

13. Monetary Systems in Practice: the Czech case

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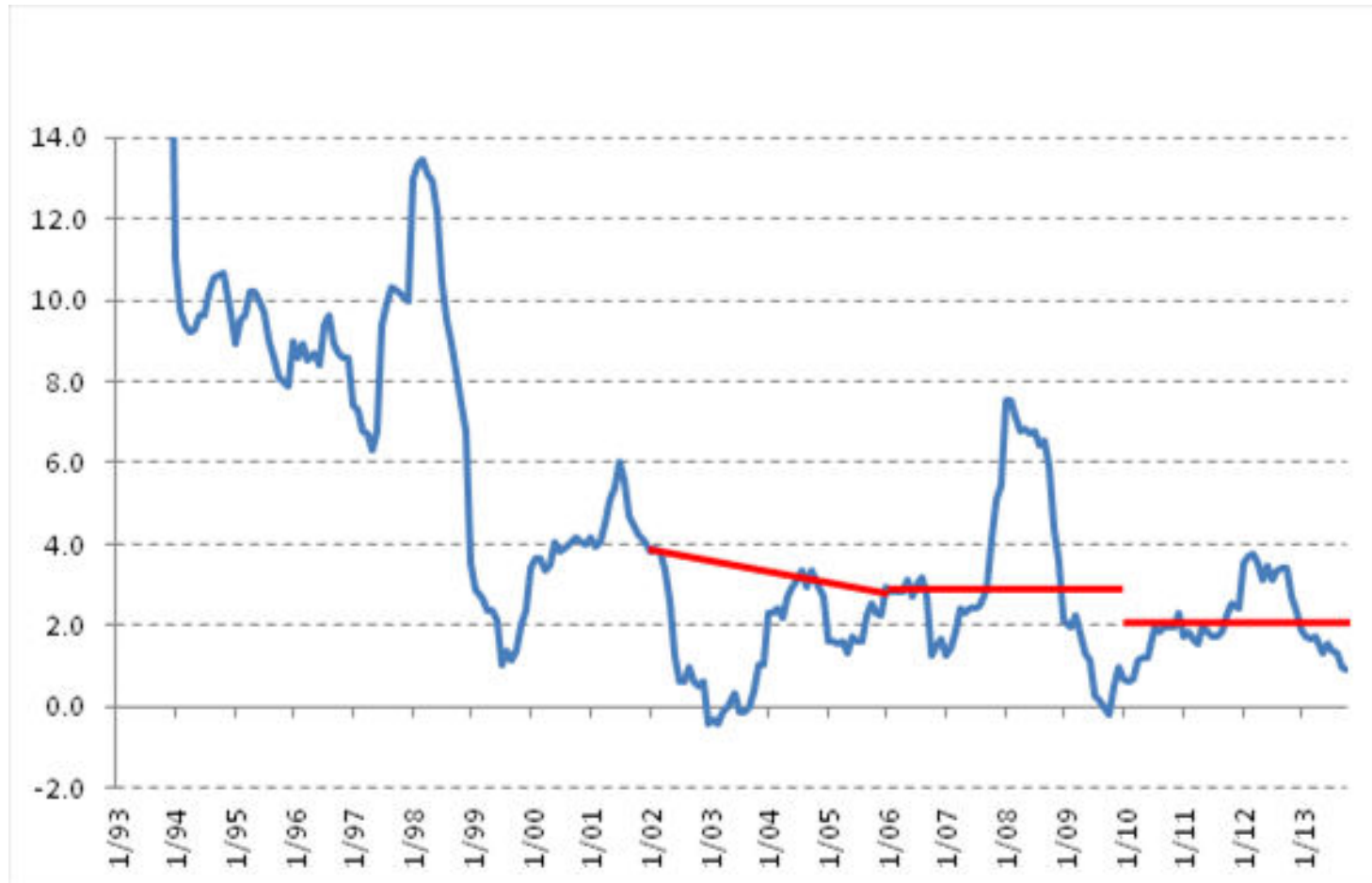


Outline

- 1. A brief history of the Czech MP in the light of previous theoretical sessions
- 2. Current monetary policy regime in detail
 - ◆ Key characteristics of the current IT system
 - ◆ Processes and timing
 - ◆ Techniques
 - ◆ Special topics (risks, FPAS etc.)

2. A brief history of the Czech MP in the light of previous theoretical sessions

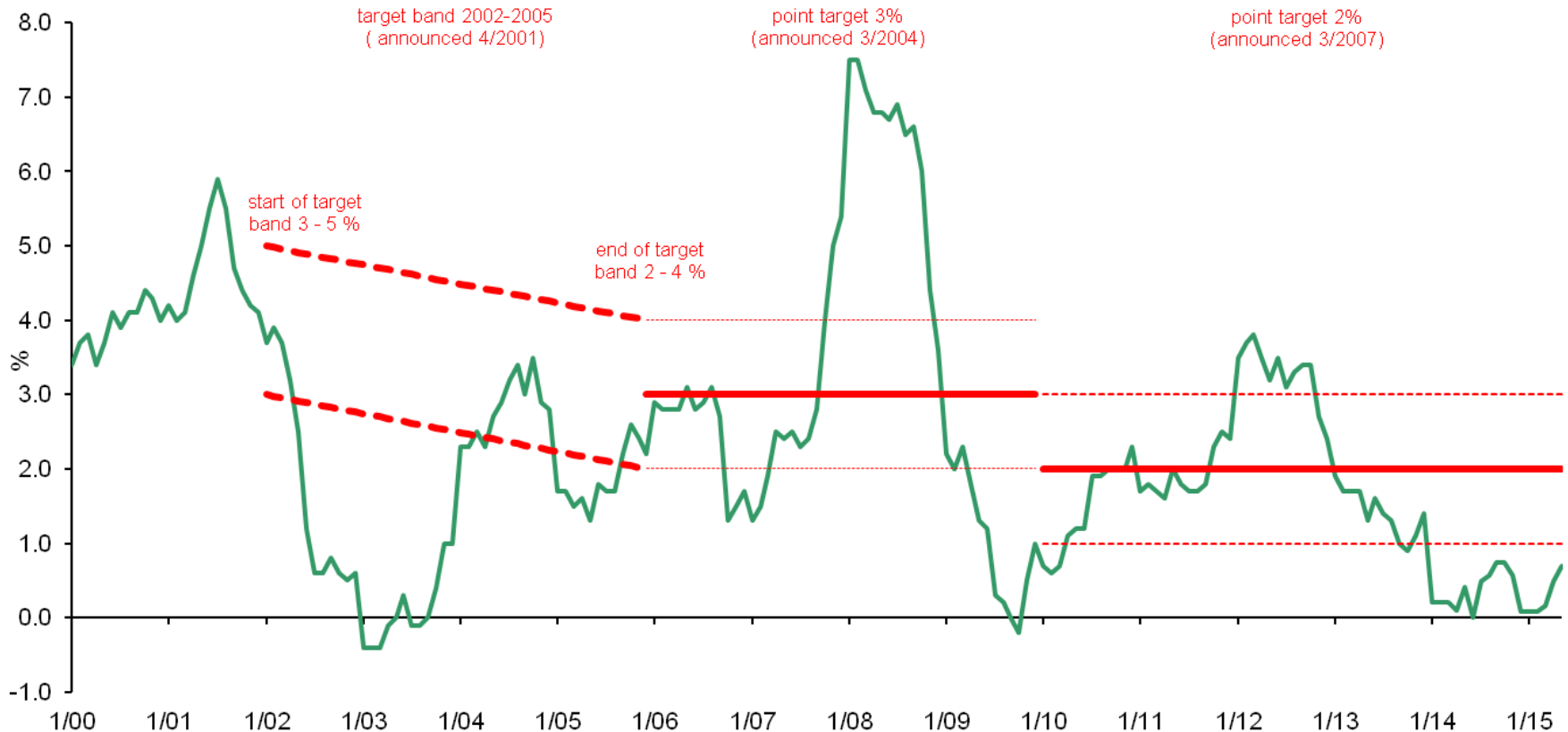
A long monetary history in one chart – first monetary targeting and fixed ER, later inflation targeting



y/y CPI: 1993 -2014 in (%) Source: The Czech Statistical Office

An IT history in one chart

- The law requires the CNB to maintain price stability.
- The CNB's target is to keep inflation at 2%, with a tolerance band of ± 1 pp.
- The standard tool is the interest rate (2W repo rate).
- Under standard circumstances, the FX regime is a managed float.



Source: Author

2. Current monetary policy regime in practice

Key characteristics

- Inflation forecast
 - ◆ Main tool for the Board to decide about monetary policy
- Monetary Department
 - ◆ Main **concern** is to produce the forecast
 - ◆ A prerequisite for producing the forecast is to develop **Forecasting system**
 - ▶ Processes and timing
 - ▶ Techniques

Key characteristics

- Role of the forecast
 - ◆ Where the economy is, and what the current trends are
 - ◆ What is their likely evolution into the future
 - ◆ What are the implicit risks
 - ◆ What are the underlying policy pressures and policy simulations (active/endogenous MP)

Key characteristics

- Processes and timing
 - ◆ who and how is producing the forecast
 - ▶ responsibilities
 - ◆ careful planning and documentation
 - ▶ precise timing for the forecasting steps
 - ▶ meeting minutes
 - ▶ openness - intranet web page

Key characteristics

- Techniques
 - ◆ Core model
 - ◆ Near term forecasting techniques
 - ▶ Econometric models
 - ▶ Expert view
 - ◆ Satellite models
 - ▶ Fiscal policy analysis
 - ▶ Exchange rate and external development

Key characteristics

- Models versus Experts ?
 - ◆ Expert views always superior in the near term
 - ◆ Model tools provide medium-term consistency and interpretability
 - ◆ The final outcome will always be based more on economic judgement - the core model is an organisational tool
 - ◆ **Staff's forecast, not a model forecast**

Key characteristics

- Monetary department and statistics
 - ◆ Macroeconomic forecasting division
 - ▶ Unit preparing the near term forecast
 - ▶ Unit developing and operating the core model
 - ◆ Monetary policy division
 - ▶ Unit for MP strategy and communication
 - ▶ Unit for the operational MP
 - ◆ Fiscal and structural analysis division
 - ◆ International economy division

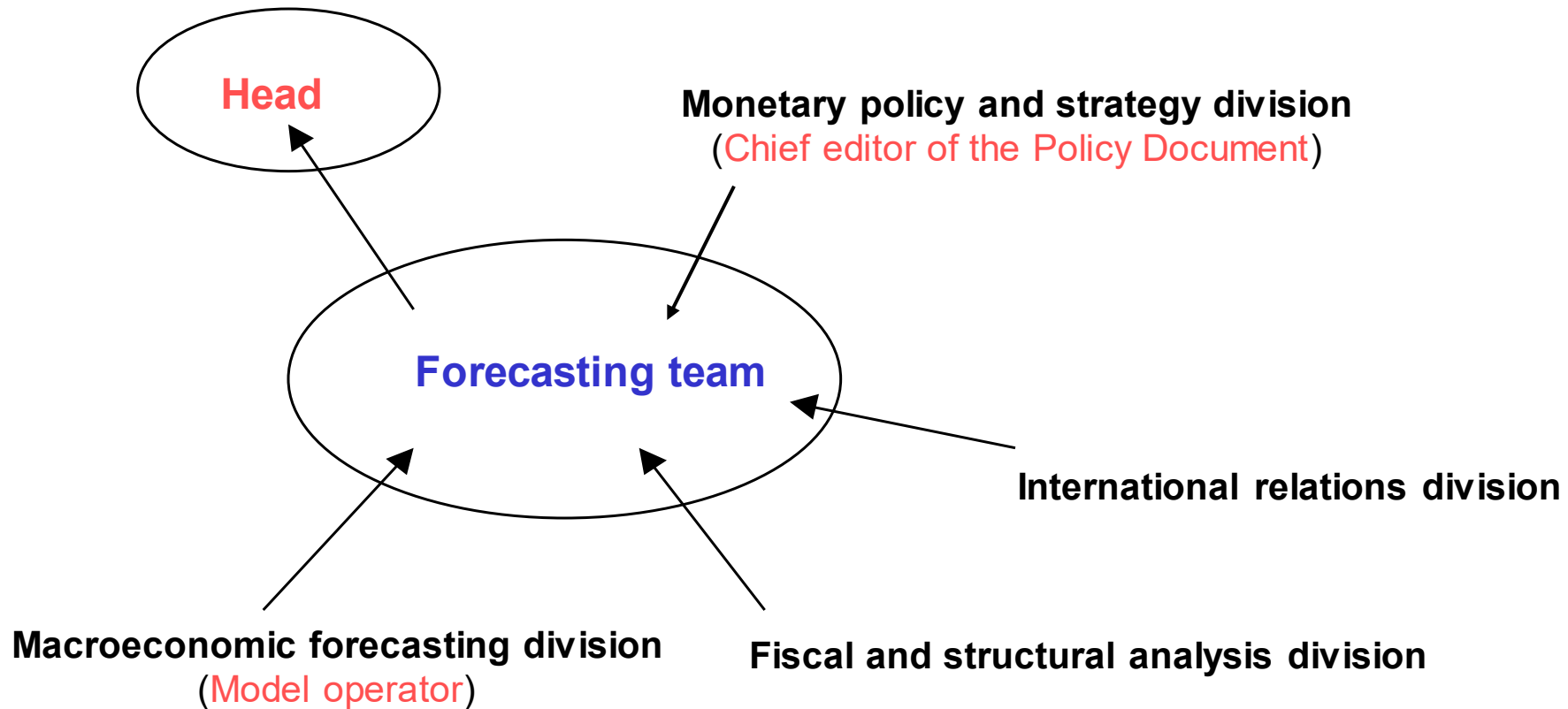
Processes and timing

- Quarterly forecast (5 week process)
- Forecasting team and support
- Interaction with the Board at various stages
- Several well-documented forecast rounds

Forecasting team

- Above the formal department structure
 - ◆ 6 members
 - ▶ members must be familiar with **any used** technique
 - ▶ and able to connect the real economy with a model view
 - ◆ 3 members from Macroeconomic Forecasting Division
 - ▶ Head of the team, NTF, Technical support
 - ◆ 1 member from
 - ▶ Monetary Policy Division, International Analysis and Fiscal Analysis Divisions

Forecasting team



Source: Author

Forecasting team

- Responsible for the forecast
- Members meet operationally
- Sometimes several times per day
- Discuss the Near Term Forecast (NTF)
- Decide about the basic story
- Discuss the forecast
- Defend the forecast facing rest of the department and Board members

Processes and timing

- Interaction with the Department
 - ◆ Department Director and Division Directors
 - ◆ 6 meetings (4 really concern the forecast)
 - ◆ Minutes of the meeting (intranet)
- Interaction with the Bank Board
 - ◆ 2 meetings
 - ◆ Minutes of the Meeting (intranet)

Processes and timing

- Meeting on forecasting techniques
 - opportunity to introduce changes in methods
- Issue meeting
 - brainstorming, main drivers, set analytical agenda
- Initial conditions, External assumptions (CF), Equilibrium trends meeting
 - what is the actual position of the economy, trends in future, external development
- Initial conditions, External assumptions (CF), Equilibrium trends meeting with the Board

Processes and timing

- Forecast - first version
 - first version of the forecast is presented to the department
 - main interest is put on the economic “story” underlying the forecast
- Alternatives meeting with the decision-maker
 - the baseline is presented as a “story” to the Board
 - discuss risks and choose 2-4 alternative scenarios
- Forecast - final version
 - final version of the forecast is presented to the department
- Monetary policy meeting
 - open part and presentations incl. policy advice of staff (final fcast and documents passed in 6 days ahead)
 - closed part of BB, risks, decision (followed by press conf.)
- Post Mortem Meeting

Techniques

- Near-term forecast
 - ◆ detailed expert knowledge
 - ◆ single-equation techniques
 - ◆ simple systems (VARs, structural models)
- Core model
 - ◆ simple gap model (deviations from long-term trends, advanced Kalman based filtering techniques)
 - ◆ 8 behavioral equations (about 100 in total - identities, data transf.)
 - ◆ active monetary policy
 - ◆ well documented and published

A Model Reaction function

$$rs_t = \lambda rs_{t-1} + (1 - \lambda) \left(rs_t^{neut} + \Pi_t \right) + v_\tau$$

$$\Pi_t = \kappa \left(E \pi_{t+4} - \pi_{t+4}^{tar} \right) + \mu y_t^{gap}$$

Special topics

- **Risk treatment** - how to treat **forecast uncertainty**?
 - ◆ attaching probability distributions to risks
 - done by each BB member, not staff's job
 - ◆ thus: alternative scenarios preferable to fan-chart approach; scenarios selected by BB
 - ◆ current forecast bands (1,5 p.p.) stable, more to communicate general uncertainty
 - ◆ specific risks communicated through BB's Minutes

Thank you for your attention!

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