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Effect of Some Recent Changes in Egyptian Monetary Policy

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Presentation Outline



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0. Motivation



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- The structure and stance of monetary policy (MP) witnessed a sea change since the early 1990s that raised serious questions pertaining to the main objectives and targets of the CBE:
- Should the CBE depend on the interest rate as a policy instrument?
- Should the CBE advocate an expansionary or a contractionary policy stance ? And what will its effect be on the economy particularly on output?
- Should the CBE adopt an inflation targeting framework? If so, how can it formulate a policy rule?

1. Introduction



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- **The above questions are addressed via:**
 - **Evaluation of the role interest rate and bank reserves in MP**
 - **Identification of the effect of MP shocks on output**
 - **Measurement of the stance of MP**
 - **Comparisons between historical and alternative counterfactual policy rule scenarios that lead to:**
 - **Setting the interest rate**
 - **Measuring the effect of policy shocks on output, inflation and interest rate variability**

2. Modeling the Structure and Stance of MP



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1987-2005

The model relates key policy and non-policy variables

1. Policy variables

- Interest rate
- Total reserves
- Non-borrowed reserves

2. Non-Policy variables

- Real GDP
- GDP deflator
- Commodity prices (CPI)

A. Evaluation of the Structure of MP



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- 1. Price stability is a prime objective of the CBE**
- 2. The interest rate is a good policy indicator for the CBE operating procedure: policy shocks account for over 91% of the interest rate variance**
- 3. Together with short-run interest rates, reserves are a key instrument for price stabilization**
- 4. Explaining the variance of the MP instruments provides a measure for the MP and stance**



5. **The impact of policy shocks on output and prices is much smaller than its effect on the reserve market variables. Possible explanations:**
 - i. Propagation mechanisms that have stronger effect on the reserves market vis-à-vis the rest of the economy
 - ii. Misspecification error
6. **The effect of policy shocks on output is indeterminate: real GDP may rise, fall or have no response to the shock**
7. **There is evidence of a price puzzle**

B. Measuring Policy Stance

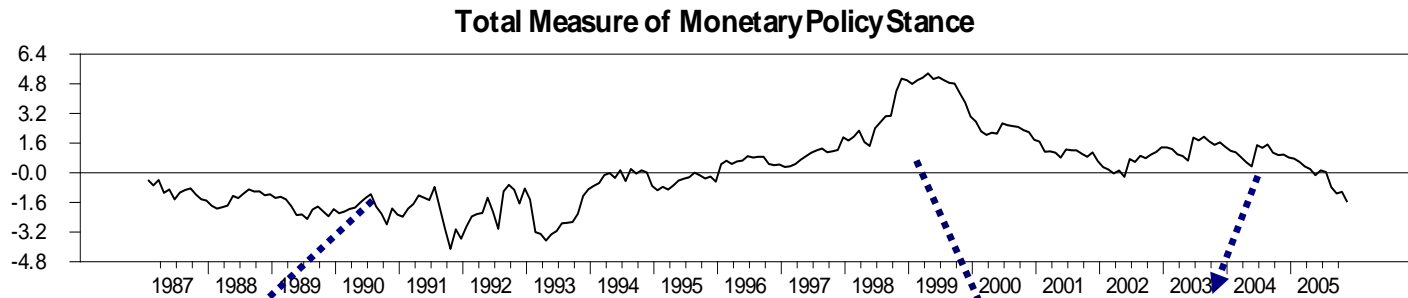


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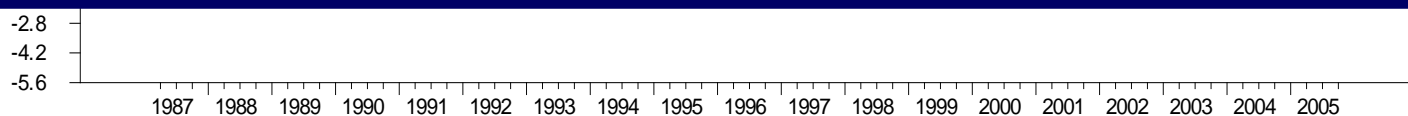
- The estimated stance indicator is designed such that:
 - i. It articulates the anticipated (endogenous) and unanticipated (exogenous) components of policy derived from modeling the policy shock impacts on the policy and non-policy variables
 - ii. It provides a qualitative description of the overall monetary conditions in the economy especially regarding the assessment of policy tightness or looseness



Figure 1



The unexpected tightening in 2005 conceivably came up as the impact of the rise in the interbank rate on innovations in market for (total and nonborrowed) reserves beset the effect of interest rate shocks induced by the fall in 3-month deposit rate (note fall in the unanticipated component)



3. Policymaking by a Rule

Feb. 2001-July 2006



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- There are two objectives for deriving a policy rule:
 - i. To design policy and prescribe stabilizing responses based on incoming information
 - ii. To portray how decision makers conducted MP
- The second objective is sufficiently broad to permit the description of monetary policymaking choices by a rule-like construct even under discretionary regimes
- A generalized Taylor-type interest rate rule is set up to delineate and to describe recommended (within the proposed constrained discretion framework) CBE nominal interest rate adjustments in response to deviations of inflation from its target and real output from its natural rate



A. The Policy Rule Estimates Portray the Interaction between Policy and Non-policy Choices in the Long and Short Runs

- High long run inflation rate (5%) requires relatively high nominal interest rates (9%-10%) to maintain a reasonable real interest rate
- But while high nominal interest rates maintain reserves they would result in low long-run growth
- The inflation rate effect on interest rate is not significant until the next month



- There appears to be a considerable degree of MP inertia (interest rate smoothing), i.e. gradual adjustment of MP to shocks
- It takes a *large* decrease in the interest rate to raise output to the long run trend
- A fall in the inflation rate implies a *smaller* amount of decrease in the nominal interest rate implying
 - i. A marginal increase in short run real interest rate
and hence
 - ii. Negative effect on growth



B. Historical and Counterfactual Policy Rule Simulations

- **Stochastic shocks to MP generally have a significant effect on real output, inflation and interest rate variances; yet those disturbances exert a larger influence on real output and interest rate variability in comparison with their effect on the inflation variance**
- **The relatively large impact of policy shocks implies that the unexpected stochastic variation in MP is more important than the systematic component, thereby leaving the Central Bank vulnerable to unexpected shocks and economic instability**



- **Counterfactual MP regimes based on varying the weights attached to the impact on interest rate of deviations of output from its trend and inflation rate from its target emphasize the important role that MP can play in price stabilization and in dynamical output behavior adjustment**
- **Comparison between counterfactual MP scenarios versus the historical regime show that current policy devotes substantial attention to output and interest rate stabilization with less consideration given to the reduction of the inflation variance. This seems in stark contradiction with the announced MP objective**



- There exists a tradeoff between the cost of the deviation of inflation from its target and interest rate variance: lower costs of deviation are associated with large interest rate variance
- Historical simulations show that the MP attached lower cost to inflation stabilization thus giving up price stability in favor of dampening monetary volatility and gaining interest rate stability
- The deviation between the announced policy (price stability) and the realized objective (interest rate stabilization) brings forth risks of time inconsistency



4. Recommendations

For Supporting Forthcoming Policy Decisions

- **Alas, once again: data improvements and refinement**
 - CPI
 - GDP and Growth
- **Whither research in MP for Egypt**
 - Analytical depth and expert studies
 - Transparency and sharing information
 - Networking and dissemination
- **Time consistent policymaking**
- **Constrained discretion in practice**
- **Prompt adjustment in MP to shocks**