Monetary Policy Transparency: A Financial System Perspective

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BSP-BIS Research Conference
Transparency and Communication in Monetary Policy
Bangko Sentral ng Pilipinas

Manila, 1 February 2008
Broad Notions of Transparency

• Promote better understanding of central bank objectives

• Promote better understanding of its reaction function

• Promote better understanding of its decision making procedure

These imperatives are an integral part of the accountability of the central bank.
Narrower Debate on Transparency

Debate turns on the transmission mechanism of monetary policy.

Two central propositions:

• Long rates are the prices that matter.
  – Overnight rate are important only as a way to influence expectations
  – Overnight rate have little significance as a price variable in its own right

• Expectations theory of the yield curve holds
  – Long rates are determined by the expectations of future short rates
  – Communication shapes expectations

(Blinder (1998), Bernanke (2004), Woodford (2005), Svensson (2004))
Policy Prescriptions on Communication

- More forward-looking statements on assessments: forecasts of future fundamentals, future path of short rates, etc.

- Greater guidance on future course of central bank actions:
  - short rates to be kept low for “considerable period” in 2003-2004 in the US
  - gradual adjustments, not drastic changes
First Proposition

“central banks generally control only the overnight interest rate, an interest rate that is relevant to virtually no economically interesting transactions. Monetary policy has important macroeconomic effects only to the extent that it moves financial market prices that really matter - like long-term interest rates, stock market values and exchange rates.” [Blinder (1998)]

Echoed by Bernanke (2004), Woodford (2005), Svensson (2004) and others.
First Proposition

• First proposition sits uncomfortably with the events in credit markets in 2007. Far from the short term rates being unimportant, they have been in the limelight, stealing all the headlines.

• Short rates figure prominently in debates on how much of the current credit crisis can be traced back to the low short term interest rates in the United States in 2002 - 2004.
"The simple expectations theory, in combination with the hypothesis of rational expectations, has been rejected many times in careful econometric studies. But the theory seems to reappear perennially in policy discussions as if nothing had happened to it. It is uncanny how resistant superficially appealing theories in economics are to contrary evidence. ⋅⋅⋅ " 
“... We are reminded of Tom and Jerry cartoons that precede feature films at movie theatres. The villain, Tom the cat, may be buried under a ton of boulders, blasted through a brick wall (leaving a cat-shaped hole), or flattened by a steamroller. Yet seconds later he is up again plotting his evil deeds.”
Symptoms of Failure of Expectations Theory

Controlling for risk premium, steep yield curve implies that high long yields will be cancelled out by capital losses, steepening the curve further.

Prediction. If the yield curve is unusually steep, it will steepen further.

In practice, unusually steep yield curve is more likely to become less steep, rather than steepen further (Campbell (1995)).

In short, markets appear to “overreact”.
Are Markets “Irrational”?

• In what sense is the market a single coherent agent, meeting the standards of consistency of beliefs?
  – We often speak informally of the “market’s expectations”
  – Formal models with a representative individual impose this as a matter of course
  – But is there a danger that we are misled by using oversimplified models?

• “Market’s expectations” is just a metaphor
  – There is no single individual called “the market”
  – Market prices are determined as the result of a complex interaction
  – Being able to handle conditional forecasts is not a matter of taking a stand on whether markets are rational or irrational.
Better to ask how market prices incorporate information from:

- public pronouncements,
- disclosures of financial distress,
- conditional forecasts of CB,
- etc.
**Dual Role of Central Bank**

1. Active, shaper of outcomes, influencing long-term rates, financial market prices

2. Vigilant observer of events for cues for future actions (in order to be more effective in (1)).

Does emphasis on (1) detract from (2)?

**Two Channels**

- Conveying authoritative information on fundamentals
- Coordinating role, due to beauty contests [other players’ beliefs about (1) matter]
Monetary Policy and Financial Markets

- Monetary policy works via the financial markets.

- Central banks have a large impact on financial markets (maybe too large an impact) via the coordinating role of prices and marking balance sheets to market.

- But this impact is not something that can be easily wielded to fine-tune prices.

Yield curve has important impact on markets, but wielding the yield curve as a tool of policy is a difficult task.
Evidence from Wall Street Investment Banks

Total Assets and Leverage

Lehman Brothers

Merrill Lynch

Morgan Stanley

Bear Sterns

Goldman Sachs

Citigroup Markets 98-04

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Figure 1:

Aggregate Leverage and Total Assets
Amplifying Mechanism

Target leverage
Stronger balance sheets → Asset price boom
Increase B/S size

Target leverage
Weaker balance sheets → Asset price decline
Reduce B/S size

Stronger balance sheets

Reduce B/S size

Asset price boom

Asset price decline
Aggregate Liquidity

Liquidity is the rate of growth of aggregate balance sheets.

Strong balance sheets $\Rightarrow$ surplus marked-to-market capital
$\Rightarrow$ “surplus capacity” in banking system

- For surplus capacity to be utilized, intermediaries expand their balance sheets.
  - On the liabilities side, take on more short-term debt.
  - On the asset side, search for potential borrowers

- How hard do financial intermediaries search for borrowers?
  - Sub-prime mortgage market
  - Debt financing of private equity / LBOs
Liquidity and Monetary Policy

What is the link between liquidity and monetary policy?

- Broad money is liability of deposit-taking banks.

- In financial systems dominated by deposit-taking banks, money stock tracks aggregate balance sheets.
  - 19th and early 20th centuries, developing countries today
  - but poor indicator of aggregate liquidity for market-oriented financial system

- Focus on the right analogies for classical notion of money.
  - Repos are the rightful successors of "money"
Yen Carry Trade
Hattori and Shin (2007)

Following the trail of leveraged bets

Wall St Bank
NY Head Office

Interoffice accounts

Wall St Bank
Japan Office

JPY interbank market

Japanese Banks

Hedge Fund
Interoffice Accounts of Japan Office

Assets
- interoffice assets
- Japanese securities
- call loans

Liabilities
- interoffice liabilities
- call money

Call money is transferred between accounts.

Japanese securities
- interoffice assets
- Japanese securities
- call loans

Call loans
- interoffice liabilities
- call money

Call loans and Japanese securities are matched.
Interbank Assets of Foreign Banks in Japan

Interbank Assets (Call Loan) of Foreign Banks in Japan
Interbank Liabilities of Foreign Banks in Japan

Interbank Liabilities (Call Money) of Foreign Banks in Japan
Net Interbank Assets of Foreign Banks in Japan

Net Interbank Assets of Foreign Banks in Japan
Net Interoffice Accounts of Foreign Banks in Japan

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Channeling of Yen Liquidity out of Japan

Scatter chart of change in net interoffice accounts against change in net call loans (units: 100 billion yen)
Carry Trades and VIX Index

Risk appetite as measured by the VIX index.
Impact on Exchange Rates of Carry Currencies (NZD/JPY)
Interest Rate Differential

Net interoffice accounts (in red, right hand scale) and difference between overnight rates in Japan and simple average of USD, EUR and AUD overnight rates (in green, left hand scale).
Interest Rate Differential

Scatter chart of the net interoffice accounts and interest rate differential

\[(t \text{ statistic } = -7.8)\]
Monthly Changes

Monthly changes in interest differential explain fluctuations in carry trade

[Graph showing the correlation between monthly changes in interest rate differential and net interoffice accounts (10 billion yen)]
Three Lessons

- Short rates are important prices in their own right. They determine the overall liquidity conditions in financial market.

- Emphasis on forward-looking nature of communication misses importance of liquidity.
  - Disclosures on forecasts of policy rate can exacerbate crowding out.
  - Forward-looking statements about future actions may distort prices (e.g. rates being held low “for a considerable period” in the U.S. in 2003 - 2004).

- There is a need to rehabilitate balance sheet quantities for monetary policy, but with one twist. Traditional preoccupation with the money...
stock should give way to other liabilities on banks’ balance sheets, notably collateralized borrowing.

All this is compatible with the broad notion of transparency and the imperative of central bank accountability.