

# The central bank's instruments

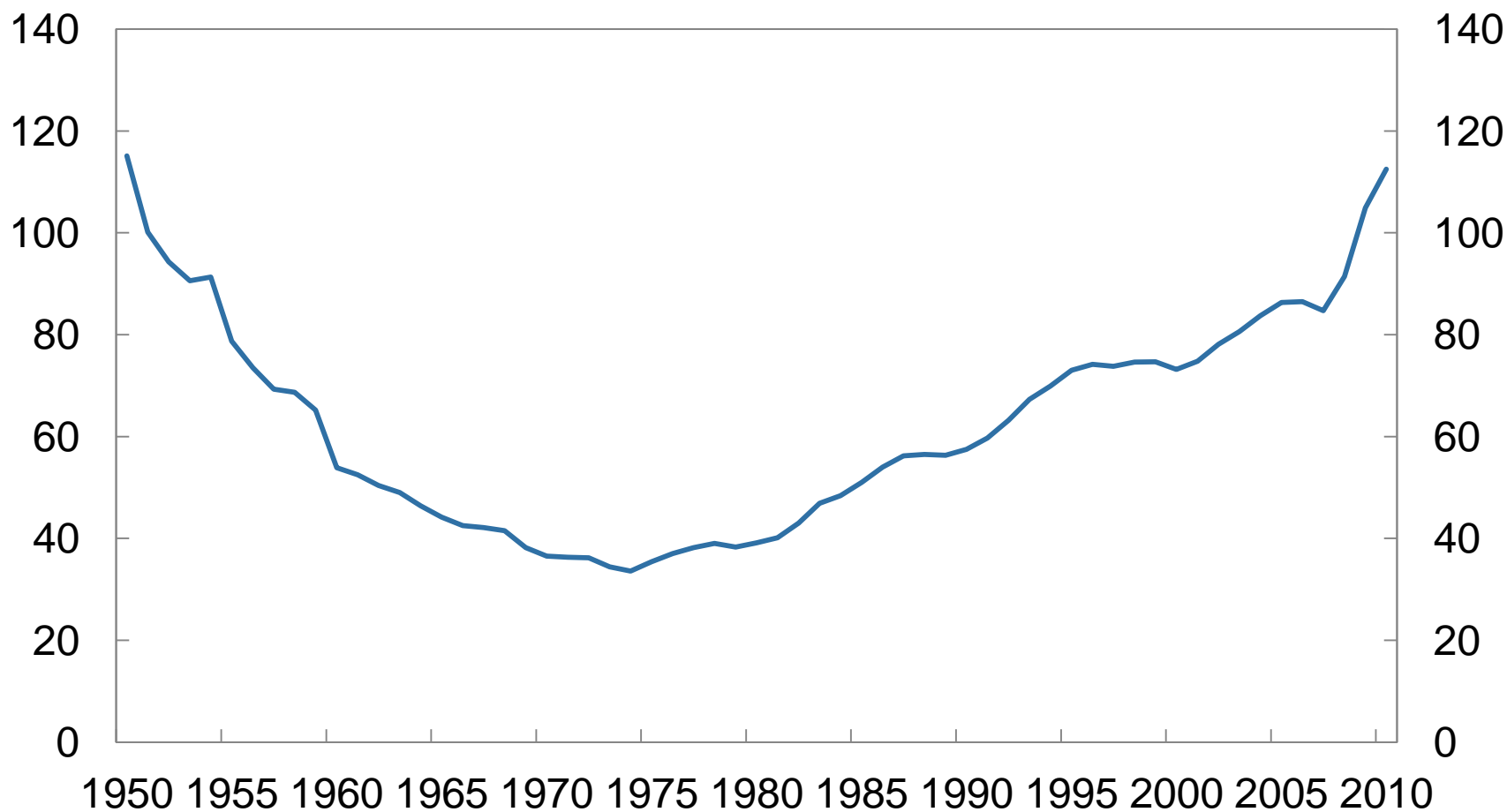
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*Centre for Monetary Economics (CME)*

*6 September 2010*

# Sovereign debt to GDP in the G7

Per cent



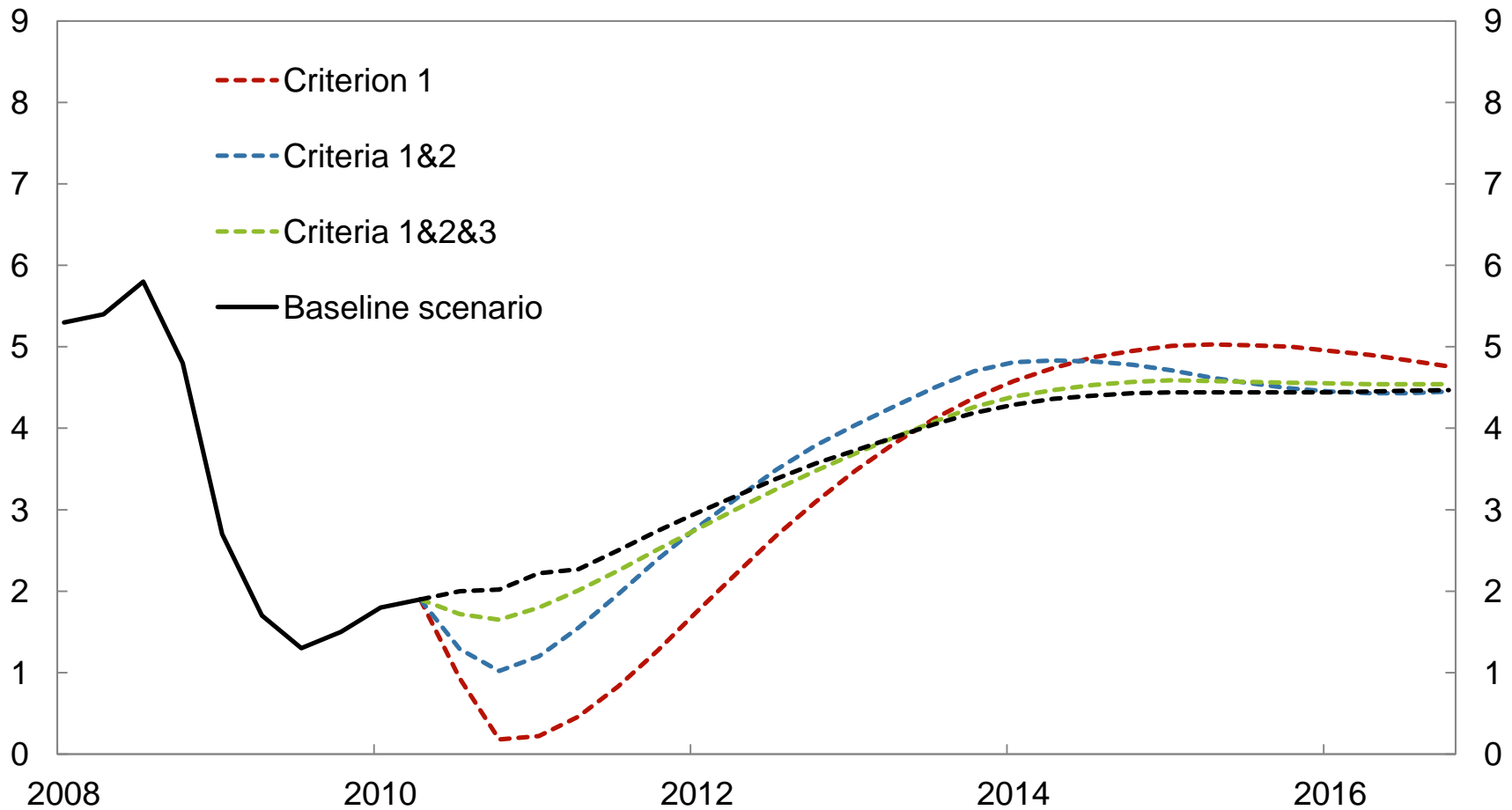
Source: IMF Global Financial Stability Report

# The loss function

$$L_t = (\pi_t - \pi^*)^2 + \lambda(y_t - y_t^*)^2 + \delta(i_t - i_{t-1})^2 + \kappa(i_t - i_t^{\text{enkel}})^2$$

# Key policy rate

Per cent. 2008 Q1 –2016 Q4

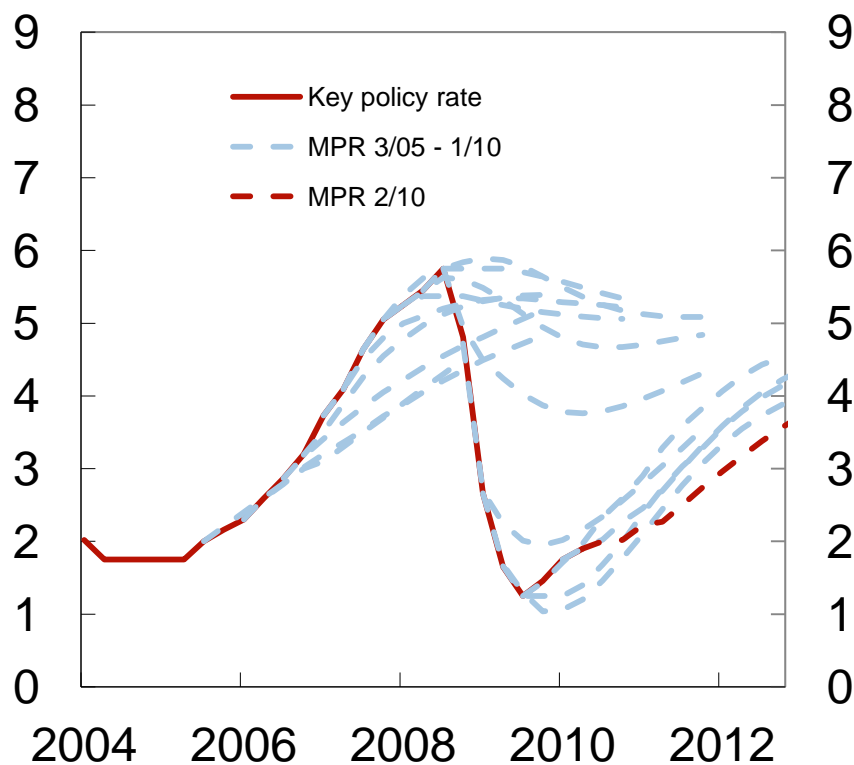


Source: Norges Bank

# Change in interest rate forecast over time

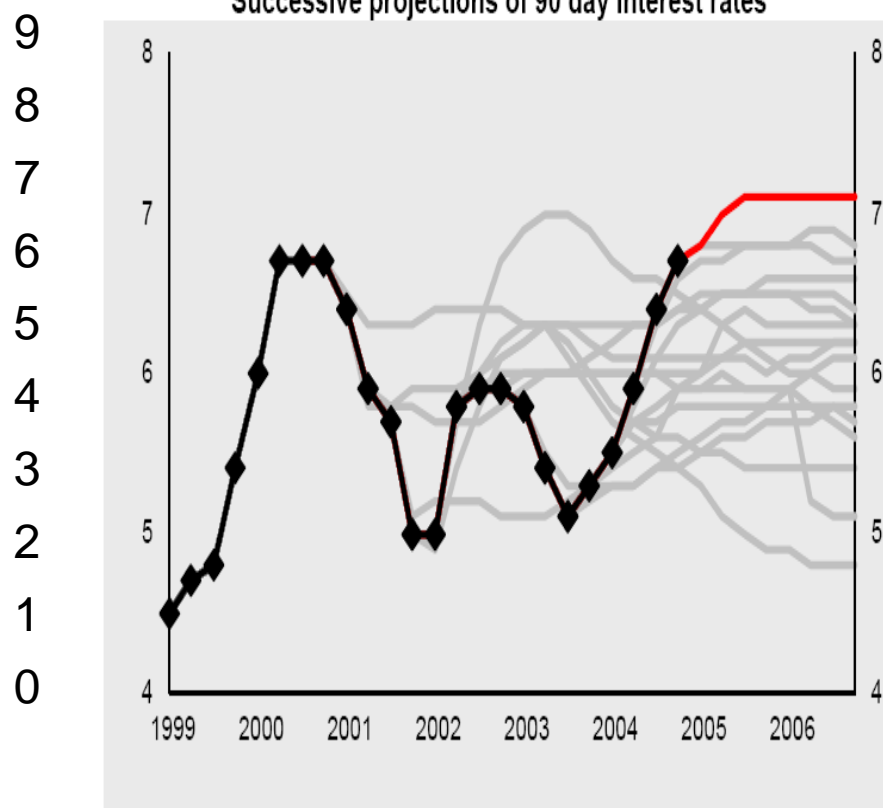
## Norges Bank

Per cent. November 2005 – December 2013



## Reserve Bank of New Zealand

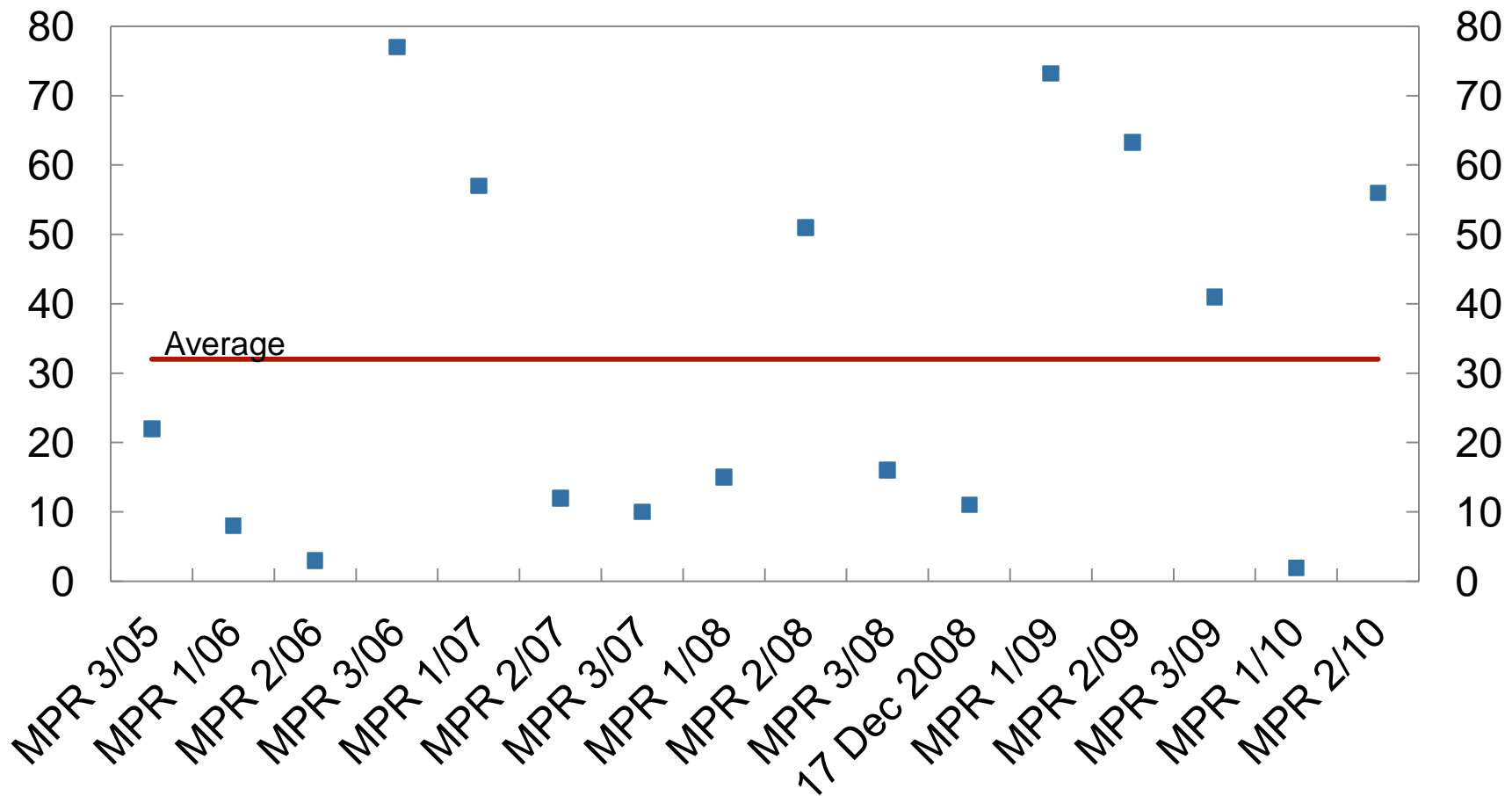
Successive projections of 90 day interest rates



Sources: Norges Bank and Archer (2005)

# Publication of interest rate forecasts – how does the market react?

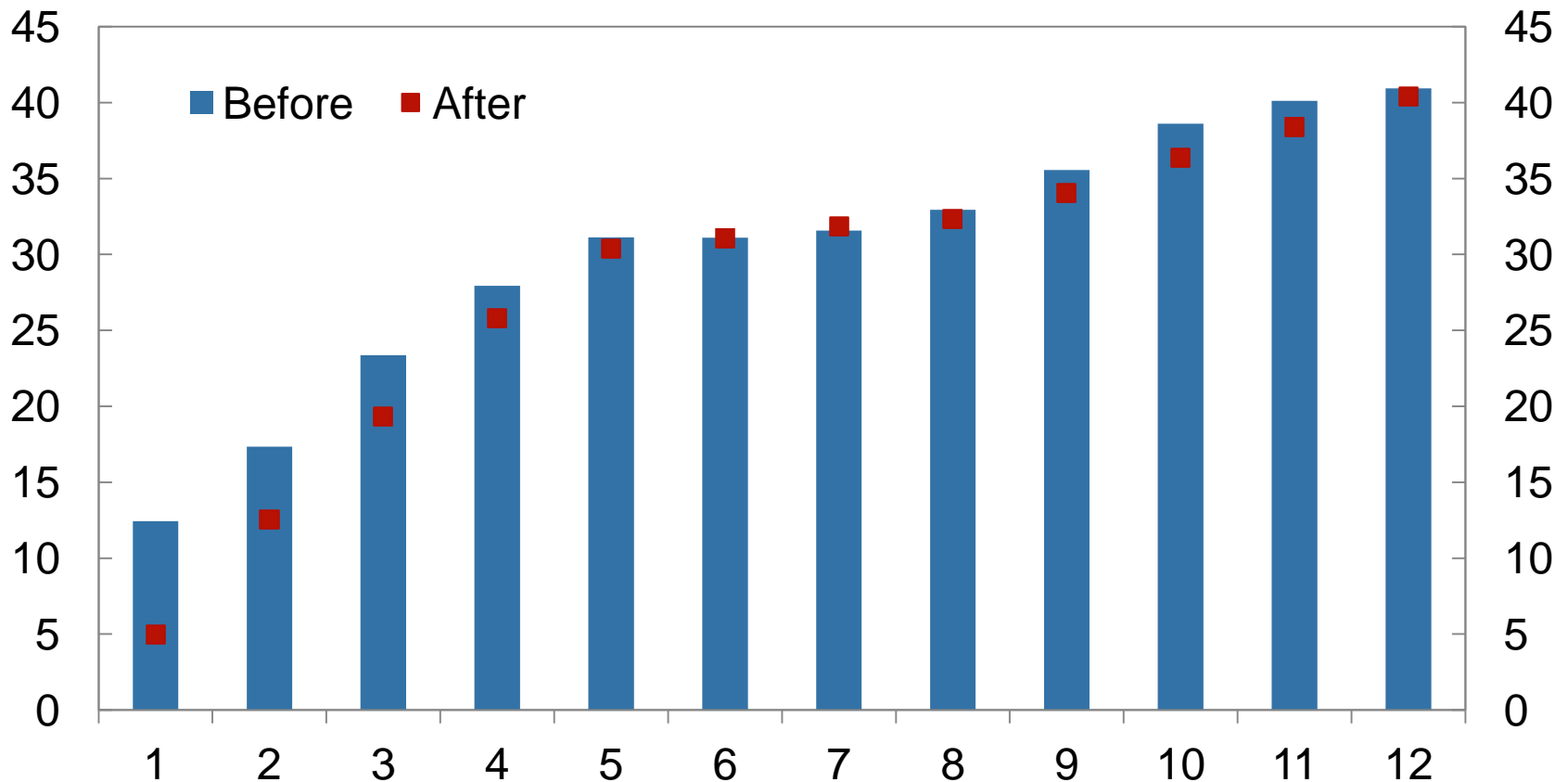
Basis points. Absolute difference between forecast and market two years ahead. From MPR 3/05 to 2/10.



Source: Norges Bank

# How does the market react to the publication of the interest rate forecast?

Basis points. Absolute average difference in relation to the new forecast. Number of quarters ahead. From MPR 3/05 to 2/10



Source: Norges Bank

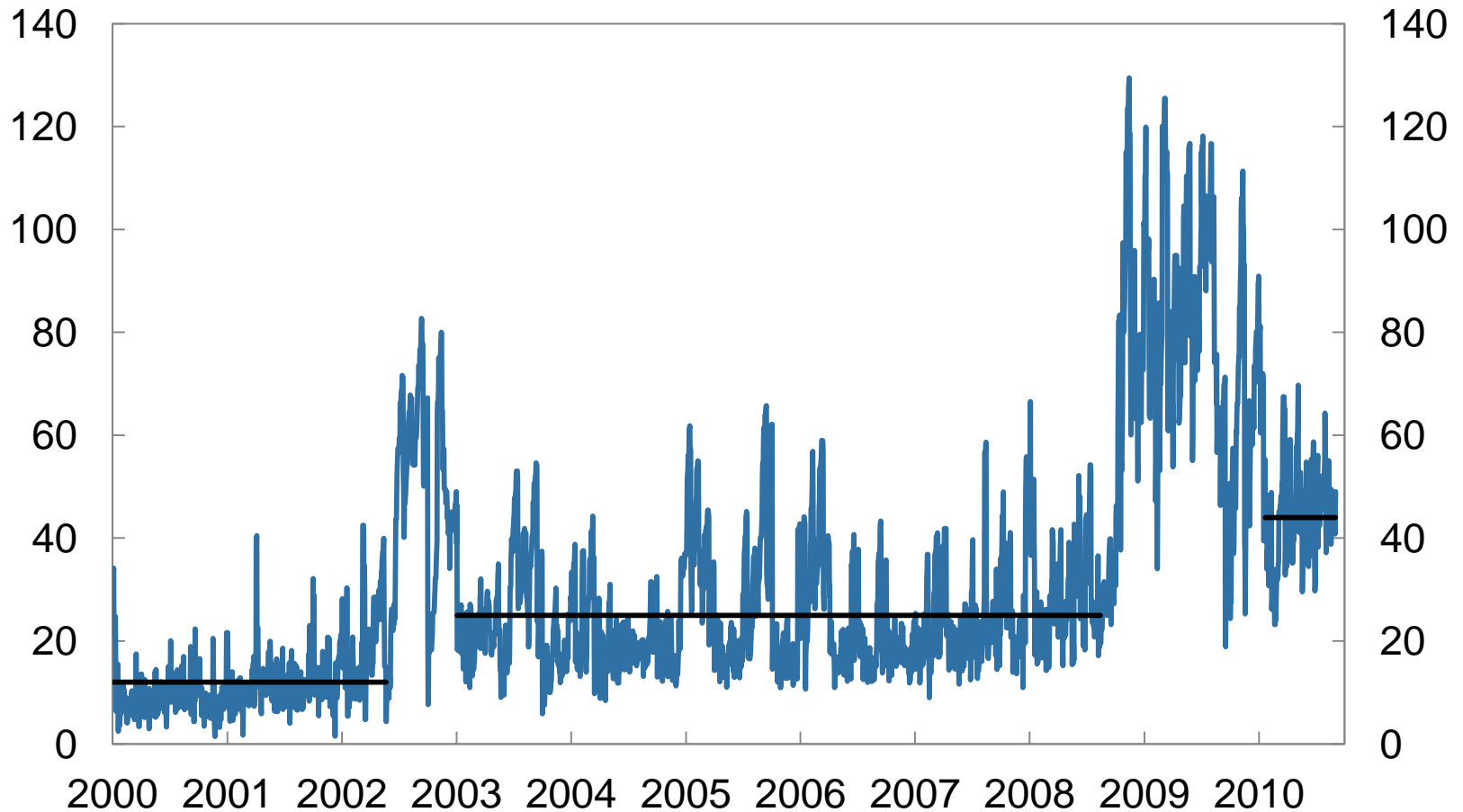
# Central bank balance sheet - stylised

<b>Assets</b>	<b>Liabilities</b>
Foreign exchange reserves	Notes and coins
Lending to banks	Treasury deposits
	Deposits from banks(=central bank liquidity)



# Liquidity in the banking system

In billions of NOK. Daily figures. 1 January 2000 – 2 September 2010



Source: Norges Bank