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Monetary Policy in Emerging Market Economies: What Lessons from the Global Financial Crisis?

A presentation prepared for the 2nd BIS CCA Conference on

"Monetary policy, financial stability and the business cycle"

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Authors*: Brahima Coulibaly

Affiliation: Board of Governors of the Federal Reserve System

Email: <u>Brahima.Coulibaly@frb.gov</u>

^{*} This presentation reflects the views of the author and not necessarily those of the BIS or of central banks participating in the meeting.

Monetary Policy in Emerging Market Economies: What Lessons from Global Financial Crisis?

2nd BIS Consultative Council for the Americas Conference on "Monetary Policy, Financial Stability, and the Business Cycle" May 13, 2011

Dr. Brahima Coulibaly

Division of International Finance

Board of Governors of the Federal Reserve System

Motivation

- Emerging Market Economies (EMEs) loosened MP during the recent global financial crisis
- Departure from previous crisis episodes when they had to raise interest rates to: *defend exchange rate*, bolster *policy credibility*, contain *capital flight*...
- Is this shift signaling that MP in EMEs are evolving to become countercyclical? Is this a unique/transitory experience?

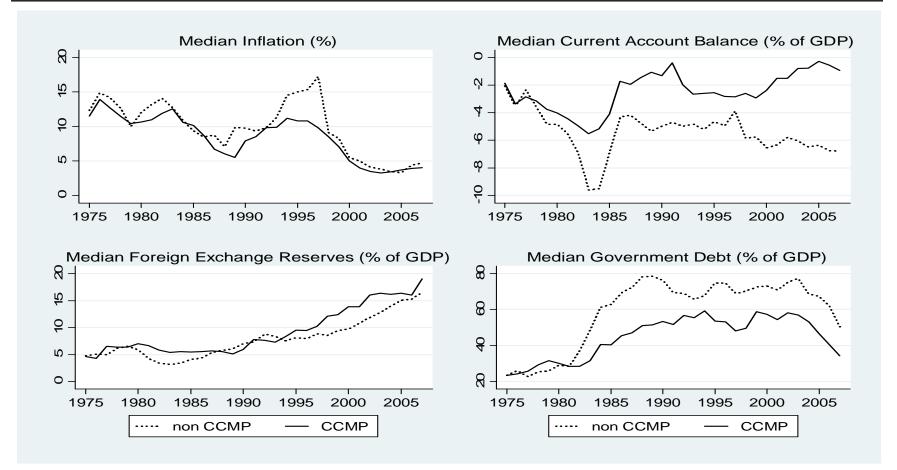
Procyclical Policies in EMEs

- EMEs more volatile=> Significant welfare loss. Historically MP and FP procyclical in EMEs unlike in AEs
- Procyclicality FP documented e.g. Gavin and Perotti (1997), Talvi and Vegh (2004) etc.
- Studies on cyclicality of MP is sparse. Kaminsky and Reinhart (2004), Calderon et al. (2003).
- This study looks at factors affecting MP in the context of crises generally & the 08-09 crisis in particular

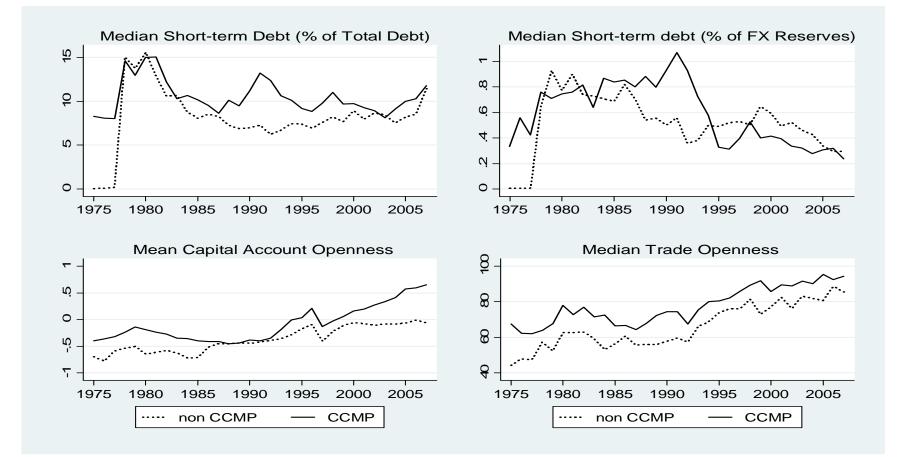
MP in EMEs during the 2008-09' Crisis?

- Of the 132 EMEs in our sample, about 80 percent lowered rates on net at the height of the crisis between early 2008:Q3 and end 2009:Q1
- This study: Explores the factors that influenced ability to conduct CCMP:
 - Macroeconomic fundamentals & vulnerabilities
 - Openness
 - Exchange rate regime and MP policy framework
 - Financial reform and development

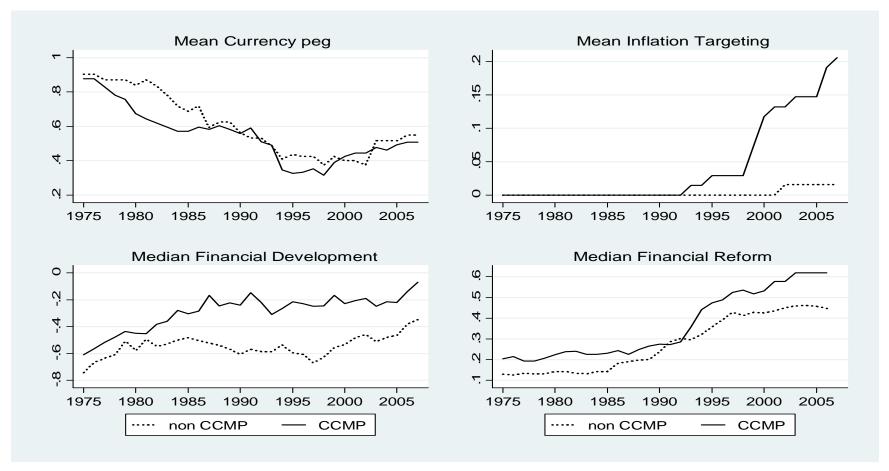
Difference b/w CCMP & Non-CCMP (1)



Difference b/w CCMP & Non-CCMP (2)



Difference b/w CCMP & Non-CCMP (3)



Ge

LOGIT REGRESSION

| | Coef. | P-Value | Odds-Ratio | Nobs | |
|---------------------|-------|----------------|-------------------|------|--|
| INF – HIGH | -0.82 | 0.063 | 0.44 | 130 | |
| CGD2GDP - LOW | 0.82 | 0.056 | 2.26 | 126 | |
| CAB2GDP – HIGH | 1.24 | 0.006 | 3.46 | 118 | |
| FXR2GDP – HIGH | 0.64 | 0.120 | 1.89 | 126 | |
| STDT2EXTDT – LOW | -0.51 | 0.307 | 0.60 | 102 | |
| STDT2FXR- HIGH | -0.33 | 0.486 | 0.72 | 102 | |
| | | | | | |
| OPENFIN – HIGH | 1.11 | 0.013 | 3.03 | 126 | |
| OPENTRADE – HIGH | 0.90 | 0.042 | 2.45 | 122 | |
| EXCH. REG FLOAT | 0.62 | 0.305 | 1.83 | 129 | |
| INFLATION TARGETING | 2.03 | 0.010 | 7.58 | 132 | |
| FINREF – HIGH | 1.40 | 0.004 | 4.04 | 117 | |
| FINDEV – HIGH | 0.57 | 0.165 | 1.76 | 122 | |

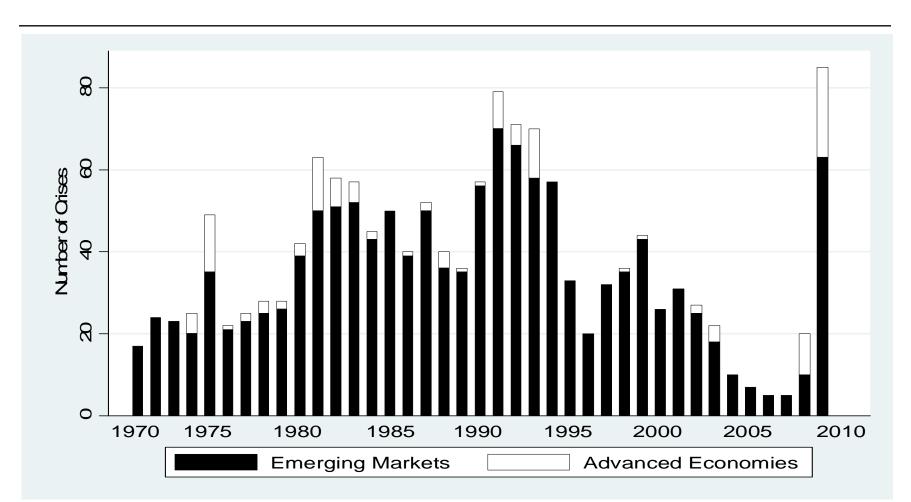
LOGIT REGRESSION

| | (1) | (2) | (3) | (4) | (5) | (6) |
|-------------------|--------|---------|--------|------------|--------------|------------|
| CAB2GDP - LOW | 0.38* | 0.22** | 0.37* | | 0.20** | 0.28* |
| CGD2GDP- LOW | | | | 8.52** | | |
| CGD2GDP - MID | | | | 3.50* | | |
| CGD2GDP - HIGH | 0.30* | 0.20** | 0.28* | | 0.17** | 0.20** |
| STDT2EXTDT - LOW | 0.53 | | | | | |
| STDT2EXTDT - MID | | | | | | |
| STDT2EXTDT - HIGH | | | | | | 1.24 |
| STDT2FXR - LOW | | | 0.58 | 1.49 | | |
| STDT2FXR- MID | | 0.40 | | 3.87^{*} | 0.50 | |
| STDT2FXR - HIGH | | 0.49 | | | 0.59 | |
| OPENFIN- LOW | 1.13 | 3.46 | 1.19 | 1.44 | 7.94** | 1.45 |
| OPENFIN - MID | 0.17** | 0.47 | 0.18** | 0.17** | 1.94 | 0.21** |
| OPENFIN- HIGH | 0.11 | 0.41 | 0.10 | 0.11 | 2.68 | 0.21 |
| | | | | | 2.00 | |
| IT | 8.89** | | 8.95** | 8.81* | 5.24 | 11.50** |
| | | | | | | |
| FINREF - LOW | 0.13** | 0.07*** | 0.12** | 0.08*** | | 0.13** |
| FINREF - MID | | | | | 10.80** | |
| FINREF - HIGH | | 8.17** | | | 45.78^{**} | |
| FINDEV- LOW | | | | 0.78 | | |
| FINDEV - HIGH | | | | | 2.90 | 3.12^{*} |
| N | 88 | 88 | 88 | 90 | 87 | 87 |

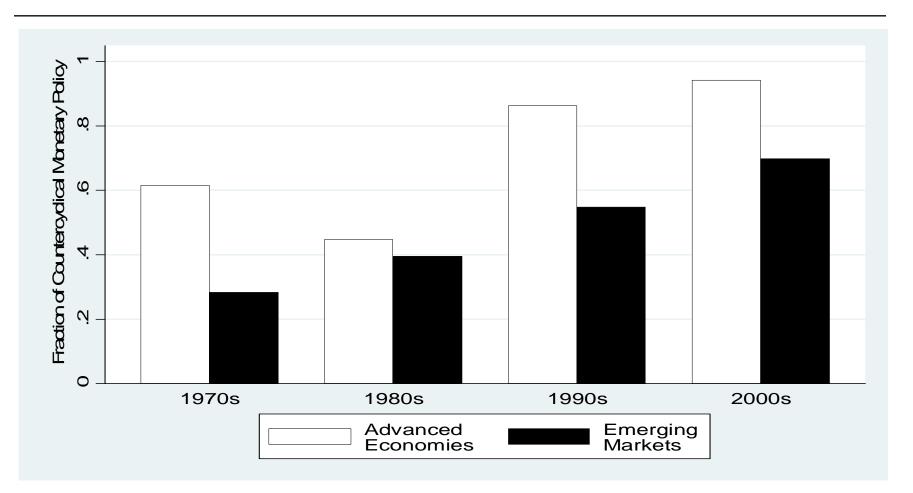
Beyond the recent crisis

- Construct a panel dataset of both EMEs and AEs 1970-2009, annual frequency
- Crisis: Period of sharp and unusual exchange rate depreciation, negative or zero GDP growth

Timeline of Crises in Panel Data



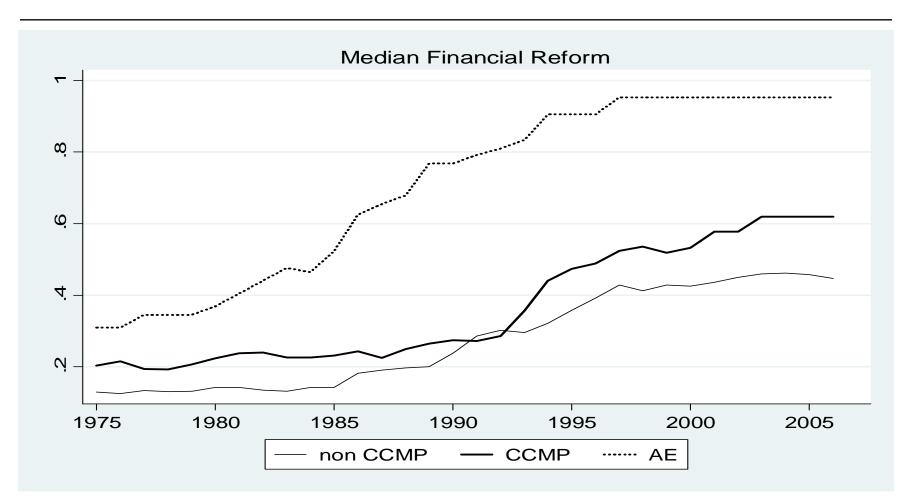
Countercyclical Monetary Policy: AEs vs. EMEs



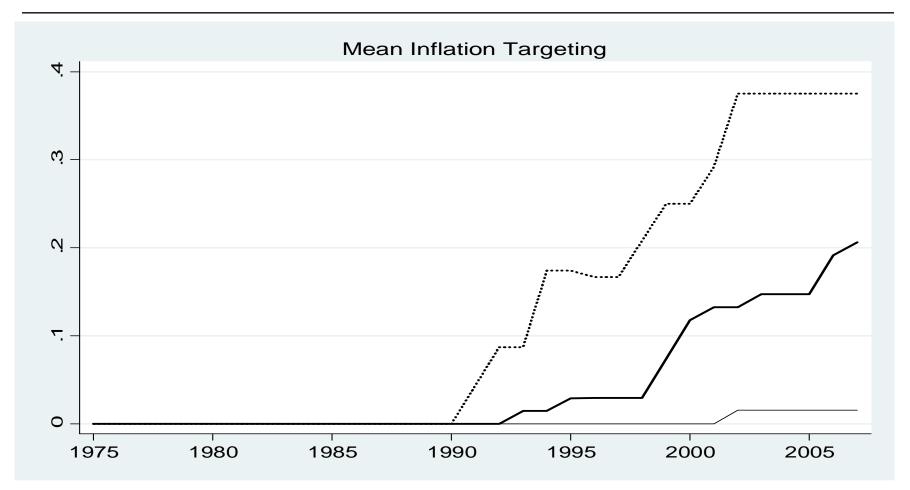
LOGIT REGRESSION

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|-----------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|--------------|-------------|--------------|-------------|
| INF - LOW | 1.83^{**} | 1.79** | 1.88** | | | | 1.82^{**} | 1.89** | 1.81** | | 1.92** |
| INF - MID | | | | 0.62* | 0.64* | 0.59** | | | | 0.65* | |
| FXR2GDP - HIGH | 1.72^{**} | 1.85** | 1.75^{**} | 1.96** | 1.94** | 1.77^{**} | 1.82^{**} | 1.81** | 1.89** | 2.05** | 1.82^{**} |
| CGD2GDP - LOW | | 0.83 | | | 0.74 | | 0.77 | | 0.79 | 0.75 | |
| CGD2GDP - MID | | | | | | 1.15 | | | | | 1.11 |
| CGD2GDP - HIGH | 1.02 | | 1.03 | 1.12 | | | | 1.07 | | | |
| STDT2FXR - LOW | 1.13 | | 1.14 | | 1.26 | 1.26 | 1.16 | | | | 1.12 |
| STDT2FXR - MID | | 0.92 | | 0.86 | | | | 0.90 | 0.90 | 0.86 | |
| | | | | | | | | | | | |
| OPENTRADE - LOW | | | | | | 0.66* | | | | | |
| OPENFIN - MID | | 0.90 | 0.86 | | 0.86 | 0.87 | | 0.87 | | | |
| OPENFIN- HIGH | | 1.02 | | 1.10 | | | 1.04 | | 1.04 | 1.10 | 1.00 |
| | | | | | | | | | | | |
| IT | 7.70* | 8.08* | 7.76* | 12.49** | 12.26** | 11.72^{**} | 10.00** | 9.53** | 10.24^{*} | 12.92** | 8.90* |
| FINREF - MID | | | | | | | 0.98 | | 0.98 | | |
| FINREF - HIGH | 2.70*** | 2.72^{***} | 2.71^{***} | 2.56^{***} | 2.59^{***} | 2.54^{***} | 2.64^{**} | 2.71^{***} | 2.67^{**} | 2.58^{***} | 2.66*** |
| FINDEV-LOW | 1.73 | 1.75 | 1.73^{**} | 1.77^{**} | 1.77^{**} | 1.85^{**} | 1.83^{**} | 1.81** | 1.87** | 1.86** | 1.82^{**} |
| FINDEV - MID | 0.94 | 0.97 | | | | | | | | | |
| PEG | 1.33 | 1.33 | 1.30 | | | | | | | | |
| FLOAT | | | | 0.52* | 0.51* | 0.50* | 0.60 | 0.62 | 0.59 | 0.51* | 0.65 |
| Ν | 476 | 463 | 463 | 463 | 463 | 463 | 463 | 463 | 463 | 463 | 463 |
| | | | | | | | | | | | |

Financial Reforms: AEs vs. EMEs



Financial Reforms: AEs vs. EMEs



Concluding Remarks

- Conduct of countercyclical MP is possible for EMEs
- For that, EMEs have to:
 - Maintain strong macroeconomic fundamentals
 - Reduce vulnerabilities
 - Continue financial reforms (persistent)
 - Improve MP frameworks (IT good track record)
- Could help explain increasing resilience of EMEs to shocks in AEs despite greater integration between the two sets of countries?

Inflation Targeting and Financial Reforms

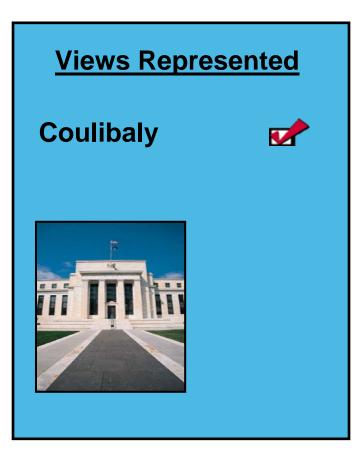
Financial Reforms

- Credit & interest rate control
- Barriers to entry in domestic financial system
- State ownership in banking sector
- Capital account restrictions
- Regulation and Supervision of banking sector (-)
- Securities market policy

Inflation Targeting

- Anchoring of inflation expectations
- Flexibility of MP

Disclaimer



The views expressed in this presentation are those of the author and do not necessarily represent those of the Board of Governors or the Federal Reserve System.