

# Challenges Ahead for the Norwegian Economy

Gernot Doppelhofer  
Norges Handelshøyskole (NHH)

Challenges for Norwegian Economy  
19.5.2011

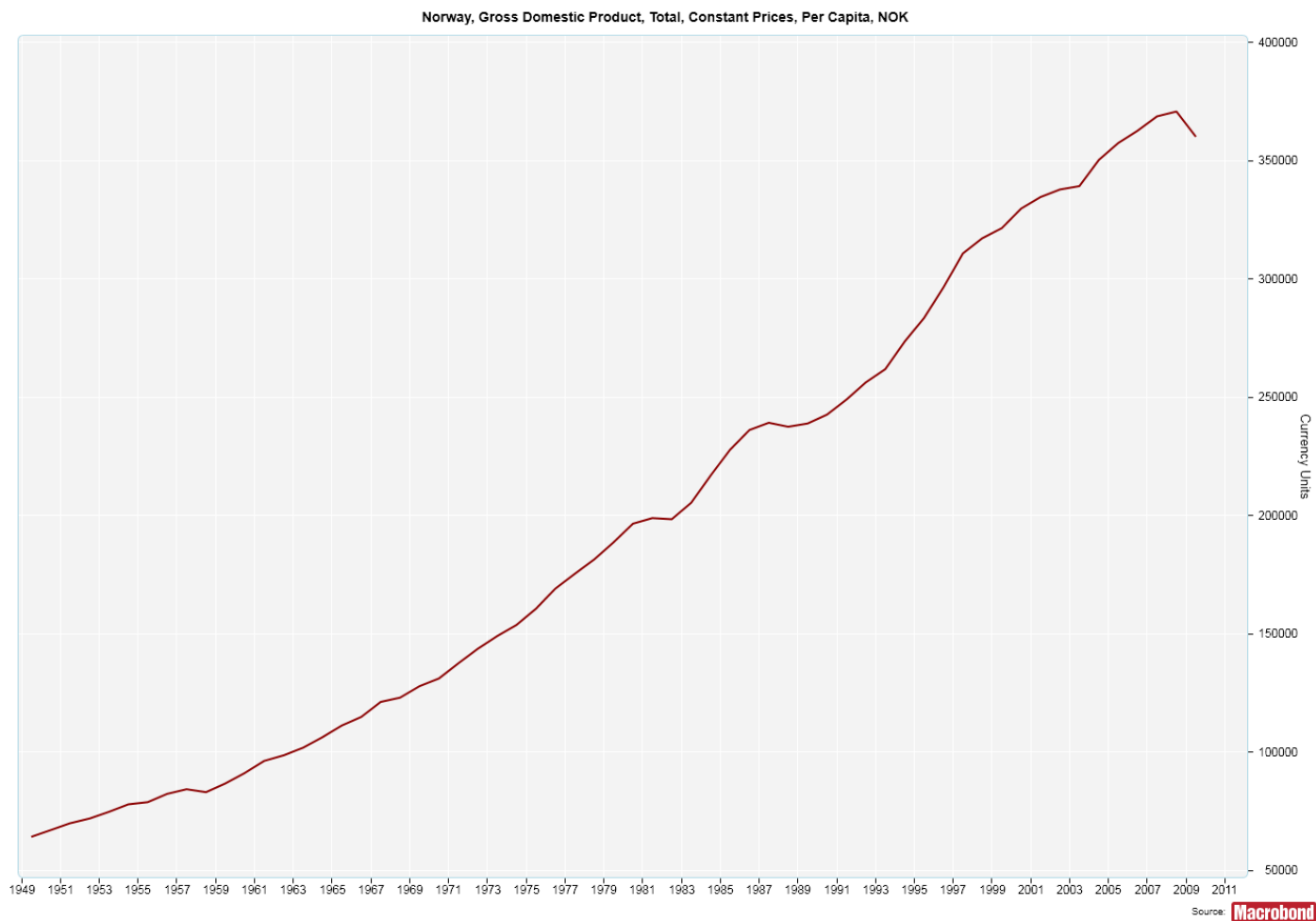
## Outline of Presentation

- Past performance
- Near term outlook
- Future challenges

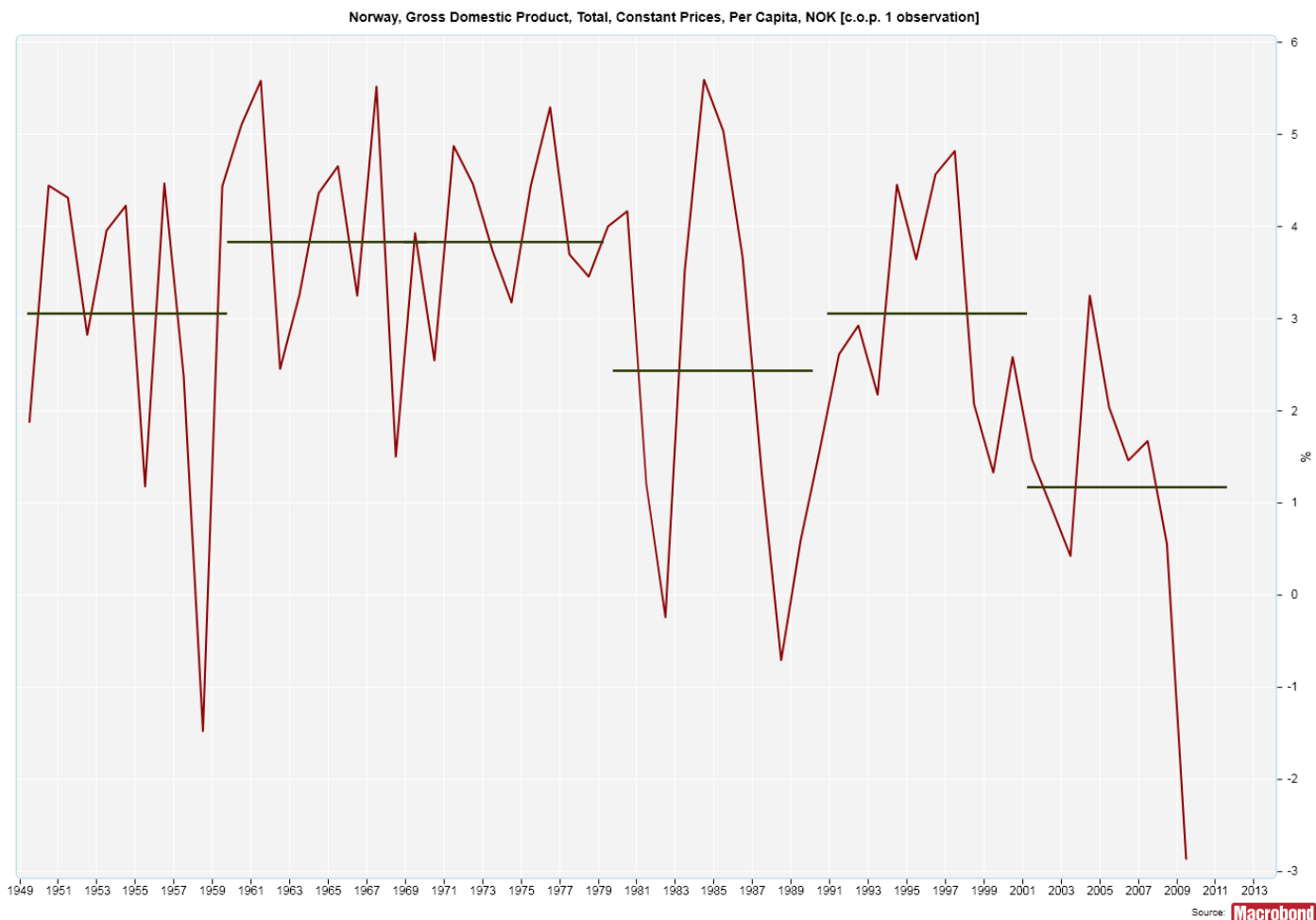


## Past Performance

# Norwegian Income per Capita 1950-2009

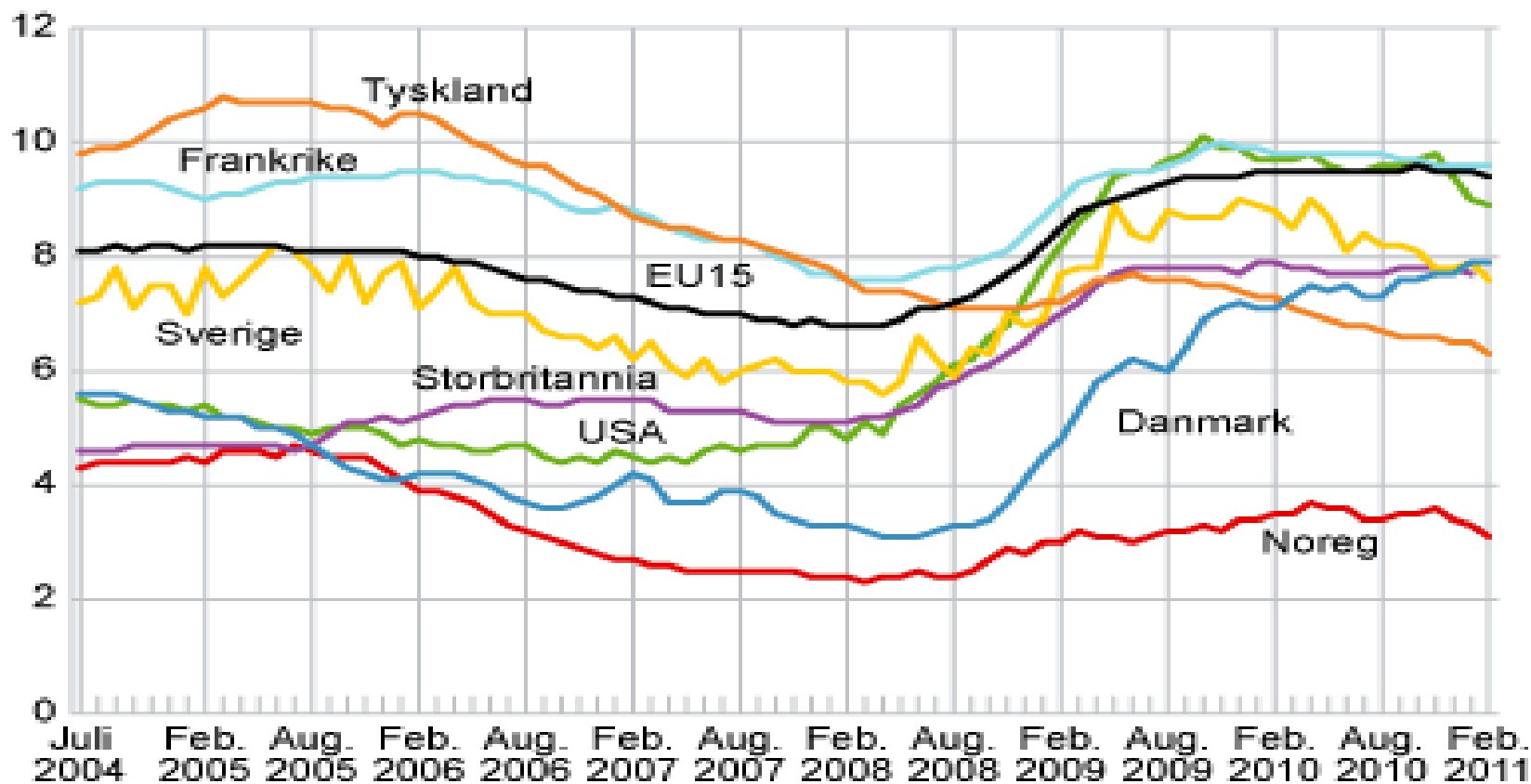


# Growth of Income per capita in Norway 1950-2009



# Unemployment

Sesongjustert arbeidsløyse i utvalgte land. 2004-2011. I prosent av arbeidsstyrken

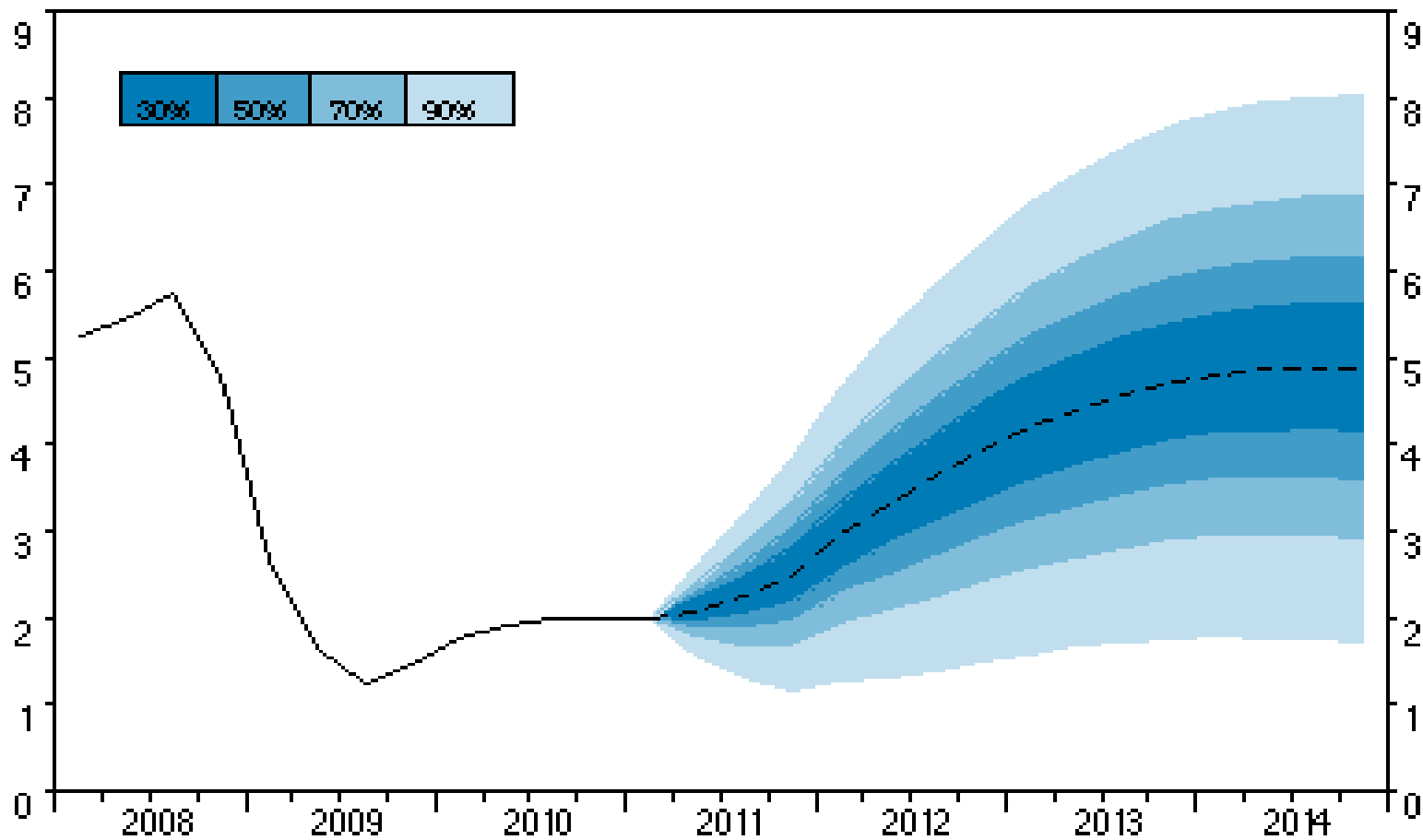


Kjelde: Statistisk sentralbyrå og Eurostat (<http://epp.eurostat.ec.europa.eu>)

## Macroeconomic Policy in Norway

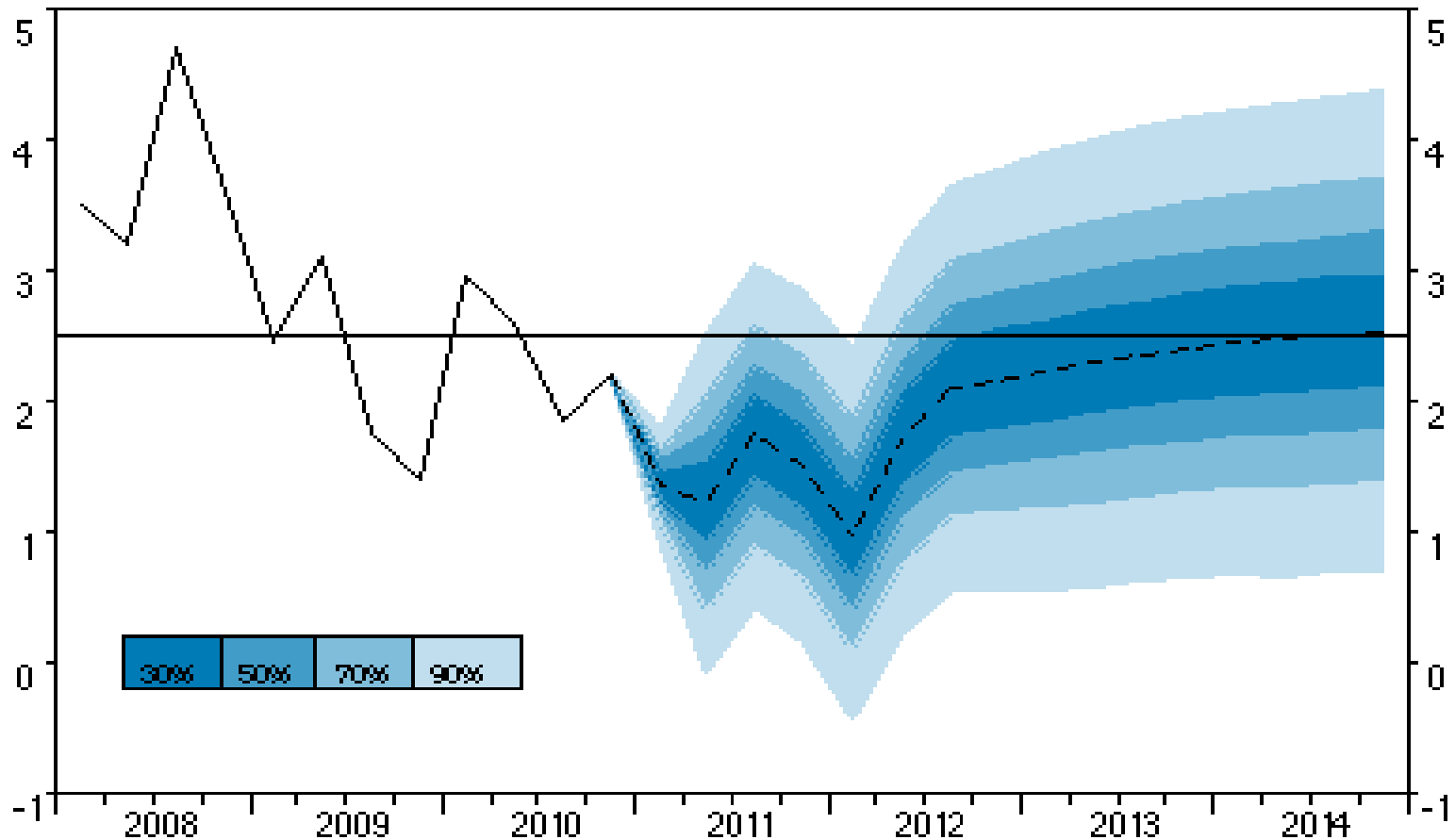
- Monetary policy
  - inflation target: 2,5% consumer price growth
  - earlier policy: exchange rate target
- Fiscal policy
  - «Handlingsreglene»: transfer *on average* 4% of Petroleumsfond (now: Pensionfund) to cover national budget
  - countercyclical: tighten during boom (like now), and loosen during recessions

## Interest rates are going up...



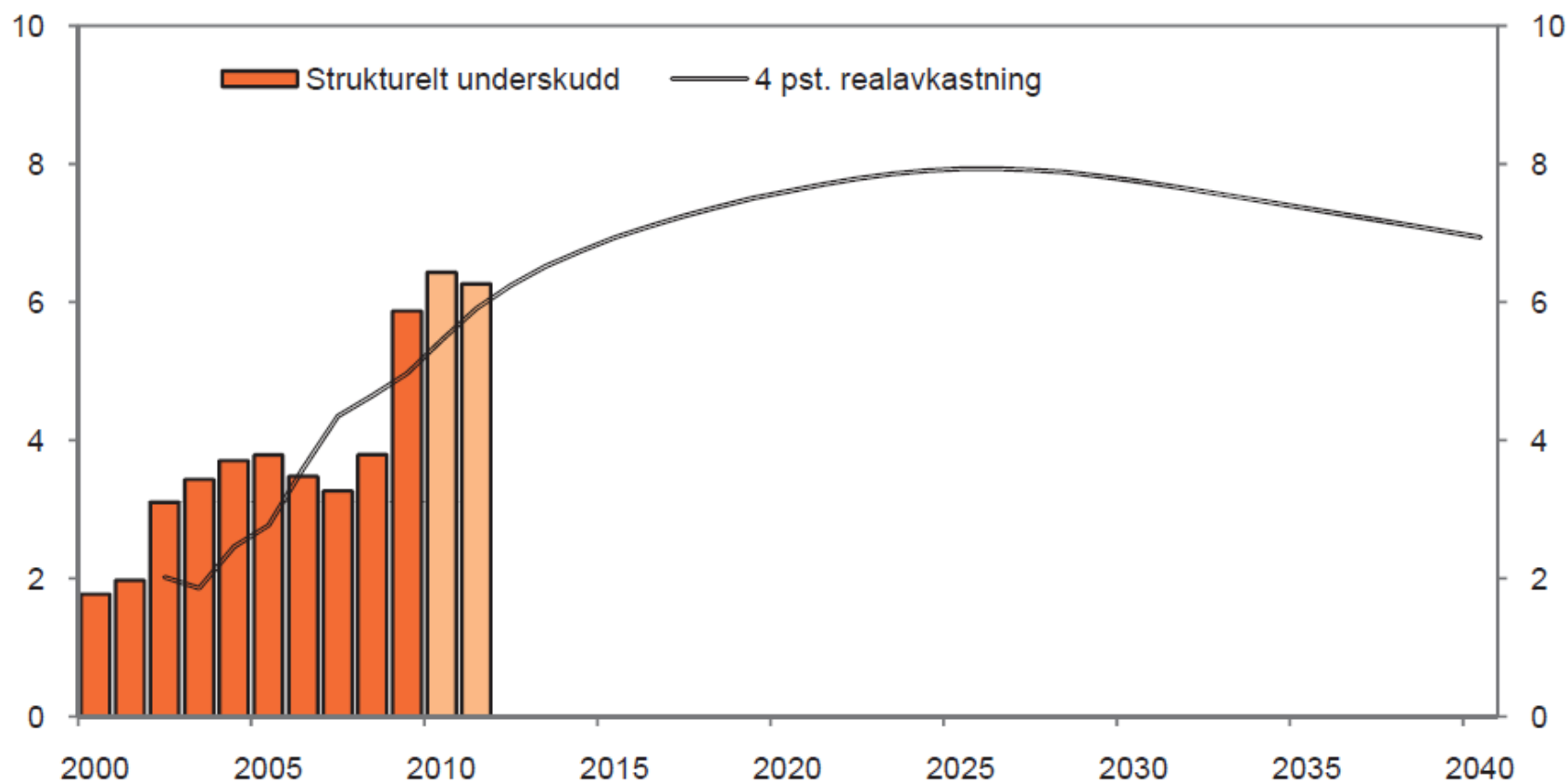
Source: Norges Bank

## ... even though inflation is still subdued



Source: Norges Bank

## Structural Deficit and «Handlingsregel»



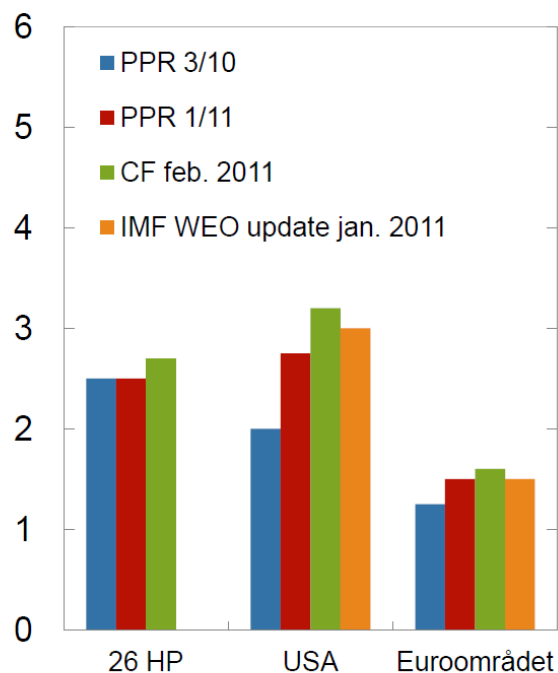
Source: Statsbudsjet 2011

## Near Term Outlook

# Solid Growth Prospects of World Economy

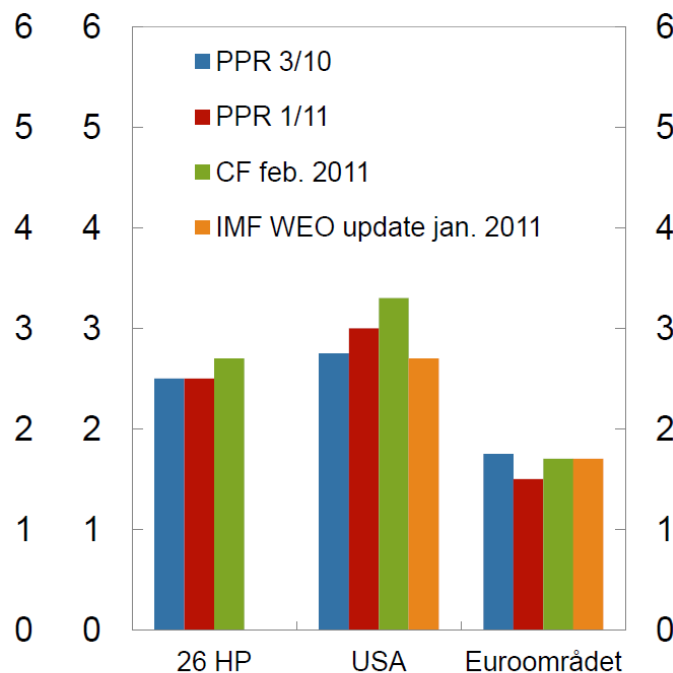
## BNP-anslag for 2011

Vekst i prosent



## BNP-anslag for 2012

Vekst i prosent

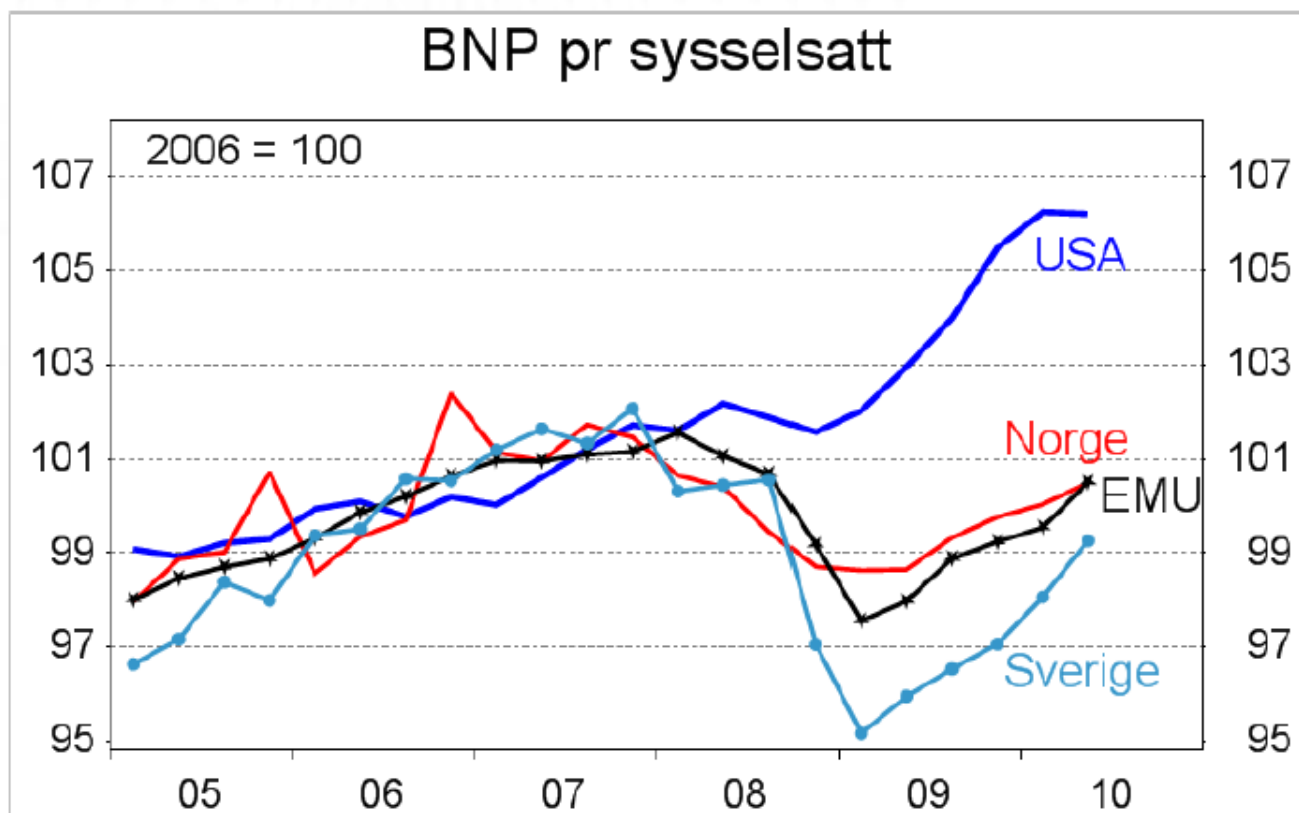


Kilder: IMF, Consensus Economics og Norges Bank

## Normal or Slow Recovery?

- Productivity growth: return to pre-crisis trend?
- Jobless recovery in the US and eurozone (minus Germany)
- Reinhard and Rogoff (2010), *This Time is Different*.
  - historically post-crises recovery were often sluggish
- Fiscal sustainability and debt

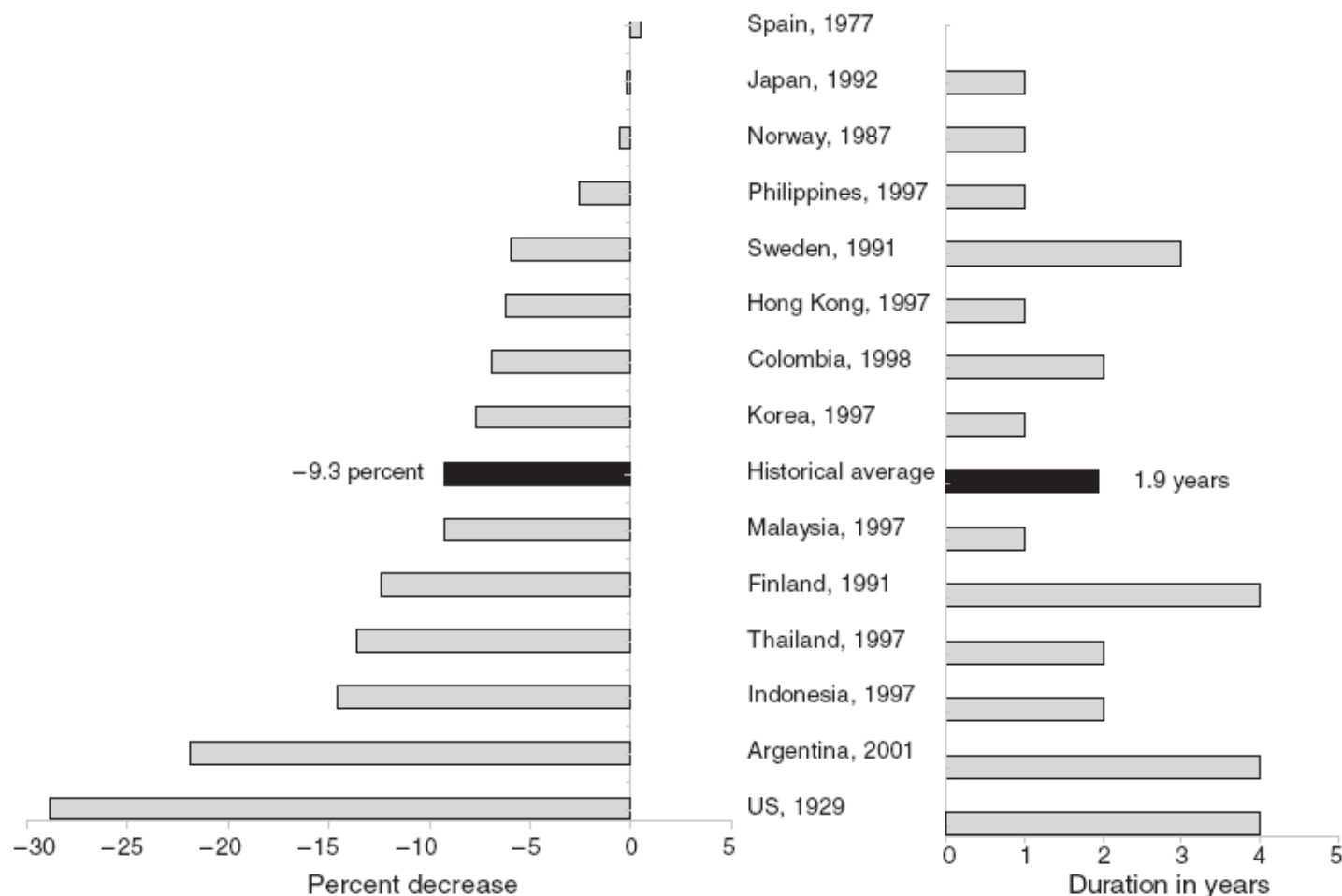
## Productivity Trends



Source: EcoWin, First Securities

# Real GDP per capita and Banking Crises

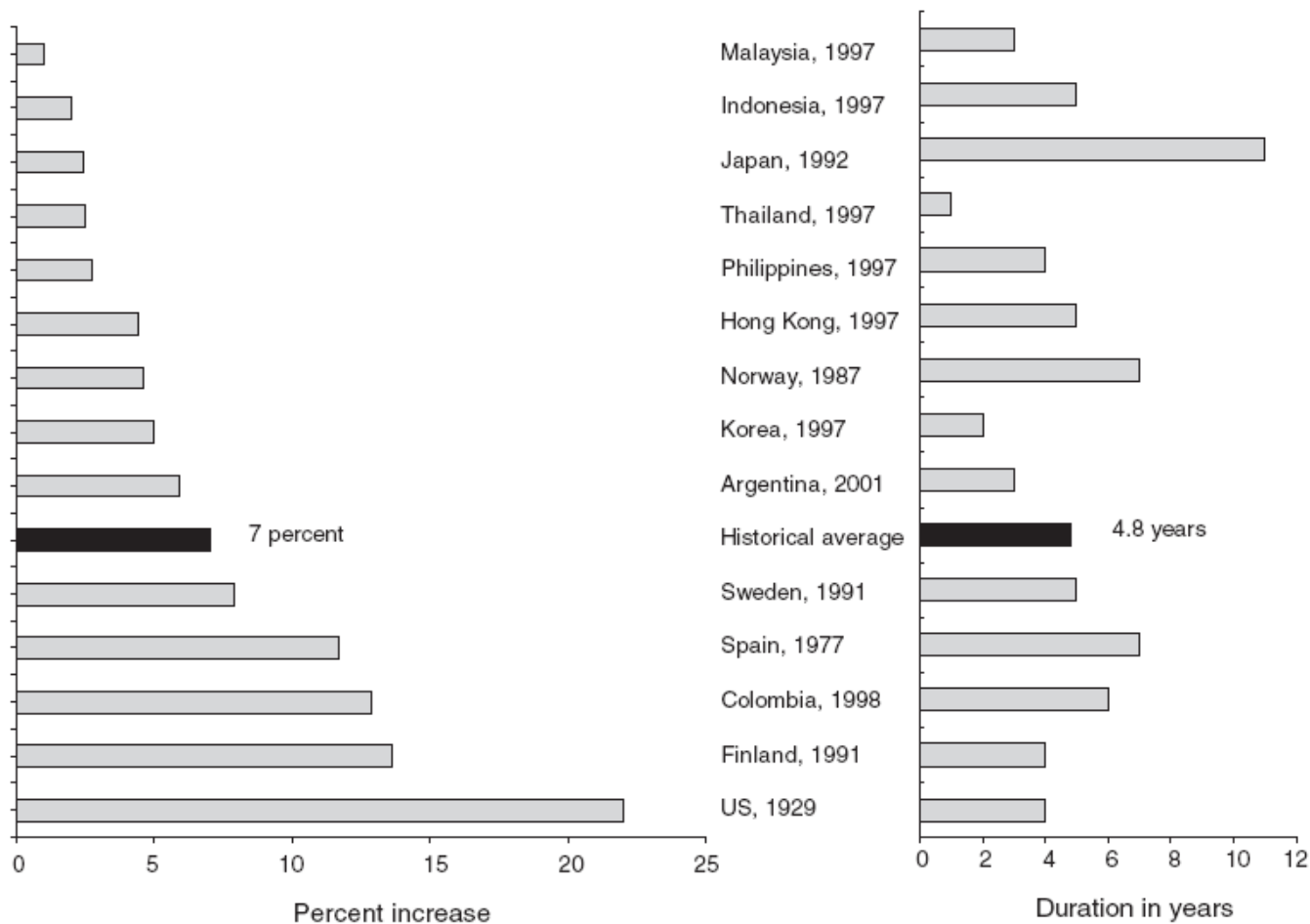
*Peak-To-Trough Decline in Real GDP and years of duration*



Source: Reinhart&Rogoff 2010

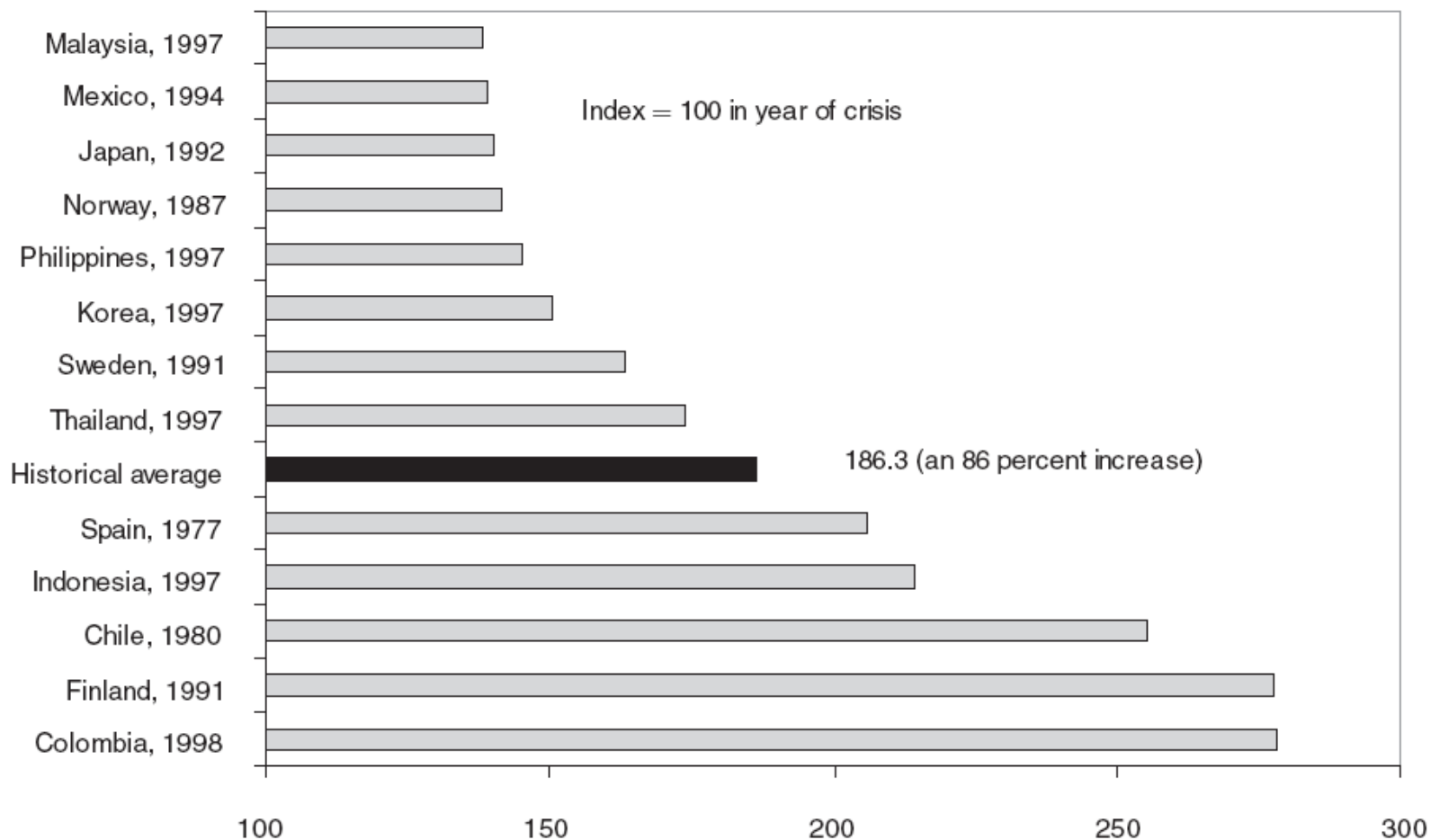
# Unemployment Cycles and Banking Crises

*Percent increase in unemployment rate and years of duration*



Source: Reinhart&Rogoff 2010

## Cumulative Increase in Real Public Debt



Source: Reinhart&Rogoff 2010

## Additional Factors

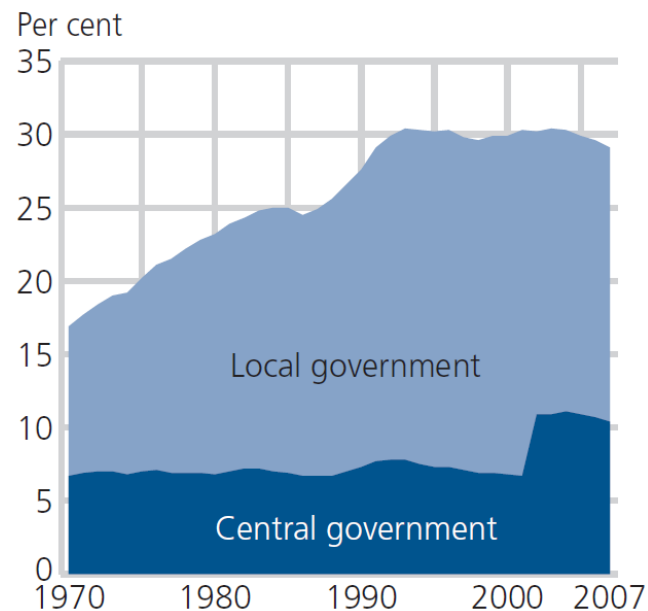
- 1. Japan's triple shock** (earthquake, tsunami, nuclear)
  - Japan = 8% of world economy, less important for Norway
  - short term: energy, infrastructure and exports hit
  - long term: demography (extreme aging), fiscal adjustment, savings/consumption
- 2. Europe:** uneven development and debt crises
  - robust, still export-led growth in Germany
  - recessions and continued austerity in euro periphery
  - debt exposure of European banks and financial sector
- 3. Lybia and Middle East:**
  - oil prices, political/economic instability, refugees, ...
  - upside: growth and democracy

## Future Challenges for Norway

1. Growth and Productivity
2. Demographics
3. Education and Labor Markets
4. Research and Development (R&D)
5. Infrastructure and Trade

## How to sustain growth and productivity?

- Growth in Norway earlier driven by catching-up and development of Norwegian petroleum sector
- What are growing sectors?
- Sectoral change from industry to service sector (76% of employees)
- Large public sector increased employment from 13% in 1960 to approximately 30% (of which one fourth works part-time)

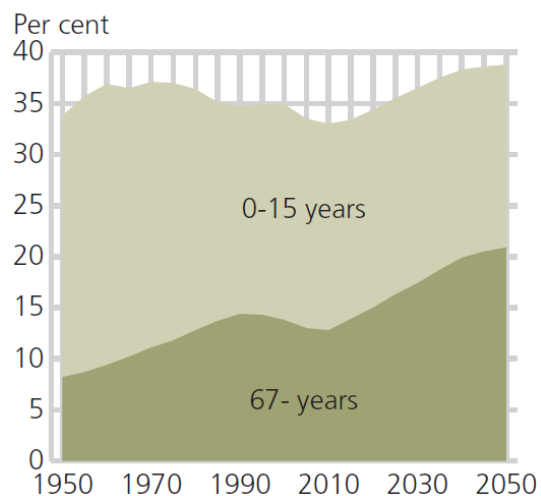


Source: Statistics Norway

## Demographics

- Continued population growth based on:
  - medium fertility
  - net immigration
  - increased life expectancy

**Percentage of children/young people and elderly in the population**



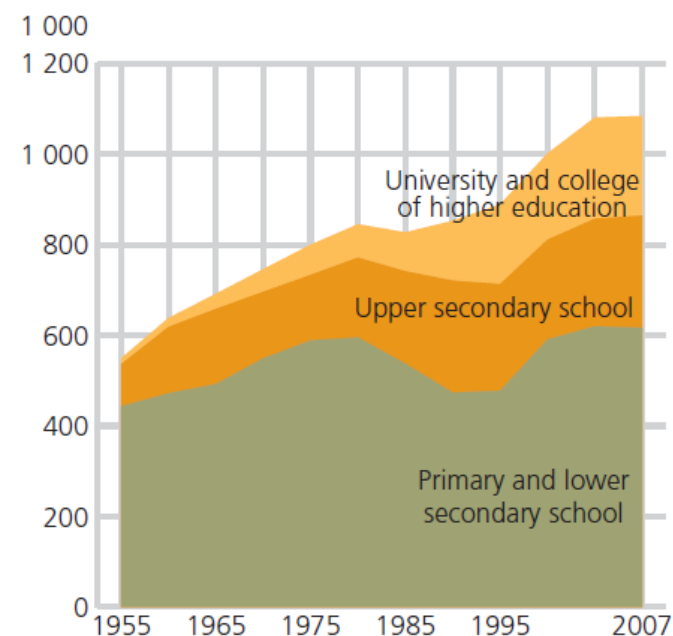
	Population	Annual growth. Per cent
1950	3 250 000	
1960	3 568 000	0.94
1970	3 863 000	0.80
1980	4 079 000	0.55
1990	4 233 000	0.37
2000	4 478 000	0.56
2008	4 737 000	0.71
<i>Projections</i>		
2010	4 851 000	1.2
2020	5 382 000	1.0
2030	5 848 000	0.8
2040	6 221 000	0.6
2050	6 553 000	0.5

Source: Statistics Norway

## Education

- Strong increase of enrollment in secondary and tertiary education
- Over 90% of 16-18 year olds attend upper secondary school
  - dropout rate 25%, especially males and vocational studies
- Women lead men in higher education
  - age 25-29: 49% of women, 32% of men
- Quality of education matters – relative PISA results average and worse
  - Reading
  - Math
  - Science

Number of pupils/students in primary and lower secondary education, upper secondary education, and university/college of higher education



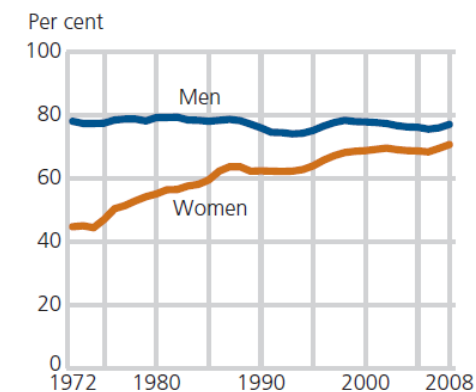
Source: Statistics Norway

## Norwegians work, but fewer hours

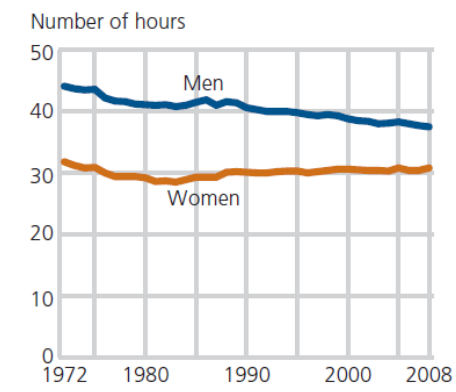
- In 2008, employment approx. 2,5 million (with population of 4,7 million)
- Women accounted for 47% of employed
- Female labor force participation strongly grew over time (only higher in Iceland)
- However, many women work part-time
  - decrease from 53% in 1980 to 42% in 2008
- Actual working hours per week fell from 44 in 1972 to 38 in 2008

Source: Statistics Norway

Labour force participation rates for women and men 15-74 years

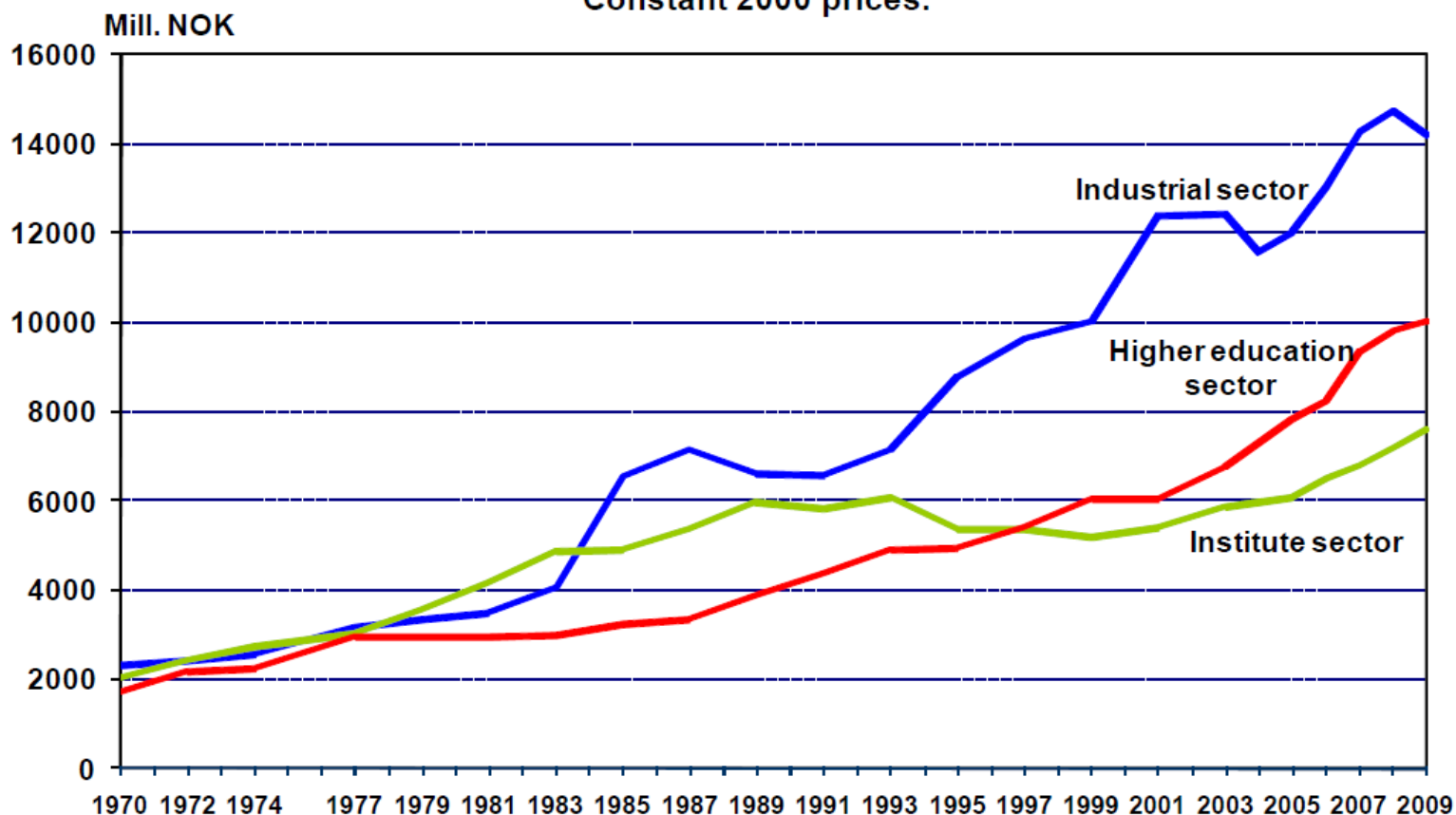


Working hours per week for men and women in employment



# Research and Development (R&D)

Intramural R&D expenditure in Norway by sector of performance 1970-2009.  
Constant 2000 prices.



Source: NIFU STEP and Statistics Norway

## R&D and Innovation (cont'd)

- R&D clusters very important
  - research excellence at technological frontier
  - critical mass and scale effects
  - externalities
- Market size and link to industry
- Science and engineering skills
  - PISA, tertiary education
- Innovation policy in Norway
  - Examples: Finland, UK

## Infrastructure and Openness

- Challenge of Norway's geography
- Evaluate and prioritize (socially) important infrastructure
  - Cost-benefit analysis
  - Regional effects and externalities
- Openness and trade very important for small open economy
  - Road and transport network (see above)
  - Evaluation of tariffs and trade-barriers
  - example: food imports from developing countries vs. «[jordbruk](#)»