Special Feature B

Monetary Policy Strategy Review: The Fed and the ECB

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1 Introduction

When the ECB began operation in 1999, many observers focused on its differences from the Federal Reserve. Perhaps the most widely cited distinction is the one between the ECB's "hierarchical mandate" (which sets price stability as its primary goal) and the Fed's "dual mandate" (which puts price stability and full employment on an equal footing).

Yet, since the start, the two central banks were much alike. The most obvious similarity is their governance structure. In both, monetary policy decisions belong to a group that combines a small core (the ECB's Executive Board and the Federal Reserve's Board of Governors) and a larger number of regional representatives (the heads of the Euro Area national central banks and the US Reserve Bank presidents).

Over the past two decades, the ECB and the Fed have learnt a great deal from each other, furthering convergence. One example is the evolution of their transparency policy and communications tools. Indeed, the ECB now publishes meeting summaries analogous to the Fed's minutes, while the Fed chair now holds a post-policy meeting press conference, something the ECB has done from the start. The two central banks also faced common shocks—including the GFC of 2007–2009 and the ongoing pandemic—that led them to introduce similar tools, including forward guidance and large-scale asset purchases.

Against this background, it is unsurprising that the broad monetary policy strategies in the US and the Euro Area have converged as well. In August 2020, the Fed revised its longer-run goals, and less than a year later the ECB published the culmination of its most recent strategy review.[2]

If past is prologue, observers will exaggerate the lingering disparities. Perhaps most obviously, unlike the Fed, the ECB's strategic update did not introduce an averaging framework in which they would "make up" for past errors. Nevertheless, we suspect that it will be difficult to distinguish most Fed and ECB policy actions based on the modest differences in their strategic frameworks. For the most part, both revised strategies codify existing practice, as they permit extensive discretion in how each will employ their growing array of policy tools. And, going forward, both central banks likely will continue to face strong forces promoting convergence: these include common policy objectives, long-term global trends, global financial fluctuations, and shared analytical methods.

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[2] For the Fed, see https://www.federalreserve.gov/monetarypolicy/files/fomc_longerrungoals.pdf, and for the ECB, see https://www.ecb.europa.eu/home/search/review/html/index.en.html.

In our view, the key drivers of policy differences between the two central banks will remain the distinctive financial and fiscal systems in which they operate: unlike the ECB, the Fed conducts its operations mostly in "safe" assets that trade in a deep and liquid financial market. And, when it comes to countering deflationary threats, the Fed needs to coordinate its action with just one powerful fiscal agent—the US Treasury—rather than the governments of 19 member states.

In the remainder of this Special Feature, we summarise what we see as the principal outcomes of the two strategy reviews.

2 Changes in the Federal Reserve's Policy Strategy

Starting with the Federal Reserve, the Federal Open Market Committee (FOMC)'s policy strategy update incorporates two key changes: a shift to flexible average inflation targeting (FAIT) and a move to a patient shortfall strategy. FAIT represents a shift in the direction of price-level targeting in which the FOMC intends to make up for past inflation misses, while the patient shortfall approach is embedded in the shift from focusing on employment "deviations" to "shortfalls." The second of these conveys a reduced willingness to act pre-emptively against inflation when the unemployment rate (u) declines below estimates of its sustainable level (u^*).

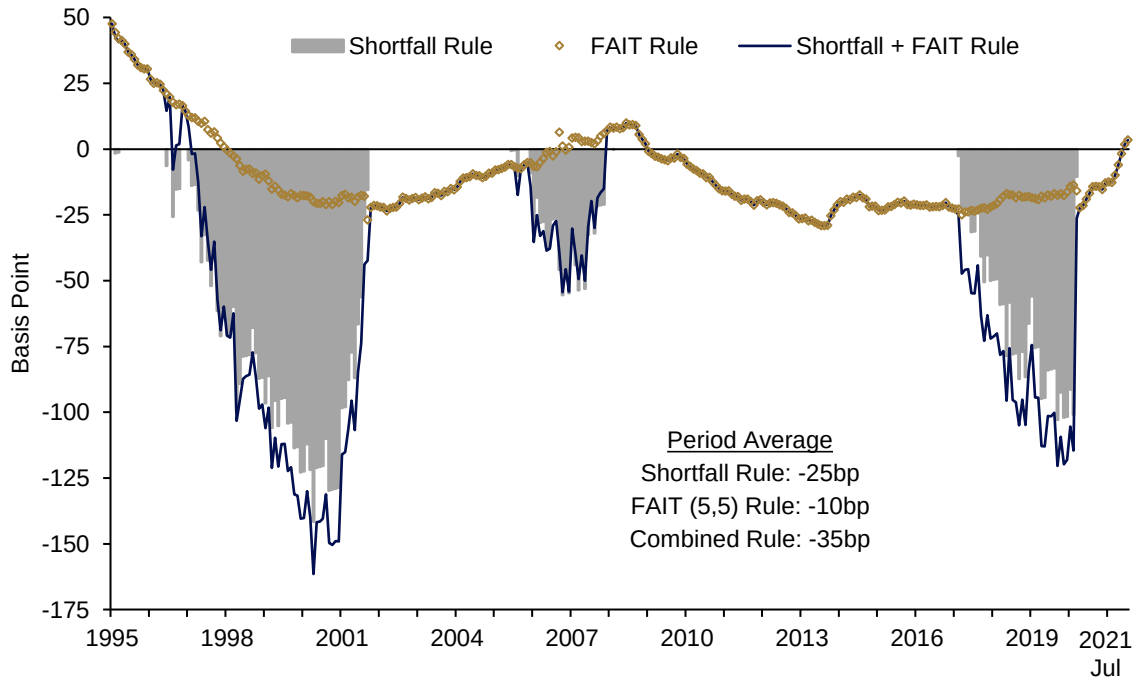
To be effective, the FOMC needs to explain what these two changes mean for the determinants of policy. For example, FAIT implies that the FOMC's short-term inflation objective will change over time: to influence behaviour, the Fed will have to explain their changing objective in a way that everyone understands.[3] Absent such details, observers may worry about further changes of strategy whenever inflation veers significantly from the long-run average target. Similarly, having downgraded the role of the labour market as a predictor of inflation and promised *patience*, policymakers will need to explain how it aims to control inflation going forward.

We do some simple calculations to compare the practical importance of these two strategic shifts. **Chart 1** shows the results of our basic calculations. We take the observed inflation and unemployment readings since 1995 as given for each of three strategies: the patient shortfall rule, the FAIT rule, and a combination of the two. In each case, the chart plots the deviations of the Fed policy rate from that of a simple Taylor rule that uses the unemployment rate gap ($u - u^*$) as the measure of resource utilisation.[4]

[3] Specifically, the FOMC will have to tell us the period over which they are doing the averaging and how it is split into its backward- and forward-looking parts. That is, in computing average inflation, we need to know both how far they will be looking back and how long they expect it to take to recover to the average. So far, they have been silent on these parameters.

[4] For further discussion, see Cecchetti and Schoenholtz (2018).

Chart 1 Deviations of Fed policy rate from a simple u^*-based Taylor rule



Source: FRED and authors' calculations

Note: The baseline Taylor rule is $i = r^* + \pi + 0.5(\pi - \pi^*) - 1.0(u - u^*)$, where i is the policy rate, r^* is the equilibrium short-term real rate, π is annual inflation, π^* is the inflation target, u is the unemployment rate, and u^* is the natural rate of unemployment. The FAIT rule uses the price index of personal consumption expenditures excluding food and energy. We use the Congressional Budget Office measure of the natural rate of unemployment for u^*.

Looking at **Chart 1**, the grey-shaded area shows the consequences of the shortfall rule. Specifically, this reflects the consequence of altering the Taylor rule by setting the impact of unemployment deviations to zero whenever the unemployment rate is below the natural rate of unemployment ($u < u^*$). This patient shortfall strategy is explicitly asymmetrical: the policy rate is equivalent to the original Taylor rule level when u is at or above u^*, otherwise it is lower by the gap between u and u^*.

The FAIT rule (shown as the gold diamonds in **Chart 1**) varies from the simple rule by altering the target inflation rate. Instead of a fixed 2% associated with standard inflation targeting, under FAIT, the inflation target varies by the amount required to return average inflation to 2% over the full target averaging period. For example, if FAIT implies a medium-term inflation target of 2.5% (rather than 2%), the rule subtracts 25 basis points from the simple policy rule, reflecting the coefficient of 0.5 on the inflation gap in the Taylor rule. Constructing a FAIT rule requires that we define both the historical look-back period and the target restoration time window: consistent with a 10-year average inflation targeting regime, we use 5 years for both. Shortening the restoration window would add to the variability of the implied medium-term inflation target, but the deviations from the simple rule would increase by only half as much.

Looking at **Chart 1**, we see that FAIT would have had a very modest impact on policy rates over the period since 1995. The average deviation is −10 basis points, with a standard deviation of 15 basis points. By contrast, the patient shortfall rule reduces the policy rate by 25 basis points on average, with a standard deviation of 39 basis points. As a benchmark for

comparison, the average deviation since 1995 of the monthly effective federal funds rate from the simple Taylor rule is −36 basis points with a standard deviation of a whopping 187 basis points.

The most important message is the difference between the two rules. Despite the attention that FAIT is receiving, the patient shortfall rule has a bigger average impact. Moreover, its effect is far larger when u is below u^*, reaching a minimum of −141 basis points (April 2000), compared to −28 basis points for the FAIT only strategy (September 2001).

The rationale to adopt this patient shortfall rule is likely that the FOMC no longer has confidence in the usefulness of a low unemployment rate for predicting inflation. We share this scepticism. Even so, the Committee still needs a model of inflation if it is to avoid significantly overshooting their long-run average objective. The inherently backward-looking nature of the patient shortfall rule raises this risk.

Aside from inflation risks, another issue that could add to controversy is the impact of the patient shortfall rule on financial stability. The two large "shortfall" episodes of the past 25 years—1997–2001 and 2006–2007—correspond to a stock market boom and a housing boom. Both subsequently gave way to damaging busts, with the latter triggering the GFC. Taylor (2009) blames "monetary excesses" for the housing boom. The timing and impact of a patient shortfall rule would add force to his argument.

While low interest rates are a potential source of financial stability risks, we see macroprudential tools—especially capital and liquidity requirements—as the primary tools for preventing instability. At the same time, following several years in which US authorities relaxed measures intended to build resilience, advocates of monetary policy patience should be especially wary of threats to the financial system associated with persistent low interest rates.

We are sympathetic to the modifications in the FOMC's policy strategy that promote patience and that focus on average inflation. Whether these evolutionary changes bring improvements depends critically on the ability of the Committee to clarify both their medium-term inflation objective and to elaborate their strategy for addressing unpleasant upside inflation surprises. In other words, for the combination of FAIT and the patient shortfall strategy to be effective in maintaining price stability and maximum sustainable growth, the FOMC will need first to agree and then to communicate a complex, time-varying approach to setting monetary policy. For a committee of 19 people, this is a difficult, but not insurmountable, task.

3 Notable Changes in the ECB's Policy Strategy

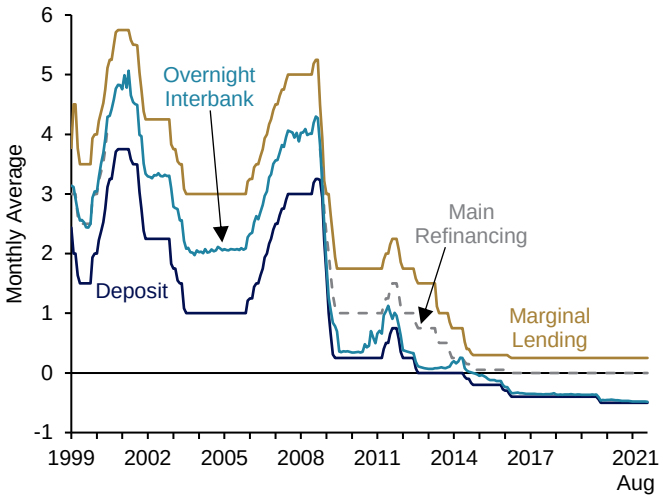
Turning to the ECB, we see three notable changes: target 2% inflation over the medium term, symmetrically and unambiguously; integrate climate change into the framework; and outline a plan to introduce owner-occupied housing (OOH) into the price index they target (the Euro Area Harmonised Index of Consumer Prices (HICP)).[5] While the new strategy can help the ECB achieve its price stability mandate, in our view the overall impact of the revisions is likely to be modest.

[5] For a definition of the HICP, see https://www.ecb.europa.eu/stats/macroeconomic_and_sectoral/hicp/html/index.en.html.

Starting with the strategic motivations, the most important are the same as the ones that drove the Fed's review: the long-term declines in both inflation and real interest rates that lowered equilibrium nominal interest rates and prompted long episodes of policy rates at or below zero.

Indeed, as **Chart 2** below highlights, the ECB has kept its deposit rate (dark blue line, equivalent to the Fed's interest rate on reserve balances) below zero since mid-2014. Faced with extended periods with the policy rate at or below zero, the central bank needs additional tools (including forward guidance and balance sheet measures) to achieve its stabilisation objectives. It also probably needs cooperation from other policymakers—including fiscal and regulatory authorities.

Chart 2 ECB policy rates



Source: ECB

The ECB traces part of this enduring downshift of policy rates to long-run structural trends (including demographics and globalisation) that lowered the global equilibrium real (or natural) rate of interest, known as r^*, by between 1.5 and 2% points.[6] But it also reflects the failure of aggressive monetary stimulus—including negative interest rates, forward guidance, and the purchase of trillions of euros of bonds—to bring Euro Area inflation back to target. As **Chart 3** demonstrates, even with the ECB's deposit rate at or below zero, the five-year Euro Area inflation rate has been below 2% since 2012.

Against this background, the revisions to the ECB's strategic framework are designed to enhance its stabilisation tools in the absence of conventional interest rate policy space. With policy rates likely to be stuck at or below zero for extended periods, the strategy makes clear that formerly unconventional tools like forward guidance, longer-term refinance operations, negative interest rates, and asset purchases are now conventional.

[6] See the Federal Reserve Bank of New York's estimates here: https://www.newyorkfed.org/research/policy/rstar, and the discussion in Cecchetti and Schoenholtz (2020).

Chart 3 Euro Area inflation

Source: Eurostat

For similar reasons, the new strategy sets the ECB's inflation target unambiguously at 2%. The previous asymmetric objective of "below, but close to 2%" encouraged some to view 2% as an inflation cap, rather than a norm. Perhaps as a result, inflation expectations lingered below 2%, limiting the central bank's ability to lower real interest rates.

Against this background, it is perhaps surprising that the ECB did not take the next step and follow the Fed in introducing a make-up strategy to help raise inflation expectations following long periods of sub-target price increases. Like price-level targeting, the FAIT aims explicitly for a period of above-target inflation to correct for past shortfalls (and vice versa for past inflation overshoots). The impact on inflation expectations fosters stabilising swings in the real interest rate, even with the policy rate stuck at zero.

Instead, as the new ECB strategy makes explicit, ongoing emphasis on the medium term continues to allow policymakers a great deal of latitude to achieve comparable results.[7] As in the Fed's case, we think the key word is "patience." According to the strategy statement, for example, following "an adverse supply shock, the Governing Council may decide to lengthen the horizon over which inflation returns to the target level in order to avoid pronounced falls in economic activity." Or, in another circumstance at the effective lower bound: "faced with large adverse shocks the ECB's policy response will […] include an especially forceful use of its monetary policy instruments" that may "imply a transitory period in which inflation is moderately above target." Given this wide degree of discretion, just as with the Fed's new strategy, what observers come to expect about future inflation will depend largely on the ECB's actions in coming years.

The ECB's revised strategy addresses many other points, including the need for cooperation with fiscal policymakers amid deeply adverse shocks, the "complementarity" of price stability and full employment, and the importance of financial stability considerations. Again, for the most part, the framework is consistent with greater convergence with Fed policy. A particularly good example of this is in the ECB's revised analytic approach that

7 The complete statement of the ECB's new monetary policy strategy is here: https://www.ecb.europa.eu/home/search/review/html/ecb.strategyreview_monpol_strategy_overview.en.html.

explicitly drops the "two-pillar" scheme where monetary analysis using measures of money served as a "cross check" on the economic analysis based on everything else. The new "integrated" structure, which is largely consistent with practices in place for some time, focuses on a broad assessment of both economic developments, on the one hand, and of monetary and financial developments, on the other. In the ECB's case, the latter aims explicitly at assessing financial stability and possible impediments to monetary policy transmission.[8]

In one notable area—addressing climate change—the ECB's strategy is more explicit than the Fed.[9] However, the plans—which focus on improving economic modelling, developing new indicators regarding the climate footprint of intermediaries, considering climate risks for the financial system, and ensuring climate neutrality for the assets on the central bank's balance sheet—are consistent with recent Fed evolution in this area. Indeed, in a virtually parallel development earlier this year, the Fed created both a Supervision Climate Committee and a Financial Stability Climate Committee to ensure the resilience of US intermediaries and the financial system.[10]

One additional, largely technical, element of the new ECB strategy, is worth mentioning: the plan to change the measurement of inflation itself. Unlike most advanced economies, the ECB's key metric for price stability—the HICP—does not incorporate OOH. In contrast, for the US, the imputation of rent to owners (something that we cannot directly observe) is the largest single component of the consumer price index—accounting for nearly 24% of the total and 30% of the ex-food-and-energy component.[11]

Discussions about including OOH in the HICP are at least 15 years old.[12] In our view, there are strong theoretical and practical reasons for moving decisively in this direction. Indeed, with parts of the Euro Area facing an extended house price boom amid persistently low interest rates, households may come to question the credibility of the HICP as a measure of inflation.[13]

Fortunately, Eurostat now publishes an index (unlike the US imputed rent measure) based on actual transaction prices for new homes. In recent years, inflation in this OOH measure exceeded that of the HICP by nearly 2% points annually. Depending on its weight, including OOH could have a significant impact on the HICP.[14]

For now, however, the ECB's strategy regarding OOH seems largely aspirational. While the framework review includes a plan to incorporate quarterly developments in the cost of

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8 See Slide 10 in Schnabel (2021).

9 See https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210708_1~f104919225.en.html.

10 See Brainard (2021).

11 Due to its large weight, "owners' equivalent rent" plays a central role in statistical measures of US core inflation, including the trimmed mean and the median, so it has significant influence on Fed policy. See Cecchetti and Schoenholtz (2021).

12 See Eiglsperger and Goldhammer (2018), pages 68–79.

13 See Kindermann *et. al* (2021).

14 See Slide 10 in Schnabel (2021). Using the US weight of 24%, Gros and Shamsfakhr (2021) calculate that average annual inflation from Q1 2015 to Q1 2021 rises from 1.09% to 1.56%. However, following Nell *et. al* (2020), who use a 9% weight mentioned in Eiglsperger and Goldhammer (2018), average inflation over the same six-year period rises by only 0.17% point.

housing in its policy deliberations in coming years, there is only a very loose roadmap for adding a specific component to the monthly HICP.

4 Concluding Remarks

This brings us back to where we started. Over the past year, both the Fed and the ECB concluded policy strategy reviews that likely will advance their well-established trend towards convergence. After studying the results of both reviews, our conclusion is that the changes are modest and incremental, largely reinforcing adjustments that accumulated gradually over the past dozen years. Given that central bankers are conservative by nature, it is unsurprising their policy frameworks would evolve slowly.

At the same time, we applaud both the ECB and the Fed for institutionalising their strategic review processes. Indeed, every central bank should have such a periodic review at least once a decade. We look forward to reading the results of the next Fed and ECB reviews five years from now.

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