Monetary policy in times of crisis: Lessons from OECD countries

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Setting the stage

- **Features of the crisis that have posed challenges for monetary policy**
  - Constraints on conventional responses and need for extraordinary measures

- **The dynamics of inflation**
  - Has the crisis affected the dynamics of inflation in a durable manner?

- **The policy challenges**
  - Multi-speed recovery and different policy requirements in mature and emerging-market economies

- **To sum up**
  - What lessons have we learned (are we learning) from the crisis to improve the conduct of monetary policy?
What flaws in conventional wisdom has the crisis revealed?

- Underestimation of the role of favourable-but-reversible supply shocks in the Great Moderation, leading to excessive policy accommodation (relative to normative rules) and complacency in the run-up to the crisis (Great Leveraging)

- Misperception that reliance on micro-prudential regulation and supervision alone would prevent a build-up and concentration of systemic risk; efficient markets paradigm

- Underestimation of cross-border and cross-market transmission of shocks in an environment of increased financial integration and innovation

Source: Pain and Rohn, 2011.
Conventional responses

- **In mature economies**
  - Concern about a deflationary spiral in the early phase of the crisis. But:
  - Zero-bound constraint and impairment of transmission mechanisms
  - Heightened uncertainty about the magnitude of slack given the nature of the crisis and effects on potential supply
  - **Policy response**: (conditional) commitment to long period of low rates

- **In emerging-market economies**
  - More room for action because of higher nominal interest rates and limited damage to credit transmission mechanism
  - But concern about the effect of capital repatriation and disorderly FX movements
  - **Policy response**: interest rate cuts in line with reaction functions, where well defined

Source: OECD.
Unconventional responses

• In mature economies
  – Increased liquidity provision, direct intervention in wider segments of the financial market, purchases of long-term government bonds, support for specific institutions (beyond the scope of lender-of-last-resort)
  – New liability management tools to keep the market rate on target: issuance of short-term central bank bills (BoE and SNB), government deposits (Fed) and creation of a deposit rate (Fed and BoJ)
  – Unconventional measures contributed to stabilizing financial markets and reducing yields on targeted instruments (Menegishi and Cournède, OECD, 2010)

• In emerging-market economies
  – A mix of the above, depending on country conditions, plus FX intervention, adjustment to reserve requirements and directed credit provisions

Source: OECD.
The dynamics of inflation during the crisis

• **In mature economies**

  – Some flattening of the Phillips curve and the stability of inflation expectations held up headline inflation and prevented slack from creating a destabilising deflationary spiral (White, 2008; Moccero, Watanabe and Cournède, OECD, 2011)

  – Transmission mechanisms may have changed in a durable manner, especially in view of massive deleveraging needs in mature economies (households, governments and financial institutions)

  – Price setting and structural parameters may also have changed in ways that have yet to be picked up in empirical analysis

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**Headline and core inflation**

12-month percentage change

Source: OECD.
In emerging-market economies

- Fairly stable inflation expectations and much less slack than in OECD countries
- Many countries have reaped the benefits of pre-crisis reforms and strengthening of policy frameworks, which created fiscal and monetary room for manoeuvre when the crisis struck

- Some evidence of changes in the dynamics of inflation (parameters of the Phillips curve, pass-through of FX to inflation, etc.) prior to the crisis (de Mello and Moccero, JIMF, 2010)
- Lower persistence of inflation due to reforms, including de-indexation
- Lower volatility of monetary policy has reduced volatility of inflation expectations (volatility spillovers) in some Latin American countries (de Mello and Moccero, JMCB, 2009)

Source: Central banks of Brazil, Chile, Colombia and Mexico.
Policy challenges (mature economies)

- **Timing and sequencing of conventional and unconventional normalisation**
  - Overarching objective of dealing with higher inflation and countering the associated risk that expectations may become unanchored, while continuing to provide support against a background of still substantial slack, ongoing fiscal consolidation and lower purchasing power due to higher commodity prices
  - Need to weigh the trade-offs between prolonged period of near-zero interest rates and risks to financial stability; unwind unconventional stimulus without undermining financial stability

- **Strengthening financial market policy**
  - Improve micro- and macro-prudential regulations and supervision, set mandates and instruments and assign them to relevant bodies; it is importance to recognise some political economy difficulties (e.g., macro-prudential regulations and housing price bubbles, setting up sectoral independent bodies)
    - Open question: how should central banks deal with asset price inflation (leaning-versus-cleaning arguments; new objective in the reaction function versus macro-prudential regulations)?
  - Deal with open issues: SIFIs, non-bank financial institutions, cross-border banking problems
Policy challenges (EMEs)

• Quelling inflationary pressures due to emerging supply constraints at home and high commodity prices
  – No re-parameterisation of monetary reaction function is required, conventional wisdom on how to deal with exogenous supply shocks remains
  – Effect of commodity price shocks on inflation is likely to be higher than in mature economies due to higher share of energy and especially food in CPI, but what about the effect on activity? Different transmission mechanisms?

• Dealing with capital inflows and associated risks
  – By facilitating the allocation of world saving between surplus and deficit countries, increased international financial integration and capital mobility are likely to support global growth, but they may also increase risks
    • Trends in capital inflows are important predictors of both the probability and the magnitude of current account reversals; different effects for portfolio flows and FDI (de Mello et al., 2011)
    • Credit boom in response to large capital inflows tends to be higher in countries with less flexible FX and more persistent for debt-driven episodes (Furceri et al., 2011a)
    • The probabilities of a sudden stop and banking crisis are higher after large capital inflows, especially for debt instruments than FDI (Furceri et al., 2011b)
There is increased acceptance of macro-prudential instruments to deal with risks, but a hierarchy of policy instruments, including capital controls, is needed (discussion in OECD, 2011).

Countries have accumulated reserves as a by-product of export-led growth and as a self-insurance device. However, in some countries, ratios of reserves to GDP are well above the levels warranted by long-run cross-country determinants (Vujanovic, 2011).

- FX intervention has been used to deal with volatility, although it is difficult to distinguish empirically FX targeting from volatility management (de Mello, Gnabo and Moccero, Int Finance, 2010)

- Over time, monetary transmission needs to be strengthened to make monetary policy more effective

- Policy requirements are country-specific and include greater flexibility in FX regime and credit allocation

| Table 1: Determinants of Exchange Rate Interventions in Brazil\(^a\) (Dep. Var.: Spot-Market Interventions, in USD Billions) |
|-----------------|-----------------|-----------------|-----------------|
|                | Model (1)       | Model (2)       | Model (3)       |
| Threshold 1 (\(\Theta_1\)) | -2.641***       | -2.643**        | -2.64**         |
|                  | [0.494]         | [0.496]         | [0.495]         |
| Threshold 2 (\(\Theta_2\)) | 0.887*          | 0.887*          | 0.919*          |
|                  | [0.470]         | [0.469]         | [0.471]         |
| FX deviation from trend (short term) | -0.033          | -0.032          | -0.036          |
|                  | [0.097]         | [0.098]         | [0.099]         |
| FX deviation from trend (medium term) | -0.123**        | -0.125**        | -0.123**        |
|                  | [0.055]         | [0.057]         | [0.058]         |
| FX volatility    | 0.022*          | 0.022*          | 0.022*          |
|                  | [1.120]         | [0.012]         | [0.012]         |
| Interest rate (one period ahead) | -0.004          | -0.017          | -0.022          |
|                  | [0.107]         | [0.139]         | [0.138]         |
| Interest rate (contemporaneous) | -              | 0.015           | -               |
|                  | -               | [0.105]         | -               |
| Interest rate (fitted from the Taylor rule) | -              | -               | -0.023          |
|                  | -               | -               | [0.115]         |
| Interest rate (residuals from the Taylor rule) | -              | -               | 0.097           |
|                  | -               | -               | [0.129]         |
| FX swaps         | -0.066          | -0.067          | -0.067          |
|                  | [0.055]         | [0.056]         | [0.057]         |
| Ratio of international reserves to imports | 0.185*          | 0.185*          | 0.181*          |
|                  | [0.11]          | [0.109]         | [0.108]         |
| Likelihood function | -155.04        | -155.03         | -154.87         |

\(^a\)The estimation period runs from July 1999 to March 2007. HAC robust standard errors are reported in square brackets.

\((***), (**), and (*)\) Statistical significance at the 1%, 5% and 10% levels, respectively.

Source: de Mello, Gnabo and Moccero (2010)
Bottom-line: lessons from the crisis

- There is now a large literature on the lessons from the crisis (Clarida, 2010; Bean et al., 2010; Mishkin, 2010; Ossing, 2011, among others)
  - Focus differs but there is broad consensus on the flaws in conventional wisdom and on-going discussions on the policy challenges ahead (some discussed earlier)

- Some features of monetary policy frameworks were particularly useful during the crisis and should be maintained
  - Central bank independence (to legitimise extraordinary measures, when needed), close coordination between policy objectives and instruments (to foster accountability and facilitate communication) and medium-term orientation (to maintain expectations well hinged and facilitate short-term management)
  - Is there a need for greater eclecticism in monetary policy strategies after the crisis?

- Recognition of the importance of having room for manoeuvre when a crisis breaks out
  - This is important for both mature and emerging-market economies, links between monetary and fiscal space, scope for counter-cyclicality when public finances are in disarray
Bottom-line: lessons from the crisis

• New elements need to be incorporated in policy strategies without rendering reaction function(s) overly complex and blurring the links between objectives and instruments, as well as spheres of responsibility
  – Open questions: How to deal with new objectives (financial stability, asset price inflation) and instruments (micro- and macro-prudential tools)? What analytical and communication challenges does it pose? How to integrate financial frictions in policy models? Is a mechanical extension of reaction functions enough?

• There should be greater awareness of cross-border and cross-market policy spillovers brought about by increased financial integration and innovation
  – Open question: How can policy settings in, and policy responses by, different countries become more mutually-reinforcing? Is there a role for greater international coordination? (Hervé et al., 2008)


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