Core capital	9.8	9.3	9.4	8.5

¹⁾ All Norwegian parent companies (excl. OBOS) and foreign-owned branches.

²⁾ As a percentage of the basis of measurement for capital adequacy.

Source: Norges Bank

Table 35. Profit/loss and capital adequacy: mortgage companies¹⁾.
Percentage of average total assets

	2001	2002	Q2	
			2002	2003
Interest income	6.5	5.3	5.3	4.8
Interest expenses	5.7	4.7	4.6	4.1
Net interest income	0.8	0.7	0.7	0.7
Total other operating income	-0,0	-0,0	-0,0	0,0
Other operating expenses	0.2	0.2	0.2	0.1
Operating profit before losses	0.6	0.5	0.5	0.6
Recorded losses on loans and guarantees	0.0	0.0	0.0	0.0
Ordinary operating profit (before taxes)	0.6	0.5	0.5	0.6
Capital adequacy ²⁾	14.7	12.7	13.4	12.4
Of which:				
Core capital	11.2	10.4	10.8	10.0

¹⁾ All Norwegian parent companies.

²⁾ As a percentage of the basis of measurement for capital adequacy.

Source: Norges Bank

Exchange rates

Table 36. The international value of the krone and exchange rates against selected currencies. Monthly average of representative market rates

	Trade-weighted krone exchange rate ¹⁾	1	100	1	100	100	1
		EUR	DKK	GBP	JPY	SEK	USD
April 2002	99.16	7.6221	102.53	12.42	6.58	83.44	8.61
May 2002	97.06	7.5147	101.07	11.96	6.49	81.53	8.19
June 2002	95.13	7.4048	99.62	11.50	6.29	81.25	7.75
July 2002	94.60	7.4050	99.66	11.60	6.32	79.90	7.46
August 2002	95.09	7.4284	100.02	11.67	6.39	80.32	7.60
September 2002	94.38	7.3619	99.12	11.67	6.22	80.30	7.51
October 2002	94.06	7.3405	98.80	11.65	6.04	80.62	7.48
November 2002	93.58	7.3190	98.53	11.49	6.02	80.59	7.31
December 2002	92.91	7.2953	98.24	11.36	5.87	80.20	7.17
January 2003	92.52	7.3328	98.66	11.16	5.81	79.93	6.90
February 2003	94.75	7.5439	101.51	11.26	5.87	82.49	7.00
March 2003	98.02	7.8450	105.62	11.49	6.12	85.03	7.26
April 2003	97.78	7.8316	105.47	11.37	6.02	85.56	7.22
May 2003	97.10	7.8711	106.01	11.04	5.80	85.97	6.80
June 2003	100.77	8.1622	109.93	11.63	5.91	89.51	7.00
July 2003	102.57	8.2893	111.52	11.84	6.14	90.24	7.29
August 2003	102.40	8.2558	111.08	11.81	6.24	89.37	7.41

¹⁾The nominal effective krone exchange rate is calculated on the basis of the NOK exchange rate against the currencies of Norway's 25 main trading partners, calculated as a chained index and trade-weighted using the OECD's weights. The weights, which are updated annually, are calculated on the basis of each country's competitive position in relation to Norwegian manufacturing. The index is set at 100 in 1990. A rising index value denotes a depreciating krone.

Further information can be found on Norges Bank's website (www.norges-bank.no).

Source: Norges Bank

Table 37. Exchange cross rates. Monthly average of representative exchange rates

	GBP/USD	EUR/GBP	USD/EUR	EUR/JPY	JPY/USD
April 2002	1.4428	0.6139	0.886	115.8083	130.75
May 2002	1.4599	0.6283	0.917	115.8469	126.29
June 2002	1.4829	0.6440	0.955	117.7914	123.34
July 2002	1.5535	0.6386	0.992	117.1021	118.04
August 2002	1.5366	0.6363	0.978	116.3043	118.95
September 2002	1.5553	0.6306	0.981	118.3539	120.68
October 2002	1.5574	0.6299	0.981	121.5679	123.91
November 2002	1.5717	0.6371	1.001	121.6472	121.49
December 2002	1.5851	0.6421	1.018	124.1810	122.01
January 2003	1.6164	0.6571	1.062	126.1147	118.74
February 2003	1.6086	0.6697	1.077	128.5750	119.35
March 2003	1.5830	0.6825	1.080	128.1511	118.61
April 2003	1.5736	0.6890	1.084	130.0741	119.97
May 2003	1.6227	0.7130	1.157	135.6071	117.20
June 2003	1.6612	0.7017	1.166	138.0045	118.38
July 2003	1.6235	0.7004	1.137	134.9582	118.69
August 2003	1.5926	0.6991	1.113	132.2774	118.80

Source: Norges Bank

Balance of payments

Table 38. Balance of payments. In millions of NOK

	2001	2002	January - June	
			2002	2003
Goods balance	234 046	190 755	97 351	96 619
Service balance	28 284	24 654	14 333	13 917
Net interest and transfers	-23 811	-14 784	-4 742	-12 663
A. Current account balance	238 519	200 625	106 942	97 873
Of which:				
Petroleum activities ¹⁾	321 353	261 947	127 919	145 716
Shipping ¹⁾	46 707	38 682	18 578	19 244
Other sectors	-129 541	-100 004	-39 555	-67 087
B. Net capital transfers	-840	-462	650	62
C. Capital outflow excl. Norges Bank	-14 857	55 782	9 830	591
Distributed among:				
Central government sector	14 832	4 439	1 991	4 245
Local government sector	237	719	561	67
Commercial and savings banks	-36 137	-74 713	-24 684	-11 687
Insurance	1 493	14 559	2 870	9 694
Other financial institutions	-24 068	-41 656	-11 694	-22 429
Shipping	-232	2 504	2 383	901
Petroleum activities	-46 710	-39 802	-31 698	-15 613
Other private and state enterprises	39 639	60 647	33 162	13 651
Unallocated (incl. errors and omissions)	36 089	129 085	36 939	21 762
D. Norges Bank's net capital outflow (A + B - C)	252 536	144 381	97 762	97 344
E. Valuation changes in Norges Bank's net foreign assets	-40 908	-176 035	-122 399	20 174
Change in Norges Bank's net foreign assets (D + E)	211 628	-31 654	5 104	17 768

¹⁾ Specified by Norges Bank on the basis of items from the balance of payments.

Sources: Statistics Norway and Norges Bank

Table 39. Norway's foreign assets and debt. In billions of NOK

	31.12.2001			31.12.2002			30.06.2003		
	Assets	Debt	Net	Assets	Debt	Net	Assets	Debt	Net
Central government admin.	28.3	64.2	-35.9	29.6	68.0	-38.4	31.0	64.7	-33.7
Norges Bank incl. Petroleum Fund	959.5	176.8	782.7	1 060.1	273.3	786.8	1 348.9	375.2	973.7
State lending institutions	7.4	0.0	7.4	7.5	0.0	7.5	7.5	0.0	7.5
Commercial and savings banks	137.7	360.1	-222.4	126.8	375.1	-248.3	162.4	440.7	-278.3
Mortgage companies	45.6	127.1	-81.5	56.8	135.5	-78.7	64.7	174.1	-109.4
Finance companies	3.7	30.1	-26.4	2.9	25.7	-22.8	2.9	25.2	-22.3
Insurance companies	204.9	19.1	185.8	190.7	20.2	170.5	199.5	20.3	179.2
Local government	0.0	2.2	-2.2	0.2	1.6	-1.4	0.2	1.5	-1.3
Municipal enterprises	0.3	8.9	-8.6	0.2	8.5	-8.3	0.3	9.4	-9.1
State enterprises	111.8	92.4	19.4	129.2	83.3	45.9	138.5	83.7	54.8
Other Norwegian sectors	456.4	441.4	15.0	435.7	416.8	18.9	439.2	442.2	-3.0
Undistributed and errors and omissions	0.0	0.0	0.0	101.6	0.0	101.6	123.4	0.0	123.4
All sectors	1 955.6	1 322.3	633.3	2 141.3	1 408.0	733.3	2 518.5	1 637.0	881.5

Norges Bank calculates the holdings figures on the basis of Statistics Norway's annual census of foreign assets and liabilities and sectoral statistics for financial industries. These are combined with the figures on changes in the form of transactions and valuation changes from the balance of payments and sectoral statistics for insurance and mortgage companies.

Sources: Statistics Norway and Norges Bank

International capital markets

Table 40. Changes in banks' international assets.¹⁾ In billions of USD

	2000	2001	2002	Q1		Outstanding
				2002	2003	At 31.03.03
Total	1 221.5	859.4	740.8	57.3	341.4	13 991.6
Of which vis-à-vis:						
Non-banks	288.8	442.1	280.9	47.8	233.3	4 882.6
Banks (and undistributed)	932.7	417.3	459.9	9.5	108.2	9 108.9

1) International assets (external positions) comprise

- cross-border claims in all currencies
- foreign currency loans to residents
- equivalent assets, excluding lending

Source: Bank for International Settlements

Table 41. Banks' international claims by currency. Percentage of total international assets

	December			Q1	
	2000	2001	2002	2002	2003
US dollar (USD)	43.3	45.2	41.8	45.7	41.3
Deutsche mark (DEM)	..	..	..	..	..
Swiss franc (CHF)	2.2	2.1	2.0	2.2	2.0
Japanese yen (JPY)	8.2	6.1	5.5	5.4	5.2
Pound sterling (GBP)	4.4	4.4	4.2	4.4	4.0
French franc (FRF)	..	..	..	..	..
Italian lira (ITL)	..	..	..	..	..
ECU/EURO ¹⁾	27.8	28.5	33.3	28.7	34.8
Undistributed ²⁾	14.2	13.7	13.2	13.6	12.7
Total in billions of USD	10 778.6	11 631.5	13 377.2	11 562.9	13 991.6

¹⁾ From January 1999.

²⁾ Including other currencies not shown in the table, and assets in banks in countries other than the home countries of the seven currencies specified.

Source: Bank for International Settlements

Foreign currency trading

Table 42. Foreign exchange banks. Foreign exchange purchased/sold forward with settlement in NOK.¹⁾ In billions of NOK at end of month

	Purchased net from:				Total	Purchased gross from:		Sold gross to:	
	Central gov't ²⁾	Other financial inst. ³⁾	Non- financial sector	Foreign sector		Non- financial sector	Foreign sector	Non- financial sector	Foreign sector
July 2002	-0.1	49.6	56.4	-22.5	83.4	110.6	642.8	54.2	665.3
August 2002	-0.1	49.7	53.6	-2.2	101.0	107.2	646.7	53.6	648.9
September 2002	-0.1	33.4	46.0	31.4	110.7	102.9	622.2	56.9	590.8
October 2002	0.0	20.7	46.0	28.2	94.9	99.8	606.6	53.8	578.4
November 2002	-0.1	22.3	47.9	32.0	102.1	99.6	592.5	51.7	560.5
December 2002	0.0	22.1	48.3	65.0	135.4	102.2	645.6	53.9	580.6
January 2003	0.0	23.9	22.2	55.0	101.1	110.0	632.2	87.8	577.2
February 2003	0.0	32.7	46.7	64.9	144.3	121.7	630.8	75.0	565.9
March 2003	0.1	49.4	42.4	32.2	124.1	114.4	595.9	72.0	563.7
April 2003	0.0	36.3	44.1	55.5	135.9	110.7	620.7	66.6	565.2
May 2003	0.1	23.5	36.1	86.4	146.1	94.0	625.9	57.9	539.5
June 2003	0.1	14.1	30.1	91.3	135.6	60.7	556.8	30.6	465.4
July 2003	0.1	12.5	21.7	127.3	161.6	49.0	458.3	27.3	331.1

¹⁾ Excl. exchange rate adjustments.

²⁾ Central government administration, social security administration and Norges Bank.

³⁾ Incl. possible discrepancies between forward assets and forward liabilities within the category of foreign exchange banks.

Source: Statements from commercial and savings banks (registered foreign exchange banks) to Norges Bank

Table 43. Foreign exchange banks. Overall foreign currency position. In millions of NOK

	30.06.2002	30.09.2002	31.12.2002	31.03.2003	30.06.2003
Foreign assets, spot	203 986	194 813	192 705	215 543	241 240
Foreign liabilities, spot	317 645	351 361	326 594	365 732	388 607
1. Spot balance, net	-113 659	-156 548	-133 889	-150 189	-147 367
2. Forward balance, net	121 215	122 975	136 072	108 394	97 941

Source: Norges Bank

Table 44. Norges Banks' foreign currency transactions with various sectors. In billions of NOK

	Week in 2003																																			
	1-52	23	24	25	26	27	28	29	30	31	32	33	34	35	36	1-36																				
1. Norwegian customers	48	9.7	-29.1	18.4	-7.8	31.9	1.0	-7.2	5.3	17.3	-13.4	-22.3	14.9	7.8	-8.5	44.6																				
Net spot ¹⁾	10	-0.8	-22.6	13.5	-16.2	32.4	1.0	-6.3	5.3	19.6	-13.7	-15.1	17.4	5.4	-5.9	29.9																				
Net forward ¹⁾	38	10.5	-6.5	4.9	8.4	-0.6	0.0	-0.9	0.0	-2.3	0.3	-7.2	-2.5	2.4	-2.7	14.7																				
-Change in purchase contracts ²⁾	-12	-50.8	3.0	-2.5	-4.7	2.1	3.9	-1.5	0.8	0.8	-4.3	9.9	-0.2	0.7	-4.2	-73.0																				
-Change in sales contracts ³⁾	26	-40.3	-3.5	2.5	3.7	1.5	3.9	-2.4	0.8	-1.5	-4.0	2.7	-2.7	3.1	-6.8	-58.1																				
2. Foreign sector	-81	-10.0	22.1	-10.0	-3.1	-23.9	-1.8	7.1	-8.3	-21.2	14.1	19.5	-10.7	-6.6	1.5	-40.6																				
Net spot ¹⁾	-18	-1.8	10.7	-0.2	0.4	-5.5	-0.3	-1.8	-3.3	-1.7	0.6	11.6	-6.1	5.5	-15.9	6.1																				
Net forward ¹⁾	-63	-8.2	11.4	-9.9	-3.5	-18.4	-1.5	8.9	-5.0	-19.5	13.5	7.9	-4.6	-12.1	17.4	-46.7																				
-Change in purchase contracts ²⁾	-126	-63.6	-33.7	23.6	19.9	-5.7	-18.8	25.9	-15.7	16.9	-7.4	49.8	2.0	-23.4	5.5	-27.8																				
-Change in sales contracts ³⁾	-189	-71.8	-22.3	13.8	16.4	-24.1	-20.2	34.7	-20.7	-2.6	6.1	57.7	-2.6	-35.4	22.9	-74.5																				
3. Norges Bank	53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5																				
Net spot ¹⁾	53	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5																				
Net forward ¹⁾	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																				
-Change in purchase contracts ²⁾	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																				
-Change in sales contracts ³⁾	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																				
4. Other																																				
Increase in Norwegian customers' net currency claims on banks	-11	-5.5	6.1	-4.8	9.4	-10.1	1.8	-0.3	-0.4	4.4	-2.0	3.0	-0.6	-0.3	2.8	-16.4																				
Increase in banks' total positions	4	-0.5	3.6	-3.7	-2.1	10.2	-6.6	2.3	-1.0	-9.3	0.3	1.1	-1.0	-4.1	3.3	-10.3																				
Specification of foreign sector spot:																																				
Net NOK claims on banks ⁴⁾	-13	3.3	9.9	1.1	0.7	3.4	1.2	0.0	-0.9	0.3	0.4	11.9	-11.2	5.4	-15.8	18.6																				
VPS-registered shares ⁵⁾	-2	-5.8	-0.7	-1.6	-2.5	-7.9	-0.1	-0.7	-2.4	-1.9	-0.2	0.2	0.7	0.8	0.9	-21.2																				
VPS-registered bonds ⁵⁾	-5	0.8	1.4	-1.3	1.7	-1.0	-1.6	-1.4	0.0	-0.1	0.1	0.0	4.3	-0.7	-0.6	-1.1																				
VPS-registered notes and certificates ⁵⁾	1	-0.1	0.1	1.6	0.5	0.1	0.1	0.3	0.0	0.0	0.2	-0.5	0.1	0.1	-0.4	2.8																				
Foreign sector purchases of VPS-reg. securities, total	-	47.0	43.0	45.0	51.2	49.7	29.0	45.1	43.6	51.2	34.3	35.3	28.1	26.3	38.1	1 399.3																				
Foreign sector sales of VPS-registered securities, total	-	42.0	44.0	44.0	51.0	40.9	27.0	43.3	41.2	49.3	34.5	35.0	33.2	26.5	38.0	1 379.7																				

¹⁾ Positive figures denote that the sectors in question purchase foreign currency from Norwegian banks.

²⁾ Positive figures denote that the sectors in question increase their contracts for purchase of NOK, and negative figures denote a decline in purchase contracts.

³⁾ Positive figures denote that the sectors in question increase their sales contracts in NOK, and negative figures denote a decline in sales contracts.

⁴⁾ Positive figures denote a reduction of NOK deposits from the foreign sector in Norwegian banks.

⁵⁾ Positive figures denote net sales of VPS-registered securities by the foreign sector.

