Falling Behind the Curve: 
A Positive Analysis of Stop-Start Monetary Policies 
and the Great Inflation

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Summary of Our Analysis

For the period from the mid-1950s to the early 1980s, we characterize:

- **The Evolution of Inflation Expectations**
  (using survey measures, term structure data, and contemporary commentary such as editorial cartoons)

- **The Stance of Monetary Policy**
  (using a policy reaction function that allows for discrete shifts in the implicit inflation goal, thereby capturing stop-start policies)

We have the following objectives:

- Develop positive analysis of monetary policy over this period.
- Assess alternative explanations for the Great Inflation.
- Consider the role of simple policy rules in avoiding a recurrence.
Representing Monetary Policy during the Great Inflation

It is well known that monetary policy during the Great Inflation is not well represented by the Taylor rule. Consider this chart by Judd and Trehan that was published in 1995 in the *FRBSF Weekly Letter*:
Towards a Positive Analysis of Monetary Policy

What is the best way to represent monetary policy over this period?

(A) Reaction function with coefficients that differ from Taylor rule
(B) Reaction function with discrete shifts in the intercept

We argue that (B) provides key insights by representing monetary policy during the Great Inflation as a sequence of “stop-start” episodes with the following characteristics:

(1) Policy remained passive while inflation began to pick up (“falling behind the curve”).

(2) Policy shifted to a contractionary stance once the inflation rate exceeded a particular threshold.

(3) The resulting economic contraction led to policy reversal; that is, the stance of policy was not sustained long enough to bring inflation back to previous levels.
Sources of Evidence on Inflation Expectations

Survey-Based Measures

<table>
<thead>
<tr>
<th>Source</th>
<th>Survey Group</th>
<th>Horizon</th>
<th>Published Since</th>
</tr>
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<tbody>
<tr>
<td>Livingston</td>
<td>business economists</td>
<td>1 year ahead</td>
<td>1946</td>
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<td>U. Michigan</td>
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<td></td>
<td>Hoey portfolio managers</td>
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<tr>
<td>Blue Chip</td>
<td>professional forecasters</td>
<td>Next 10 years</td>
<td>1979</td>
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Term Structure Models

Far-Forward Rate of Expected Inflation
-- assumes constant values of equilibrium short-term real interest rate
   and forward term premium (calibrated using avg. values for 1955-64)

Expected Inflation over Next Five Years
-- no-arbitrage factor model of Ang, Bekaert, and Wei (2008 JoF)
Stylized Facts Regarding
The Evolution of Inflation Expectations

⇒ The Great Inflation started in the mid-1960s, not the early 1970s.

⇒ Long-run inflation expectations remained at a plateau of about 4 to 5 percent during the first half of the 1970s.

⇒ Long-run inflation expectations shifted upwards rapidly during the mid- to late 1970s.

Actual Inflation and Short-Run Inflation Expectations

- CPI Inflation
- Livingston Survey

Graph showing CPI Inflation and Livingston Survey data from 1956 to 1984.
The Evolution of Long-Run Inflation Expectations, 1961-82

- Implied by Far-Forward Nominal Rates
- No-Arbitrage Factor Model
- U. Michigan survey of consumer sentiment
- Decision-Makers Poll of portfolio managers
- Blue Chip survey of professional forecasters
Evolving Perspectives on the Great Inflation

November 1966

“Could stand some escalation.”

December 1969

“Signals—hut,...,hut?”
Perspectives on the Final Years of the Great Inflation

March 1979

“The fly vs. the flyswatter.”

March 1980

“New! Long-Range Anti-Inflation Ammo”
Gauging the Stance of Monetary Policy

\[ r_t = \bar{r} + \gamma_\pi (\pi_t - \pi_t^*) + \gamma_y (y_t - y_t^*) \]

**Key Measurement Issues**

⇒ The *ex ante* short-term real interest

⇒ Real-time assessment of the output gap

⇒ Allowing for time variation in the implicit inflation goal
The Evolution of the U.S. Output Gap

Percent

-20
-15
-10
-5
0
5
10


Retrospective CBO estimate
Real-time CEA assessments
Real-time using one-sided HP filter
Three Episodes of Stop-Start Monetary Policy

- Real Federal Funds Rate
- Taylor rule (π* = 1%)
- Taylor rule (π* = 5%)
- Taylor rule (π* = 8%)
Regression Evidence

\[ i_t = c_o + \rho i_{t-1} + (1-\rho)(\alpha \pi_t - \delta_1 D70_t + \delta_2 D76_t + \beta \tilde{Y}_t) \]

<table>
<thead>
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<th>Fixed Intercept</th>
<th>Allowing for Shifts in Intercept</th>
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<tbody>
<tr>
<td>( \alpha )</td>
<td>1.1 (0.3)</td>
<td>1.4 (0.2)</td>
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<tr>
<td>( \beta )</td>
<td>1.8 (1.3)</td>
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<tr>
<td>( \rho )</td>
<td>0.8 (0.1)</td>
<td>0.6 (0.1)</td>
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<tr>
<td>( \delta_1 )</td>
<td>---</td>
<td>1.9 (0.5)</td>
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<tr>
<td>( \delta_2 )</td>
<td>---</td>
<td>2.1 (0.5)</td>
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Reconsidering Some Prominent Explanations for the Great Inflation

The foregoing evidence is not consistent with several prominent explanations, at least not as primary causes of the Great Inflation:

Faulty Economic Theories: Misunderstandings about the slope of the long-run Phillips curve may well have contributed to pressures on monetary policy during the 1960s but cannot explain the sequence of stop-start policy episodes in 1969-70, 1975-77, and 1979-80.


Natural Rate Misperceptions: Real-time misperceptions of output gaps were largest from 1970-76 (based on either real-time measure), a period when long-run inflation expectations were reasonable stable.
Misperceptions of the Sacrifice Ratio. Such misperceptions might help explain why policymakers were reluctant to engage in disinflation but cannot explain why long-run inflation expectations surged upwards during the mid- to late 1970s.

Time Inconsistency: This hypothesis—which links variations in the inflation goal to movements in the NAIRU—cannot account for the rise in long-run expected inflation during the late 1960s, when no upward shift in the NAIRU had yet been recognized.

Political Pressures: Our view is that periodic political pressures on monetary policy—combined with a lack of clear guidelines that might have been helpful in resisting those pressures—is the most plausible explanation for the sequence of stop-start policy episodes and the upward drift of inflation expectations during the Great Inflation.
Would a Simple Monetary Policy Rule Help Avoid a Recurrence of the Great Inflation?

\[ r_t = \bar{r} + \gamma_\pi (\pi_t - \pi^*) + \gamma_y (y_t - y_t^*) \]

⇒ The explicit inflation objective (\( \pi^* \)) provides a firm anchor for long-run inflation expectations.

⇒ The prescriptions of the rule provide a useful benchmark for policy strategy and communication.

⇒ On occasion, policymakers might find compelling reasons to modify, adjust, or depart from the simple rule, but even in those instances, transparency and credibility might well call for clear communication about that policy strategy.
Figure 2

Survey-Based Measures of Long-Run Inflation Expectations

Source: Beechey, Johannsen, and Levin (2010), "Are Long-Run Inflation Expectations Anchored More Firmly in the Euro Area than the United States?"
Figure 3
Cross-Sectional Dispersion of Long-Run Inflation Expectations
(standard deviation)

Source: Beechey, Johannsen, and Levin (2010), "Are Long-Run Inflation Expectations Anchored More Firmly in the Euro Area than the United States?"
Figure 4
Far-Forward Inflation Compensation

Source: Beechey, Johannsen, and Levin (2010), "Are Long-Run Inflation Expectations Anchored More Firmly in the Euro Area than the United States?"