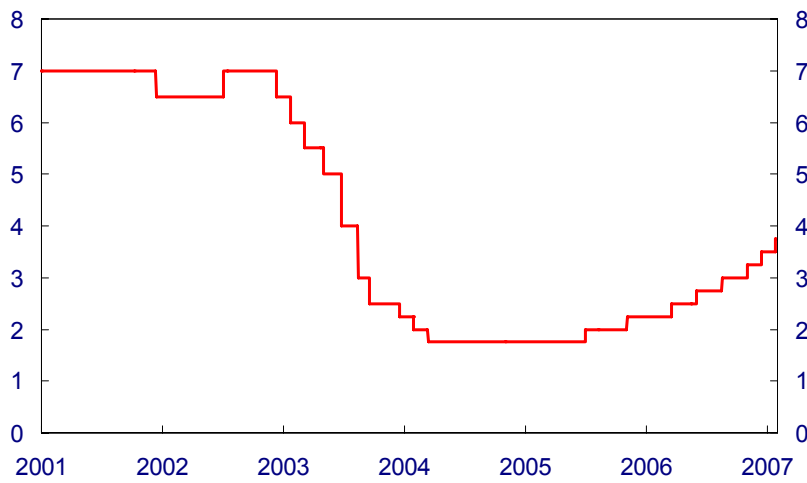


# Interest rate projections in theory and practice

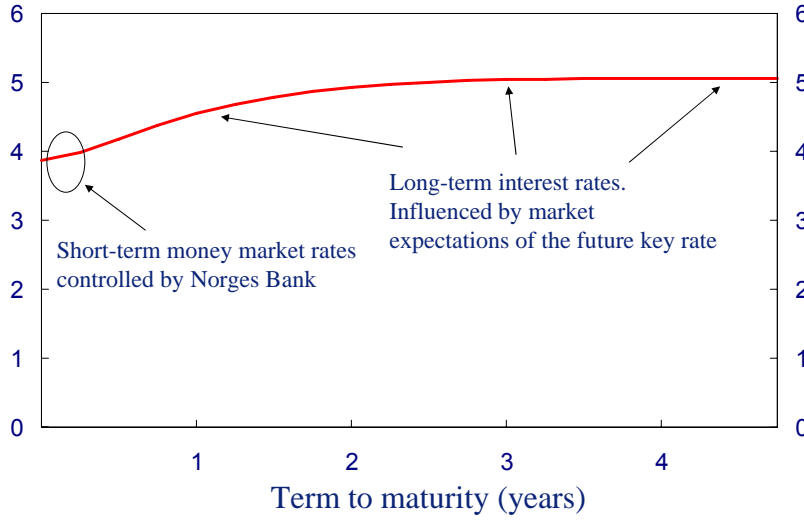
Deputy Governor Jarle Bergo

Sanderstølen 2007

## Key policy rate in Norway

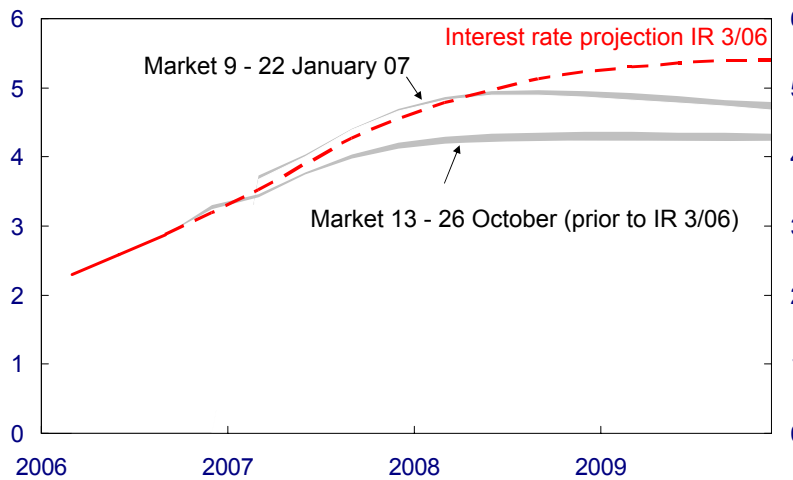


### Yield curve mid-January 2007<sup>1</sup>

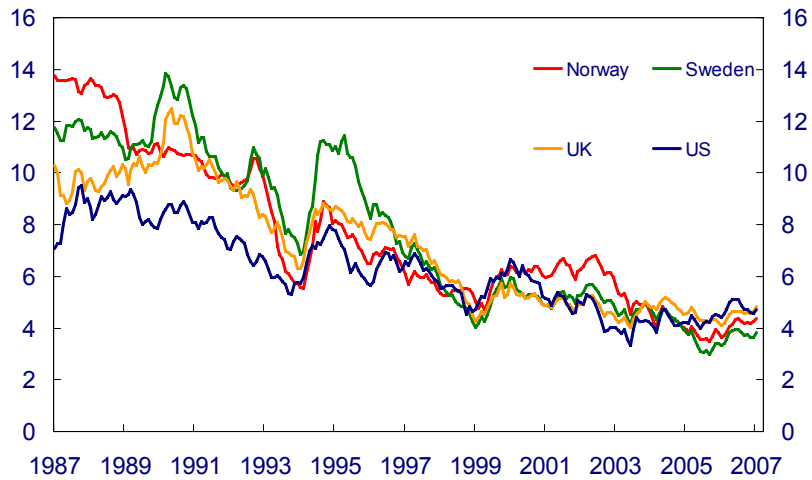


<sup>1</sup>Estimated on the basis of swap rates with up to ten years maturity

### Norges Bank's interest rate projection and forward rates



### Long-term bond yields (10-year)



Source: Ecowin

### Long-term normal level of the real rate

$$r = g + n + \rho$$

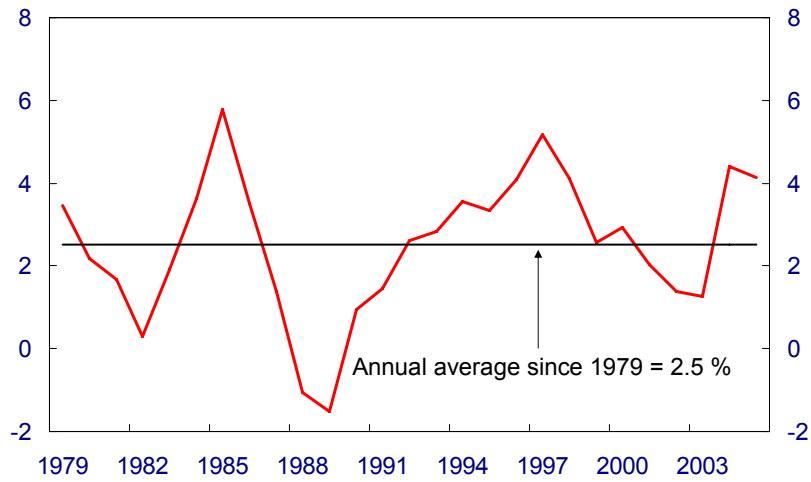
r: Long-term normal level for the real rate

g: Productivity growth  
 n: Population growth  
 ρ: Time preferences

} Potential growth

Relationship between potential growth and the real rate

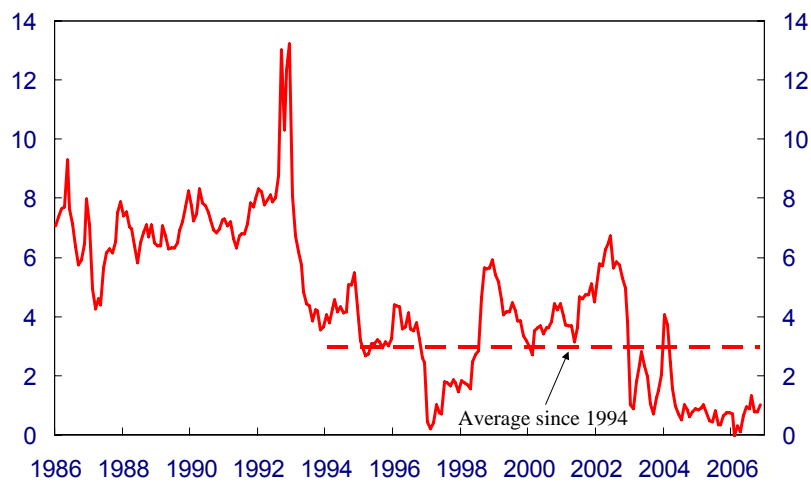
## Annual growth in GDP mainland Norway 1979-2005



Kilde: Statistics Norway

7

## Short-term real interest rate in Norway<sup>1</sup>

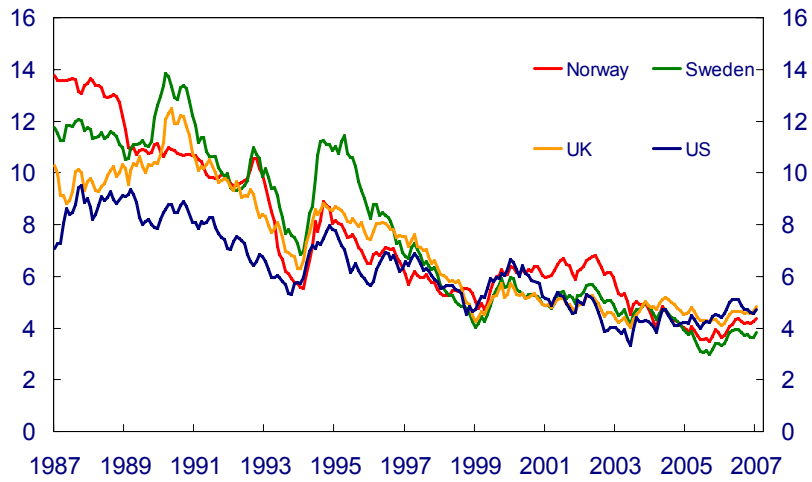


<sup>1</sup>Three-month nominal money market rate minus annual change in consumer prices

Source: Ecowin

8

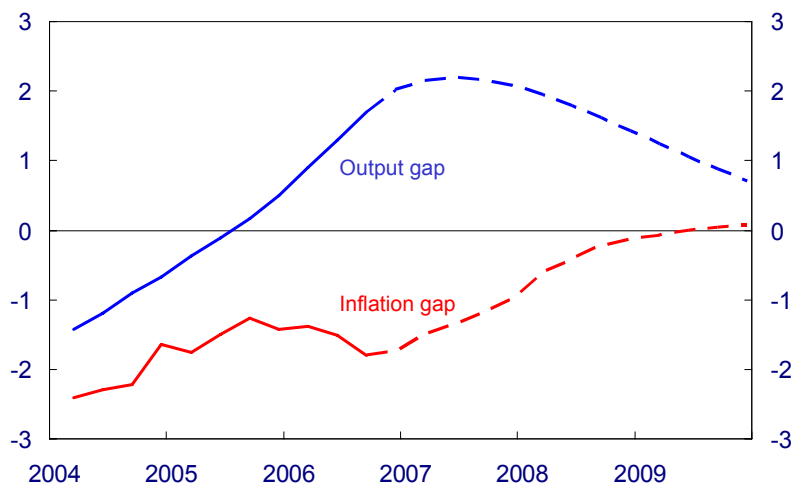
### Long-term bond yields (10-year)



Source: Ecowin

9

### Trade-off in *Inflation Report 3/06*



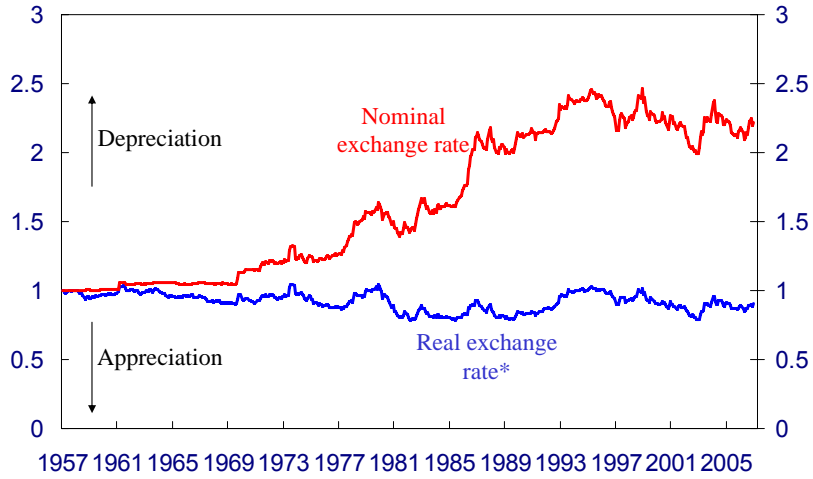
Source: Norges Bank

10

### Nominal and real exchange rate. NOK/DEM

(As from 1999 calculated implicitly via the euro exchange rate)

Index 1957=1

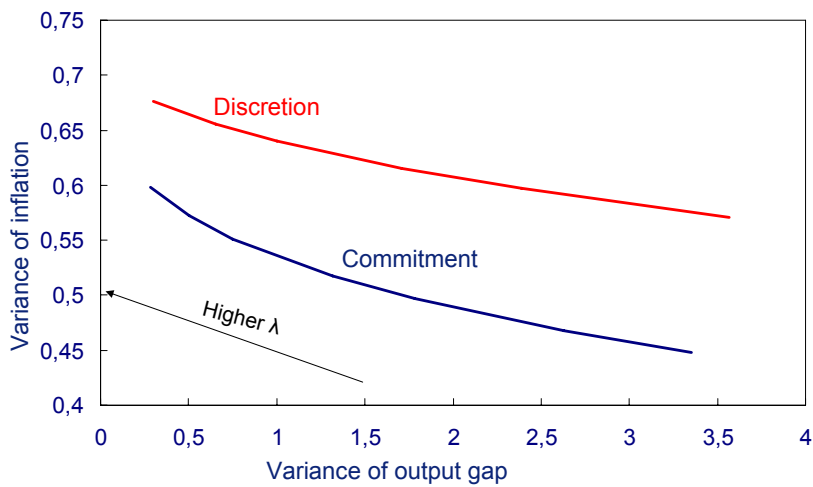


\*Nominal rate deflated by relative consumer prices

Source: Ecowin

11

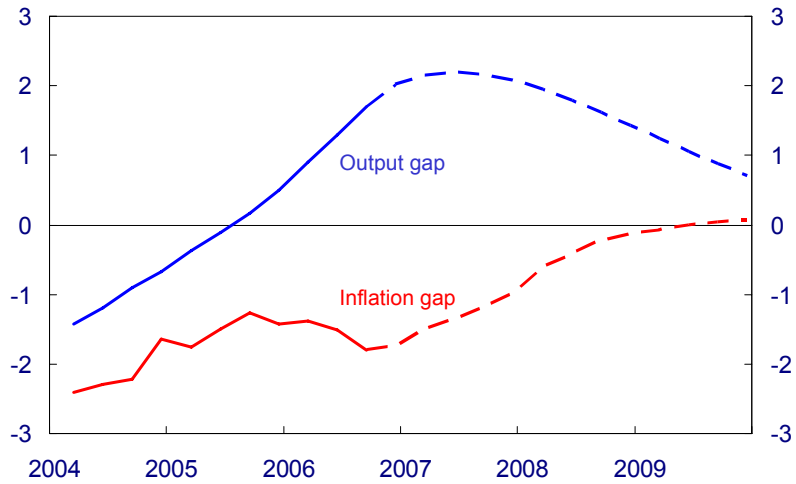
### Discretion versus commitment



Source: Norges Bank

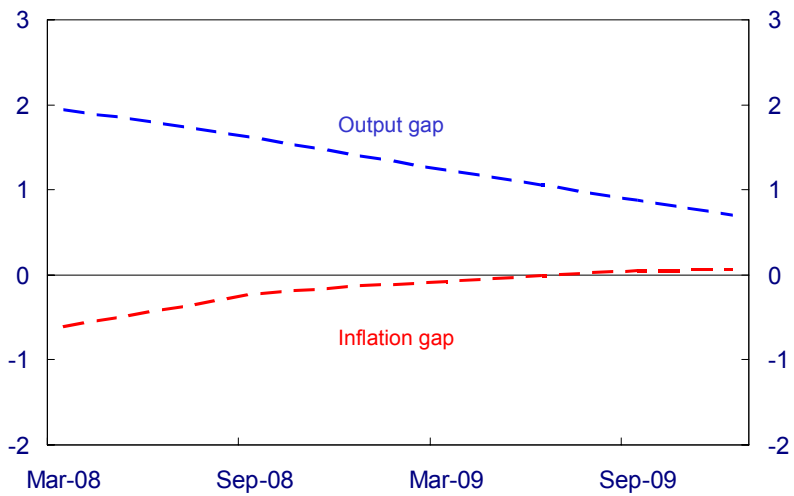
12

### Trade-off in *Inflation Report 3/06*



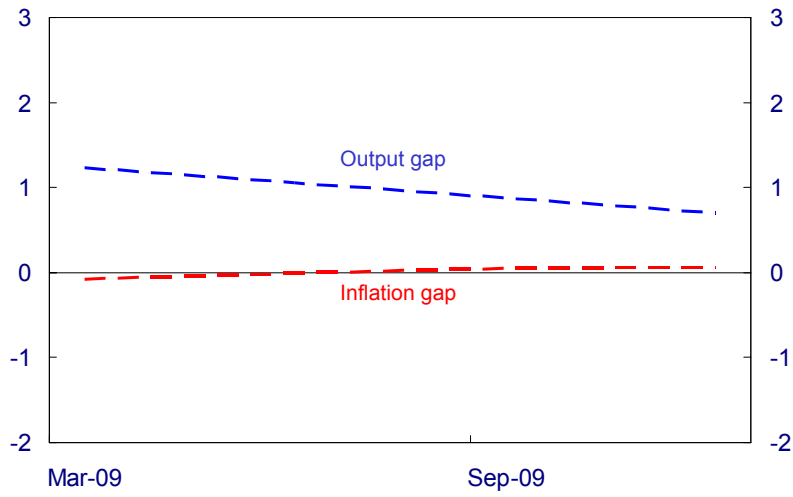
Source: Norges Bank 13

### Trade-off in *Inflation Report 3/06* 2008-2009



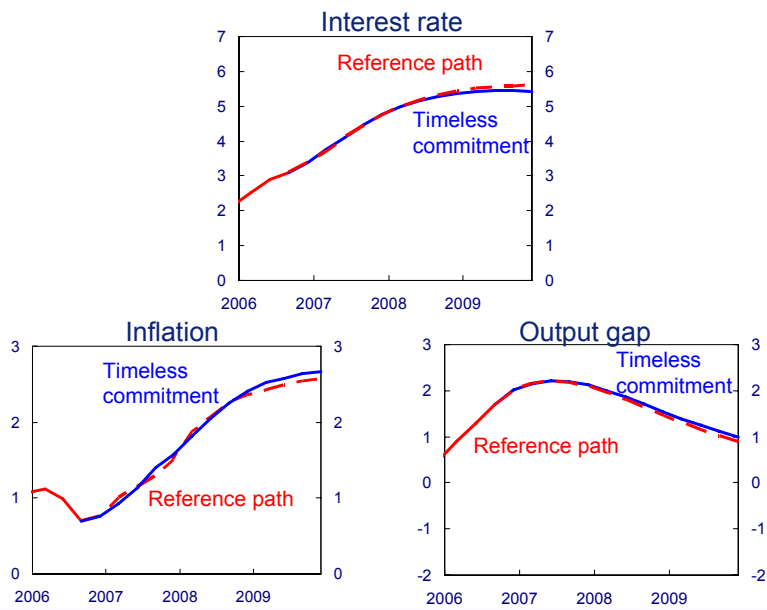
Source: Norges Bank 14

## Trade-off in *Inflation Report 3/06* 2009

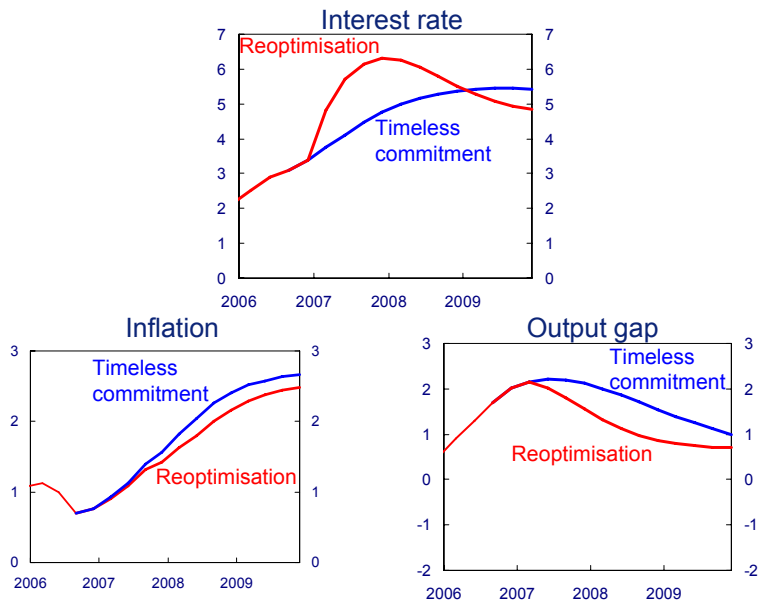


Source: Norges Bank 15

## Reference path IR 3/06 and timeless commitment



Source: Norges Bank 16



Source: Norges Bank 17