Flexible inflation targeting and the interest-rate path

Lars E.O. Svensson
Sveriges Riksbank
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Flexible inflation targeting
- Stabilize inflation around the inflation target
- Stabilize resource utilization
- Loss function
  \[ L_t = (\pi_t - \pi^*)^2 + \lambda(y_t - \bar{y})^2 \]

Strict inflation targeting (\(\lambda=0\))
- Only stabilize inflation around the inflation target
- Large interest-rate adjustments up and down
- Large fluctuations in resource utilization, output and employment
- Only pedagogical simplification
- All inflation-targeting central banks conduct flexible inflation targeting

Flexible inflation targeting (\(\lambda>0\))
- Weight on stabilizing resource utilization may increase over time
- New regime
  - Establish credibility
  - Larger weight on stabilizing inflation
- Established regime with credibility
  - Larger weight on stabilizing resource utilization

Warning
- Too much weight on stabilizing resource utilization can threaten credibility
- Monetary policy cannot affect average resource utilization, only stabilize it around the given average level
- Monetary policy target for average resource utilization: Makes no sense
- Monetary policy target for inflation: Makes a lot of sense

Source: Statistics Sweden and the Riksbank
Forecasts

- Inflation and resource utilisation react with a significant lag to monetary-policy measures
- “Long and variable lags” (Friedman)
- The Riksbank’s interest-rate decision is based on forecasts for inflation and resource utilization 1-3 years ahead

Transmission mechanism

- Prices, inflation, inflation expectations sticky
- Instrument rate, inflation expectations
  => Short real interest rate
- Expected future short real interest rates
  => Future output
- Expected future inflation and output (gap)
  => Future inflation
- Ramses, an open-economy DSGE model

Flexible inflation targeting

- Choose the interest-rate path so that the resulting forecast for inflation and resource utilisation “looks good”
- “Looking good:”
  - Inflation approximately 2% and resource utilisation normal 2-3 years ahead, or
  - Inflation approaching target and resource utilisation approaching normal level at appropriate pace
- “Well-balanced” monetary policy
- “Forecast targeting”
Natural trinity
- Forecasts for interest rate, inflation and resource utilization form a natural trinity
- Interest-rate forecast (assumption) necessary for forecast of inflation and resource utilization
- All central banks that stabilize inflation have interest-rate paths in their materials preparing the decision (also when the paths are not published)

Conclusion: Choose and publish an interest-rate path
- Monetary policy works through expectations of the interest-rate path
- The entire interest-rate path matters, not the repo rate over the next few weeks
- Riksbank conclusion:
  - Explicitly discuss and choose main interest-rate path (otherwise incomplete decision-making process)
  - Publish interest-rate path (otherwise hiding most important information)

Riksbank not the first (but No. 3)
- Reserve Bank of New Zealand from 1997
- Arguments in favor from several researchers
- Norges Bank from Spring 2005
- Riksbank from February 2007
- Sedlabanki Islands from March 2007
- Czech National Bank from 2008
- Next?

Repo-rate forecasts from Feb 2007 onwards
Per cent, quarterly average

Source: The Riksbank

Repo-rate forecast and market expectations February 12 and 12, 2008
Per cent

Source: The Riksbank

Nominal and real repo rates
Forecasts are uncertain

- Probability distribution
  - Mean
  - Uncertainty interval
- Depends on available information
- Revised when new information is received
- “Forecast, not a promise!”

Mean value with uncertainty interval

- Revised when new information is received
- “Forecast, not a promise!”

Forecast targeting: Handling new information

- New information relevant only if it changes the forecast for inflation or resource utilisation for an unchanged interest rate path
- “Filter new information through the forecast”
- New info shifts forecasts for inflation and resource utilisation up (down) with unchanged interest rate path
- Shift interest-rate path up (down)

Forecast targeting: Handling new information

- Forecast in February 2007: Well-balanced monetary policy given information then
- New info up to June 2007:
  - Higher wage agreements
  - Lower productivity
  - More expansionary fiscal policy
- Shifted forecasts for inflation and resource utilisation up for unchanged interest-rate path
- Shift interest rate path up: Interest-rate path in June 2007 above high-wage scenario in February 2007

Resource utilisation

- Important variable in flexible inflation targeting
- Can be measured in several ways
- Output gap \((y_t - y_r)\) :
  - Actual output less “potential” output
- Theoretical and empirical difficulties in estimating and forecasting: Uncertainty in measures
- More research urgent
Flexible inflation targeting and the interest-rate path: Summary

1. Flexible inflation targeting: Choose an interest-rate path so the forecast for inflation and resource utilization looks good.
2. Expectations of the entire interest-rate path matters, not the repo rate over the next few weeks.
3. Discussion, selection and publication of the interest-rate path is the only right thing to do.
   - New information relevant only if affecting the forecast.
   - Strong reasons for more research on measures of resource utilization.

Continued financial turmoil

The difference between interbank rates and government bond rates, basis points.

Weak GDP growth in the United States in 2008

Consensus and the Riksbank’s forecasts for GDP growth in the United States in 2008 on different occasions.

Good growth in the world as a whole

GDP in the world and Sweden, annual percentage change.

Extra slides
Inflation exceeds the target

Annual percentage change

Real economy strong

Deviation from HP trend, per cent

Sources: Statistics Sweden and the Riksbank