Comments on Chung, Laforte, Reifschneider, and Williams, ”Have We Underestimated the Likelihood and Severity of Zero Lower Bound Events?”

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Main points of the paper

- Past estimates of probability of hitting the ZLB were too low
- Including parameter uncertainty and uncertainty concerning latent variables increases estimated probability of hitting ZLB
- Models estimated on data from the Great Moderation understate the probability and consequences of hitting ZLB (estimated shock variance inappropriately low)
- Fed's asset purchases (LSAP, QE) mitigated costs of ZLB substantially (led to lower unemployment and higher inflation)

My points

- Models used to estimate probability and consequences of hitting ZLB do not include causes of current crisis
- Sample does not include severe crises and binding ZLBs
- If crisis very rare and special event, not strange if probability and consequences of ZLB underestimated when based on historical data
- But what is current best estimate of future probability?

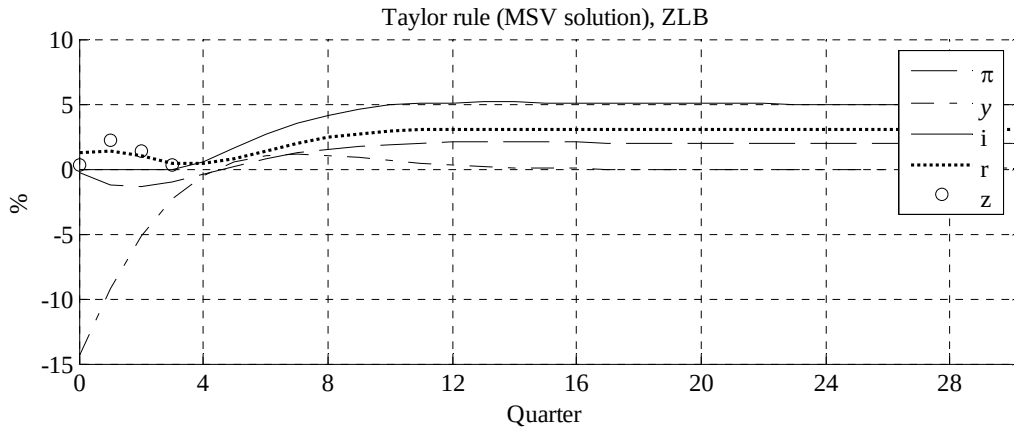
- Technical point: ZLB equilibria not unique – be careful!

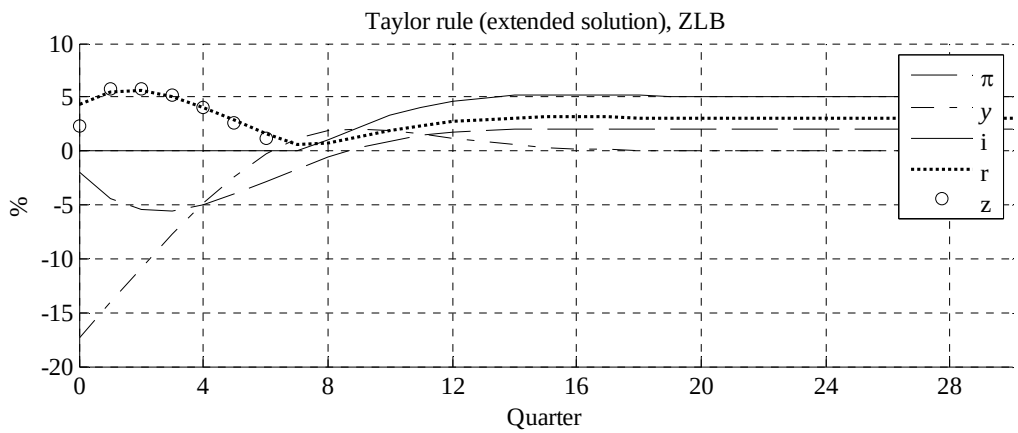
My points

- Substantial effects on long interest rates of QE confirmed in several papers with different methods
- No risk of inflation, “monetary” financing but not “inflationary” financing
- Not enough info to doubt effect of long rates on US economy (everything else equal, including policy rate)
- Sweden: High repo-rate path not credible, market long rates lower
- *Actual* monetary policy more expansionary than *intended* monetary policy
- Good for recovery!

Multiple ZLB equilibria

(Hebden, Lindé, and Svensson paper, in progress)





QE need not be inflationary

- QE means government debt includes less bonds, more deposits (reserves) in the Fed: Shorter duration
- Larger monetary base, “printing money”
- Not necessary inflationary, since interest paid on reserves
- Policy rate can be set to control inflation

Consequences of low long rates: US

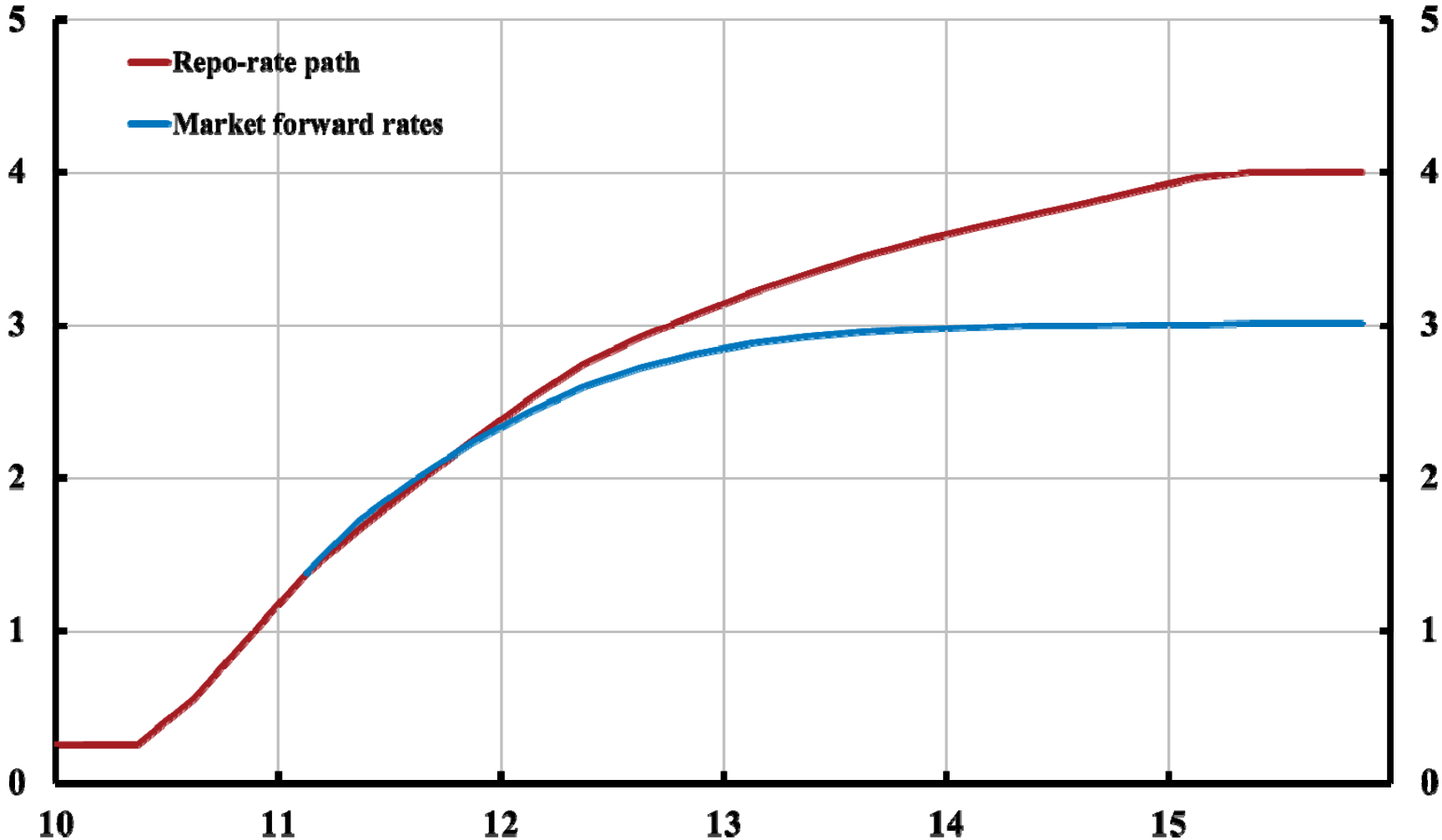
- US: QE may have reduced long interest rates by around 50 basis points
- Federal funds rate equivalent: Factor 4 (regression):
  50 x 4 = 200 basis points
- FRB/US: Separate long interest-rate/term premium channel (capital costs, stock market, exchange rate)
- Unemployment 1.5 p.p. lower, inflation 1 p.p. higher
- FFR equivalent could even be 300 basis points
- Half the effect on the economy would still be substantial

Consequences of lower long rates: Sweden

- Sweden: Long rates lower than implied by policy-rate path, by 40 b.p. (Feb 2011) to 150 b.p. (Sep 2010)

Repo-rate path and implied forward rates Sweden, February 2011

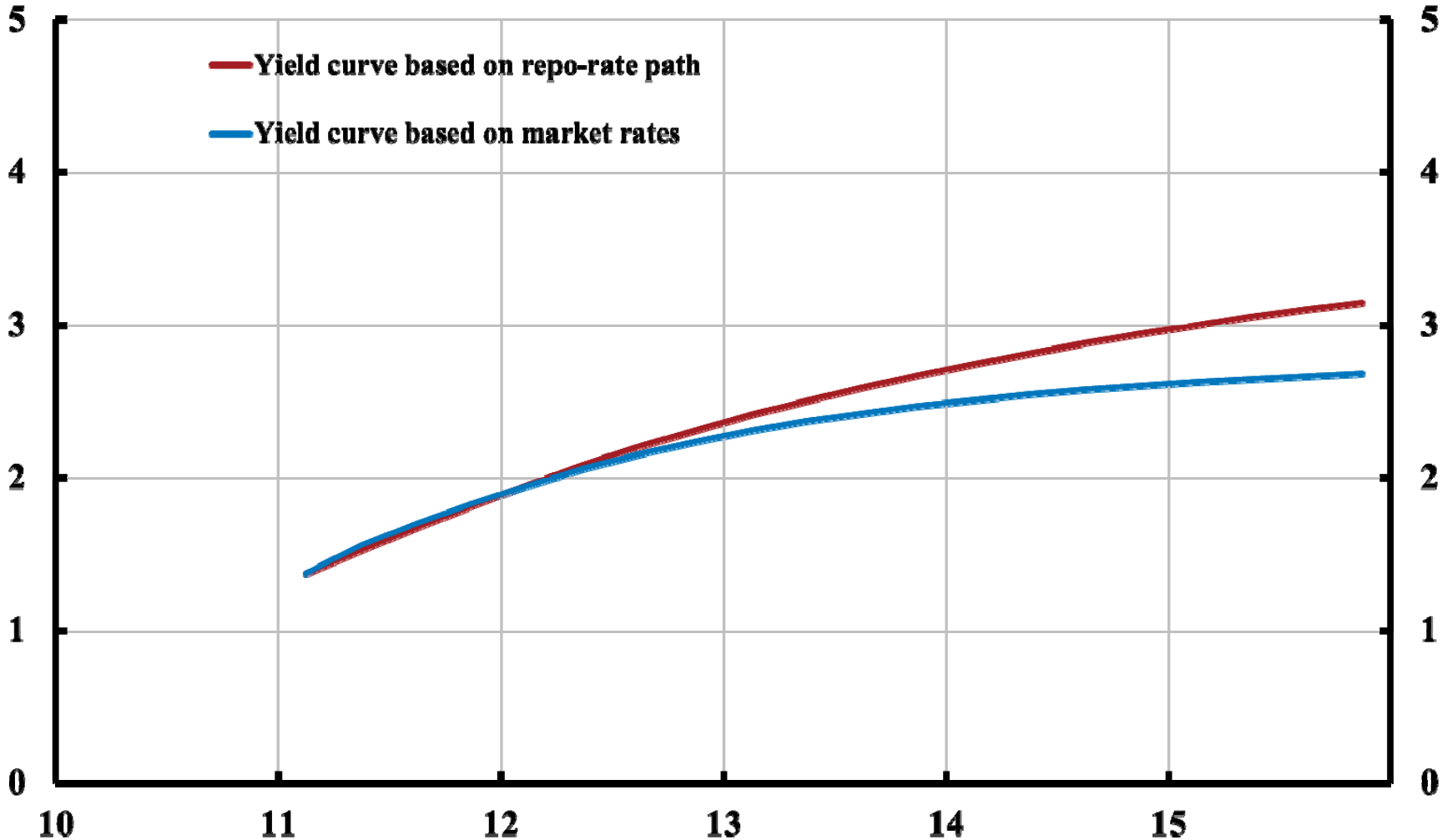
Percent



Sources: Reuters EcoWin, the Riksbank and own calculations

Yield curves
Sweden, February 2011

Percent



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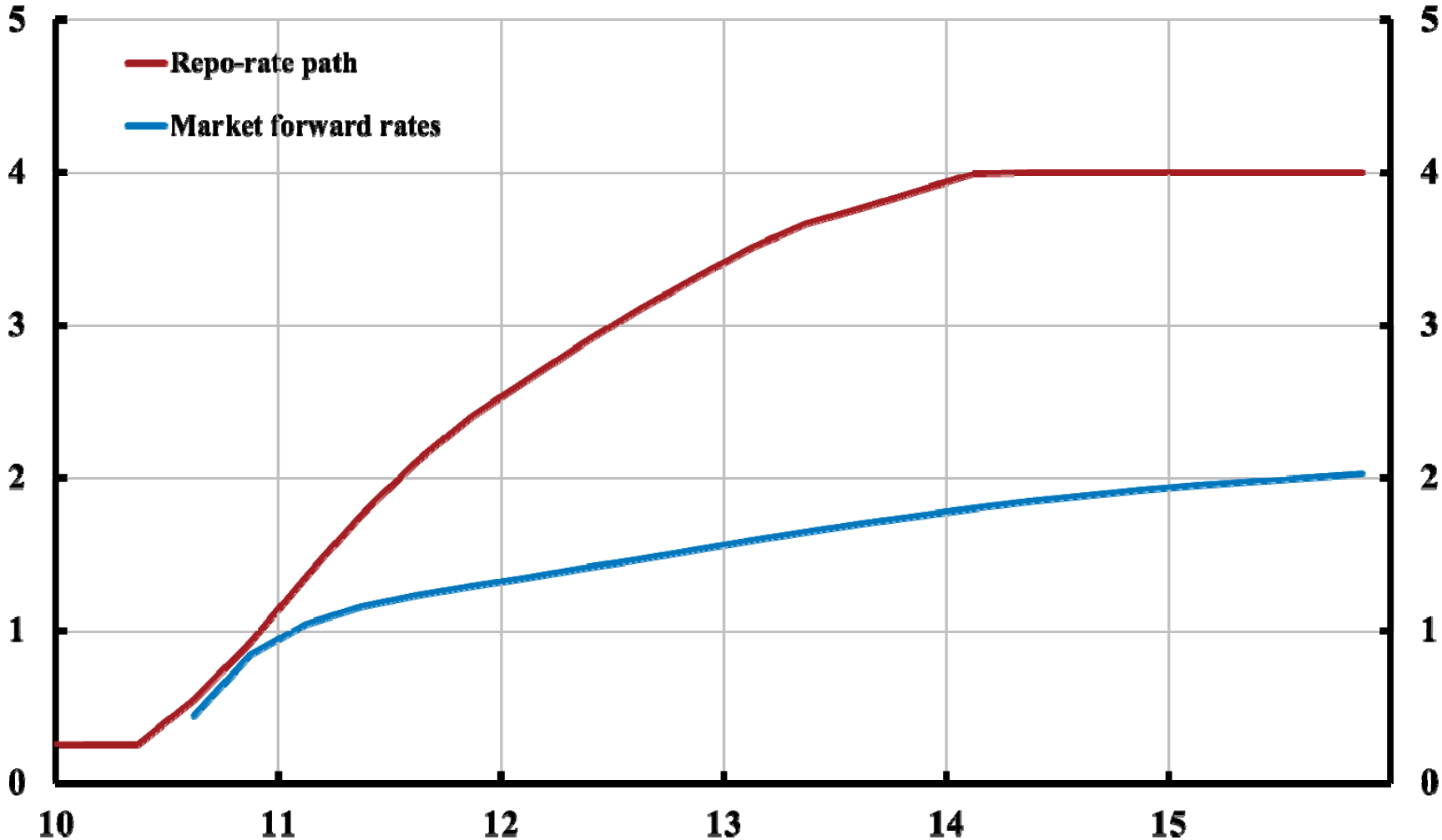
Repo-rate path and implied forward rates Sweden, September 2010

Percent



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Yield curves
Sweden, September 2010

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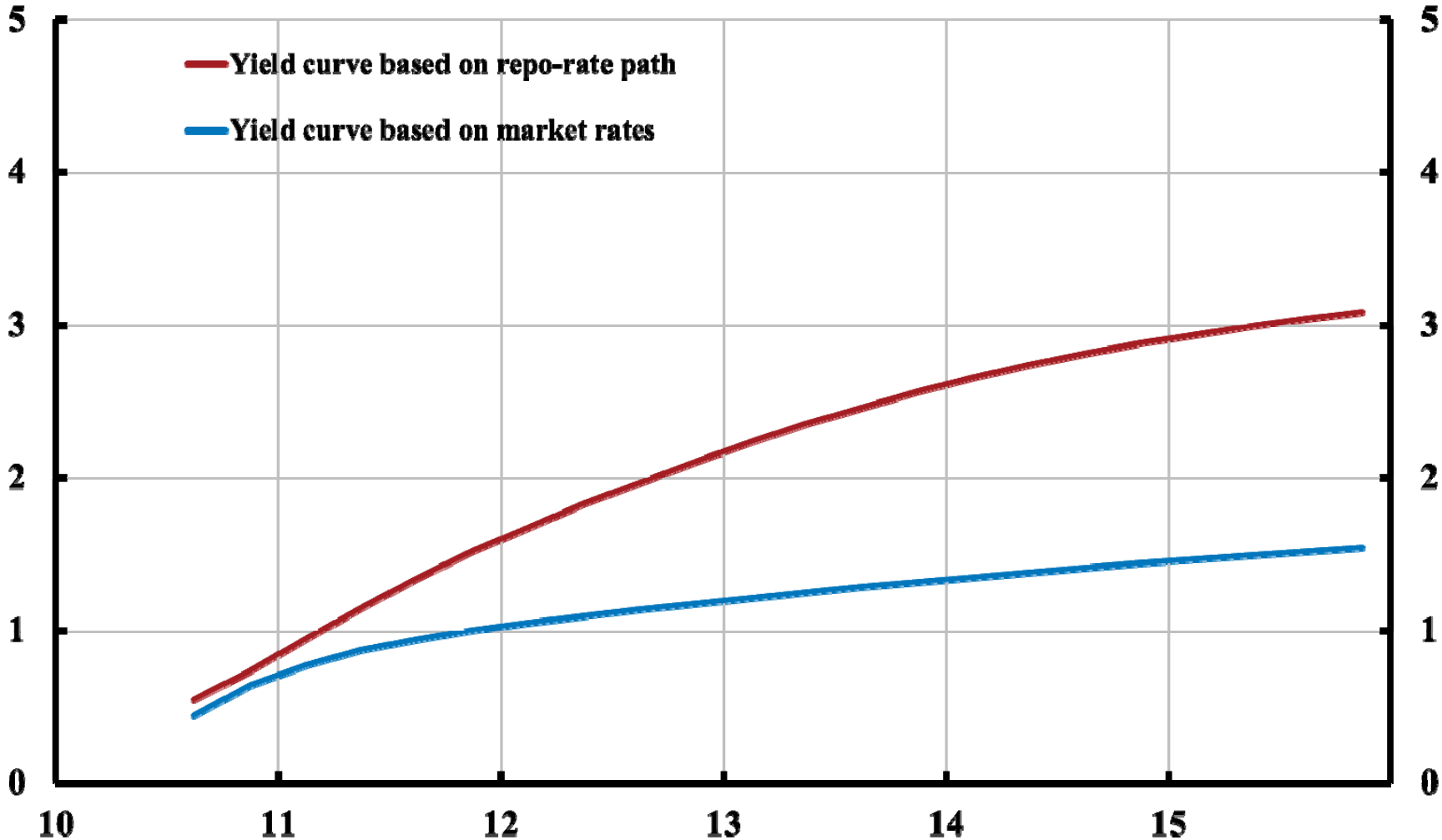

Sources: Reuters EcoWin and the Riksbank

Consequences of lower long rates: Sweden

- Sweden: Long rates lower than implied by policy-rate path, by 40 b.p. (Feb 2011) to 150 b.p. (Sep 2010)
- Policy-rate equivalent: Factor 2 to 3 (regressions): 80 to 450 b.p. lower policy rate
- *Actual* monetary policy (market yield curve) has been more expansionary than *intended* monetary policy (yield curve consistent with policy-rate path) – by a lot!
- Good for recovery!

Final comment

- Standard DSGE models don’t have separate long-rate transmission channel: They rely on rational expectations of future policy rates and the expectations hypothesis
- Cannot handle separate long-rate/term-premium channel
- Cannot easily handle market expectations different from published policy-rate path (imperfect credibility of policy rate)
- Integrate term premiums, portfolio-balance effects, non-rational expectations
- Integrate difference between intended and actual monetary policy