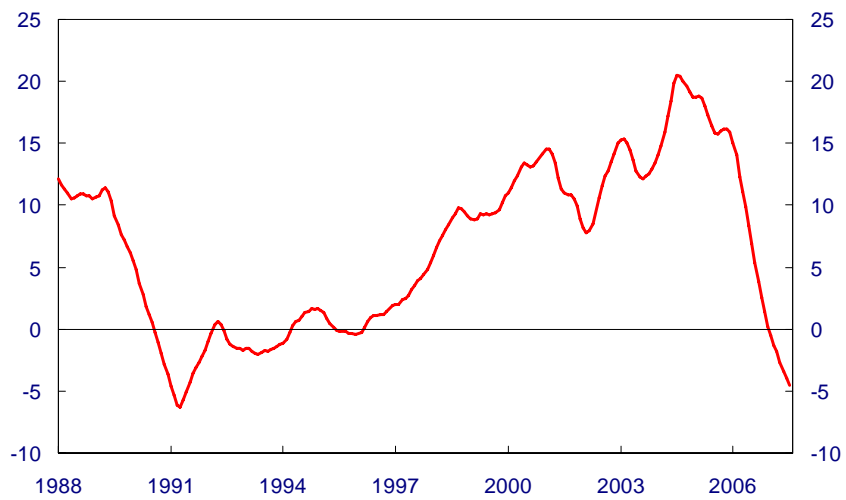


## Turbulence in credit markets - mortgage financing at home and abroad

Annual meeting of the Norwegian Savings Banks'  
Association, Hamar, 11 October 2007

Governor Svein Gjedrem  
Norges Bank

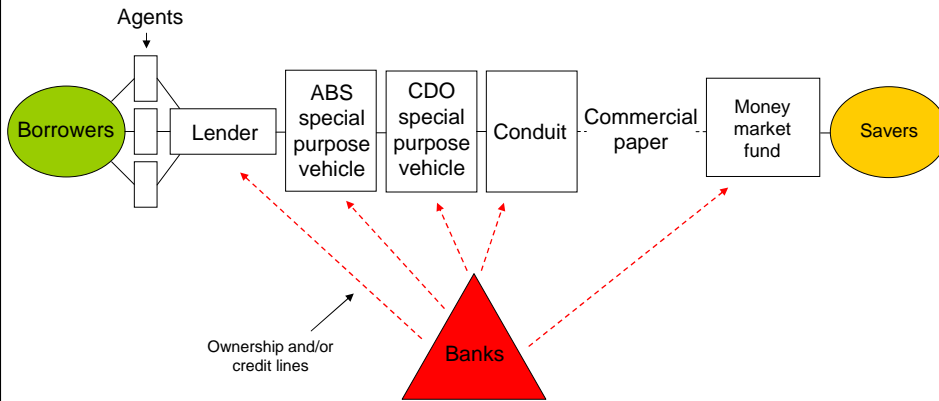
### House prices in the US<sup>1)</sup> 12-month rise



<sup>1)</sup> S&P Case-Shiller composite index

Source: Reuters (EcoWin) 2

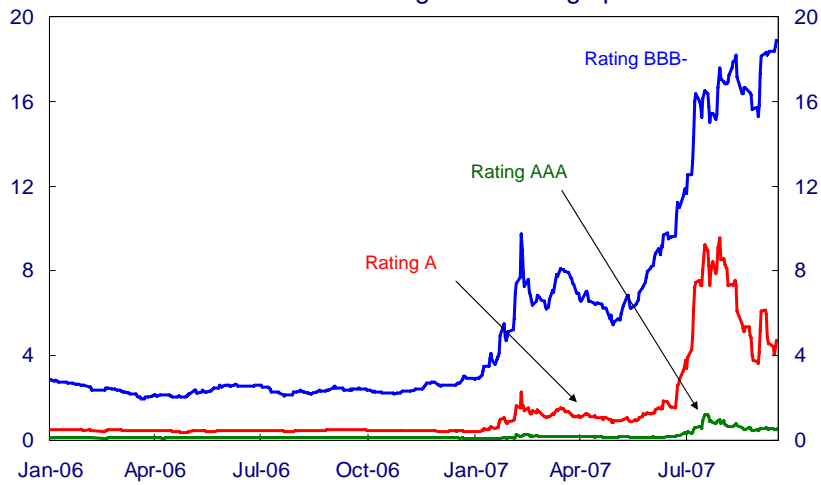
### Interlinkages in the US subprime mortgage market<sup>1)</sup>



<sup>1)</sup> The chart shows an example of possible interlinkages

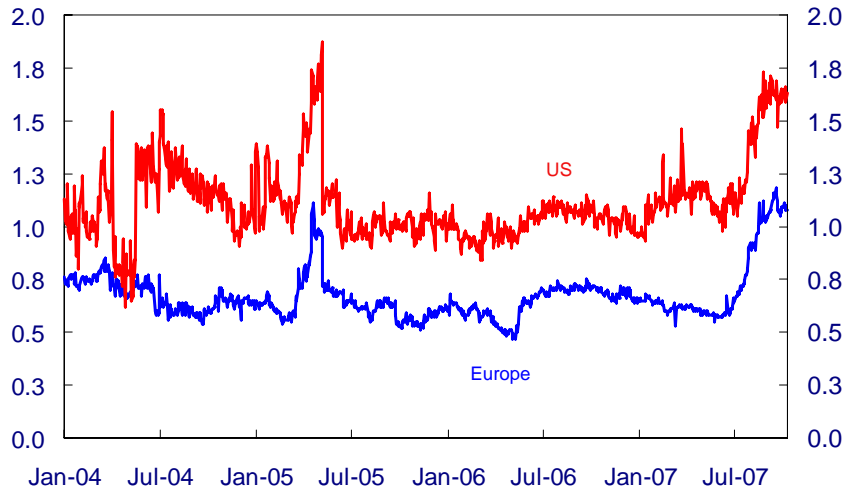
### Credit spreads on US subprime asset-backed securities

First half of 2006 vintage. Percentage points



Source: Lehman Brothers 4

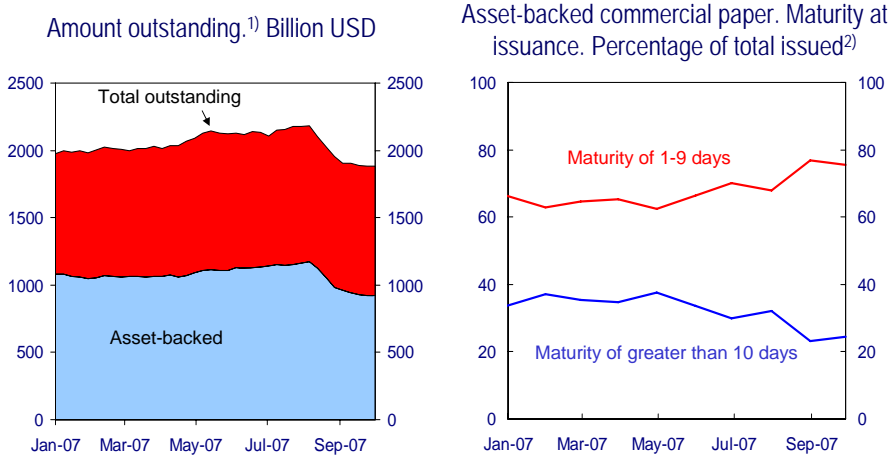
### Corporate bond credit spreads<sup>1)</sup> Five years' maturity. Percentage points



<sup>1)</sup> BBB rated bonds

Source: Reuters (EcoWin) 5

### Commercial paper Amount outstanding and terms of maturity



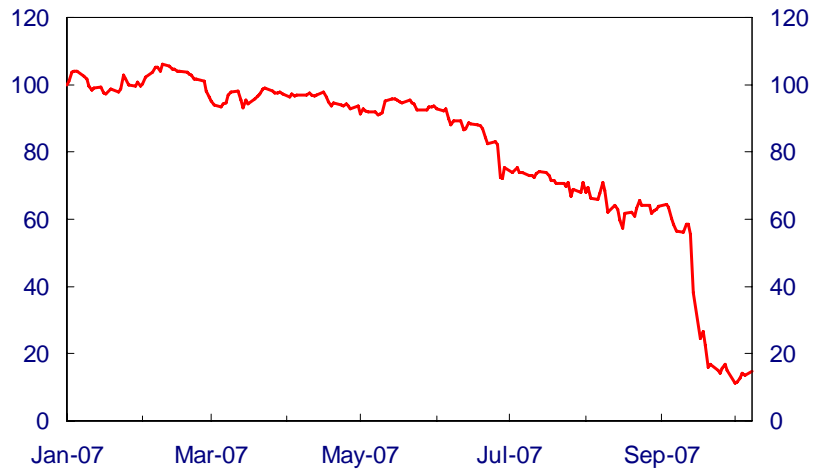
<sup>1)</sup> Weekly figures

<sup>2)</sup> Monthly figures

Sources: Federal Reserve and Norges Bank 6

### Northern Rock share prices

Index. 1 January 2007 = 100



Source: Reuters (EcoWin)

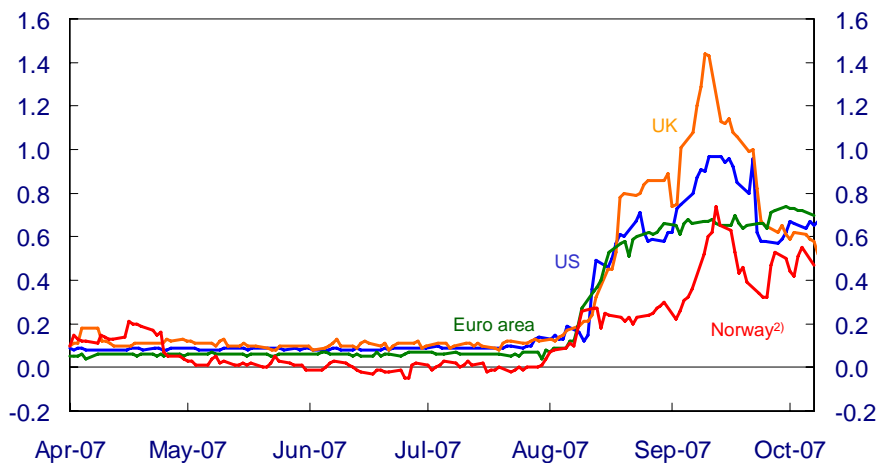
### Central bank responses

- Supply short-term liquidity                      US, euro area, the UK, Canada, Switzerland, Japan, Norway
- Supply longer-term liquidity                      US, euro area, the UK
- Lower the discount rate                              US
- Widen the range of securities accepted as a collateral by the central bank                      Australia, the UK
- Provide liquidity support on special terms                      the UK

*” A sound banker, alas, is not one who foresees danger and avoids it, but one who, when he is ruined, is ruined in a conventional way along with his fellows, so that no one can really blame him.”*

*John M. Keynes*

**Difference between money market rates and expected key policy rates<sup>1)</sup>**  
 3-month maturity. Percentage points

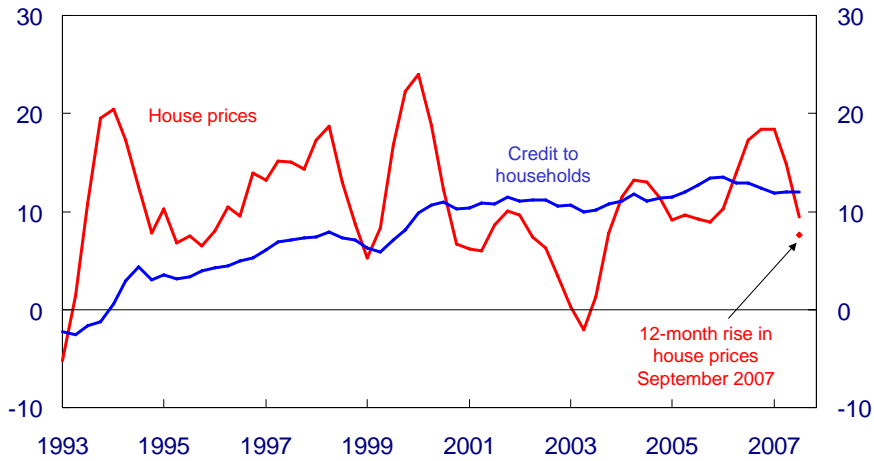


<sup>1)</sup> The expected key rate is measured by Overnight Indexed Swap (OIS)

<sup>2)</sup> Estimates

### Rise in house prices and credit to households

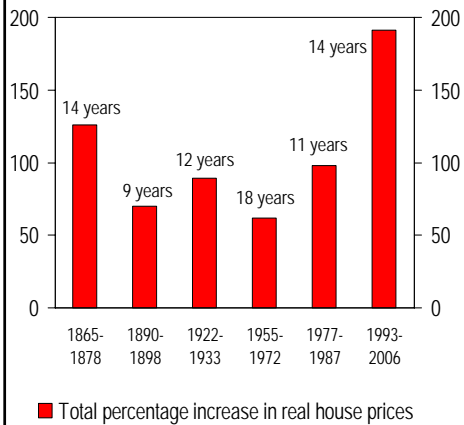
4-quarter rise



Sources: Association of Real Estate Agents, ECON, Finn.no and Association of Real Estate Agency Firms and Statistics Norway

### Periods of rising house prices in Norway

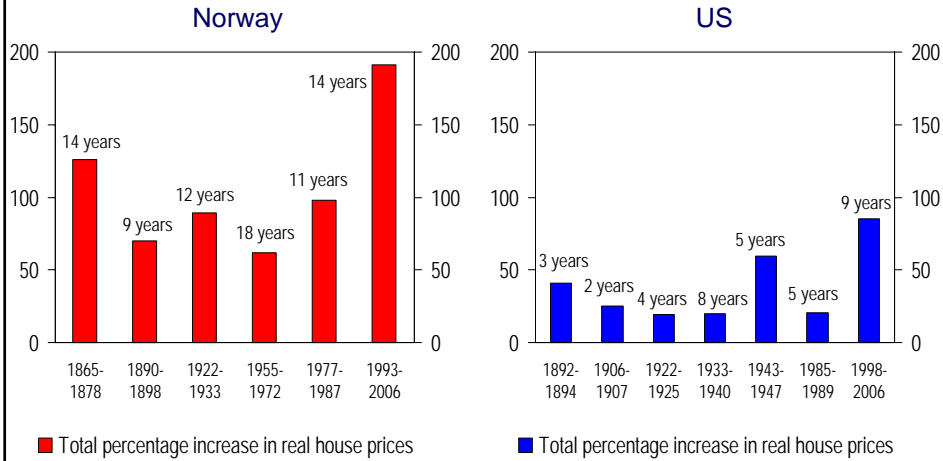
Number of years and total percentage increase. 1865-2006



<sup>1)</sup> The periods comprise consecutive years of rising real house prices. A few years of falling real house prices might occur in the analysed periods

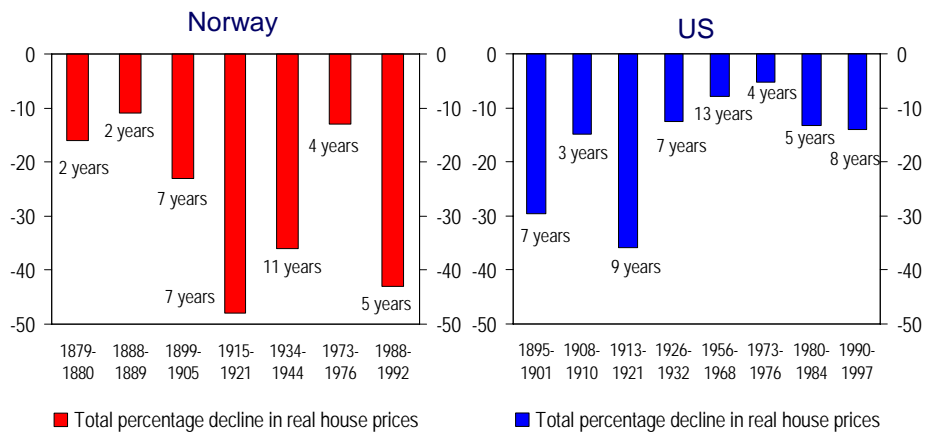
Sources: Statistics Norway and Norges Bank

### Periods of rising house prices in Norway and the US<sup>1)</sup> Number of years and total percentage increase. 1865-2006



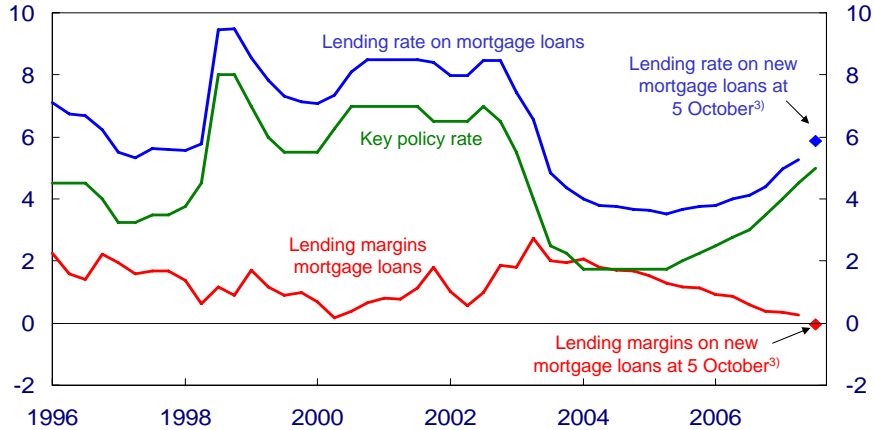
<sup>1)</sup> The periods comprise consecutive years of rising real house prices. A few years of falling real house prices might occur in the analysed periods  
 Sources: R. Shiller, Statistics Norway and Norges Bank 13

### Periods of falling house prices in Norway and the US<sup>1)</sup> Number of years and total percentage decline. 1865-2006



<sup>1)</sup> The periods comprise consecutive years of rising real house prices. A few years of falling real house prices might occur in the analysed periods  
 Sources: R. Shiller, Statistics Norway and Norges Bank 14

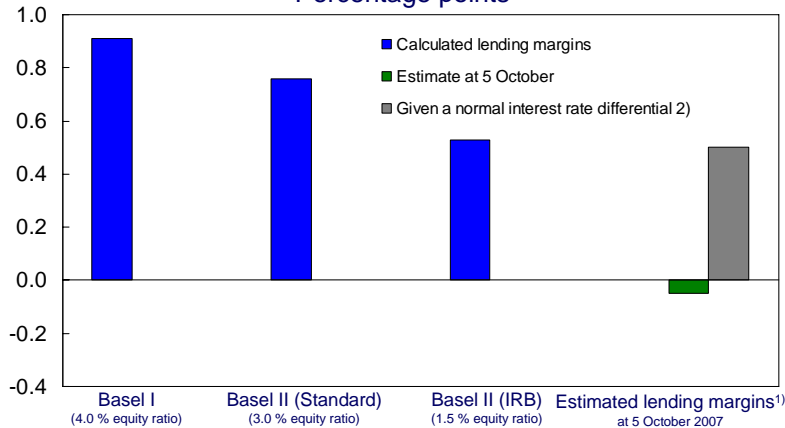
### Lending rate and lending margins on mortgage loans<sup>1)</sup> and Norges Bank's key policy rate<sup>2)</sup> Annual percentage rate and percentage points



<sup>1)</sup> Repayment mortgage loans. Credit lines secured on dwellings are not included  
<sup>2)</sup> Interest rates at end of quarter  
<sup>3)</sup> Estimate for a selection of banks. Loan of NOK 1 million and loan-to-value ratio of maximum 60 per cent

Sources: Statistics Norway, Norsk Familieøkonomi, Skandiabanken and Norges Bank 15

### Estimate of lending margins on new mortgage loans. Calculated lending margins for fully secured mortgage loans<sup>3)</sup> Percentage points

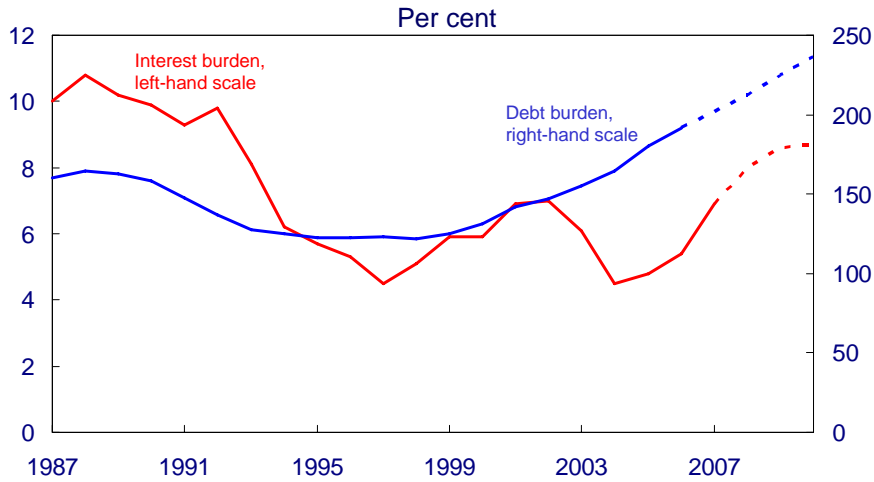


<sup>1)</sup> Estimate for a selection of banks. Loan of NOK 1 million and loan-to-value ratio of maximum 60 per cent  
<sup>2)</sup> Assumed difference between 3-month NIBOR and key policy rate of 0.35 percentage points  
<sup>3)</sup> Assumed that administration costs and loan losses equal 0.30 per cent of lending volume

Sources: Norsk Familieøkonomi and Norges Bank 16



### Projections of household debt burden<sup>1)</sup> and interest burden<sup>2)</sup>



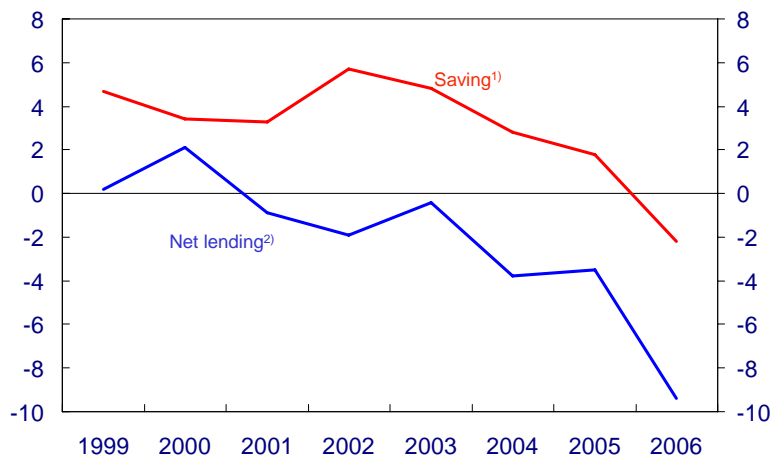
<sup>1)</sup> Loan debt as a percentage of liquid disposable income less estimated reinvested dividend payments

<sup>2)</sup> Interest expenses after tax in percentage of liquid disposable income less estimated reinvested dividend payments plus interest payments

Sources: Statistics Norway and Norges Bank 17

### Household saving and net lending

Percentage of disposable income



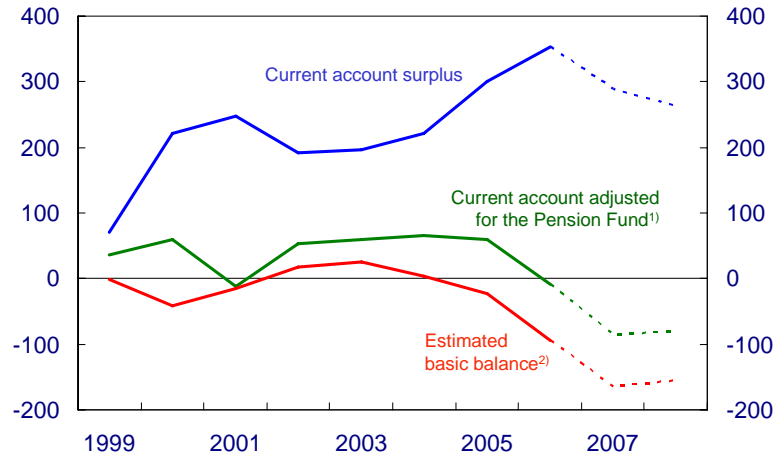
<sup>1)</sup> Household saving from the National Accounts adjusted for household dividend payments from the Dividend Statistics and for estimated reinvested dividend payments in the period 2000-2005

<sup>2)</sup> Net lending from the Credit Market Statistics adjusted for estimated reinvested dividend payments in the period 2000-2005

Sources: Statistics Norway and Norges Bank 18

### Current account surplus and estimated basic balance

In billions of NOK

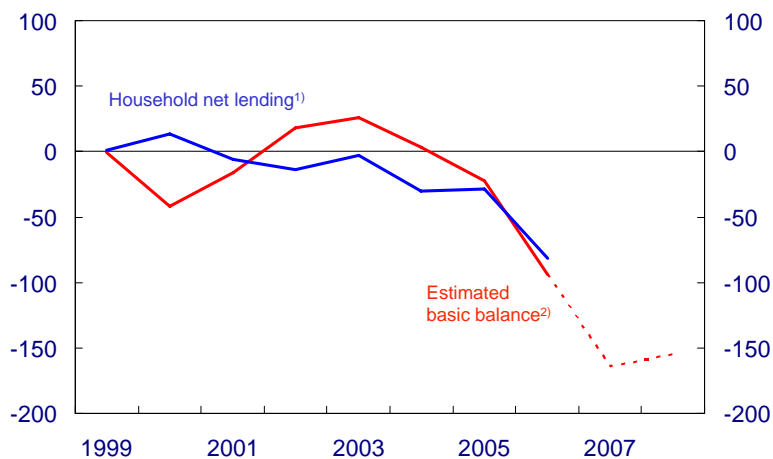


<sup>1)</sup> Adjusted for annual allocation to the Government Pension Fund - Global, and fixed income and dividend income for the Fund  
<sup>2)</sup> Adjusted for transfers to the Fund and the share of oil companies' income kept in foreign currency

Sources: Ministry of Finance, Statistics Norway and Norges Bank 19

### Estimated basic balance and household net lending

In billions of NOK



<sup>1)</sup> Net lending from the Credit Market Statistics adjusted for estimated reinvested dividend payments in the period 2000-2005  
<sup>2)</sup> Adjusted for annual allocation to the Government Pension Fund - Global, fixed income and dividend income for the Fund and the share of oil companies' income kept in foreign currency.

Sources: Ministry of Finance, Statistics Norway and Norges Bank 20