Optimal Design for Monetary Policy in the Post-Crisis Period

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Optimal design for monetary policy in the post-crisis period

1. Do forecast targeting (Bernanke's blog, Svensson 2011 Handbook chapter)

2. Do not lean against the wind unless supported by thorough cost-benefit analysis (IMF Staff paper 2015, Svensson WP 2015)

3. Conduct monetary policy (MP) and financial-stability policy (FSP) separately, like monetary and fiscal policies (Kohn and Svensson 2015 papers for recent Boston Fed conference)

1. Do forecast targeting

- Choose policy rate and policy-rate path so that (mean) forecasts for the target variables (inflation and unemployment) best achieve the goals of MP (price stability and maximum sustainable employment)
- The goals should be symmetric, not ceilings or floors (quadratic loss function)
- The policy rate is an instrument, not a target variable
- If inflation forecast below (above) inflation target and/or unemployment forecast above (below) long-run sustainable rate, lower (raise) policy rate and policy-rate path
- "Filter information through forecasts," that is, respond to all information that shifts the forecasts of the target variables
- "Forecast-targeting rule," very different from Taylor rule

2. Do not lean against the wind unless supported by thorough cost-benefit analysis

- Leaning against the wind for financial stability purposes strongly promoted by BIS
- Skepticism against leaning elsewhere (Bernanke, Evans, Williams, IMF…), but debate continues
- Costs of higher policy rate: Lower inflation, higher unemployment, both if no crisis *and* if crisis occurs
- Possible benefit: Lower real debt growth and lower crisis probability (Schularick and Taylor 2012)
- Costs in most (or all) cases much higher than benefits (Svensson 2015, IMF 2015)
- Somewhat surprisingly, less effective macroprudential policy with larger probability and severity of crisis *may increase costs of leaning more* than benefits
- Any leaning against the wind should be supported by thorough cost-benefit analysis

Simple example: Quadratic loss (squared unemployment gap); Cost, benefit, and net cost of policy-rate increase

| A simple example of cost-benefit analysis of a leaning against the wind					
Parameters, input		**Future non-crisis state**		**Future crisis state**	
Initial non-crisis ugap, pp (1)	0	Initial unemployment gap, pp (7) = (1)	0	Initial ugap, pp (13) = (7)+(3)	5
Initial crisis probability, % (2)	6.0	New ugap, pp (8) = (7)+(4)*(6)	0.5	New ugap, pp (14) = (8)+(3)	5.5
Crisis ugap increase, pp (3)	5	Intial loss (9) = (7)^2	0	Intial loss (15) = (13)^2	25
d(ugap)/di (4)	0.5	New loss (10) = (8)^2	0.25	New loss (16) = (14)^2	30.25
d(Crisis probability)/di (5)	-0.1	Loss increase (11) = (10)-(9)	0.25	Loss increase (17) = (16)-(15)	5.25
Policy-rate increase (di), pp (6)	1	Prob-weighted loss incr. (12) = [1-(2)]*(11)	0.235	Probability-weighted loss incr. (18) = (2)*(17)	0.315
				Cost (19) = (12)+(18)	**0.55**
Note: Loss is the squared unemployment gap. "Cost" is the expected loss increase at the inital probability of a crisis. "Benefit" is the reduction in the expected crisis loss increase due to a reduction in the probability of a crisis. "Net Cost" is "Cost" less "Benefit". The square root of "Net Cost" is its unemployment-gap equivalent.				Crisis probability reduction, pp (20) = -(5)*(6)	0.10
				Crisis loss increase (21) = (17)-(11)	30
				Benefit (22) = (20)*(21)	**0.03**
				Net Cost = Cost - Benefit (23) = (22)-(19)	**0.52**
				Benefit / Cost (24) = (22)/(19)	**0.055**
				Net Cost, ugap equivalent, pp (25) = sqrt(23)	**0.72**

- Cost exceeds benefit by substantial margin
- Higher initial crisis probability and/or higher crisis unemployment gap (because of less effective macroprudential policy) increase cost more than benefit; makes case against leaning against the wind even stronger

Simplified example from Svensson (2015), "Cost-Benefit Analysis of Leaning Against the Wind: Are Costs Larger Also with Less Effective Macroprudential Policy?" IMF Working Paper, forthcoming.

Marginal cost, marginal benefit, and net marginal cost of increasing the policy rate 1 pp qtr 1-4; Quadratic loss
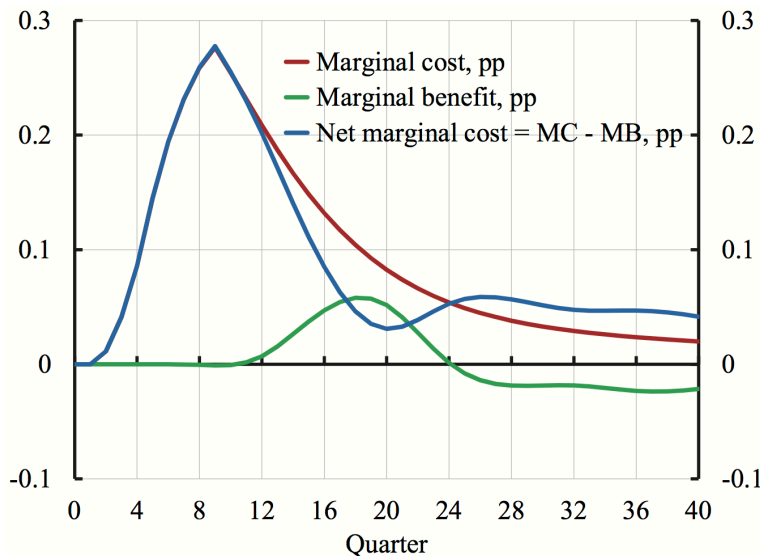
Source: Svensson (2015), "Cost-Benefit Analysis of Leaning Against the Wind: Are Costs Larger Also with Less Effective Macroprudential Policy," IMF Working Paper, forthcoming.

3. Conduct monetary policy (MP) and financial-stability policy (FSP) separately

- **MP and FSP very different**
- Different *goals:* Price stability and full employment vs. "financial stability"

    "Financial stability": Financial system fulfilling 3 main functions (submitting payments, transforming saving into financing, allowing risk management/sharing) w/ sufficient resilience to disturbances that threaten those functions

- Different *instruments*: Policy rate and communication vs. regulation, supervision, stress tests, communication…
- Different responsible *authorities*: Central bank vs. central bank, FSA, Treasury, other authorities (varies across economies)

3. Conduct monetary policy (MP) and financial-stability policy (FSP) separately

- **MP should not have a financial stability as a goal**
- Economic policies should only have goals that they can achieve
- Monetary policy can stabilize inflation around an inflation target and resource utilization around its estimated long-run rate (thus suitable goals)
- Monetary policy cannot achieve financial stability
- There is no way monetary policy can achieve sufficient resilience of the financial system
- Leaning against the wind? Existing empirical and theoretical evidence says costs higher than benefits
- Effect of policy rate on probability and/or severity of crisis too small

3. Conduct monetary policy (MP) and financial-stability policy (FSP) separately

- **Jeremy Stein (2013)**:

  "[W]hile monetary policy may not be quite the right tool for the job, it has one important advantage relative to supervision and regulation – namely that [the interest rate] gets in all of the cracks."

- But empirical evidence indicates that a modest policy-rate increase will barely cover the bottom of those tracks

- To fill the cracks, the policy rate would have to be increased so much that it would kill the economy

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3. Conduct monetary policy (MP) and financial-stability policy (FSP) separately

- Strong case for separate decision-making bodies w/ separate goals and instruments but full info about conduct of each other's policy
- MP much more effective in achieving MP goals;
  FSP much more effective in achieving financial stability
- Accountability and efficiency justifies all FSP instruments in one authority
- Two clean but different models: UK and Sweden
- UK: Same institution, different committees (Kohn 2015)
- Sweden: Riksbank monetary policy, no FSP instruments; FSA has FSP, all FSP instruments; Financial Stability Council (MoF, FSA, NDO) (Svensson 2015 Boston)

Optimal design for monetary policy in the post-crisis period: Conclusion

1. Do forecast targeting
2. Do not lean against the wind for financial stability purposes unless supported by thorough cost-benefit analysis
3. Conduct monetary policy and financial-stability policy separately, with separate decision-making bodies, also when conducted by same institution