

Monetary Policy and Macroprudential Policy: Which One to Use for What?

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in the Post-Crisis World

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Questions and answers, and a principle

Q: Monetary policy and prudential regulation: Which tools to use when?

Q: Monetary policy and macroprudential policy: **Which policy to use for what?**

A: Use **monetary policy** to achieve and maintain **price stability and full employment**

A: Use **macroprudential policy** to achieve and maintain **financial stability**

A: Do **not** use **monetary policy** to achieve and maintain **financial stability**

Q: **Why?**

A: **Because monetary policy can't do it!**

A: Do **not** use **macroprudential policy** to achieve and maintain **price stability and full employment**

Q: **Why?**

A: **Because macroprudential policy can't do it!**

▪ **Economic policies should only have goals that they can achieve!**

Summary 1

- Monetary policy and macroprudential (financial-stability) policy are **very different**: Different goals, instruments, authorities
- They affect each other, but **not systematically**
- Each is much more effective in achieving its own goals
- **Best conducted separately**, each fully informed about and taking into account the conduct of the other (Nash equilibrium, not coordinated)
 - **Best target achievement; clear accountability for each policy**
 - By **separate authorities** (Sweden)
or by **separate committees** if same authority (BoE: Kohn, Tucker)
- The separation refers to *normal* times, *crisis prevention*
- In *crisis* times, *crisis management*, full cooperation of all the relevant authorities
- Note: **Monetary and fiscal** policies are **closer**, have **systematic** effects on each other, but are still **conducted separately**

Summary 2

- Lean against the wind
 - Empirical results indicate that costs exceed benefits by substantial margin (5-40 std. errors)
 - Do LAW **only after** support from a thorough and convincing cost-benefit analysis
 - Remember the Swedish experience of LAW

How can monetary and macroprudential policies be distinguished? Monetary policy

- Goals (simple)
 - Price stability and full employment
 - Stabilize inflation around inflation target and unemployment around its long-run sustainable rate
- Instruments
 - Normal times: Policy rate and communication (forecasts, forward guidance, ...)
 - Crisis times, crisis management: Unconventional measures, balance sheet policies (QE), FX policy (interventions, currency floors) ...
- Authority: Central bank

How can monetary and macroprudential policies be distinguished? Macroprudential policy

- Goal (complex)
 - **Financial stability**
 - Definition: Financial system can fulfill its 3 main functions (submitting payments, transforming saving into financing, and allowing risk management/sharing), with sufficient **resilience** to disturbances that threaten those functions
 - **Resilience** crucial
 - Also secondary goal: Support government policies
 - Not the stability of the graveyard (Tucker: Decision on standard of resilience)
- Instruments
 - Normal times, crisis prevention: Supervision, regulation, communication, stress tests ...
 - Crisis times, crisis prevention: ...
- Authority(ies)
 - Varies across countries: FSA(s), CB, Treasury, ...
- **Monetary and macroprudential policies are very different**

Should monetary policy have a third goal, financial stability?

- Answer: No
- **Economic policies should only have goals that they can achieve**
- Monetary policy **can** achieve price stability and full employment (thus suitable goals)
- Monetary policy **cannot** achieve financial stability (thus not suitable goal)
- There is no way monetary policy can achieve sufficient resilience of the financial system
- **No systematic effects** of MP on financial stability: Signs often indeterminate, effects normally small
- Leaning against the wind?

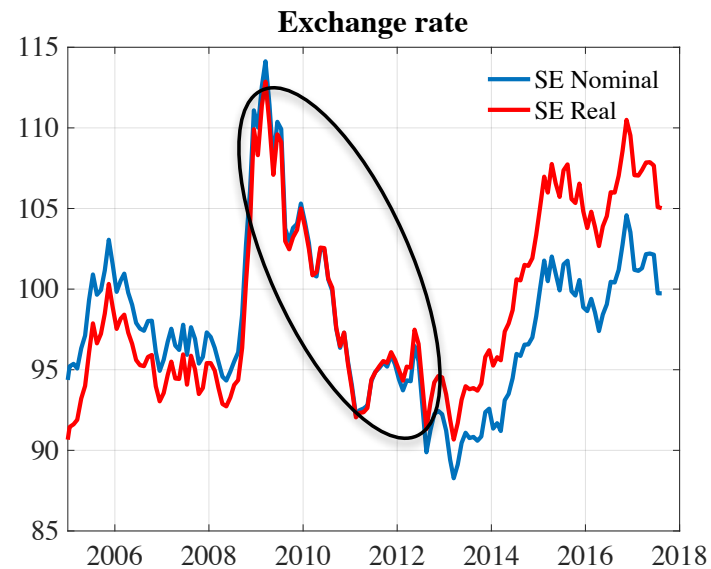
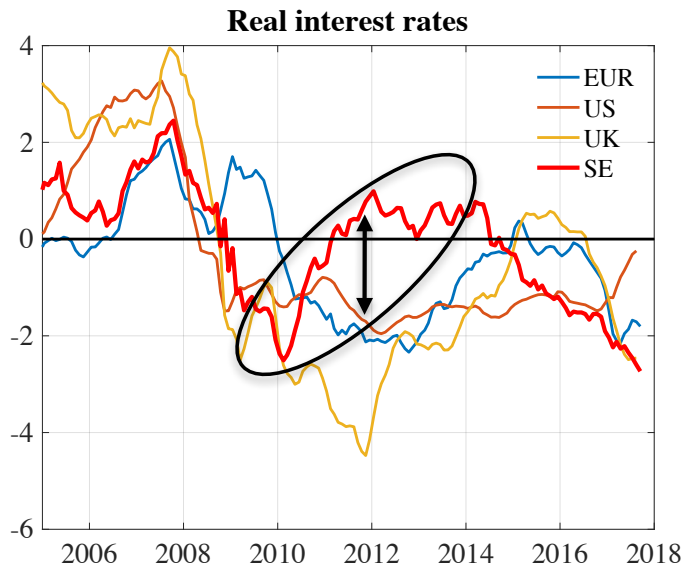
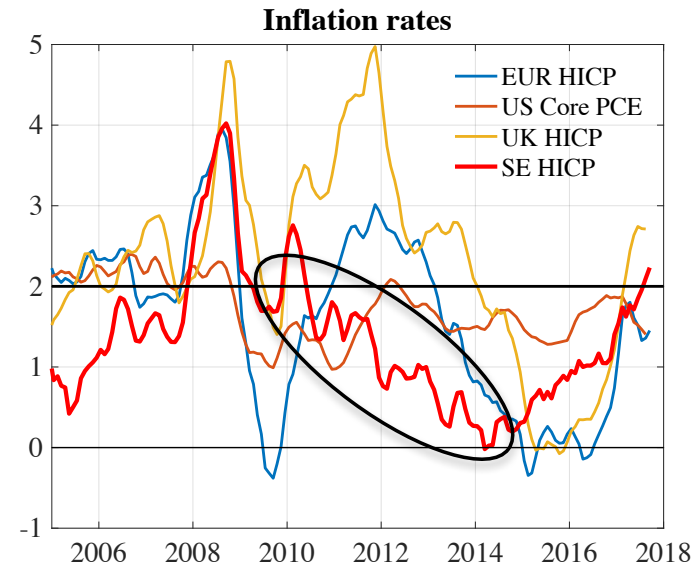
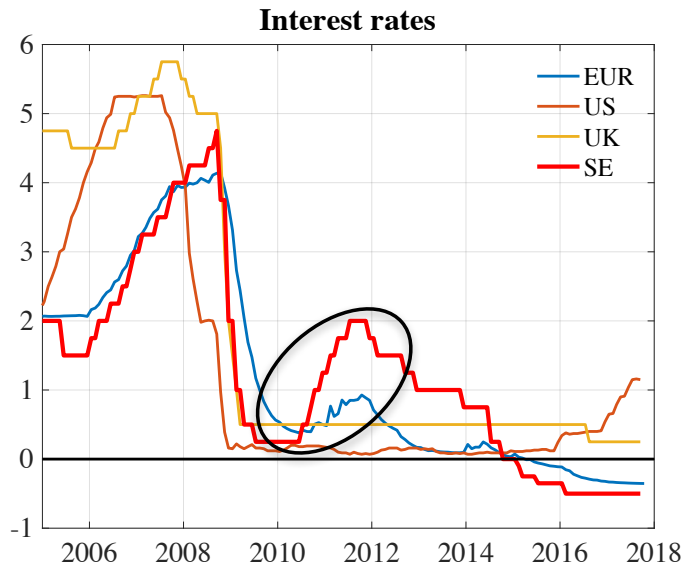
Theoretical and empirical arguments

- Best **theoretical** argument (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 **it gets in all of the cracks**”
- But **empirical** estimates indicates that a modest policy-rate increase will **barely cover the bottom of those cracks**
- To fill the cracks, the policy rate would have to be increased so much that it might kill the economy
- **Qualitative** results are not enough;
quantitative results are needed

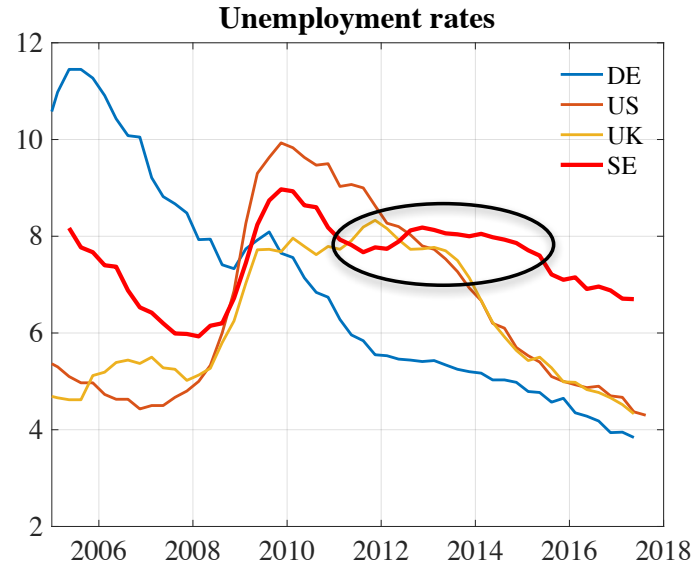
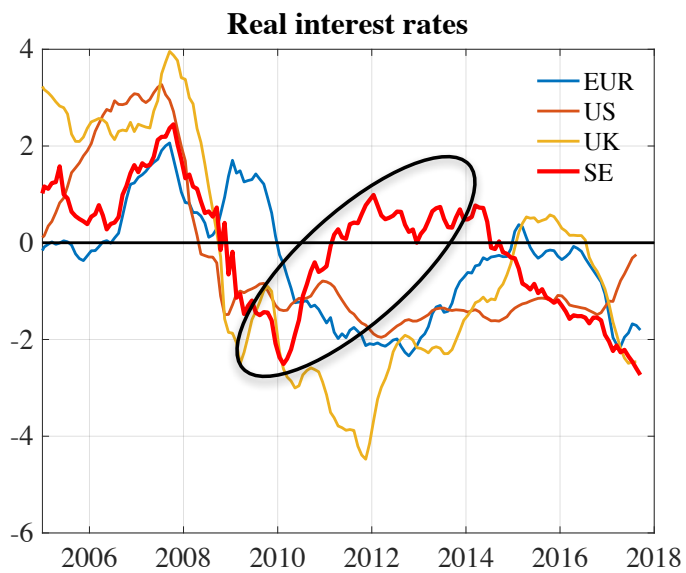
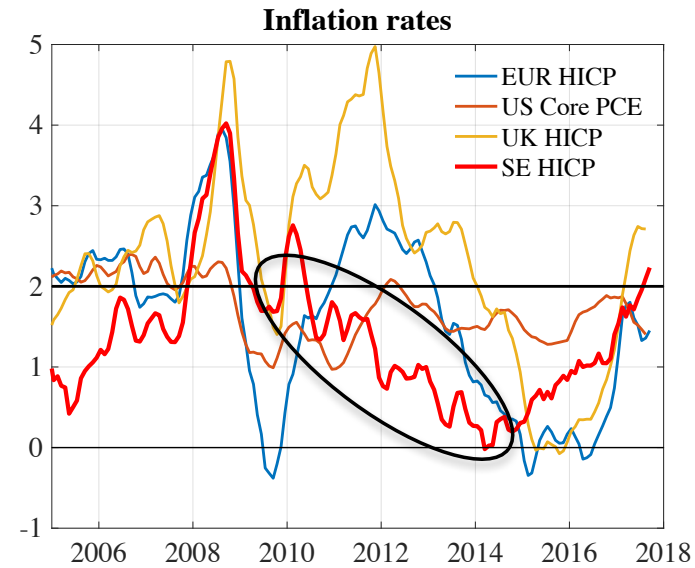
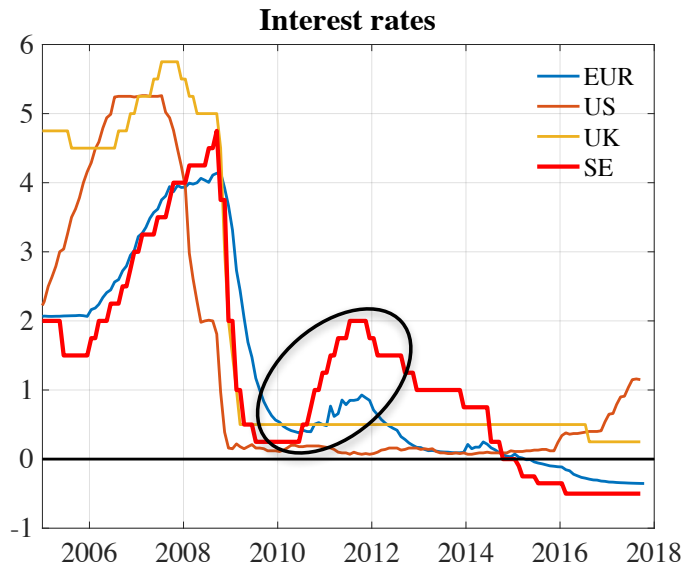
Leaning against the wind (LAW)

- Policy strongly promoted by BIS
- Followed by Norges Bank
- Previously followed by the Riksbank, but now dramatically abandoned

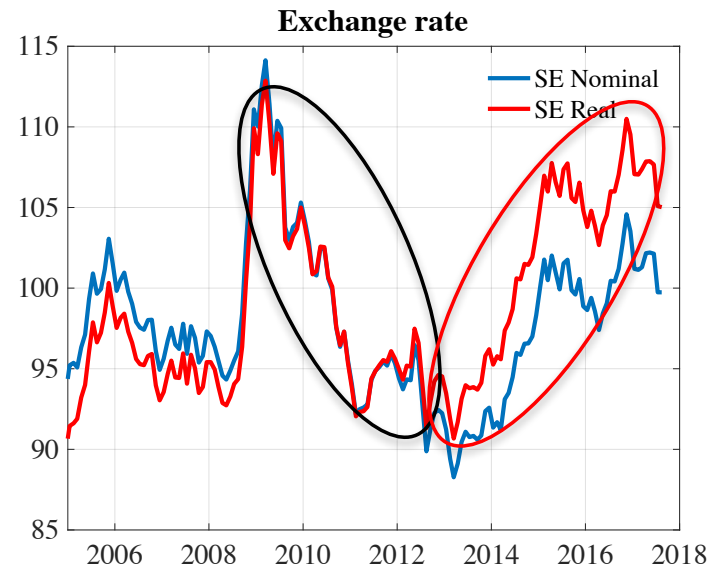
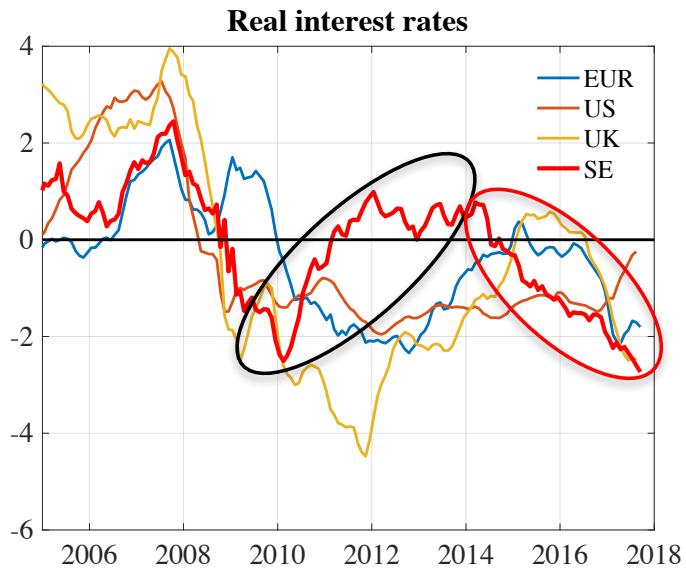
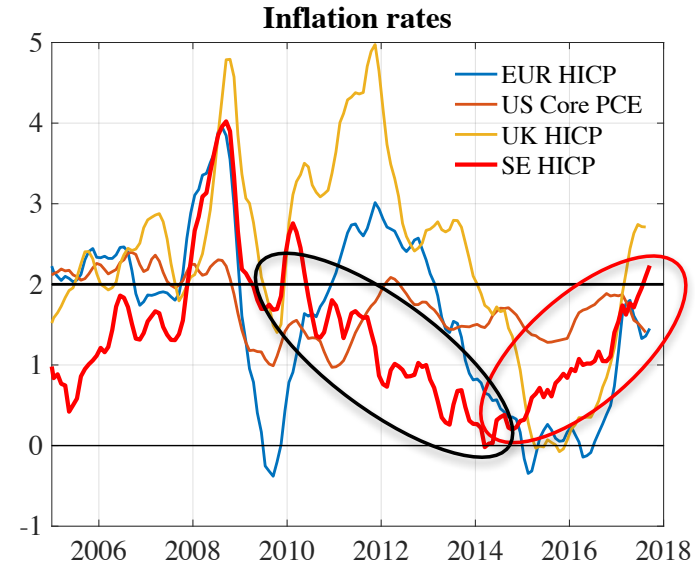
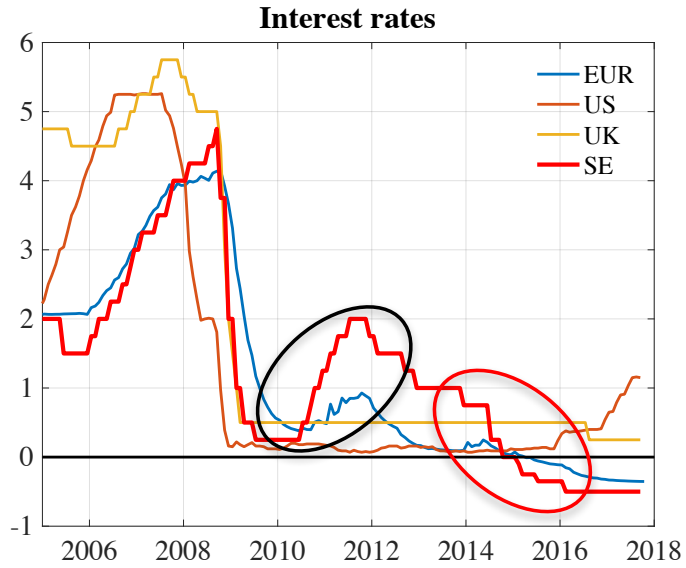
The Swedish experience: LAW



The Swedish experience: LAW

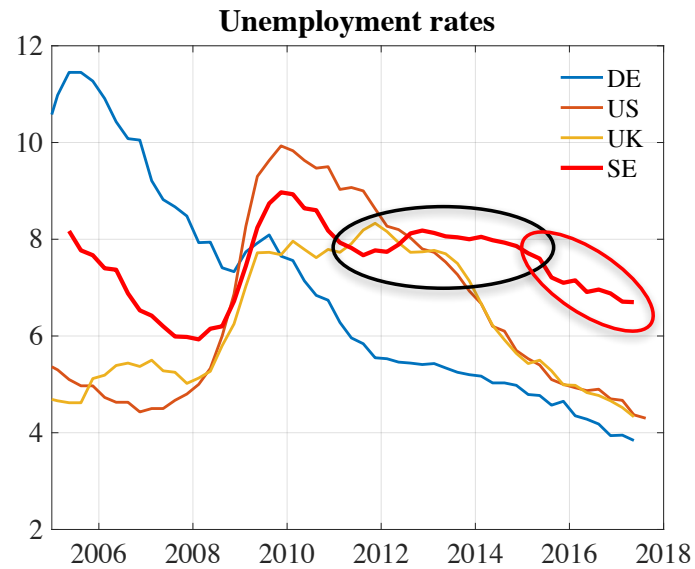
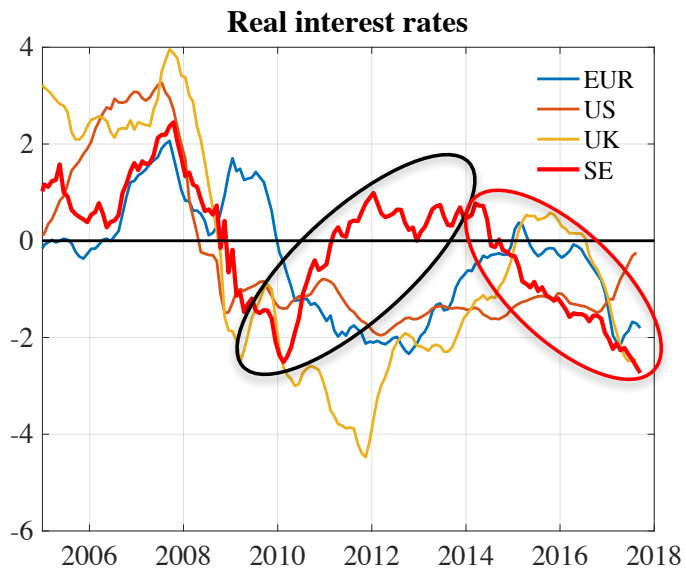
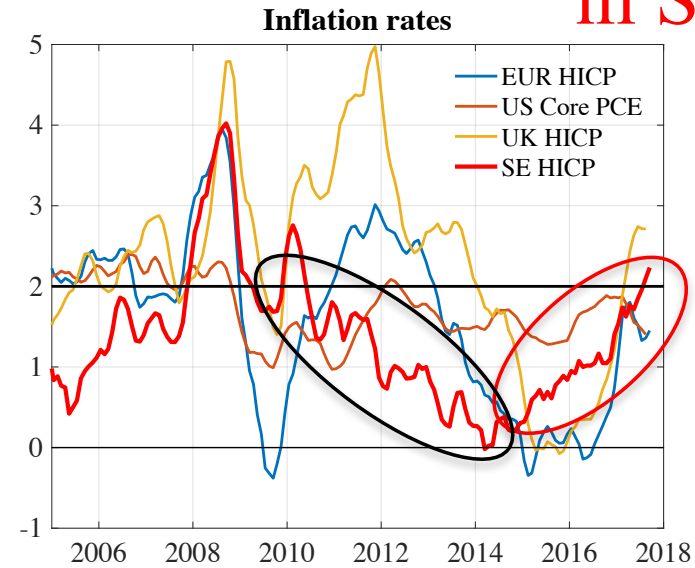
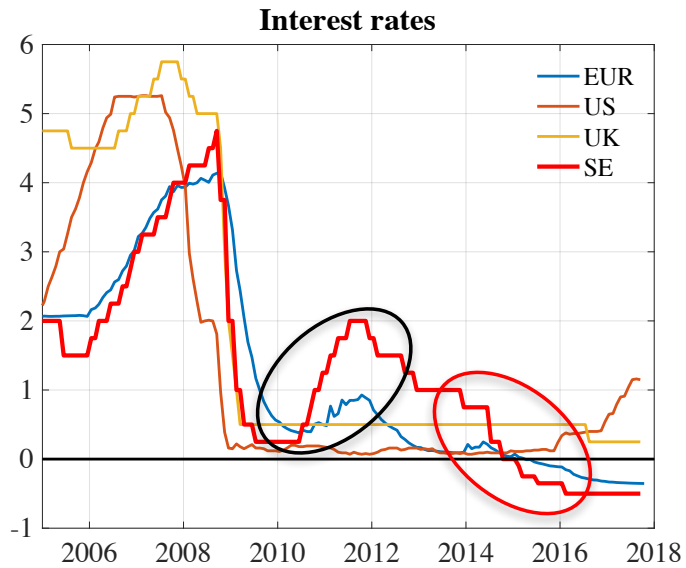


The Swedish experience: Turnaround



The Swedish experience: Turnaround.

MP works
in Sweden!



Leaning against the wind (LAW)?

- Widespread skepticism against LAW leaning beyond BIS and Norges Bank
- Bernanke; Draghi; Yellen; Evans; Williams; IMF 2015; FOMC 2016; Allen, Bean, De Gregorio 2016, “Independent Review of BIS Research”; Sveriges Riksbank 2017
- But the debate seems to continue

Widespread skepticism against LAW

- **Bernanke (2015)**: “As academics (and former academics) like to say, more research on this issue is needed. But the **early returns don't favor the idea** that central banks should significantly change their rate-setting policies to mitigate risks to financial stability.”
- **Evans (2014)**: “Indeed, any decision to instead rely on more-restrictive interest rate policies to achieve financial stability at the expense of poorer macroeconomic outcomes must pass a cost–benefit test. And such a test would have to clearly illustrate that the adverse economic outcomes from more-restrictive interest rate policies would be better and more acceptable to society than the outcomes that can be achieved by using enhanced supervisory tools alone to address financial stability risks. **I have yet to see this argued convincingly.**”
- **Williams (2015)**: “[M]onetary policy is **poorly suited** for dealing with financial stability, **even as a last resort.**”
- **IMF (2015)**, “The question is whether monetary policy should be altered to contain financial stability risks. ... Based on our current knowledge, and in present circumstances, the **answer is generally no.**”
- **FOMC (2016)**: “Most participants judged that the **benefits** of using monetary policy to address threats to financial stability would **typically be outweighed by the costs** ... ; some also noted that the **benefits are highly uncertain.**”
- **Allen, Bean, and De Gregorio (2016), “Independent Review of BIS Research”**: “so far the **[BIS] argument for LAW** seems to have **cut relatively little ice** with those actually responsible for setting monetary policy. In part, that is because of the **lack of convincing evidence** that the expected benefits outweigh the expected costs.
...in some cases the research programme appeared **somewhat one-eyed**. [Of 9 projects on financial stability and monetary policy] the first and (to some extent) the fifth seem **motivated primarily by a desire to overturn Svensson's [2017] conclusion on the inadvisability of LAW.**
...the research effort ... seems **excessively focussed on building the case for LAW**, rather than also investigating the scope for other policy actions to address financial stability risks.” [Reference updated.]
- **Sveriges Riksbank (2017, p. 13)**: “It is not likely that small increases in the repo rate would have any tangible effects on household indebtedness. **A large increase in the repo rate could certainly slow down the buildup of debts but would also lead to higher unemployment, a much stronger krona and lower inflation.** Other measures more specifically aimed at reducing the risks associated with household debt have less negative effects on the economy as a whole.”

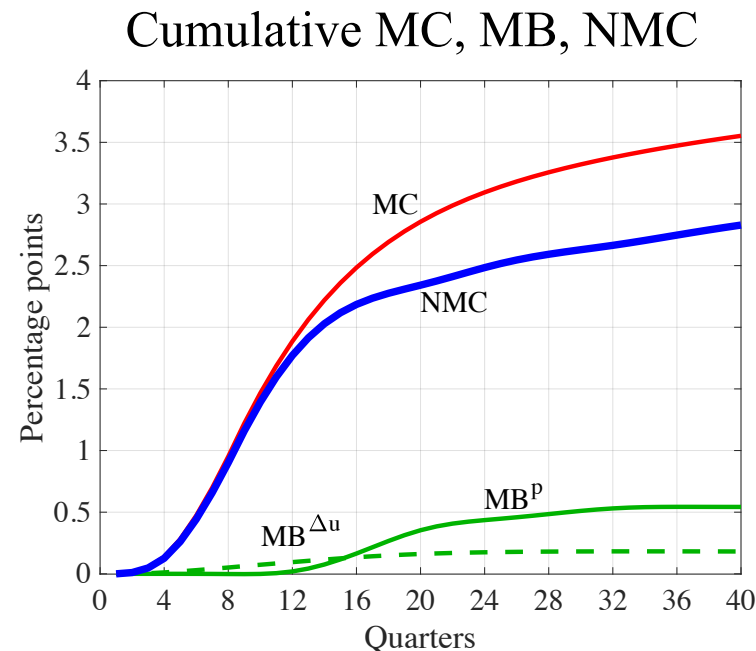
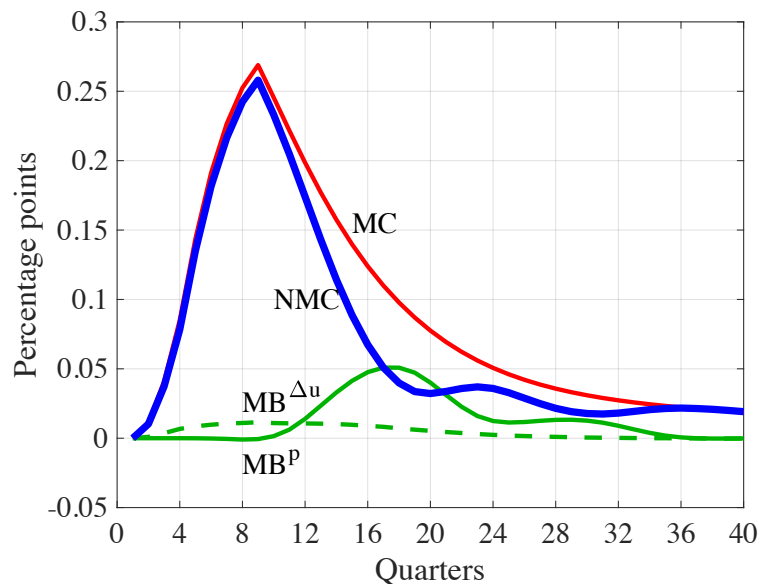
Cost-benefit analysis of leaning against the wind

- Costs of higher policy rate:
A weaker economy: Lower inflation and higher unemployment
 - If no crisis (1st cost)
 - *If* crisis occurs (2nd cost); the cost of a crisis is higher if the economy is initially weaker because of LAW (the main cost)
 - 2nd cost disregarded in previous literature (including my own work)
- Possible benefits: Lower probability or magnitude of crisis
- Empirically, costs exceed benefits by a substantial margin
- Reason: Policy-rate effects on probability and magnitude too small
- Somewhat surprisingly, **less effective macroprudential policy**, with higher probability, larger magnitude, or longer duration of a crisis tends to **increases costs more than benefits** (increases 2nd cost)
- Robust result: **Overturing** it requires policy-rate effects **5-40 std. errors larger** than benchmark empirical estimates

Svensson (2017), “Cost-Benefit Analysis of Leaning Against the Wind,”
Journal of Monetary Economics 90 (October)

Cost-benefit analysis of LAW:

MC, MB, NMC = MC – MB,
and Cumulative MC, MB, NMC



- $MC_t = 2p_t\Delta u \frac{du_t}{di}$; $MB_t^p = (\Delta u)^2(-\frac{dp_t}{di})$; $MB_t^{\Delta u} = 2p_t\Delta u(-\frac{d\Delta u_t}{di})$
- Inputs: Probability of crises (p_t); magnitude of crises (Δu); policy-rate effects on unemployment (du_t/di), probability (dp_t/di), and magnitude ($d\Delta u_t/di$)
- Few assumptions, very simple, transparent (preferred to complicated analysis)
- Easy to redo
- Framework for comparing new and old results

Systematic LAW?

- Implies lower average inflation and interest rates, larger risk for ELB
- Policy rule, no LAW: $i_t = r + \pi_t + \gamma(\pi_t - \pi^*)$
- Take (unconditional) mean: $E[i_t] = r + E[\pi_t] + \gamma(E[\pi_t] - \pi^*)$ (1)
- Assume avg Fisher eqn: $E[i_t] = r + E[\pi_t]$ (2)
- By (1) and (2): $E[\pi_t] = \pi^*, \quad E[i_t] = r + \pi^*$
- LAW: $i_t = r + \pi_t + \gamma(\pi_t - \pi^*) + \alpha_t, \quad E[\alpha_t] = \alpha > 0$
- Take mean: $E[i_t] = r + E[\pi_t] + \gamma(E[\pi_t] - \pi^*) + \alpha$ (3)
- By (2) and (3) : $E[\pi_t] = \pi^{**} \equiv \pi^* - \alpha/\gamma < \pi^*$
 $E[i_t] = r + \pi^{**} < r + \pi^*$
- **Lower** average inflation and policy rate
- **Larger** risk for ELB
- **Good?**

Summary 1

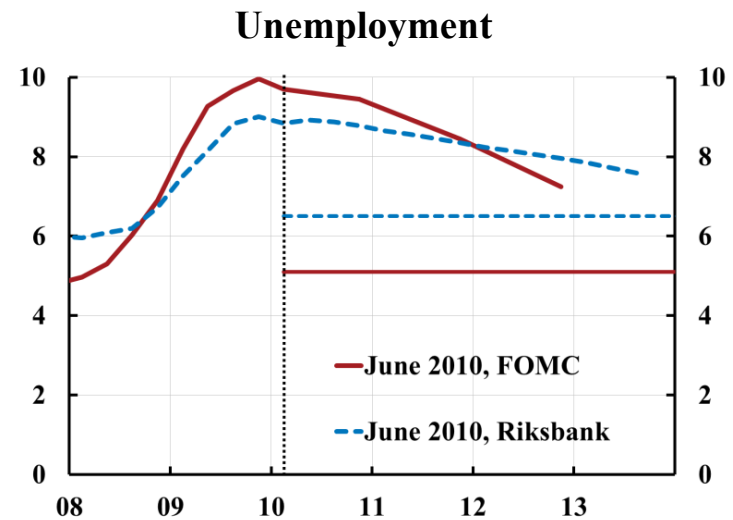
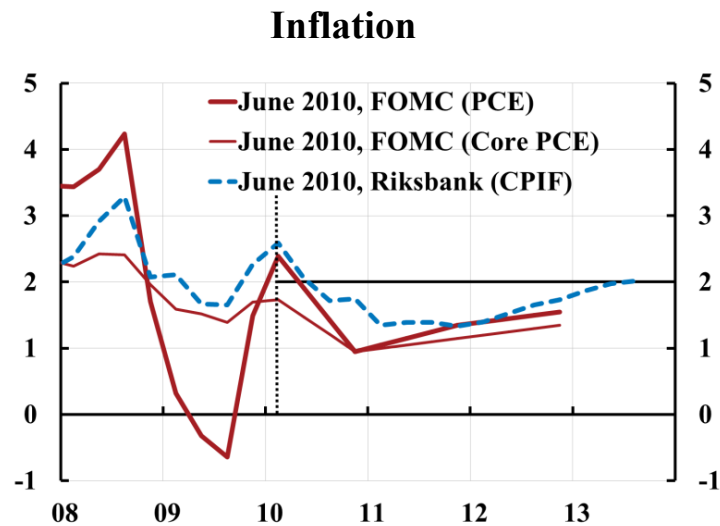
- Monetary policy and macroprudential (financial-stability) policy are very different: Different goals, instruments, authorities
- They affect each other, but **not systematically**
- Each is much more effective in achieving its own goals
- Best conducted separately, each fully informed about and taking into account the conduct of the other (Nash equilibrium, not coordinated)
 - **Good target achievement; clear accountability**
 - Also when conducted by same authority: Two committees (Kohn, Tucker)
- This in normal times, crisis prevention; in crisis times, crisis management, full cooperation
- Monetary policy and fiscal policy closer, systematic effects, still independently conducted

Summary 2

- Leaning against the wind (LAW)?
 - Empirical results indicate that costs exceed benefits by substantial margin (5-40 std. errors)
 - Do only after support from thorough and convincing cost-benefit analysis
 - Don't forget the Swedish example
 - Systematic LAW implies lower inflation and interest rates
- **Economic policies should only have goals that they can achieve!**

Additional slides

Fed and Riksbank forecasts June 2010



- Riksbank and Fed forecasts quite similar
- Policies very different
 - Fed: Continue to keep policy rate between 0 and 0.25%, forward guidance, prepare QE2
 - Riksbank: Start raising the policy rate from 0.25 to 2% in July 2011
 - Imagine if it had been the other way around?

Source: Svensson, Lars E.O. (2011), "Practical Monetary Policy: Examples from Sweden and the United," *Brookings Papers on Economic Activity*, Fall 2011, 289-332.

Two clean models for monetary and macroprudential polices

- UK: Same authority (BoE)
 - Two committees (MPC & FPC), separate goals and instruments, full information about each other's policy
 - Clear accountability
- Sweden (Canada, Chile?): Separate authorities
 - Riksbank, monetary policy, no macroprudential instruments
 - FSA, financial stability, all macro- and microprudential instruments,
 - Financial Stability Council (MoF, FSA, RB, NDO (resolution)), information exchange, working groups, no decision power.
(In crisis: Leads crisis management)
 - Clear accountability

Swedish model

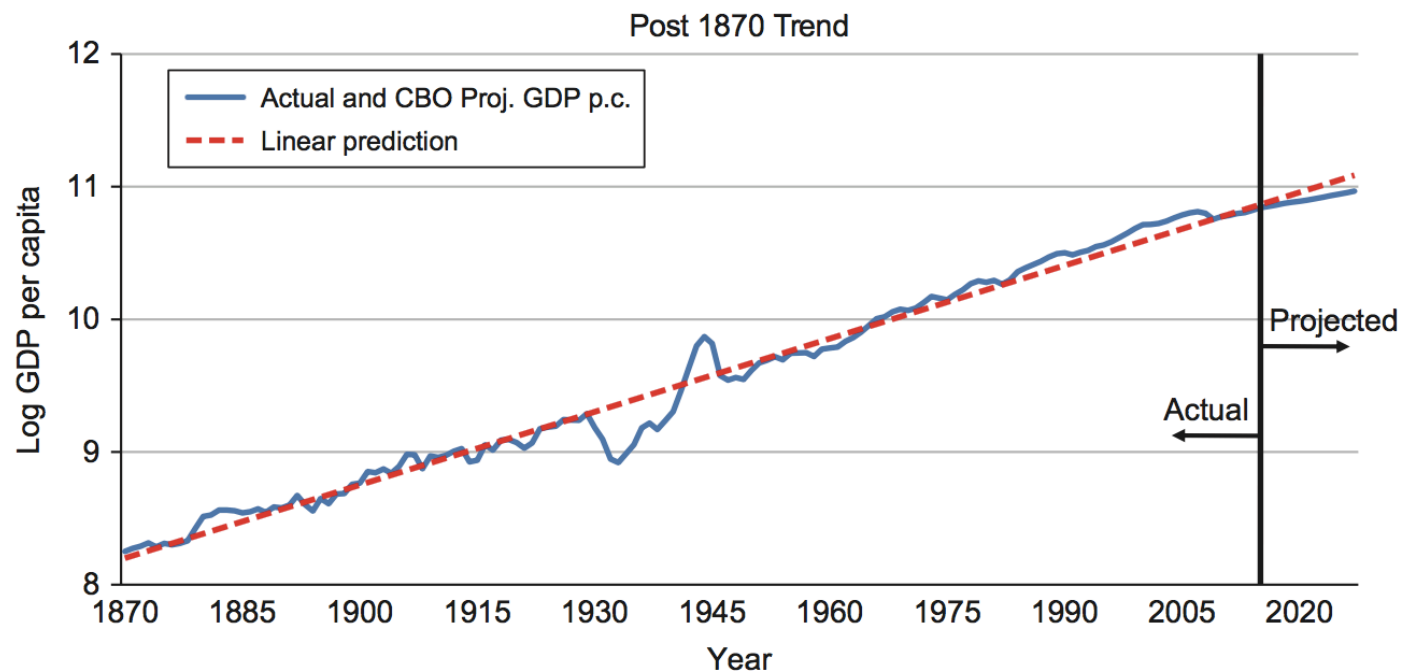
- Gov't Aug 2013: New strengthened framework for financial stability
- Swedish FSA
 - Main responsibility for financial stability
 - All macro- and microprudential instruments
 - Boundary between macro- and microprudential policy unclear, especially in Sweden (oligopoly of 4 banks dominate financial sector)
 - Efficiency and accountability: Micro- and macropru together, in one authority
 - But legal authority remain to be fixed
- Riksbank
 - No macroprudential instruments
- Financial Stability Council
 - Members: MoF (chair), FSA, NDO (bank resolution authority), RB
 - Forum for discussion and exchange of information, not decisions
 - Published minutes, reports from workgroups
 - FSC will lead crisis management in crisis

What if monetary policy would pose a threat to financial stability?

- BoE model, Aug 2013, forward-guidance promise
- 3rd knockout: FPC would judge that MP poses a significant threat to financial stability that it cannot contain with its instruments
- It should be the macroprudential authority, not the monetary policy one, to make judgment and to warn the
- Monetary policy authority may then adjust monetary policy or not
- Effectively “comply or explain”
- Preserves independence of monetary policy

Permanent loss from crises?

Figure 1: Actual and predicted (2016–25) log US GDP *per capita* along with linear trend



Source: US Congressional Budget Office. The linear prediction is a regression on the full sample 1870–2025.

Source: Lindé (2017), “DSGE models: still useful in policy analysis?”