### Monetary Policy Strategy: What Have We Learned From the Crisis

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#### OUTLINE

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## Science of Monetary Policy Before the Crisis

#### NINE BASIC PRINCIPLES

Frederic S. Mishkin, "Will Monetary Policy Become More of a Science?" in Deutsche Bundesbank, ed., *Monetary Policy Over Fifty Years: Experiences and Lessons (Routledge: London* 2009), pp. 81-107, written before September 2007

### Science of Monetary Policy Before the Crisis: Nine Principles

- 1. Inflation is always and everywhere a monetary phenomenon
- 2. Price stability has important benefits
- There is no long-run tradeoff between unemployment and inflation
- 4. Expectations play a crucial role in the determination of inflation and in the transmission of monetary policy to the macroeconomy

### Science of Monetary Policy Before the Crisis: Nine Principles

- 5. Real interest rates need to rise with higher inflation, i.e., the Taylor Principle
- 6. Monetary policy is subject to the timeinconsistency problem
- 7. Central bank independence helps improve the efficiency of monetary policy
- 8. Commitment to a strong nominal anchor is central to producing good monetary policy outcomes
- 9. Financial frictions play an important role in business cycles

### Science of Monetary Policy Before the Crisis: Nine Principles

- Complete agreement on first 8 principles in central banks and academia
- Ninth principle is well understood by many in central banks, but financial frictions are not explicitly part of models used for policy analysis and forecasting at central banks

### Science of Monetary Policy Before the Crisis: Theory of Optimal Monetary Policy

- Objective Function
- Constraints
- Both Embody first 8 principles
- Two other key elements:
- Linear-quadratic (LQ) Framework
   No non-linearity
- Representative Agent Framework
   No financial frictions

#### Science of Monetary Policy Before the Crisis: Certainty Equivalence, Gradualism and Risk Management

LQ implies certainty equivalence and gradualism

Policy rates moved gradually in practice

 Central banks' discomfort with LQ and certainty equivalence led to informal discussion of "risk management"

Some awareness that they had to worry about tail risk of very bad economic outcomes

# Science of Monetary Policy Before the Crisis: Dichotomy Between Monetary Policy and Financial Stability Policy

- Central bankers were aware that financial disruptions could do serious harm to economy Reason for Financial Stability Reports
- But general equilibrium frameworks in use at central banks led to dichotomy between monetary policy and financial stability policy
  - M-policy focuses on stabilizing inflation and output
  - Prudential supervision stabilizes financial system

#### Science of Monetary Policy Before the Crisis: Monetary Policy and Asset Price Bubbles: "Lean" Versus "Clean" Debate

- Some economists (particularly at BIS) argued that monetary policy should "lean" against asset-price bubbles
- "Greenspan doctrine": monetary policy should not lean but should "clean" after the bubble bursts generally accepted
  - 1. Bubbles hard to detect
  - 2. Monetary policy may be ineffective in stopping bubbles
  - 3. Monetary policy is too blunt a tool
  - 4. Pricking a bubble may be too costly
  - 5. Cleaning up after bubble not too costly

# How Has the Crisis Changed Our Thinking

- Thinking
  1. Developments in financial sector have a far greater impact on economic activity than we earlier realized.
- 2. The macro economy is highly nonlinear.
- 3. The zero lower bound is more problematic than we realized.
- 4. The cost of cleaning up after financial crises is very high.
- 5. Price and output stability does not ensure financial stability.

### How Much of the Science of Monetary Policy Needs to be Altered?

- None of the lessons from the financial crisis in any way undermines or invalidates the nine basic principles of the science of monetary policy developed before the crisis.
- On the other hand, the lessons from the crisis do undermine two key elements of the precrisis theory of optimal monetary policy: LQ and representative agent frameworks with no financial frictions

## Monetary Policy Strategy Implications: Flexible Inflation Targeting

 Basic principles of flexible inflation targeting still hold up:

There should be a strong credible commitment to stabilize inflation in the long run by having an explicit inflation objective, and there should be flexibility to pursue policies to stabilize output around its natural rate level in the short run.

But needs to be modification of details as discussed below

# Monetary Policy Strategy Implications: Flexible Inflation Targeting

- Level of inflation target
  - argument for it to be at higher end of range that FOMC participants have articulated
  - but not to be at 4% as IMF has suggested
- Price level targeting
  - stronger argument for PT, but communication challenges are serious

# Monetary Policy Strategy Implications: Risk Management and Gradualism

- Financial frictions and nonlinearities support risk management approach
  - timely (preemptive)
  - decisive
  - policy flexibility
- No gradualism when dealing with financial disruptions
- Needs flexible IT to anchor inflation expectations

- Two types of asset-price bubbles
  - irrational exuberance
  - credit-driven bubbles, which are the dangerous ones
- Suggests debate on lean versus clean has been miscast
- Strong arguments for leaning against credit bubbles (but not asset-price bubbles per se)
- Macroprudential regulation and supervision should be first line of defense

- There is case for monetary policy to lean against credit bubbles
- Easy monetary policy can promote excessive risk dubbed "risk-taking channel of monetary policy"
  - search for yield
  - valuation effects can cause leverage cycle
  - predictable policy lowers risk premiums
  - Greenspan put can create form of moral hazard

- Should monetary policy be used to lean?
- Objections:
  - Ones earlier
  - Violates Tinbergen principle that monetary policy should be used to stabilize economy while macroprudential polices should stabilize financial system

- But macroprudential policies may not be effective and so monetary policy may be needed
  - prudential policies more subject to political pressure than monetary policy because they affect bottom line of financial firms more directly (e.g Basel 3)
  - expectations of leaning against credit market bubbles s will work to make this policy more effective.

- Low interest rates do not always imply excessive risk taking
- Need to monitor credit markets to assess if it is taking place:
  - credit spreads
  - credit growth
  - underwriting standards
- Research on what to monitor is starting but should have high priority at central banks

- Are low US interest rates and QE2 leading to credit bubbles now?
  - An argument to raise US raise rates and abandon QE2?
  - No: problem in US is not leveraging but deleveraging
- Is serious potential problem in emerging market countries
  - monetary policy to lean is often not available because of fixed exchange rate or because tighter monetary policy would just lead to capital inflows
  - macroprudential policies may be needed

# Monetary Policy Strategy Implications: No Dichotomy Between Monetary and Financial Policy

- Monetary and financial policies are intrinsically linked
- Need to coordinate monetary and financial policy provides another argument for central bank to be systemic supervisor and regulator

### Concluding Remarks: Lessons

- Bad news: clean up hugely costly because of once-in-a-hundred-year credit tsunami
- Good news: Much of monetary policy canon still holds up

Case for flexible inflation targeting as strong as ever

#### Concluding Remarks: Lessons

- Need to recognize financial disruptions and nonlinearities in policy framework
  - risk management
  - stronger case for monetary policy to lean against credit bubbles
  - need to monitor credit conditions
- Other good news from crisis:
  - new agenda for monetary policy research
  - central banking more exciting profession