

Session 3: Lessons for Monetary Policy Strategy

Moderator: David Lopez-Salido, Federal Reserve Board

Presenter: Carl Walsh, University of California, Santa Cruz

Discussant: Kenneth Rogoff, Harvard University



Thomas
Laubach
RESEARCH CONFERENCE

Lessons for the FOMC's Monetary Policy Strategy

Carl E. Walsh
University of California, Santa Cruz

Federal Reserve Board
2nd Thomas Laubach Research Conference
Washington, DC

May 15-16, 2025

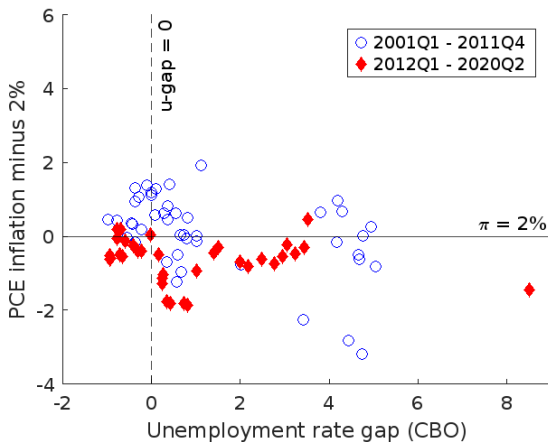
❶ Flexible inflation targeting works:

- ❶ CBI plus a clear objective for inflation;
- ❷ Anchoring longer-run inflation expectations gives monetary policy the flexibility to promote macroeconomic stability.

❷ 2012 policy framework:

- ❶ Established 2 percent as the target for PCE inflation;
- ❷ Set an unemployment target that was less clearly defined but was linked to the FOMC's longer-run unemployment projection;
- ❸ 2016 policy framework (PF) revision: “symmetric inflation goal” and FOMC “would be concerned if inflation were running persistently above or below this objective.”

Macro developments leading to the 2020 PF



The 2020 PF: New operational objectives

- 1 The operational target for inflation became *average inflation* (AIT) when average inflation falls short of 2 percent and inflation targeting (IT) when it doesn't – hybrid or asymmetric AIT/IT;
- 2 The operational objective for the employment mandate became *shortfalls of employment from its maximum level*;
- 3 The order in which the operational objectives were discussed was reversed: employment first, inflation second.

Asymmetric AIT/IT and shortfalls approach: Pros

- Asymmetric AIT/IT:

- ▶ If asymmetric AIT/IT is credible:
 - ★ Raises expected inflation (Rugia-Murcia 2003, Eggertsson and Kohn 2023), more firmly anchoring LR expectations at 2 percent;
 - ★ Reduces impact of the ELB constraint;
 - ★ Converts inflation expectations into automatic stabilizers.
- ▶ In a rule, makes policy more inertial (when inflation is too low);
- ▶ As a goal, makes policy more inertial and more forward-looking (when inflation is too low) (Budianto, Nakata and Schmidt 2023).

- Shortfalls approach:

- ▶ Allows economy to run hot;
 - ★ Promotes a broader-based and more inclusive expansion;
- ▶ Raises average inflation (Rugia-Murcia 2004).

Asymmetric AIT/IT: Cons

- May not be credible:
 - ▶ Households do not understand AIT (Coibion, Gorodnichenko, Knotek and Schoenle 2023);
 - ▶ Experimental lab evidence finds long horizon AIT can lead to destabilizing extrapolative expectations (Kostyshyva, Petersen, and Yang 2024).
- Lack of clarity: averaging window left unspecified.
- Averaging reduces response to inflation if averaging window is long.
- No evidence on the performance of $i_t = \max(0, i_t^*)$ where

$$i_t^* = \phi_{\pi}^{-} I_{\pi_t^a \leq 2} (\pi_t^a - 2) + \phi_{\pi}^{+} I_{\pi_t^a > 2} (\pi_t - 2) - \phi_u I_{u_t > u_t^*} (u_t - u_t^*) / \quad (1)$$

- ▶ Neither π^a nor u_t^* were specified;
- ▶ Arias, et al (2020) model asymmetric AIT/IT but without shortfalls.

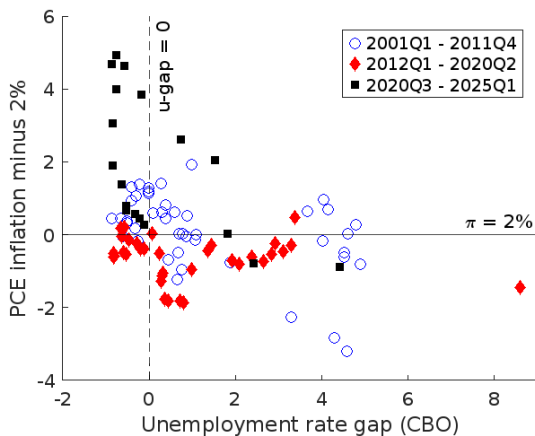
Shortfalls approach: Cons

- Maximum employment is *not* directly measurable (2020 PF).
- Nonlinear PC suggests need to be more concerned about unemployment rate below the natural rate (Benigno and Eggertsson 2023).
- What distortions/inefficiencies are being addressed? Is monetary policy an effective tool for addressing them?
- Effects of a shortfalls approach are uncertain:
 - ▶ Is average unemployment reduced (Gust, López-Salido and Meyer 2017) or left unchanged (Kiley 2024, Bundick and Petrovsky-Nadeau 2024)?
 - ▶ Does probability of the ELB rise (Gust, et al 2017) or fall (Bundick and Petrovsky-Nadeau 2025)?
 - ▶ Does unemployment volatility rise (Gust, López-Salido and Meyer 2017) or remain unchanged (Bundick and Petrovsky-Nadeau 2025)?
 - ▶ Does it increase welfare (Cairo and Lipton 2023) or reduce it (Kiley 2024)?

The 2020 PF: Summary on the new operational objectives

- ❶ Was the new inflation objective clear? No.
 - ❶ Asymmetric-AIT/IT confusing and averaging window was not specified.
- ❷ Was the employment mandate clear? No.
 - ❶ Maximum employment went from “*may not* be directly measurable” to “is *not* directly measurable” and no longer linked to FOMC’s LR projection for unemployment.
- ❸ There is a fundamental difference between the two objectives:
 - ▶ The longer-run inflation objective is achievable because “The inflation rate over the longer run is primarily determined by monetary policy.” (2020 Statement)
 - ▶ The employment objective is primarily determined by nonmonetary factors.
- ❹ **Lesson 1:** *The FOMC can pick its inflation target, but the employment objective is achievable in the longer-run only if the FOMC picks an operational objective consistent with its inflation target.*

Macroeconomics developments: 2001-2025



The 1970s and the recent inflation

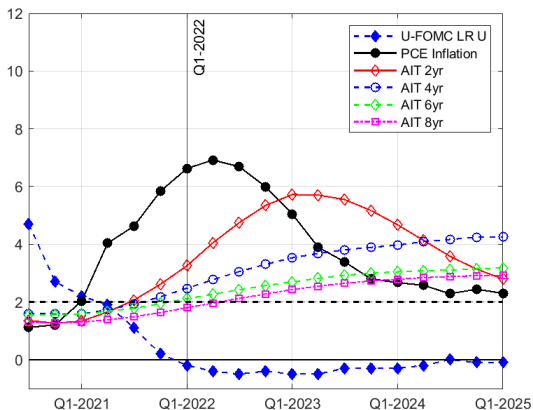
- Some of the primary explanations for the Great Inflation:

- 1 Supply shocks and special factors (Blinder and Rudd 2013);
- 2 The wrong theory of inflation— a static PC (Romer and Romer 2002);
- 3 Forecasting errors – overestimating potential GDP (Orphanides 2000), underestimate of shock persistence (Reis 2021);
- 4 Ambiguous and unachievable objectives (Kydland and Prescott 1977, Barro and Gordon 1983);
- 5 Failure of the Fed to acknowledge its responsibility for inflation.

- The 2021 - 2023 inflation surge:

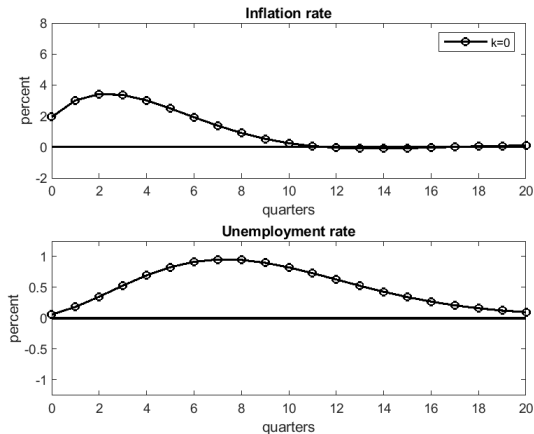
- 1 Supply shocks due to COVID and the war in Ukraine;
- 2 Belief in a flat PC implying disinflation would be costly;
- 3 Forecasting errors – underestimated persistence of shocks;
- 4 Shift of focus from inflation to running the economy hot;
- 5 Team transitory.

Prioritizing shortfalls over average inflation



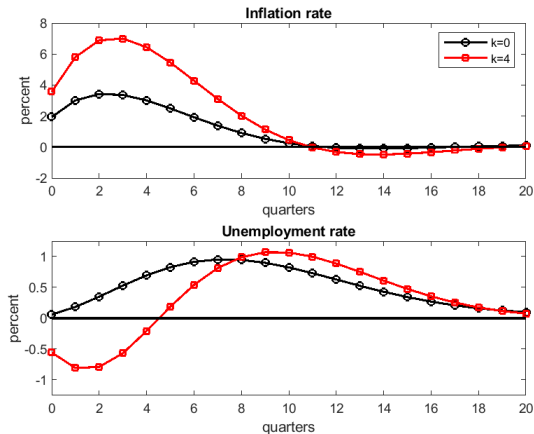
Measures of average inflation and the unemployment gap

Consequences of delay: Hakamada-Walsh (2024)



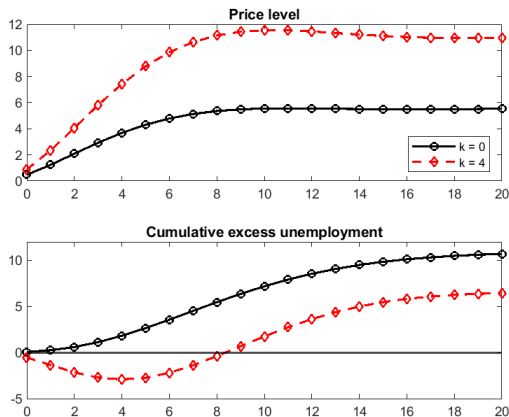
IRF to AR(1) inflation shock: no policy delay ($k = 0$).

Consequences of delay: $k = 0$ and $k = 4$



IRF to AR(1) inflation shock: no delay and 4 quarter policy delay.

Price level and excess unemployment



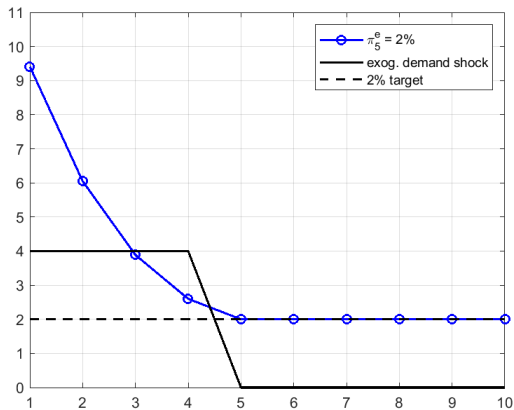
Price level and excess unemployment effects

- Delay worsens the rise in inflation but can lead to a short-run boom.
- Delay leads to a larger rise in the price level but less cumulative excess unemployment.
- Policy aggression can compensate for delay, especially if $u^* < u^n$.
- **Lesson 2:** *Inflation depends on what the central bank doesn't do as well as what it does do.*
- **Lesson 3:** *If policy is behind the curve, response needs to be more aggressive.*
- **Lesson 4:** *Don't be trapped by one's own forward guidance. Forward guidance is a contingent promise.*

The FOMC's gamble

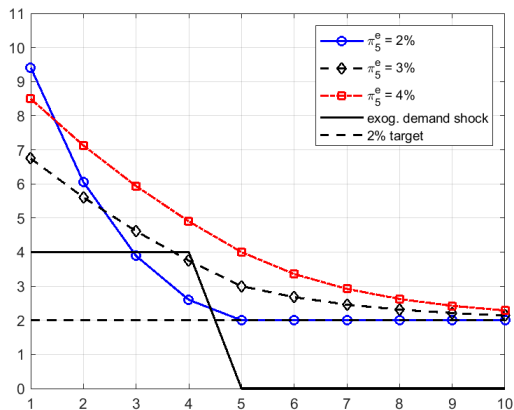
- The FOMC took a gamble in not more quickly responding to the inflation shocks of 2021-2022.
- The gamble was that longer-run inflation expectations would remain anchored *and that medium-term expectations would also remain anchored*.
- Without a policy response, there are multiple possible paths that return inflation to target, all of which assume longer-run inflation expectations remain anchored while medium-term inflation expectations do not.

The FOMC's gamble: one possibility



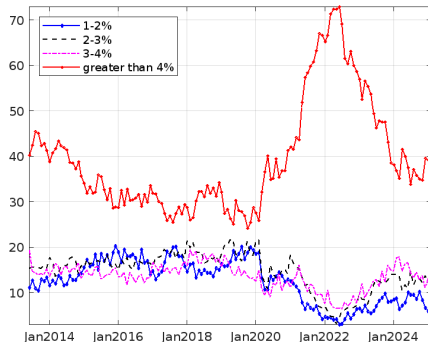
Standard RE equilibrium when the policy rate is held fixed

The FOMC's gamble: other possibilities



Alternative equilibria when the policy rate is held fixed.

70 percent of households expected inflation over 4 percent

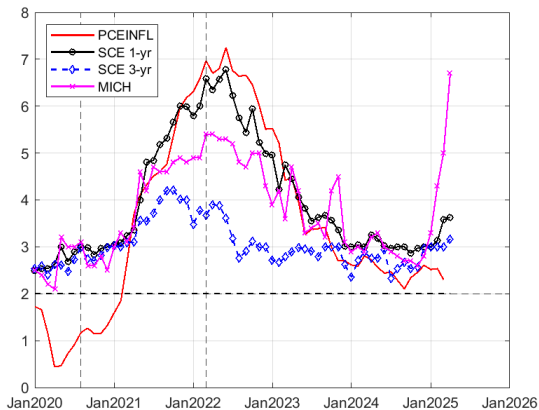


NYFRB SCE: Distribution of 1-year inflation expectations

The FOMC's gamble

- Lack of policy response leads short-run and medium-term expectations to move with actual inflation;
- This implies the effects on inflation might be longer lasting, risking de-anchoring expectations;
- An important statement: “Price stability is the responsibility of the Federal Reserve and serves as the bedrock of our economy... *We will keep at it until we are confident the job is done.*” Chair Powell Jackson Hole, 2022. (emphasis added)

Household inflation expectations

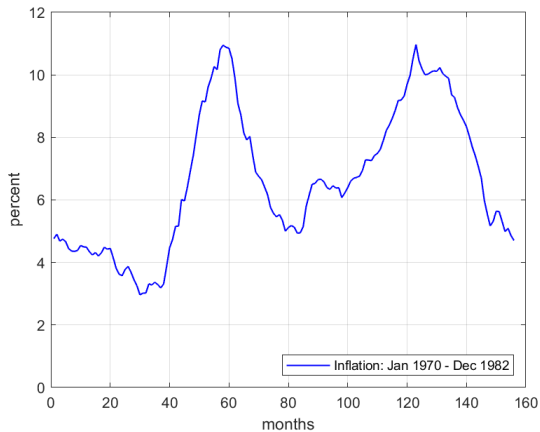


NYFED SCE and Michigan SCE

Managing uncertainty

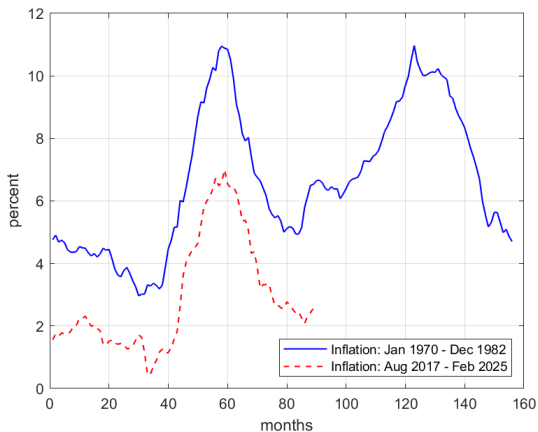
- Old lessons (Walsh 2003):
 - ▶ Overestimate the persistence of shocks;
 - ▶ Overestimate endogenous persistence;
 - ▶ Beware the evil agent (Hansen and Sargent 2002).
- New challenges:
 - ▶ Threats to the Fed's independence (Afrouzi et al 2024);
 - ▶ Monetary and fiscal conflicts (Bianchi and Melosi 2019);
 - ▶ Tariff wars;
 - ▶ Debt crisis.
- **Lesson 5:** *The policy framework should be robust to changes in the economic environment;*
 - ▶ Employ scenario analysis and stress test proposed policy frameworks.
- **Lesson 6:** *Objectives are often not complementary, and making trade-offs is tough, but avoid lexicographic preferences and mission creep.*

The 1970s again?



The Great Inflation

The 1970s again? Don't relax yet!



The Great Inflation and the Inflation Surge of 2021-2022 to date

The 2020 PF through the lens of Barro-Gordon (1983)

$$\pi_t = \pi^T + \frac{\lambda}{\gamma} (u^n - u^*) + \left(\frac{\lambda}{\lambda + \gamma^2} \right) v_t. \quad (2)$$

- ➊ Asymmetric response to inflation effectively raises π^T (Ruge-Mucia 2003, Eggertsson and Kohn 2023).
- ➋ $u^n > u^*$ raises average inflation, as does the asymmetric shortfalls approach (Ruga-Mucia 2004).
- ➌ Prioritizing unemployment effectively raises λ :
 - ▶ This raises average inflation;
 - ▶ It also increases the impact of inflation shocks on inflation.
- ➍ Changes moved to increase average inflation. But that was the point.

Labor market tightness and inflation

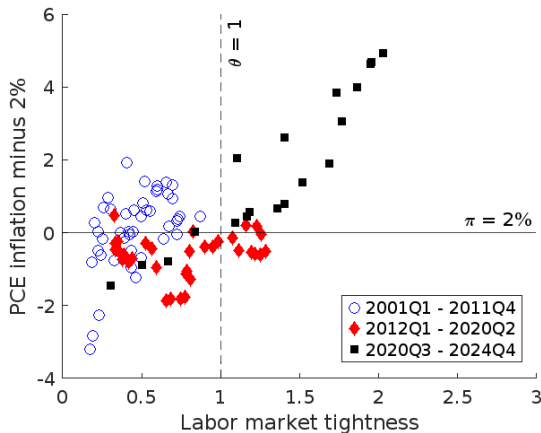


Figure: Labor market tightness and inflation

Inclusive expansions and monetary policy

- Identify distortion, then decide if monetary policy can address it.
- Examples:
 - ▶ Ravenna and Walsh (2011, 2022);
 - ▶ Cairo and Lipton (2023);
 - ▶ Alves and Violante (2025).
- Volatility of inflation, the output gap, and a labor market tightness gap generate welfare losses.
- In calibrated models, monetary policy can do little, because steady-state distortions are large (RW 2011), reducing one distortion worsens another (RW 2022), and inflation costs are high.
- Cairo and Lipton do find SF approach improves welfare of those facing discrimination *and* improves welfare of those not facing discrimination whites even more (though effects are tiny).

Consequences of policy delay

- Basic NK model with habits in consumption and indexation in price setting. Based on Hakamaka and Walsh (2024).
 - ▶ Assumes RE and L-R expectations anchored.
- Suppose there is a positive AR(1) inflation shock at $t = 0$.
- Monetary policy is given by $i_t = 0$ if $t \leq k$ and

$$i_t = (1 - \rho_i)i_{t-1} + \rho_i (\phi_\pi \pi_t + \phi_u u_t) \text{ if } t > k. \quad (3)$$

- $\phi_\pi = 1.5, \phi_u = 0.25, \rho_i = 0.85$.

- ❶ **Lesson 1:** *The employment objective is achievable only if the FOMC picks an operational objective consistent with the inflation target;*
- ❷ **Lesson 2:** *Inflation depends on what the central bank doesn't do as well as what it does do;*
- ❸ **Lesson 3:** *If policy is behind the curve, response needs to be more aggressive;*
- ❹ **Lesson 4:** *Don't be trapped by one's own forward guidance;*
- ❺ **Lesson 5:** *The policy framework should be robust to changes in the economic environment;*
- ❻ **Lesson 6:** *Objectives are often not complementary, and making trade-offs is tough, but avoid lexicographic preferences and mission creep.*

And it never failed that during the dry years the people forgot about the rich years, and during the wet years they lost all memory of the dry years. It was always that way. John Steinbeck, East of Eden, 1952.

But the cloud never comes from that quarter of the horizon in which we watch for it. Elizabeth Gaskell, North and South, 1855.

Discussion of
“Lessons for the FOMC’s Monetary Policy Strategy”
by Carl Walsh

Kenneth Rogoff, Harvard University
Second Thomas Laubach Research Conference
Federal Reserve Board, Washington, D.C.
May 15, 2025

A remarkably broad and sweeping survey of the modern literature on monetary policy

- Master class in central banking
- Drills down on models of average inflation targeting versus asymmetric average inflation targeting (embedded in the 2020 Monetary Policy Framework), as alternative policies for dealing with the lower bound on interest rates.
 - Incredibly comprehensive and concise review of literature
- Looks at practical questions involved in interpreting the Fed's dual mandate, especially when the "natural" rate of unemployment is difficult to estimate.
- Compares the 2020s with 1970s, unpacking especially the errors of the 1970s where inflation expectations were allowed to keep drifting up.

A robust critique of Fed's slow response to rising inflation in 2021-22.

- Essentially argues that most reasonable models would have called for raising interest rates much sooner than the Fed actually did.
 - Taylor rule, however, quite sensitive to choice of equilibrium rate interest rate, which is in fact an extremely volatile variable.
- Looks at the rationales for the slow response and finds them wanting
- Considers whether the Fed's forward guidance policy unnecessarily tied its hands.
- Analyzes the literature on the consequences of the delay
- Asks whether the Fed made a wise gamble when it decided to assume the inflation surge was transitory
- Eviscerating about expanding the objective to incorporate inclusive expansions

Highlighting some of the conclusions

- When policy gets behind the curve, it needs to move faster
- Forward guidance is not useful if the Fed is the only one that listens to it.
- Avoid mission creep
- Policy framework must be robust, conditions can change very quickly.
- -----
- (Are we really so sure that making the needed institutional and tax changes to allow for effective – and potentially deep -- negative rate policy would not be preferable to all the cartwheels that have been made to deal with the perceived zero interest lower bound?)

Central bank independence is elephant in the room

- Walsh's paper reminds us that political pressures on central banks may have been in remission but it is a big mistake to think they have gone away.
 - Monetary policy not akin to setting a thermostat: an irreducible political economy element
 - And political economy pressures have come back big time the past decade
 - Policies such as average inflation targeting fail because they neglect political economy
- Optimal monetary framework must be robust to political pressures.
- Deglobalization leads to pressures on central bank independence
 - (Rogoff, 2003 and Afrouzi, et. al., 2024)
- Rogoff (1985) suggests that instituting an independent central bank is most reliable and effective long-run solution to achieving low and stable inflation.
 - Introduces inflation targeting based on incentives
 - Most robust institutional design is to have “conservative” central bankers who have a strong commitment to stable inflation

Session 3: Lessons for Monetary Policy Strategy

Q&A

Moderator: David Lopez-Salido, Federal Reserve Board

Presenter: Carl Walsh, University of California, Santa Cruz

Discussant: Kenneth Rogoff, Harvard University



Thomas
Laubach

RESEARCH CONFERENCE