ASSESSING THE UK MONETARY POLICY

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Presentation

1. The UK Monetary Policy Framework
2. The Economics of the UK Monetary Policy
3. Assessment of the UK Monetary Policy
4. Summary and Conclusions
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The UK Monetary Policy Framework

- In September 1992 UK is forced out of the ERM;

- 1992 – 1997: Inflation Targeting is introduced, with following characteristics:
  - 1-4 percent inflation target;
  - regular meetings between the Chancellor and Governor of the Bank of England to decide the level of the rate of interest;
  - inflation report (1993);
  - publication of minutes (1995);

- Disagreements between Chancellor and Governor affected credibility.
The UK Monetary Policy Framework

- In May 1997 Bank of England becomes independent with operational responsibility given to the Monetary Policy Committee (MPC);
- MPC meets every month to set the rate of interest (there is a previous Friday, a Wednesday afternoon discussion and a Thursday morning decision meeting); there is also a drafting monthly-minutes meeting and quarterly meetings on forecasts;
The UK Monetary Policy Framework

- Membership of MPC: Governor and two Deputy Governors, two Bank of England members (appointed by Governor in consultation with Chancellor), four external members (appointed by Chancellor), and one Treasury representative who attends and speaks but has no vote;

- Treasury representative sits at the MPC meetings; does it mean coordination of monetary and fiscal policies? No, but it might be better than without a Treasury representative.
The UK Monetary Policy Framework

- Government retains overall responsibility for monetary policy: government responsible for designing the framework; government sets the inflation target; once the inflation target is set, it becomes primarily a technical issue as to what level of interest rates is appropriate to meet the target;
- The MPC is responsible for setting the interest rate to meet the set inflation target, set by the Chancellor;
- MPC is accountable to Parliament: scrutiny exercised by Treasury Committee and Lords select Committee.
The UK Monetary Policy Framework

- Inflation Target: initially set at 2.5 percent with 1 percent range [Retail Price Index (RPIX)];
- Changed to Harmonized Index of Consumer Prices (HICP); and set at 2 percent with 1 percent range in October 2003;
- RPIX excludes mortgage interest payments, but includes council taxes and other housing costs (arithmetic mean);
- HICP excludes mortgage interest payments; but it also excludes council taxes and other housing costs (geometric mean);
The UK Monetary Policy Framework

- Inflation Target is symmetrical, i.e. deviations below target are treated in the same way as deviations above the target;
- A point target is simple and it is more effective in anchoring inflation expectations than a range;
The UK Monetary Policy Framework

- Objective: price stability; not an end in itself but to help government in its objectives that include growth and employment;
- Inflation is a monetary phenomenon; controlled directly via changes in the rate of interest;
- Changes in the rate of interest can only affect aggregate demand in the short run;
- Credibility attained through pre-commitment to the inflation target without government interference;
- Constrained discretion: neither pure discretion nor rules;
Letter to the Chancellor:

If target is not met, then the Governor is required to write a letter to the Chancellor to explain:

- the reasons why inflation is far away from the target;
- the policy action to deal with it;
- the period in which inflation is expected to return to target;
- how this approach meets the Government’s objectives for growth and employment.
The UK Monetary Policy Framework

- The Governor has had to write such a letter twice since 1997;
- The first was on 17 April 2007: the Governor’s letter was released at 10.30am following the publication of data at 9.30am showing inflation at 3.1%; the Chancellor responded immediately and as required;
- The second was on 17 June 2008: the Governor’s letter was released at 10.30am following the publication of data at 9.30am showing inflation at 3.3%; the Chancellor responded immediately and as required.
The UK Monetary Policy Framework

- Second Letter: after three months of the first letter if inflation remains 1 percent above or below target;
- No such letter has been necessary as yet!
- An open letter does not necessarily imply sign of failure;
- This short experience with letter-writing has demonstrated that the contents of the exchange enhances accountability and transparency.
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Economics of the UK Monetary Policy

Aggregate demand equation

\[ Y_t^g = \alpha_0 + \alpha_1 \cdot Y_{t-1}^g + \alpha_2 \cdot E_t[Y_{t+1}^g] + \alpha_3 \cdot (R_t - E_t[p_{t+1}]) + \alpha_4 \cdot (rer)_t + s_1; \]

Phillips curve

\[ p_t = \beta_1 \cdot Y_t^g + \beta_2 \cdot p_{t-1}^g + \beta_3 \cdot E_t[p_{t+1}] + \beta_4 \cdot \{E_t[p_{W,t+1}] - E_t[\Delta er_t]\} + s_2; \]

Monetary policy rule

\[ R_t = (1 - \gamma_3) \cdot [\bar{R}^* + E_t[p_{t+1}] + \gamma_1 \cdot Y_{t-1}^g + \gamma_2 \cdot (p_{t-1} - \bar{p}^T)] + \gamma_3 \cdot R_{t-1} + s_3; \]
Economics of the UK Monetary Policy

Real Exchange rate equation

\[ rer_t = \delta_0 + \delta_1 \cdot \{ (R_t - E_t [p_{t+1}]) - (R_{W,t} - E_t [p_{W,t+1}]) \} + \delta_2 \cdot CA_t + \delta_3 \cdot E_t [rer_{t+1}] + s_4; \]

Current account equation

\[ CA_t = \lambda_0 + \lambda_1 \cdot rer_t + \lambda_2 \cdot Y^g_t + \lambda_3 \cdot Y^g_{W,t} + s_5; \]

Nominal Exchange rate equation

\[ er_t = rer_t + P_{W,t} - P_t; \]
Six equations and six unknowns: output, inflation, interest rate, current account, nominal and real exchange rate;

Inflation Targeting (IT) is embedded in equations 1-3;

Equations 2 and 3 entail an important role for ‘expected inflation’;

Transparency of inflation forecasts is a paramount element of the policy, but…

The centrality of inflation forecasts and the margin of errors represent a major challenge to this framework.
Economics of the UK Monetary Policy

- Phillips curve is vertical in the long run at NAIRU (unaffected by demand or policy; it is a supply-side variable);

- IT is a monetary policy framework whereby public announcement of official inflation target is undertaken;

- Fiscal policy should not be used for short-term objectives; only for medium- to long-term ones;

- Important ingredients: Openness, Communication, Transparency;
Further important ingredients: Accountability; Credibility; Individual Reputation of MPC Members (in view of the published minutes that reveal voting);

These ingredients are supported by the publication of the MPC minutes, by the Inflation Report and the speeches by MPC members.
Main Problems:

- Monetary policy used for short-term stabilization purposes but not fiscal policy (due to crowding-out); fiscal policy should only be used for long-term purposes;

- Vertical Phillips Curve;

- NAIRU is a supply-side variable, unaffected by aggregate demand/policy;
Economics of the UK Monetary Policy

- Does IT work in practice as the theoretical framework suggest? Is monetary policy so effective and fiscal policy so ineffective?
- Although the Chancellor sets the objective and target of monetary policy, there is clear difference of responsibilities between the MPC and the Treasury: monetary policy is conducted by the MPC; fiscal policy by the Treasury;
- There is still the possibility of conflict in terms of the objectives of monetary and fiscal policy;
Economics of the UK Monetary Policy

- Should monetary and fiscal policies not be more closely coordinated to avoid possible conflict?
- They should, and the MPC is a good platform for coordination, but changes need to take place to strengthen it;
- Treasury observer present at MPC meetings could help; but has no vote!
- Thus, changes are paramount if coordination is desirable.
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Assessment of the UK Monetary Policy

Policy may have been successful as Figure 1 reveals. Also, witness the statement that since the MPC began it has been the NICE (Non-inflationary Consistently Expansionary) decade.

We take the view, however, that a number of serious problems are present:

1. Actual inflation below the mid-point target, implying tight monetary policy;
2. Insufficient attention paid to the exchange rate;
Assessment of the UK Monetary Policy

3. Price stability is not enough;
4. Countries that do not pursue IT type of policies have done as well as the UK;
5. MPC membership problems;
6. Asset price targeting?
7. Transmission of Monetary Policy has changed.
Assessment of the UK Monetary Policy

3.1 Actual inflation below the mid-point target, implying tight monetary policy

(See Figure 1)
Figure 1: Assessment of the UK Monetary Policy

Note: RPIX and HICP are in annual growth rates.
Assessment of the UK Monetary Policy

3.2 Insufficient attention paid to exchange rate:

- Exchange rate is not included in equation (3); only weighting it into decisions when setting interest rate;
- A change in the rate of interest works via exchange rate variation (BoE model): 80% in the first year; the danger is a combination of internal price stability and exchange rate instability; should include exchange rate in equation (3);
- A strong real exchange rate has contributed to ‘imbalances’ in the economy through its impact on the domestic composition of output: declines in manufacturing and exports, and increases in services and current account deficit.
Assessment of the UK Monetary Policy

- The ‘largest financial shock since the Great Depression’ (as the IMF has described the credit crunch of August 2007) has exposed the folly of entrusting our prosperity to financial services!
- The importance of the decline in the manufacturing is now becoming more evident; manufacturing all suddenly matters;
- Perhaps the only positive consequence of the credit crunch is that it has exposed the dangerous neglect of manufacturing.
The pass-through effect of a change in the exchange rate first on import prices and subsequently on the generality of prices, both goods and services, has weakened since the late 1980s. Consequently, the stronger real exchange rate has had less offsetting effect on domestic prices than in earlier periods;

Impact of interest rate changes may have become more ambiguous; evidence seems to show that capital movements are based more on equities than on other assets: a change in interest rates then may have the opposite effect on capital movements than otherwise.
Assessment of the UK Monetary Policy

- A secondary instrument in the form of direct intervention is necessary: the MPC should engage in intervention on its own as a monetary mechanism; the Bank of England has the necessary reserves to undertake such task.
3.3 Price stability is not enough:

- Price stability has been associated with benefits to the economies pursuing it;
- However:
- Estimates for the US show that reducing price level variability by 18% results in an increase in output variability by 21%, and in the rate of unemployment by 19%;
- Price stability might not be sufficient to avoid serious macroeconomic downturns;
Assessment of the UK Monetary Policy

- History is replete with examples of periods of relative absence of inflationary pressures followed by major economic and financial crises.
- Best example: recent credit crunch!
- If so, the objective of price stability might have to be applied more flexibly, with a longer-run focus than the current monolithic concentration upon it, and, also, along with other objectives, such as output stabilisation.
Assessment of the UK Monetary Policy

3.4 Countries that do not pursue IT type of policies have done as well as the UK

(See next slide)
Assessment of the UK Monetary Policy

Basic Structural Model

\( \pi_t = \mu_t + \gamma_t + \varepsilon_t \)

\( \mu_t = \mu_{t-1} + \beta_{t-1} + \delta \cdot \omega_t + \eta_t \)

\( \beta_t = \beta_{t-1} + \zeta_t \)

\( \mu_t \) stochastic trend; \( \gamma_t \) stochastic seasonal effect

\( \omega_t \) intervention; \( \delta \) impact of intervention
Assessment of the UK Monetary Policy

Local Level Model

\begin{align*}
(7) \quad \pi_t &= \mu_t + \gamma_t + \varepsilon_t \\
(8) \quad \mu_t &= \mu_{t-1} + \delta \cdot \omega_t + \eta_t
\end{align*}

$\mu_t$ stochastic trend; $\gamma_t$ stochastic seasonal effect

$\omega_t$ pulse intervention; $\delta$ impact of intervention
Assessment of the UK Monetary Policy

- Was there a shift in the underlying level of inflation due to Inflation Targeting?
- We utilize equations (7) and (8) to examine this possibility;
- Before doing so we conduct:
- Visual inspection on how $\mu_t$ evolved; see next two figures
Assessment of the UK Monetary Policy

Intervention in 1992
Assessment of the UK Monetary Policy

Intervention in 1997

Intervention in 1992 and 1997

US
UK
Assessment of the UK Monetary Policy

Local Level Model

$$\begin{align*}
(7) \quad \pi_t &= \mu_t + \gamma_t + \varepsilon_t \\
(8) \quad \mu_t &= \mu_{t-1} + \delta \cdot \omega_t + \eta_t
\end{align*}$$

$\mu_t$ stochastic trend; $\gamma_t$ stochastic seasonal effect

$\omega_t$ intervention; $\delta$ impact of intervention
Table 1a. Model Estimates

<table>
<thead>
<tr>
<th>Model</th>
<th>Date of Intervention</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>1992Q4</td>
<td>-0.122</td>
<td>-1.019</td>
<td>[0.311]</td>
</tr>
<tr>
<td>Model 2</td>
<td>1997Q2</td>
<td>-0.024</td>
<td>-0.179</td>
<td>[0.858]</td>
</tr>
<tr>
<td>Model 3</td>
<td>1992Q4</td>
<td>-0.121</td>
<td>-0.770</td>
<td>[0.444]</td>
</tr>
<tr>
<td></td>
<td>1997Q2</td>
<td>0.025</td>
<td>0.167</td>
<td>[0.880]</td>
</tr>
</tbody>
</table>

Note: Period of estimation is 1981(Q1)-2004(Q4).
Assessment of the UK Monetary Policy

- It has been suggested that the results of Table 1a should not be surprising since inflation had started falling before IT was introduced:

- IT was more successful in ‘locking-in’ low levels of inflation rather than in achieving low levels;

- In other words, given the Bank of England determination to tame inflation, expectations changed in a way that inflation is contained within IT limits.
Assessment of UK Monetary Policy

We examine the possibility of ‘lock-in’ effects:

- Estimations run for period previous to intervention;
- Actual inflation is compared with predictions following IT;
- Standardized errors \( \tilde{v}_t \) are calculated as:
  \[
  \tilde{v}_t = \frac{v_t}{f_t^{1/2}}
  \]
  where \( v_t \) is the one-step ahead prediction error and \( f_t \) is the estimate of its variance;
- Cusum-t tests are used to examine whether inflation series have broken away:
  \[
  CUSUM = (T - \tau)^{-1/2} \cdot \sum_{j=\tau+1}^{t} \tilde{v}_j
  \]
Evidence in ‘lock-in’ effects
Model 1. Intervention in 1992

US inflation rates
Forecast values

Cusum Standardized Residual

UK inflation rates
Forecast values

Cusum Standardized Residual
Evidence in ‘lock-in’ effects
Model 2. Intervention in 1997

US inflation rates
Forecast values
Cusum Standardized Residual

UK inflation rates
Forecast values
Cusum Standardized Residual
Table 2a. Predictive testing methods: CUSUM-t test

<table>
<thead>
<tr>
<th>Model</th>
<th>UK</th>
<th>US</th>
<th>Degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>-0.360</td>
<td>0.961</td>
<td>48</td>
</tr>
<tr>
<td>Model 2</td>
<td>0.093</td>
<td>0.566</td>
<td>30</td>
</tr>
</tbody>
</table>

Note: No failures detected at a 5% significant level.
Has globalisation helped to contain inflation?

- Opening global markets in goods, services and factors create more competition reducing costs and lowering prices;
- Incentives to innovate through competition produces higher economies of scale and increased productivity;
- Interaction of technology with globalisation raises productivity levels thereby lowering prices;
- When globalisation raises productivity and puts downward pressure on prices, central banks find it easier to focus on monetary policy;
Has globalisation helped to contain inflation?

- CBs more focused on maintaining low inflation;
- Credibility of monetary policies has been enhanced;
- Higher penalties on countries judged to have unsound policies as capital movements are higher;
- Competition weakens the power of monopolies thereby lowering prices;
- Weakened labour unions, make wages more flexible;
- The last two factors flatten the Philips curve;
Has globalisation helped to contain inflation?

- Globalisation via more competition and productivity should reduce the sacrifice ratio (the required reduction in output to reduce inflation);

- In the equation: \( p_t = a + b y_t + c x_t + d p_{t-1} + u_t \)
  high \( b \) implies low sacrifice ratio (a small reduction in output gap (\( y \)) implies greater reduction in inflation (\( p \)) – \( x \) stands for other variables;

- For the period 1985-1992 it was 0.27; for the period 1992-2007 it fell to 0.09: the sacrifice ratio increased!

- More research is needed on all these factors.
3.5 MPC membership problems

- The process of appointing the external members of the MPC is highly secretive and in the hands of the Chancellor of the Exchequer;

- It would appear that the need for greater transparency in the process of MPC appointments could potentially become a serious issue;

- Recent remarks by the Governor of the BoE may be a sign of rising tensions between the Governor and the Chancellor of the Exchequer;

- If this were to be validated, it could potentially affect adversely the credibility of the policy framework.
Assessment of the UK Monetary Policy

- In early 2007 a Treasury Committee heard from a number of contributors, ex-members of the MPC included, that:
  - The appointment process is opaque; better if appointments were made using the standard procedures for appointment to other public bodies;
  - The term of external members should be longer, 6 years is suggested; but they should be expected to stay for at least 3 years;
  - Full-time appointments should be introduced.
Assessment of the UK Monetary Policy

- In fact, Prime Minister-designate Gordon Brown told a Parliament Committee on 14 June 2007 that in future MPC appointments will be made more transparent and accountable: they will be advertised publicly and a timetable introduced for relevant decisions;

- Gordon Brown strongly defended all the other arrangements for the MPC on that occasion.
Assessment of the UK Monetary Policy

Note that:
(i) the appointment of new MPC members; and
(ii) the setting of the inflation objective as well as inflation targets
are the aspects of monetary policy that are under political control. This may mean that BoE independence is weakest where political control is strongest. But does this matter if inflation is due to globalisation and not IT?
3.6 Asset price targeting?

- The housing market is in the midst of a bubble, which has created massive consumer and household debt.

- When inflation shocks forced a significant rise in the rate of interest, pressures on the housing and consumer spending emerged, with a considerable potential for a fall in housing prices and consumption. This is happening now.
Assessment of the UK Monetary Policy

- The next decade might not be as NICE! Actually the legacy of the NICE decade may be the overvalued housing market.

- The BoE might not be in a position to prevent a recession by manipulating the rate of interest. Asset price targeting may be important!
3.7 Transmission of Monetary Policy has changed

- More important for the purposes of the title of this presentation is that the transmission mechanism of monetary policy has changed:
  - The transmission mechanism has changed from the external effects to more internal effects: housing market, construction, private sector wealth and personal consumption;
Assessment of the UK Monetary Policy

- The build up of household debt and asset holdings has made household expenditure more sensitive to short-term interest rate changes;

- Outstanding household debt in the UK increased from 72 percent of GDP, over the period 1998-2002, to 94.3 percent of GDP, over the period 200-2007 – see Bank for International Settlements (BIS), (2008), BIS 78th Annual Report, Bank for International Settlements: Basel, 30 June, p. 29;
Assessment of the UK Monetary Policy

- In the same publication figures are provided for the US and the EMU; the corresponding figures were as follows:
  - In the US and for the period 1998-2002 it was 76.7 percent of GDP; between 2003 and 2007 it shot up to 97.6 percent of GDP;
  - In the EMU and for the period 1998-2002 it was 48.5 percent of GDP; between 2003 and 2007 it increased to 56.6 percent of GDP.
Assessment of the UK Monetary Policy

- Consequently, the dangers with the current conduct of monetary policy are clear: frequent changes in interest rates can have serious effects;
- Low interest rates cause bubbles; high interest rates work through applying economic pressures on vulnerable social groups;
- Regulatory and prudential controls become, then, necessary. Not forgetting, of course, asset price targeting.
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Summary and Conclusions

- We have sketched the institutional dimension of the BoE monetary policy, and the role assigned to the UK HM Treasury in this framework;

- The strategy has been successful in terms of keeping UK inflation rates within the targets set by HM Treasury; the policy has managed to ‘lock-in’ UK inflation rate at low levels;

- Non-IT countries have been as successful in this regard;

- Decline in inflation has been almost universal;
Summary and Conclusions

- We then highlighted the theoretical framework upon which the IT policy framework is based;

- Recent low inflation rates are the result of other forces, perhaps that of globalisation;

- More thought should be channelled into the current framework of the UK monetary policy;