FLEXIBLE INFLATION TARGETING AND ALTERNATIVE MONETARY POLICY TARGETS – WHAT DOES RESEARCH TELL US?

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Disclaimer

Views and conclusions expressed in this presentation are my own should not be taken to represent the views of Norges Bank

Flexible Inflation targeting (FIT)

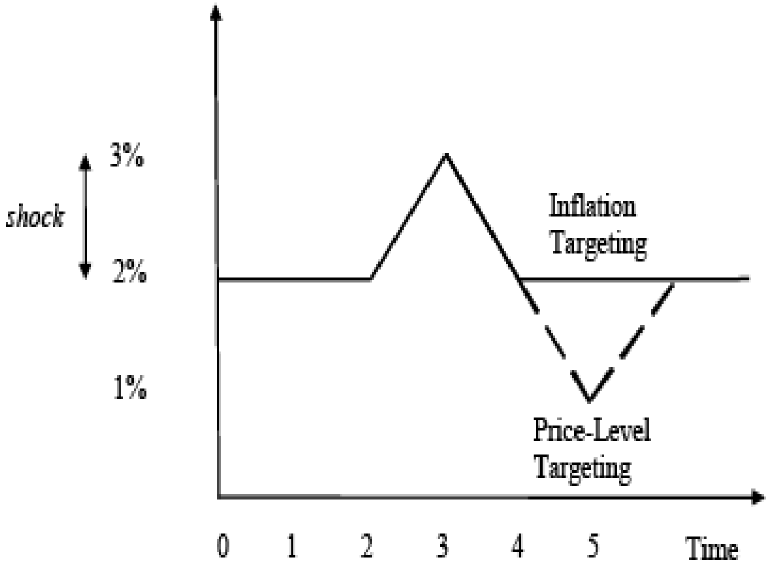
- Theory: Welfare-maximizing monetary policy can be implemented through FIT
  - Woodford $$L_t = (\pi_t - \pi^*)^2 + \lambda y_t^2 + \dots$$
- Caveat 1: Welfare-maximizing monetary policy imply stabilizing a large number of variables
- Caveat 2: FIT might require considerable flexibility to implement welfare-optimizing policy
  - “Divine coincidence” only in very simple, unrealistic models

Alternatives to FIT

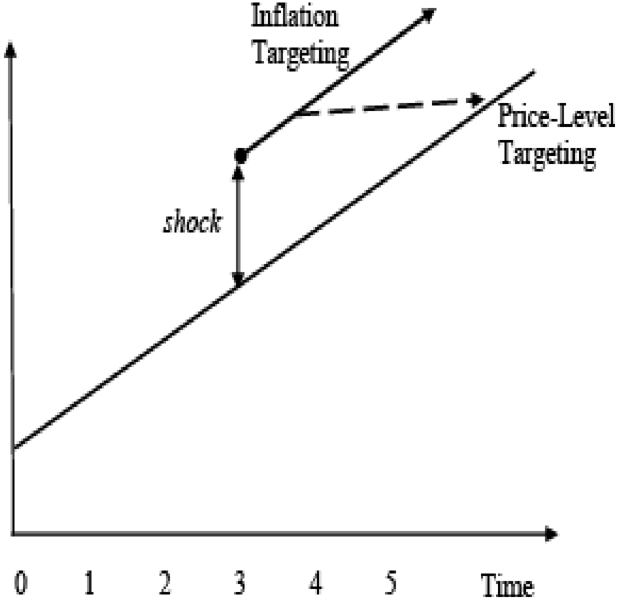
- Price-level targeting
  - Or a less extreme variant: average inflation targeting
- Nominal GDP targeting
  - Level
  - Growth

Price-level targeting

Inflation



Price level



Price-level targeting

Advantages

- Resembles optimal policy under commitment
  - History-dependence
- Easier to escape a liquidity trap
  - Expectations of expansionary future monetary policy
- Less uncertainty about the future price level
  - Smaller unexpected changes in real value of debt

Price-level targeting

Disadvantages

- Can lead to large fluctuations output (and inflation) if
  - expectations are not forward-looking, or
  - price-level target not credible
- More difficult to understand for the public
- Has not (really) been tested in practice

Nominal GDP targeting

Advantages

- Hard-wires a balance between price stability and output stability
  - *PY = target*
- Resembles optimal policy under commitment
  - History-dependence
- Easier to escape a liquidity trap
- Reduces financial risk
  - Debt contracts based on fixed nominal repayments
- Good properties for small open economies hit by ToT shocks
  - Difference between GDP deflator and CPI
- Correlated with house prices and credit
  - Less need for “leaning against the wind”

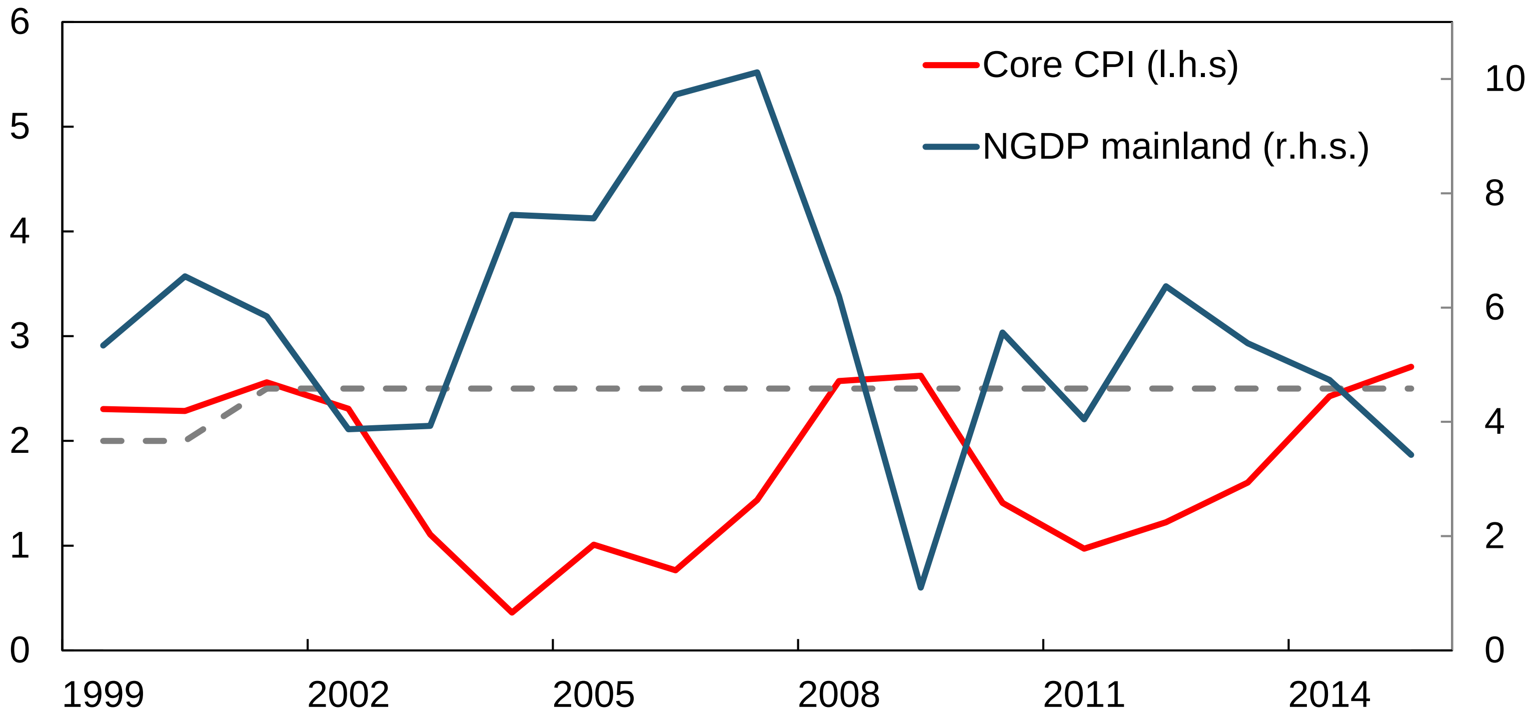
Nominal GDP targeting

Disadvantages

- More difficult than IT to explain to the public
- Large revisions in NGDP data
- NGDP-<u>level</u> targeting has same problems as price-level targeting if expectations are non-rational or limited credibility

NGDP and CPI tell different stories about nominal stability

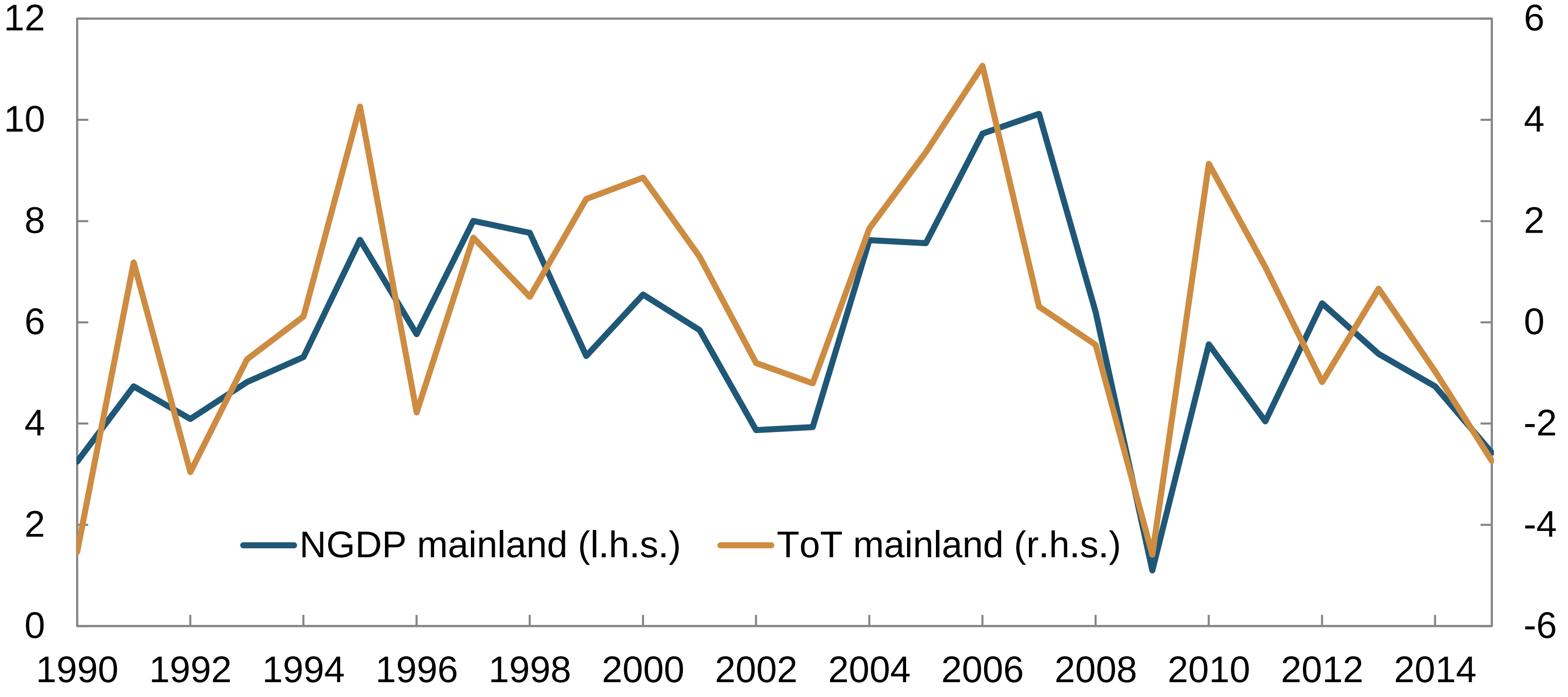
Annual change. Percent



Sources: Statistics Norway and Norges Bank

Positively correlated with terms of trade shocks

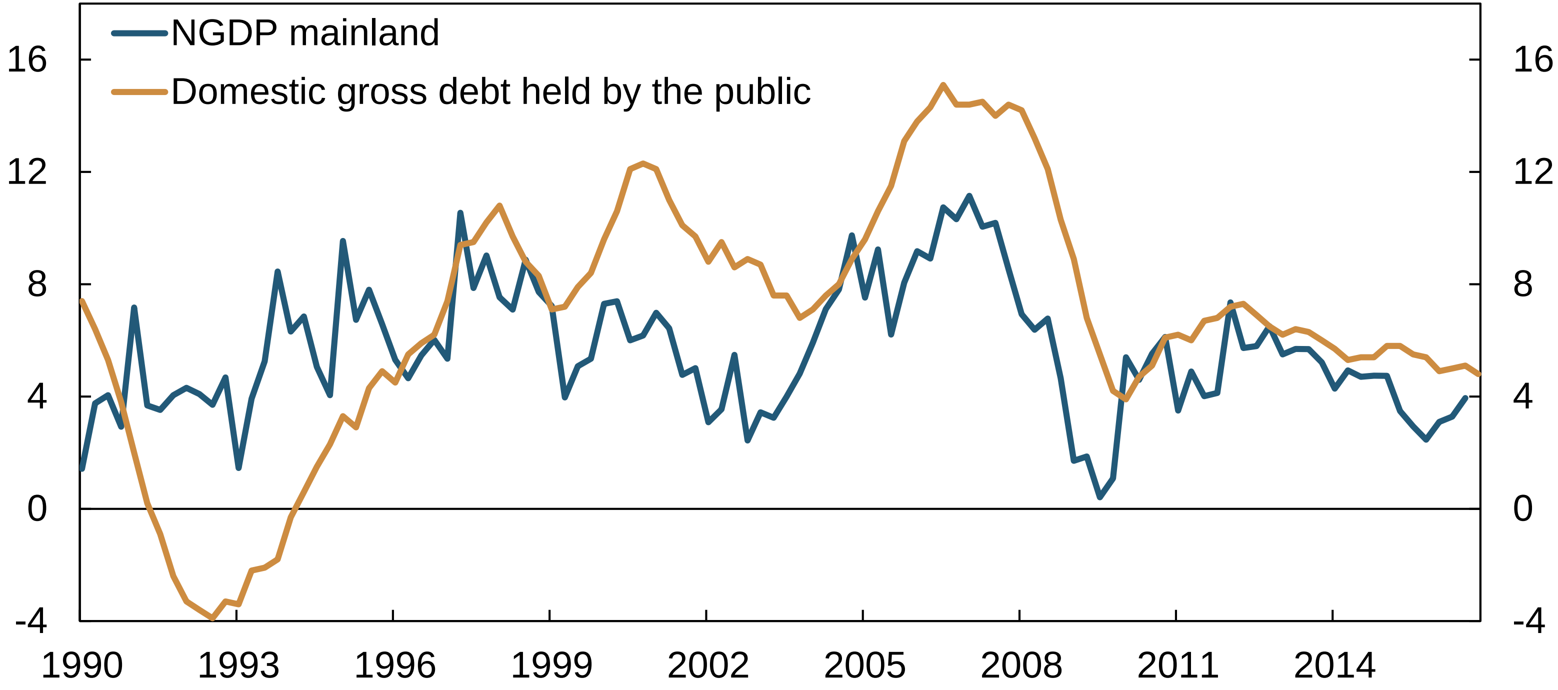
Annual change. Percent



Source: Statistics Norway

…and credit growth

Four-quarter change. Percent



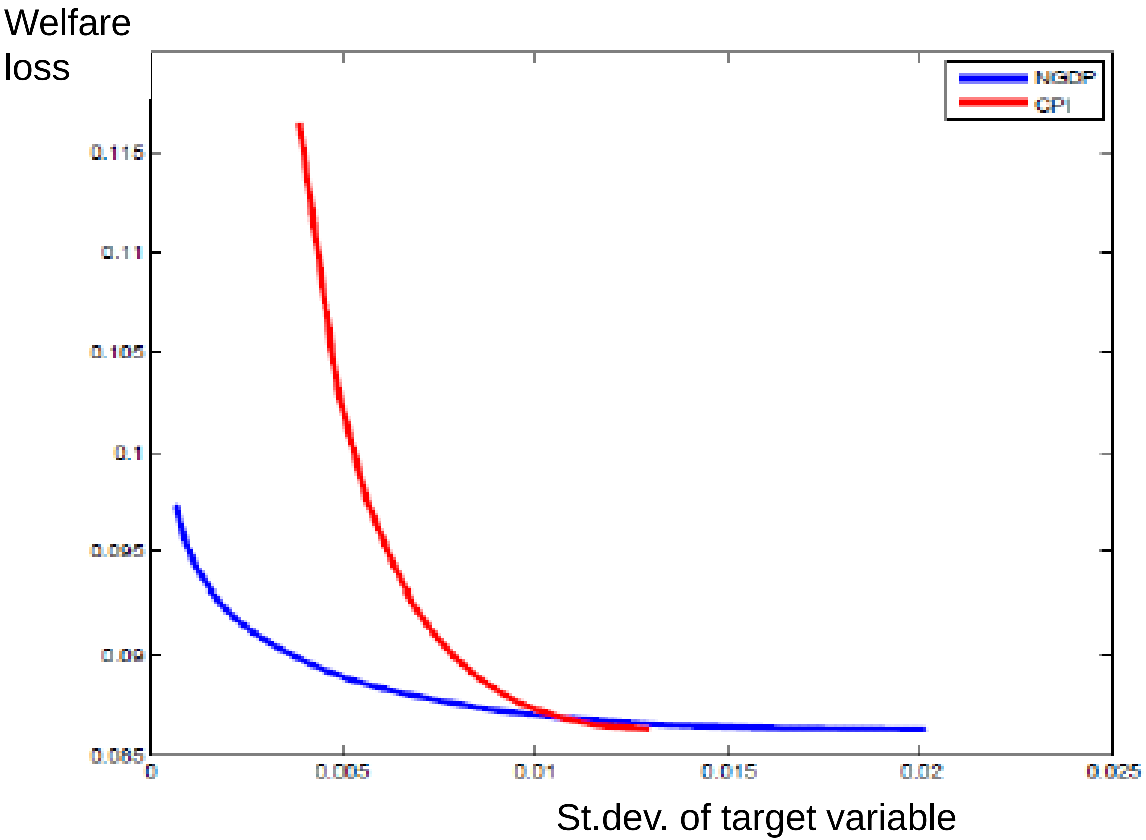
Source: Statistics Norway

ReFIT research

- Difficult to beat **flexible** inflation targeting
- Trade-off between flexibility and credibility/accountability
- **Research question:** Could an alternative target (e.g. NGDP) provide sufficient real and financial **stability** without requiring too much **flexibility**?

Welfare loss under FIT and NGDP targeting for various degrees of flexibility

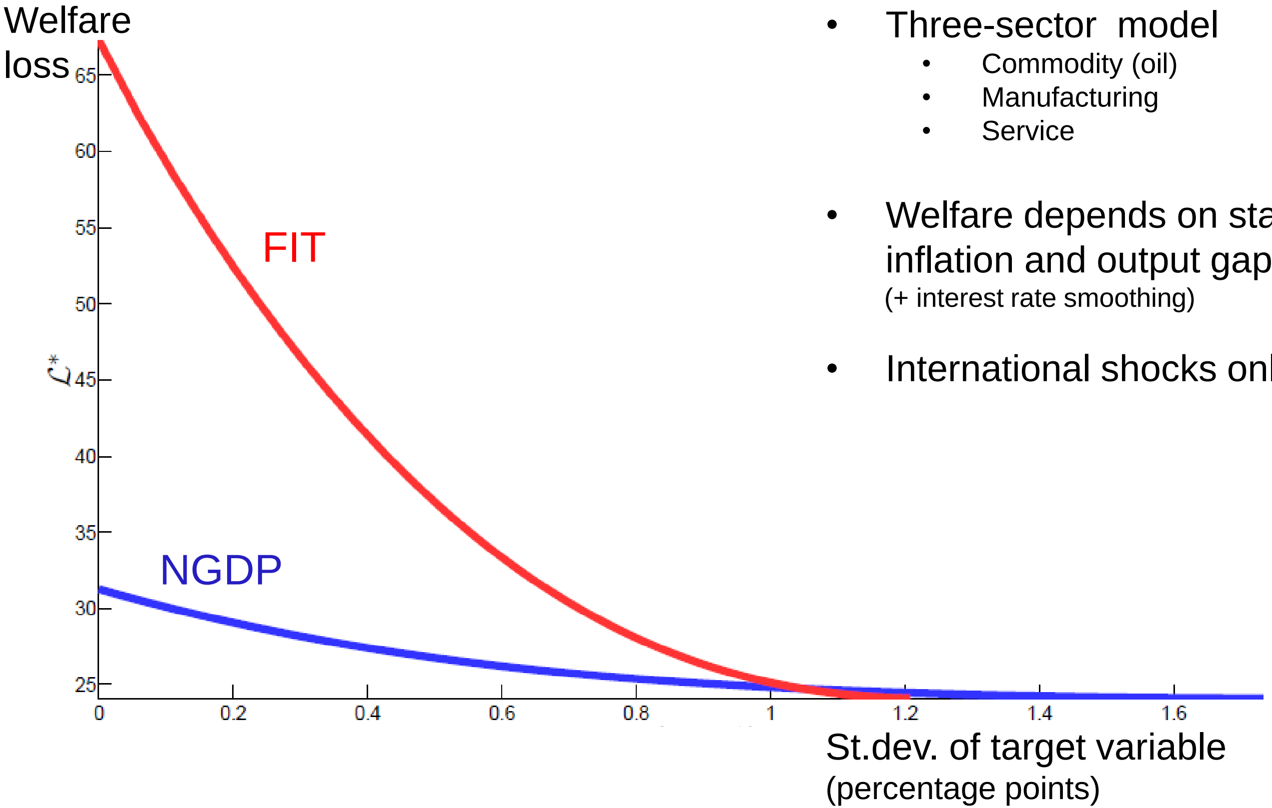
Brubakk and Røisland (2017)



- NEMO
- Welfare depends on stability in CPI inflation, output gap and house prices (small weight)
  (+ interest rate smoothing)
- Foreign and domestic shocks

Welfare loss under FIT and NGDP targeting for various degrees of flexibility

Bergholt (2017)



- Three-sector model
  - Commodity (oil)
  - Manufacturing
  - Service

- Welfare depends on stability in CPI inflation and output gap
  (+ interest rate smoothing)

- International shocks only

Conclusions

- Welfare-optimal monetary policy can in principle be implemented through FIT
  - But needs to be **flexible**

- Trade-off between flexibility and credibility/accountability

- Price-level targeting and NGDP targeting have some nice properties in theory
  - But has some practical problems

- Relatively strict NGDP targeting could come quite close to «optimal» FIT for Norway
  - Correlated with house prices and credit: less need for “leaning”
  - Implies appropriate monetary policy responses to ToT shocks

  - NGDP as a cross-check on nominal stability?

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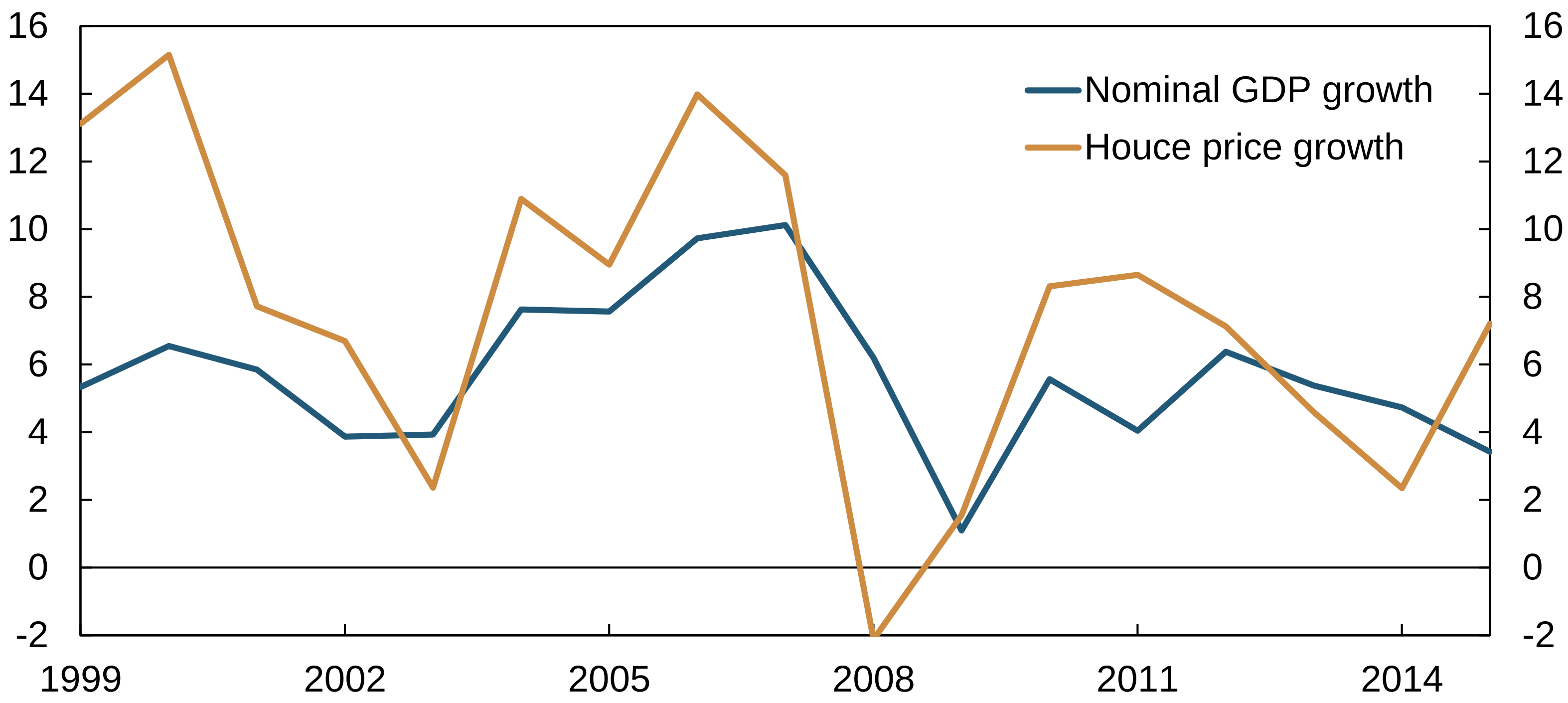
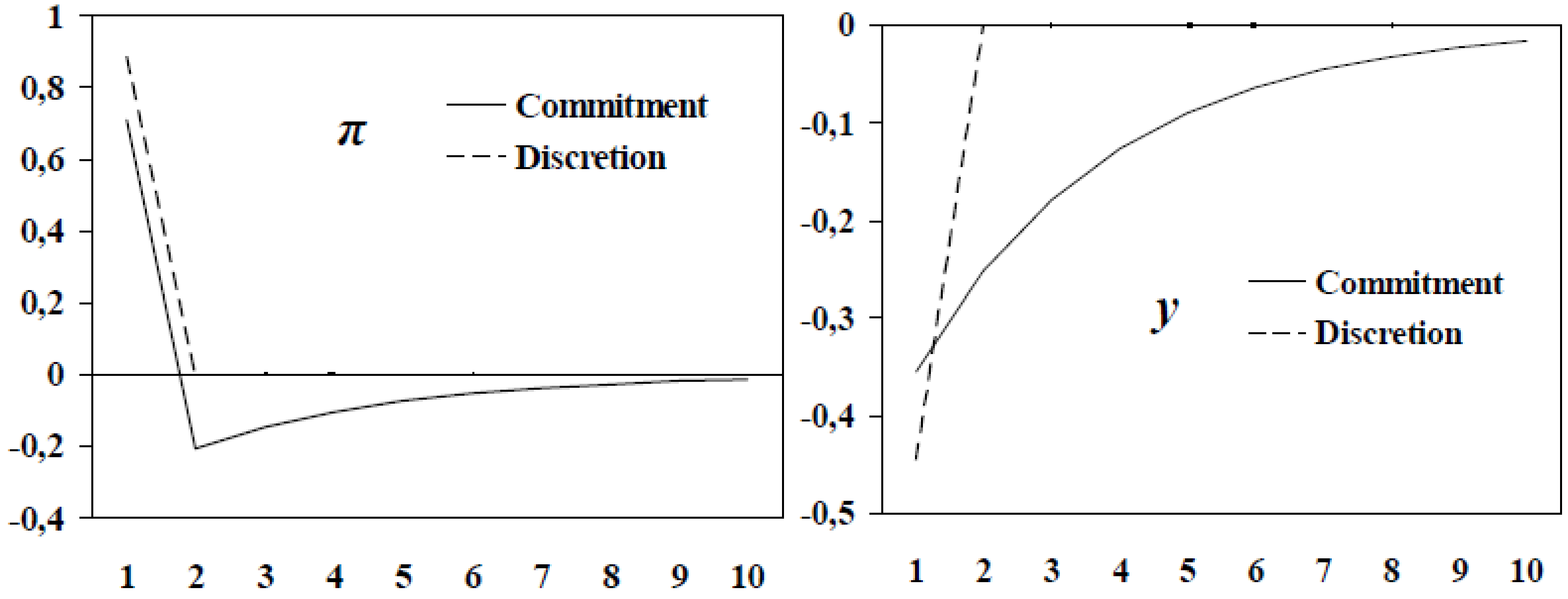
Extra

NGDP and house prices

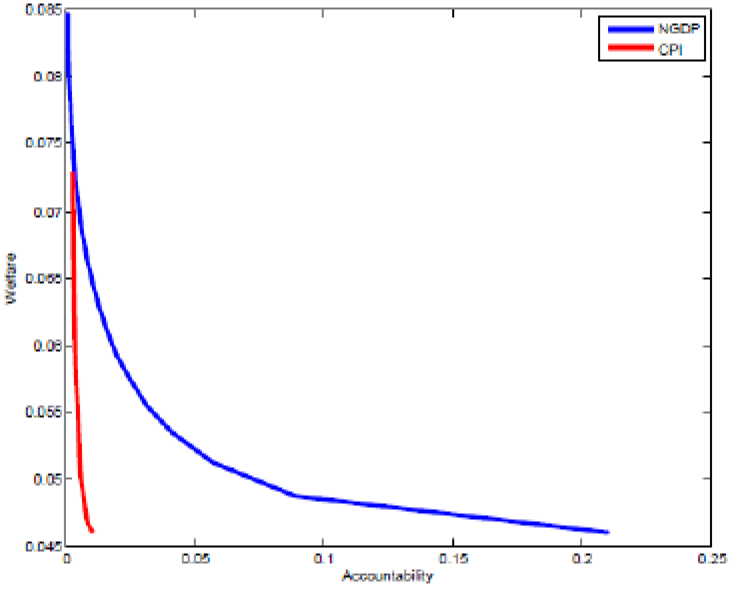


Sources: Statistics Norway and Norges Bank

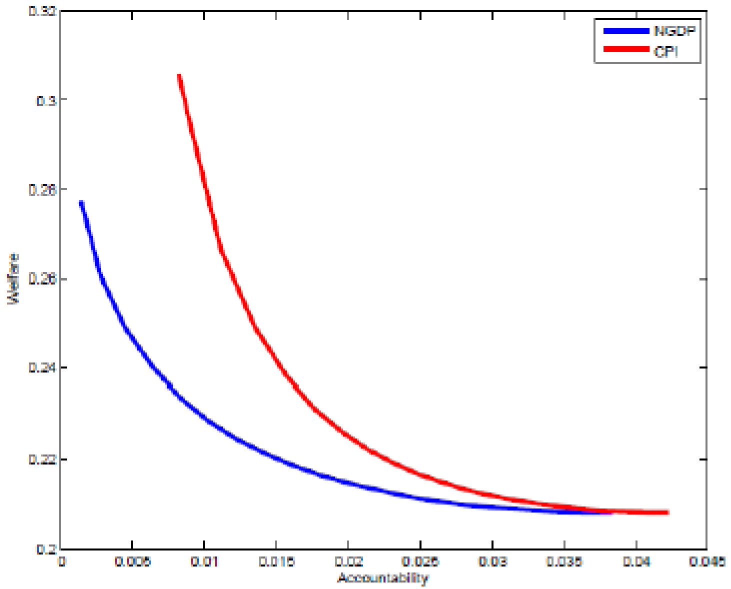
Price-level targeting



No weight on stabilizing house prices



Equal weight on inflation and house prices



Three-sector model (Bergholt)