Lambda
Lecture at the London School of Economics

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Monetary policy trade-off

Inflation relative to target

Output gap
Monetary policy trade-off

- Output gap
- Inflation relative to target

Preferred trade-off
Monetary policy trade-off

Inflation relative to target

Output gap

Phillips Curve

Preferred trade-off
Monetary policy trade-off

Inflation relative to target

Phillips Curve

Output gap

Preferred trade-off
Monetary policy trade-off

- Output gap
- Inflation relative to target

Phillips Curve
Preferred trade-off
Demand shocks imply no trade-off

Inflation relative to target

Output gap

Phillips Curve

Preferred trade-off
Demand shocks imply no trade-off

Phillips Curve

Inflation relative to target

Output gap

Disinflationary $\rightarrow$ looser policy $\rightarrow$ return to equilibrium

Preferred trade-off

Inflationary $\rightarrow$ tighter policy $\rightarrow$ return to equilibrium

Inflation relative to target
Demand shocks dominated during the “Great Moderation” (1993-2007)…
... whereas supply shocks have dominated post financial crisis
Demand shocks dominated in US…

United States

Great moderation

Inflation (%)

Output gap (%)

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Demand shocks dominated in US… and the euro area

United States

Euro area

Great moderation

Output gap (%)

Inflation (%)
... including post crisis

United States

- Great moderation
- Financial crisis and after

Euro area

- Great moderation

Output gap (%)

Inflation (%)

United States

Output gap (%)

Inflation (%)

United States

Output gap (%)

Inflation (%)

Euro area

Output gap (%)

Inflation (%)

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... including post crisis

United States

- Great moderation
- Financial crisis and after

Euro area

- Great moderation
- Financial crisis and after

Output gap (%)
Inflation (%)

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Policy problem

\[
Loss_t \equiv (\pi_t - \pi^*)^2 + \lambda(y_t - y_t^*)^2
\]

Deviation of inflation from target
Policy problem

\[ \text{Loss}_t \equiv (\pi_t - \pi^*)^2 + \lambda (y_t - y^*_t)^2 \]

- Deviation of inflation from target
- Output gap
Policy problem

\[ \text{Loss}_t \equiv (\pi_t - \pi^*)^2 + \lambda (y_t - y^*_t)^2 \]

Deviation of inflation from target

Preference for output stabilisation

Output gap
Simple optimal policy

\[ \pi_t - \pi^* = -\frac{\lambda}{\kappa} (y_t - y_t^*) \]
Simple optimal policy

$$\pi_t - \pi^* = -\frac{\lambda}{\kappa} (y_t - y^*_t)$$

- Deviation of inflation from target
- Output gap
Simple optimal policy

\[ \pi_t - \pi^* = -\frac{\lambda}{\kappa} (y_t - y_t^*) \]

- Deviation of inflation from target
- Output gap
- Slope of the Phillips Curve
Simple optimal policy

Slope is \(-\frac{\lambda}{\kappa}\)

Preferred trade-off

Inflation relative to target

Output gap
Slopes imply \( \lambda \) around 0.1-0.2 since 1993…

Data outturns

- Great moderation
- Financial crisis and after

MPC forecasts

- Great moderation
- Financial crisis and after

DATA OUTCOMES

OUTPUT GAP (%)

INFLATION (%)

INFLATION DEVIATION FROM TARGET (pp)

CUMULATIVE GROWTH, RELATIVE TO TREND (%)

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Slopes imply \( \lambda \) around 0.1-0.2 since 1993… and around \( \frac{1}{4} \) since 2008.

### Data outturns

- **Great moderation**
- **Financial crisis and after**

### MPC forecasts

- **Great moderation**
- **Financial crisis and after**

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**Output gap (%)** vs **Inflation (%)**

**Inflation deviation from target (pp)** vs **Cumulative growth, relative to trend (%)**
Loss function with financial stability

\[ \text{Loss}_t \equiv (\pi_t - \pi^*)^2 + \lambda (y_t - y_t^*)^2 + 1_{FPC} \beta (s_t - s_t^*)^2 \]

- Deviation of inflation from target
- Output gap
- Financial Stability Indicators
No stimulus in August would have meant no weight on output. 

Inflation (%)

Output gap (%)

August, no stimulus

Preferred trade-off if $\lambda = 1$

Preferred trade-off if $\lambda = 0.1$
August stimulus traded off some inflation for more output and lower unemployment.
Trade-off more challenging in November

August, no stimulus

November

August, with stimulus

Preferred trade-off if $\lambda=1$

Preferred trade-off if $\lambda=0.1$
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UK inflation high and volatile during the 1970s and 1980s