

# **TURNOVER/OUTPUT MEASURES IN BANKING AND CREDIT GRANTING INDUSTRIES IN NORWAY**

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# Characteristics of the banking and credit granting industries

- Output or production of banking and credit granting services can only partly be directly observed and reported
  - Financial Intermediation Services Indirectly Measured (FISIM)
- Financial enterprises including banks subject to strict surveillance and reporting obligations to authorities
  - Detailed accounting data for total population available for statistical purposes, including for national accounts estimations
- The challenges in statistics not so much how to *collect data* as how to make adequate *estimations*
  - Price information and price indices still a problem

## Industry classification

<b>NACE rev.1.1 (ISIC rev. 3.1)</b>	<b>SN2002</b>	<b>National Accounts industries</b>
65 Financial intermediation, except insurance and pension funds	65 Financial intermediation, except insurance and pension funds	65 Financial intermediation services, except insurance and pension funding services
65.11 Central Bank	65.11 Central banking	651 Central banking
65.12 Other banking	65.12 Other monetary intermediation	652 Other monetary intermediation
65.22 Other credit granting activities	65.22 Other credit granting	653 Other financial intermediation

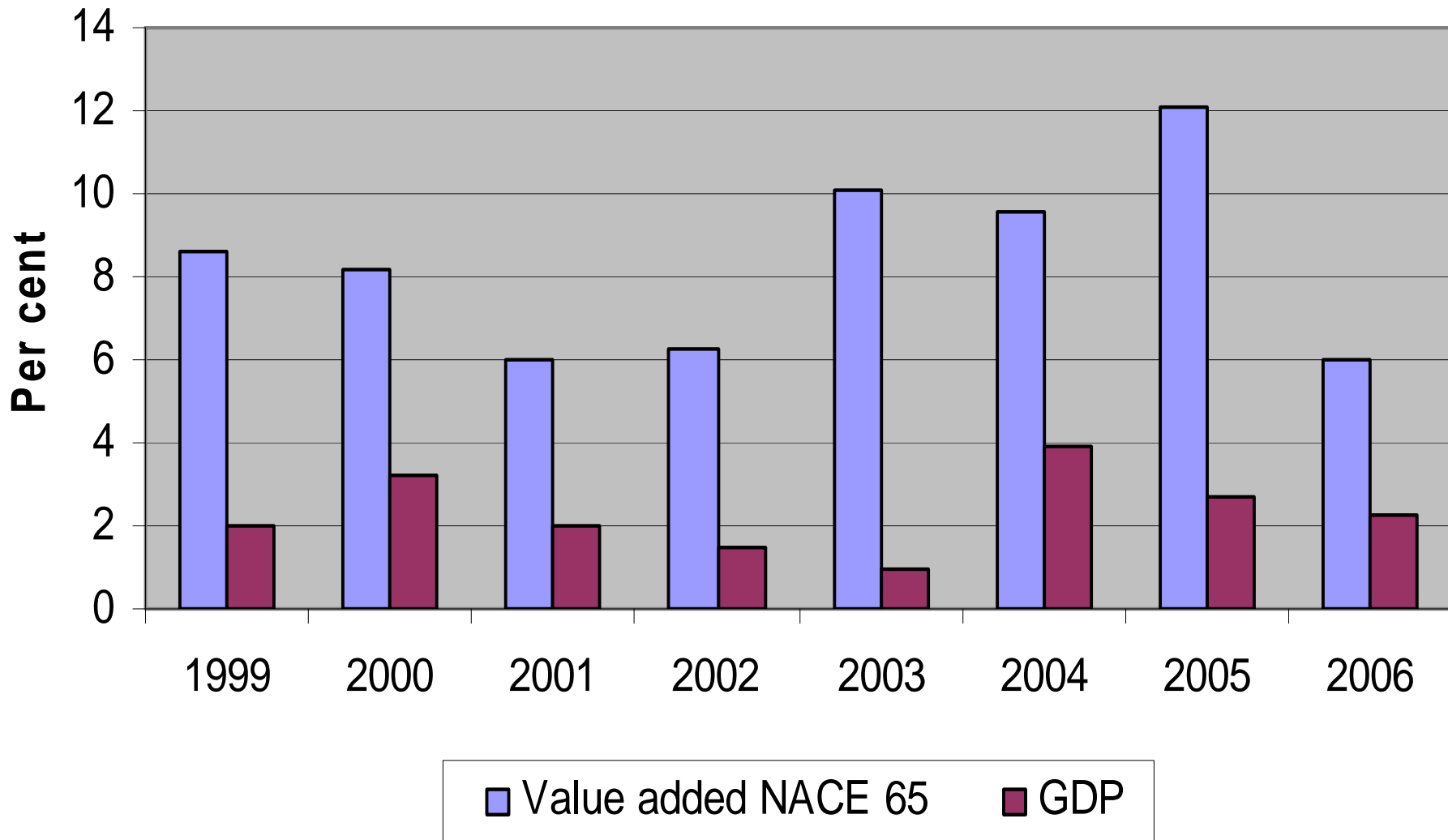
# Product classification

CPA 2002	National Accounts products
65.11.10 Central banking services	<i>651 111 FISIM from banks to non-financial enterprises</i>
65.12.10 Other banking service	651 112 Central banking services
65.21.10 Financial leasing services	<i>651 211 FISIM from banks to central government institutions</i>
65.22.10 Other credit granting services	651 212 Other monetary intermediation services, direct charges
	<i>651 311 FISIM from banks to local government institutions</i>
	<i>651 411 FISIM from banks to households and NPISHs</i>
	<i>652 211 FISIM from other credit institutions to non-financial enterprises</i>
	652 212 Other credit granting services, direct charges
	<i>652 311 FISIM from other credit institutions to central government institutions</i>
	<i>652 411 FISIM from other credit institutions to local government institutions</i>
	<i>652 511 FISIM from other credit institutions to households and NPISHs</i>

## Number of enterprises by type of institution, 1970-2007

Type of institution	1970	1980	1990	2007
Central bank	1	1	1	1
Commercial banks	40	24	23	149
Savings banks	493	322	142	
Credit granting institutions	15	15	14	12
Total	549	362	180	162

## Annual change in volume - per cent



# Basic statistics – Credit Market statistics

- Financial institutions – accounts statistics
  - Quarterly and annual
  - Balance sheets data and profit and loss account data
    - ◆ Interest income and costs by customer sector
    - ◆ Provisions and received payments for other services
  - Collected through a joint venture between Statistics Norway, Norges Bank and the Financial Supervisory Authority
  - Long time series
- Interest rate statistics, banks
  - Interest rates on deposits and loans in banks, state lending institutions and mortgage companies
  - Needed for estimation of FISIM

# Output at current prices

- Total FISIM (F) estimated according to EU regulations
  - $F(L)$ =FISIM on loans and  $F(D)$ =FISIM on deposits calculated separately for various customer sectors using interest rates on loans (L) and deposits (D) and reference rates, and then added:

$$F = F(L) + F(D) = L(r^L - r^R) + D(r^R - r^D)$$

- Services directly charged
  - Taken directly from accounting reports from the relevant financial institutions



# Output at constant prices

- FISIM

- FISIM at constant prices reflects interest margin on loans/deposits in accounting period applying interest rates from base year (0) and deflated by a general price index, P:

$$F_0 = \frac{1}{P} \left[ L (r^L - r^R)_0 + D (r^R - r^D)_0 \right]$$

- Banking services directly charged

- Services directly charged at constant prices estimated by applying extrapolation from the base year using a chosen volume indicator
- The volume indicator based on (un-weighted) number of transactions within various operations

- Other credit granting services

- Change in output of other credit granting services estimated using employment data and an estimated rate for change in productivity

# Conclusions

- FISIM
  - Must be estimated based on reported accounting data
  - Results dependent on detailed information from customer segments
  - Also on choice of reference rates – negative results may occur
  - When negative results are reached – adjustments should be done
- Banking services directly charged and other credit granting services
  - Good quality price indices in short supply
  - Experimental estimations of price movements have been carried out, but results not reasonable due to problems in handling complicated price policies
    - ◆ One for all price
    - ◆ Mixed prices
    - ◆ Design product packages