The Devolution of Federal Reserve Monetary Policy Strategy, 2012-24

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Abstract

The Federal Open Market Committee's 2012 Statement on Longer-Run Goals and Monetary Policy Strategy interprets the Federal Reserve's statutory dual mandate in light of the natural rate hypothesis and the New Keynesian "divine coincidence." That statement sets a quantitative objective for inflation but not for unemployment, acknowledges that the goals of price stability and maximum employment are generally complementary, and prescribes a balanced policy response in cases where that divine coincidence breaks down. Less than one year after releasing the 2012 Statement, however, the FOMC began deviating from these principles, and the Committee's 2020 amendments to its Strategy Statement appear to reflect, instead, the older view that the Phillips curve presents the central bank with an exploitable trade-off between inflation and unemployment. To bring its monetary policy strategy back in line with the lessons of contemporary macroeconomic theory, the FOMC could simply abandon the 2020 amendments and return to its original framework outlined in 2012. Alternatively, the Committee could eliminate the asymmetries and ambiguities that prevent its flexible average inflation targeting strategy from having the desirable properties of a true price level targeting scheme.

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1 The Dual Mandate and the Natural Rate Hypothesis

Via its 1977 Amendment to the Federal Reserve Act (The Federal Reserve Reform Act of 1977, Public Law 95-188), the United States Congress instructs our nation's central bank to conduct monetary policy "so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates." The Full Employment and Balanced Growth Act of 1978 (Public Law 95-523, known more popularly as the "Humphrey-Hawkins Act") identifies maximum employment and price stability as top economic priorities and likewise directs the Federal Reserve ("Fed") to conduct monetary policy to achieve those goals. Although these two pieces of legislation are cited most often as the source of the "dual mandate," requiring the Federal Open Market Committee (FOMC) to focus on both unemployment and inflation when conducting monetary policy, Steelman (2011) traces all the way back to the Employment Act of 1946 (Public Law 79-304) the more general idea that US economic policies, including those of the Fed, ought to be directed towards achieving objectives for unemployment and inflation jointly.

Sargent's (1999) historical analysis, however, describes how the Federal Reserve's own interpretation as to exactly how the dual mandate is to be fulfilled has evolved considerably over the decades. During the 1960s and 1970s, policymakers viewed the Phillips curve – the inverse statistical relationship between unemployment and inflation often found in data from the US and other countries – as offering a menu of possible outcomes from which they could choose, through skillful fine-tuning, exactly the right mix of maximum employment and stable prices. Sargent (1999, p.2, fn.2) traces the intellectual origins of this view back to Samuelson and Solow (1960, p.192), who describe the "Phillips curve for the U.S." illustrated in their figure 2 as showing "the menu of choice between different degrees of unemployment and price stability."

By Sargent's account, this view was shattered when, by the late 1970s, those same policymakers were induced to "adaptively" learn about the natural rate hypothesis developed in

theory ten years earlier by Phelps (1967), Friedman (1968), and Lucas (1972). The natural rate hypothesis emphasizes the role of changing expectations in destabilizing the Phillips curve and, as illustrated most vividly in Kydland and Prescott's (1977) analysis, reduces the exploitable trade-off between unemployment and inflation to a highly transient one, at best.

Sargent's own mathematical and statistical analysis focuses, more specifically, on the question of whether policymakers changed their beliefs because they were persuaded fully by the power of Phelps, Friedman, Lucas, Kydland, and Prescott's theoretical arguments or whether, as empiricists, they simply stopped trying to exploit the Phillips curve when their efforts to lower the rate of unemployment by increasing the rate of money growth brought little or nothing in terms of job gains and led mainly to higher inflation instead. Most of Sargent's results favor the latter, empirically-oriented explanation, pointing, in his words (1999, pp.2-3), to the "vindication of econometric policy evaluation" rather than the "triumph of natural-rate theory." As will be argued below, subsequent history covering the period from 2012 through the present appears to confirm Sargent's suspicion that Federal Reserve officials, as a group, never fully accepted the policy implications of the natural rate hypothesis and, therefore, never let go of their deeper beliefs in the Phillips curve trade-off.

But whatever the reason for the Fed's shift in emphasis might have been at the time, it does seem clear in retrospect that a temporary rejection of an exploitable trade-off between unemployment and inflation was key to the success that policymakers had in bringing inflation down from its peak and restoring stability and vigor to the American labor market during the episode starting in the 1980s that has since become known as the "Great Moderation." Nor can it be disputed that the natural rate hypothesis guided the design of the inflation targeting strategies developed and implemented by central banks around the world during the 1990s and 2000s.[1] Recognizing, as Phelps, Friedman, Lucas, Kydland, and Prescott did before, that there is little if anything that monetary policy can do to push

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[1] Binder (2024) provides a longer historical account of the political and economic arguments for inflation targeting, with particular emphasis on Irving Fisher's early twentieth-century advocacy of price stabilization as the principal objective of the newly-founded Federal Reserve.

unemployment persistently below its natural (or normal) rate and acknowledging as well the costs that higher inflation imposes on the economy, inflation targeting strategies focus first and foremost on stabilizing prices around explicit, pre-announced numerical targets, and thereby provide ideal conditions for long-run growth in income, spending, and jobs as well. Kydland and Prescott (1977, p.477) conclude most bluntly: the "policy of maintaining price stability is preferable."

Thus, as Bernanke, Laubach, Mishkin, and Posen (1999, pp.11-16) also emphasize, inflation targeting strategies reflect fully the monetary lessons learned – at least temporarily – from the natural rate hypothesis in conjunction with the data generated during the 1970s era of stagflation, while remaining consistent with the dual mandate. According to this new view, the single most effective way that the Fed can "promote the goal of maximum employment" is to stabilize prices first. To support this view, Bernanke and his co-authors cite numerous examples in which macroeconomic performance improved, across the board, once the strategy of inflation targeting was adopted and put into action.

Bernanke himself applied these lessons when, in January 2012 under his leadership as Federal Reserve Chair, the Federal Open Market Committee announced an explicit, two-percent target for long-run inflation in the United States. That announcement recognized the scientific genius of five Nobel Prize-winning economists and, by doing so, held out the promise – again, at least for a time – that the monetary policy mistakes leading to high inflation and contributing to macroeconomic volatility during the 1970s would not be repeated.

2   The Divine Coincidence and the 2012 Strategy Statement

The details of the Federal Open Market Committee's (2012a) Statement on Longer-Run Goals and Monetary Policy Strategy (hereafter, the "2012 Strategy Statement") were shaped, not just by the natural rate hypothesis, but also by further advances in macroeconomics that, during the 1980s and 1990s, built importantly on natural rate theory.

First, Kydland and Prescott (1982) and Long and Plosser's (1983) real business cycle

models demonstrated that fluctuations in output and employment resembling those seen in the postwar US economy could be driven entirely by non-monetary disturbances, in the form of variations in total factor productivity or "technology shocks." These models push the natural rate hypothesis to its limits, by denying the appearance even of a statistical Phillips curve relationship between unemployment and inflation and by implying there is no role for monetary policy to influence real variables except through the effects that anticipated inflation has as a distortionary tax on productive activity.[2]

Thus, real business cycle models, through their assumption that prices and wages are perfectly flexible, also assume away any stabilization role for monetary policy. Further implications – more general, but also more subtle – emerged later on when when Hairault and Portier (1993), Leeper and Sims (1994), Kimball (1995), Yun (1996), Goodfriend and King (1997), Ireland (1997), Rotemberg and Woodford (1997), McCallum and Nelson (1999), and Kim (2000) elaborated on the real business cycle framework by introducing nominal price rigidities. The resulting models, called "neomonetarist," "new neoclassical synthesis," or most popularly "New Keynesian," now appear in textbooks including Woodford (2003) and Galí (2015).

In New Keynesian models, monopolistically competitive firms are unable to fully or continuously adjust their output prices, either because they face explicit costs of nominal price adjustment as proposed by Rotemberg (1982) or because they can only reset their prices at randomly-timed dates as suggested by Calvo (1983).[3] Roberts (1995) and Rotemberg (1997) show that, either way, the Euler equation describing firms' optimal price setting

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[2]Cooley and Hansen (1989) and Belongia and Ireland (2006) study this real-business-cycle channel of monetary transmission quantitatively. Feldstein (1999) analyzes the costly effects that inflation has on saving and capital accumulation working through a non-indexed system of income taxation; these effects, too, will be present in real business cycle models, but are also quite different from those implied by the traditional Phillips curve trade-off described by Samuelson and Solow (1960).

[3]Of course, both Rotemberg's cost of price adjustment and Calvo's random-timing assumptions are best seen to be "as-if" modeling devices, capturing in two analytically tractable ways the deeper informational frictions that prevent firms from immediately adjusting their prices in response to unanticipated shocks.

decisions, when log-linearized, takes the form of the New Keynesian Phillips curve

$$\pi_t = \beta E_t \pi_{t+1} + \kappa(y_t - y_t^*), \tag{1}$$

where π_t denotes the inflation rate, $E_t \pi_{t+1}$ the expected future inflation rate, y_t the log of the actual level of output, and y_t^* the log of the natural rate of output, defined as the level of output that would prevail in the absence of nominal rigidities, so that $y_t - y_t^*$ represents a welfare-theoretic measure of the output gap: the gap between the actual and efficient levels of output. In (1), the parameter β is a discount factor that lies between zero and one, and the positive Phillips-curve slope parameter κ depends on underlying structural parameters that determine the speed of aggregate price adjustment.

Importantly, in (1), all variables are expressed as percentage-point deviations from their average, or steady-state, values, so that permanent increases in inflation have no effect on the output gap. Thus, while the New Keynesian Phillips curve helps describe fluctuations in the output gap and inflation around their steady-state values, those steady-state values themselves are determined separately, in accordance with the classical dichotomy and the doctrine of long-run monetary neutrality. In particular, steady-state output gets pinned down by the model's real business cycle core, depending on the availability of labor, capital, and other inputs to production and on the level of total factor productivity. Meanwhile, as described by Nelson (2008), the central bank's choice of average money growth determines, via quantity-theoretic channels, the steady-state inflation rate.

As discussed in more detail by Ireland (2008), the simplest New Keynesian models use the Phillips curve (1) together with two additional equations to fully describe the dynamic behavior of inflation π_t, output y_t, and the central bank's short-term policy interest rate r_t. First, the New Keynesian IS curve

$$y_t = E_t y_{t+1} - \sigma(r_t - E_t \pi_{t+1}) \tag{2}$$

follows from the Euler equation governing a representative consumer's spending and savings decisions, again after log-linearization. In (2), the positive parameter σ measures the absolute value of the elasticity of aggregate demand to changes in the real interest rate. Second, the monetary policy rule

$$r_t = \alpha \pi_t + \gamma(y_t - y_t^*), \tag{3}$$

takes the form suggested by Taylor (1993), with the positive parameters α and γ describing how the central bank adjusts its interest rate instrument in response to changes in inflation and the output gap. In (3), the further restriction that $\alpha > 1$, often referred to as the "Taylor principle" (see, for example, Woodford 2003, p.40), requires the central bank to increase the real interest rate in response to an increase in inflation and helps ensure the existence of a unique, dynamically stable rational expectations equilibrium. Once more, in (2) and (3), all variables represent percentage-point deviations from their steady-state values.

The New Keynesian Phillips curve (1) inherits, through the term involving $E_t \pi_{t+1}$, the key implication of the natural rate hypothesis: that changing inflationary expectations work to shift the relationship between inflation and the output gap. The New Keynesian Phillips curve also inherits, through the term involving y_t^*, the key implication of the model's real business cycle foundation. According to the New Keynesian model, this natural rate of output need not remain constant or follow a slow-moving trend over time. To the contrary, it may vary considerably, and even at high frequencies, as the economy is hit by disturbances such as the real business cycle model's technology shock. Thus, Ireland (1996) shows that in the New Keynesian model, monetary policy should often be directed at allowing output and employment to respond efficiently to supply-side shocks, as opposed to trading off inflation and unemployment by moving up and down along a more traditional Phillips curve.

Building further on these insights, Blanchard and Galí (2007) observe that the New Keynesian Phillips curve implies a "divine coincidence" between the two sides of the Federal Reserve's dual mandate. By stabilizing inflation at its targeted steady-state value, that is, by conducting policy so that π_t and $E_t \pi_{t+1}$ both equal zero, the central bank will simultaneously

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generate outcomes where equilibrium output tracks the natural rate exactly, so that the output gap $y_t - y_t^*$ remains at zero as well. While there is, via (1), a Phillips curve in the New Keynesian model, there need not be any welfare-theoretic trade-off between inflation and the output gap or unemployment.

As Clarida, Galí, and Gertler (1999) make clear, however, the divine coincidence can be broken when the economy is hit by other types of shocks. If, for example, the Phillips curve (1) is expanded to include a "cost-push shock,"

$$\pi_t = \beta E_t \pi_{t+1} + \kappa(y_t - y_t^*) + u_t, \tag{4}$$

which, as shown by Steinsson (2003), may reflect fluctuations in firms' desired markups of price over marginal cost, then the central bank will again face a trade-off between stabilizing inflation and stabilizing the output gap. Monetary policymakers will have to decide how the effects of an adverse shock to u_t gets split between an increase in inflation π_t and a decrease in output y_t.

Impressively, the FOMC's 2012 Strategy Statement incorporates all of these lessons. First, the statement acknowledges that "the inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation." As noted above, by setting this explicit, numerical objective for inflation, the FOMC simultaneously accepted the practical usefulness of the natural rate hypothesis and promised that the high and volatile rates of inflation experienced during the 1970s would never be seen again.

Second, the Strategy Statement admits that the "maximum level of employment is largely determined by nonmonetary factors that affect the structure and dynamics of the labor market," a further implication of the natural rate hypothesis. Consistent with the real business cycle core of the New Keynesian model, the Strategy Statement goes on to concede that "these [nonmonetary] factors may change over time and may not be directly measurable."

Therefore, "it would not be appropriate to specify a fixed goal for employment" on par with the explicit two percent target for inflation. In the Committee's thinking, a Phillips curve more akin to (1) seems to have at least temporarily replaced Samuelson and Solow's (1960) "menu of choice between different degrees of unemployment and price stability."

Third, while the 2012 Strategy Statement certainly does not reject the dual mandate, emphasizing that "in setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of unemployment from the Committee's assessments of its maximum level," it also acknowledges that, according to the New Keynesian divine coincidence, "these objectives are generally complementary." Fourth and finally, the Strategy Statement promises that "under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them," thereby removing any possibility of bias towards excessive inflation.[4]

In short, the FOMC's 2012 Strategy Statement, while respectful of the dual mandate, is also fully consistent with what Clarida, Galí, and Gertler (1999) call "the science of monetary policy," developed through application of the natural rate hypothesis, real business cycle theory, and New Keynesian economics.

3   The Backsliding Begins

Unfortunately, less than a year after it took the all-important step of distinguishing between its goals for inflation, which can be quantified precisely over the long run, and its goals for unemployment, which cannot possibly be stated in terms of a numerical objective, the Federal Open Market Committee set quantitative guideposts for unemployment in its post-meeting press releases, out of frustration over the labor market's slow recovery from the 2008 financial crisis and as part of a broader effort to provide "forward guidance" to the public

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[4]See Ireland (1999) for evidence that an inflationary bias in Federal Reserve policy of the kind described by Kydland and Prescott (1977) and Barro and Gordon (1983) generated excessive inflation from an overly accommodative monetary response to supply-side shocks that hit the US economy during the 1970s.

about the future path of its federal funds rate target.[5]

Specifically, in the Press Release that followed their December meeting (Federal Open Market Committee 2012*b*, hereafter "December 2012 Press Release"), FOMC members announced their intention to keep the federal funds rate within an exceptionally low band, between 0 and 1/4 percent, "at least as long as the unemployment rate remains above 6 1/2 percent, inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer run goal, and longer-term inflation expectations continue to be well anchored."[6]

As Orphanides (2013, p.10) points out, this December 2012 Press Release is carefully worded in a way that makes it impossible to rule out that it remains consistent with the January 2012 Strategy Statement, that is, with a broader strategy of inflation targeting. Two sets of considerations show, however, that Orphanides is also correct to say that "the tension this language created appears to be unhelpful."

First, as the left-hand panels of figure 1 show, over the 12 months that followed the December 2012 Press Release, the unemployment rate fell from 7.9 percent to 6.7 precent. If one took these data at face value, one would have to conclude that the FOMC's goals for unemployment had then been almost entirely achieved, preparing the way, perhaps, for a process of policy normalization.[7] Except that in December 2013, the employment ratio, defined as the number of employed people as a percentage of the adult population, stood at 58.7 percent ... completely unchanged from its value in December 2012.

Algebraically, when all variables are expressed as fractions instead of percentages, the unemployment rate equals one minus the employment ratio divided by the labor force par-

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[5]Lacker's (2020) detailed review reveals that the "dilemma of the employment mandate," reflected in questions over the appropriateness and usefulness of more explicit objectives for employment as well as inflation, dominated the FOMC's internal debates and discussions both before and immediately after the release of the January 2012 Strategy Statement. His account, like the one provided here, raises doubts about the Committee's faith in the natural rate hypothesis.

[6]Federal Reserve Bank of Chicago President Charles Evans (2012) referred specifically to this 6 1/2 percent threshold for unemployment in a speech that shortly predates the December 2012 FOMC Press Release; hence, this modified strategy is often described as embodying the "Evans rule."

[7]Instead, the FOMC dropped reference to the 6 1/2 percent unemployment rate threshold from its post-meeting press releases a few months later, in March 2014.

ticipation rate. In general, this means that when the unemployment rate falls, it can be because the employment ratio rises, the labor force participation rate falls, or some combination of the two. Over the year following the December 2012 Press Release, however, the decline in the unemployment rate was due *entirely* to a decline in the labor force participation rate. In fact, these dynamics took hold well before December 2012: as the unemployment rate fell from its October 2009 peak of 10 percent down to 6.7 percent in December 2013, the employment ratio rose just slightly, from 58.5 to 58.7 percent, while the participation rate declined from 65.0 percent to 62.9 percent. Again, virtually all of the decline in the unemployment rate during the first four years of recovery from the 2008 financial crisis and Great Recession that followed came because Americans exited the labor force: hardly a sign of recovery or progress!

Not surprisingly, as figure 1 also reminds us, the FOMC delayed raising its federal funds rate for another two years, until December 2015. But what this episode underscores most boldly is that the unemployment rate is just too poorly measured, too poorly understood, and is buffeted about by too many factors beyond the Federal Reserve's influence to make it a reliable guide, let alone a quantitative objective, for monetary policy. This was already known from the natural rate hypothesis and real business cycle theory. And this was already reflected in the January 2012 Strategy Statement – much more clearly than the December 2012 press release.

Second, to make matters worse, whatever disturbances may have hit the US economy during and after the financial crisis and then, in particular, over the period following the December 2012 Press Release but before the December 2015 funds rate lift-off, these disturbances lack the distinguishing feature of the cost-push shocks that, when added to the New Keynesian Phillips curve in moving from (1) to (4), give rise to a painful trade-off when the central bank wants to stabilize both inflation and a welfare-theoretic measure of the output gap. Shocks of that kind, though they will tend to reduce output and increase unemployment, also work to *increase* inflation. But, as the right-hand panels of figure 1 show, the

sluggish recovery from the Great Recession experienced in the United States was accompanied by inflation rates that remained, quite consistently, *below* the FOMC's two-percent target, shown by the red line in the graphs.

In other words, the sluggish post-2009 recovery appears in retrospect to have taken place within an economic environment in which the New Keynesian divine coincidence *did* apply. Against that backdrop, bringing inflation back up to the two-percent target should have been the Fed's first and only priority. The additional emphasis on unemployment, and especially a numerical target for unemployment, was unnecessary and confusing. In crafting the December 2012 Press Release, FOMC members appear to have forgotten – or at least come to have serious doubts about – the most important lessons from the natural rate hypothesis, real business cycle theory, and New Keynesian economics that helped shape the more successful January 2012 Strategy Statement. In both providing a framework for communication and for guiding policy actions, the December 2012 Press Release took a clear step backwards.

4 The 2020 Amendments and Return of Inflationary Bias

In August 2020, the Federal Open Market Committee made major revisions to its 2012 Strategy Statement (Federal Open Market Committee 2020, hereafter "2020 Amended Strategy Statement"). As Powell (2020) explains, the release of the Amended Strategy Statement was delayed by the March 2020 economic shut-down; the changes in it follow, instead, from the Federal Reserve's 2019 strategic review and were motivated by the experience, summarized above, of stubbornly low inflation and sluggish growth in income and jobs following the financial crisis and Great Recession of 2008-9.

In fact, the FOMC's "problem" of low inflation had already been addressed, at least in part, by an earlier and far more modest set of amendments to the Committee's Strategy Statement made in 2016 (Federal Open Market Committee 2016). These amendments emphasized that the "Committee would be concerned if inflation were running persistently

above or below" what the Statement now described explicitly as a "symmetric" two-percent inflation target. These amendments thereby signaled the FOMC's willingness to take actions that would prevent inflation from falling modestly but persistently below two percent as it did throughout the recovery starting in 2009.

The more specific technical question confronting the FOMC during its 2019 strategic review therefore seems clear: it concerns the zero lower interest rate bound. If as seems likely, the zero lower bound has become a recurrent constraint that has and will continue to prevent the Fed from delivering sufficient monetary stimulus during recessions, then how can the FOMC prevent inflation from falling below two percent, on average, over the business cycle as a whole? In other words, how can the FOMC achieve its symmetric two percent inflation target?

Once again, macroeconomic theory had already provided a clear answer to this question, which the FOMC could have taken, right off the shelf, during its strategic review. And, once again, the insights came specifically from New Keynesian models and, more generally, from research highlighting the important role of expectations in shaping macroeconomic outcomes originating with Phelps (1967), Friedman (1968), Lucas (1972), and Kydland and Prescott (1977).

New Keynesian models imply that in an environment where both inflation and the long-run real natural rate of interest are low, the long-run neutral setting for the nominal policy rate will also be low, leaving less room for easing through interest rate reductions during cyclical downturns. Under such circumstances, New Keynesian theory also implies that the central bank should follow a policy rule that replaces the Taylor rule (3) that targets inflation with a variant that targets the aggregate price level instead. Svensson (2001) and Eggertsson and Woodford (2003) provide early statements of this result; Mertens and Williams (2020) reconfirm it more recently.

Compared to inflation targeting, price level targeting offers two advantages. First, in a purely mechanical way, adjusting monetary policy with reference to a multi-year price path

prevents a series of modest, but single-sided, deviations of inflation from target like that seen during 2009-19 from cumulating into much larger gaps between the actual price level and the level that consumers and businesses expected when entering into implicit or explicit long-term nominal contracts. In emphasizing this point, arguments for price level targets echo those made by Broaddus and Goodfriend (1984), Hetzel (1989), Bordo, Choudhri, and Schwartz (1990), and Ireland (1993) against "base drift" in the money growth targets set by central banks during the 1970s and 1980s. By setting a multi-year target for the price level instead of annual targets for inflation, the central bank signals that bygones will *not* be bygones. This strategy works to reduce long-run monetary uncertainty when applied to any nominal variable: the aggregate price level, nominal GDP, or the money stock.

But with its emphasis on the role of expectations – again, the classic theme that originates in Phelps (1967), Friedman (1968), Lucas (1972), and Kydland and Prescott's (1977) work on the natural rate hypothesis and which manifests itself in the New Keynesian model via the appearance of expectational terms in the Phillips curves (1) and (4) and the IS curve (2) – contemporary macroeconomic theory identifies a second, more powerful, advantage of policy strategies cast in terms of levels. Following a period of low inflation, the policy rate r_t must remain "lower for longer" to bring the price level all the way back to a multi-year target path. Even – or especially – when policy rates are constrained by the zero bound, the resulting increase in expected inflation works to reduce the real interest rates that matter, in (2), for consumer and business spending plans. Through this expectational channel, additional monetary stimulus gets applied exactly when it is needed most, at the zero lower bound. Consequently, in dynamic, stochastic, general equilibrium, the price level returns to its target path more quickly.

By promising to compensate for past misses of inflation below target, the "flexible average inflation targeting" (FAIT) scheme that emerged from the Fed's 2019 review attempts to secure some of the benefits of a more explicit, level targeting strategy. Unfortunately – and ironically, given the FOMC's 2016 emphasis on the "symmetry" of its objections for inflation

– average inflation targeting as described and implemented by the Committee suffers greatly from its asymmetries and ambiguities.[8]

The 2020 Amended Strategy Statement begins by highlighting the problem associated with the zero lower interest rate bound:

> The Committee judges that the level of the federal funds rate consistent with maximum employment and price stability over the longer run has declined relative to its historical average. Therefore, the federal funds rate is likely to be constrained by its effective lower bound more frequently than in the past. Owing in part to the proximity of interest rates to the effective lower bound, the Committee judges that downward risks to employment and inflation have increased.

Later, consistent with New Keynesian theory, the Amended Statement introduces the FAIT framework as a solution to this problem: "In order to anchor longer-term inflation expectations at this level, the Committee seeks to achieve inflation that averages 2 percent over time." So far so good.

But whether by design or by oversight, the Amended Strategy Statement contains an asymmetry, indicating only that "following periods when inflation has been running persistently below 2 percent, appropriate monetary policy will likely aim to achieve inflation moderately above 2 percent for some time." A fully-articulated price level targeting strategy, by contrast, would also make clear that past overshoots must be followed by periods of below-target inflation.

A second asymmetry appears – this time more clearly and explicitly – in the Amended Statement's discussion of employment. Where the original 2012 Strategy Statement describes a monetary policy response to "deviations of employment from the Committee's assessments of its maximum level," the 2020 Amended Statement replaces "deviations" with "shortfalls" instead. Powell (2020, p.10) traces the rationale for this change to a perceived flattening of

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[8]Beckworth and Horan (2022), Levy and Plosser (2022), and Hogan (2023) discuss these problems as well.

the Phillips curve, which implies that "a robust job market can be sustained without causing an outbreak of inflation." Powell's description could be interpreted in light of real business cycle and New Keynesian theory as recognizing that increases in output and employment need not signal higher inflation, if they reflect shocks that raise the natural rate of output and lower the natural rate of unemployment. But language from the Statement itself – "in setting monetary policy, the Committee seeks over time to mitigate shortfalls of employment from . . . its maximum level" – is more strongly suggestive of further backsliding away from the natural rate hypothesis and towards Samuelson and Solow's view of a (now more favorable) trade-off of higher inflation in exchange for lower unemployment.

Two additional changes in the Amended Strategy Statement are more subtle and, therefore, even more difficult to interpret. First, going beyond the reference to maximum employment from the dual mandate itself, the Amended Statement refers to this objective as a "broad based and inclusive goal." Powell (2020, p.10) again elaborates, explaining that "this change reflects our appreciation for the benefits of a strong labor market, particularly for many low- and moderate-income communities." Once more, this language suggests a shift the Committee's interpretation of the Phillips curve, back towards one that implies a trade-off between unemployment versus inflation, together with an increase in the weight that the FOMC places on its goals for unemployment versus inflation.

A Federal Reserve Board Staff paper by Feiveson, Goernemann, Hotchkiss, Mertens, and Sim (2020), prepared as part of the 2019 strategic review and cited by Powell (2020), summarizes evidence that the cost of recessions fall most heavily on low and moderate-income families. On the other hand, Romer and Romer (1998) and Easterly and Fischer (2001) present evidence showing that, likewise, the cost of inflation falls most heavily on the poor; these findings are confirmed, more recently, in a Dallas Federal Reserve Bank study by Jayashankar and Murphy (2023). And, in fairness, Powell (2022, p.1) also recognizes this:

> Price stability is the responsibility of the Federal Reserve and serves as the
> bedrock of our economy. Without price stability, the economy does not work

for anyone. In particular, without price stability, we will not achieve a sustained period of strong labor market conditions that benefit all. The burdens of high inflation fall heaviest on those who are least able to bear them.

Taken by itself, Powell's (2022) speech appears as a step back in the right direction, towards a view of the Phillips curve that is consistent with the natural rate hypothesis and the New Keynesian divine coincidence. However, a comparison between these two speeches, both given at the Federal Reserve Bank of Kansas City's annual policy symposium – Powell (2020), with its emphasis on unemployment, and Powell (2022), with its focus on inflation instead – raises a deeper concern. Hetzel (2021, 2022 Ch.18) describes in detail how the FOMC's stochastically-shifting lexicographic preferences, alternating between exclusive concern for inflation and unemployment, combined with a belief in an exploitable Phillips curve to drive the "stop-go" monetary policy cycles that led *both* to high inflation and increased macroeconomic volatility throughout the 1970s. It is certainly disturbing to see these basic elements of stop-go couched now in the language of "broad based and inclusive" goals, applied alternatively to employment and price stability.

The practical dilemma raised by the continued use of this language is illustrated most vividly in a response to questioning given by Powell following his June 2023 Semiannual Monetary Policy Report to Congress (quoted in "Monetary Policy and the Economy," 2023):

> As you know, we call out disparate economic characteristics in different demographic groups, including by race. [We] want those facts to be present in the room as we make our decisions. We try to think of maximum employment – we think of it as a broad and inclusive goal – meaning not just looking at the aggregate level. It is important to keep those facts in your head as you think about monetary policy. I will say, we have only one federal funds rate. We don't really have the tools that address distribution and historical inequities and things like that. The Fed is not an agency that has those things. The best thing we can do for everybody, being in particular, low and moderate income communities is to

maintain price stability over a long period of time.

Of course, Powell *is* correct in everything he says. Everyone knows that Fed officials, like all their fellow Americans, have concerns for distributive justice. But, just the same, monetary theory and history have revealed that the best way of satisfying those concerns is by preserving a stable monetary environment with low inflation. What is the purpose of repeatedly emphasizing the former, when all that needs to be said is the latter? It's just not clear what the FOMC was getting at or hoping for by describing maximum employment but not inflation as a "broad based and inclusive goal" in its Amended Strategy Statement.[9]

Second, as noted above, while the 2012 Strategy Statement describes the Fed's inflation and employment stabilization objectives as "generally complementary," it also goes on to explain that "under circumstances in which the Committee judges the objectives are not complementary, it follows a balanced approach in promoting them." The 2020 Amended Statement drops reference to the "balanced approach," indicating only that the Committee "takes into account the employment shortfalls and inflation deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate." But, if not "balanced," what kind of response does the FOMC see itself taking in cases where the divine coincidence fails to apply? Neither the 2020 Amended Statement nor Powell's (2020) expository remarks help answer this last question.

The Fed may not be entirely to blame for the high inflation that returned in 2021 and continues today. Certainly, no one could have predicted the specific chain of events that began in March 2020 and continues through the present. Just as certainly, however, the Fed

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[9]Rouanet and Salter (2024) use a supply-and-demand framework for political activism to interpret Federal Reserve officials' statements of concern over economic inequality, climate change, and other problems beyond the influence of monetary policy as part of a broader process of "mission creep" at the central bank. They emphasize, in particular, that the 2008 decision to begin paying interest on reserves, by enabling the Fed to greatly expand its balance sheet without fueling inflation, lowered the cost of politically-motivated nonmonetary activities and thereby shifted the supply curve for those activities to the right, leading to an increase in them as an equilibrium outcome. Rouanet and Salter's analysis provides yet another rationale to support Nelson's (2024) proposal to greatly reduce the size of the Federal Reserve's balance sheet and Selgin (2018) and Ireland's (2019, 2020) arguments to suspend payment of interest on reserves.

entered 2021 with an Amended Strategy Statement biased heavily towards more inflation. And so, it's hard to accept as a mere coincidence or to attribute entirely to bad luck that more inflation did, in fact, follow.[10]

5   Restoring Symmetry and Balance to the Fed's Strategy

"Asymmetric" and "unbalanced" is how the FOMC's monetary policy strategy appears today. How can the Committee's commitment to its two percent inflation objective more credibly be described as "symmetric?" And how can a more healthy balance be restored? Several solutions suggest themselves.

Perhaps the easiest and most obvious would be to abandon fully the 2020 Amended Statement and return to the principles outlined in the original 2012 Strategy Statement. Of course, it is always difficult for policymakers to recognize publicly their missteps and mistakes. Realistically, though, it seems difficult to improve on a policy that sets a two percent target for long-run inflation, recognizes that it is impossible to set an analogous, quantitative target objective for unemployment, points out that the objectives of stabilizing inflation and employment are often complementary, and prescribes a balanced policy response in cases where the divine coincidence breaks down.[11]

As noted above, extensions of the same macroeconomic theory that generated the natural rate hypothesis and the divine coincidence also imply that price level targeting schemes yield outcomes preferable to those provided by inflation targeting in environments where the zero lower interest rate bound imposes a recurrent constraint on monetary policy. Thus, a more ambitious approach would be to remove the asymmetries and ambiguities of flexible average inflation targeting that appear in the 2020 Amended Statement, bringing FAIT closer in

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[10]See Castañeda and Congdon (2020), Greenwood and Hanke (2021), Ireland (2022, 2023, 2024), Bordo and Duca (2023), Borio, Hoffman, and Zakrajšek (2023), Congdon (2023), Hendrickson (2023), Orphanides (2023), Reynard (2023), and Castañeda and Cendejas (2024) for more detailed economic and statistical analyses linking overly accommodative monetary policy in 2020-21 to the unwanted, high inflation that came next.

[11]White (2023) considers carefully and then rejects proposals to raise the inflation target above two percent while retaining other general features of the 2012 strategic framework.

line with a true, price level targeting strategy. Beckworth and Horan (2022) describe in detail how this might be done, with special attention paid to how, by monitoring forecasts of nominal GDP in levels, the FOMC might also respond more efficiently to cost-push shocks of the kind that, in (4), work to break the divine coincidence.

An as-yet unanswered question about monetary policy strategies that target the aggregate price level or the level of nominal GDP, however, concerns whether the central bankers will have the fortitude to take actions, following periods of above-average inflation, to bring the price level (or the level of nominal GDP) all the way back down to its target path, rather than simply returning inflation back to its annual target. One way of beginning to answer this question is to ask, first: is anyone, inside or outside the Fed, advocating monetary policy options that would completely or even partially reverse the effects that the post-2020 burst in inflation has had on the aggregate price level? The clear answer – no – to that second question raises serious doubts about the possibility of salvaging FAIT.

Alternatively, the Fed might ask Congress for help, via further amendments to the Federal Reserve Act that replace the dual mandate with a single, more streamlined objective for inflation. Bernanke, Laubach, Mishkin, and Posen (1999, p.325) anticipated that this step might be needed, arguing that

> It would be desirable to modify the Humphrey-Hawkins legislation in the direction of the Maastricht Treaty, which specifies that price stability is the overriding long-run objective of monetary policy, but also mandates attention to other important economic goals, so long as they are consistent with long-run price stability. Such modifications would clarify the role of price stability in the conduct of monetary policy and would provide a sounder foundation for the inflation-targeting framework.

At the same time, Congress might also require the FOMC to announce and make its policy decisions with reference to a specific monetary policy rule, most likely some variant of the

Taylor (1993) rule shown in (3).[12] The Fed Oversight Reform and Modernization (FORM) Act of 2015, which passed in the House of Representatives but stalled out in the Senate, took this second step, and could easily be revived to help codify the monetary lessons learned following the inflation of the 1970s but forgotten more recently.

To conclude by stepping back a bit, it is useful to recall how, four decades ago, Milton Friedman (1984, p.30) stated the conclusions of his lifetime's work studying the Fed:

> To summarize this 69-year record: two major wartime inflations; two major depressions; a banking panic far more severe than was ever experienced before the Federal Reserve System was established; a succession of booms and recessions; a post-World War II roller coaster marked by accelerating inflation and terminating in four years of unusual instability – the whole relieved by relative stability and prosperity during the two decades after the Korean War.
>
> Granted, the Fed alone is not to blame for this dismal record. Yet it is – to put it mildly – hardly an impressive performance compared either to our nation's experience before the Federal Reserve System was established or to the record of some other nations with a different monetary structure. It is time for a change.

Although Sargent's (1999) analysis raised hopes that policymakers might learn the lessons of contemporary macroeconomic theory, more recent experience confirms his suspicion that the Federal Reserve's success in bring inflation down in the 1980s and keeping it down in the 1990s reflects a temporary "vindication of econometric policy evaluation" instead of a more enduring "triumph of natural-rate theory." Apparently unable to let go of the idea of an exploitable Phillips curve trade-off, monetary policymakers remain prone to a continuing record of costly mistakes.[13]

And so, as the Federal Reserve undertakes another strategic review, it's certainly worth

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[12]Orphanides (2024) proposes a policy rule of this form, which according to his analysis would have delivered far superior performance during the most recent, post-2020 period.

[13]Selgin, Lastrapes, and White (2012) and Hetzel (2022, 2023) elaborate greatly on this basic point, with reference to additional historical examples.

considering the more basic question posed by Earle and Luther (2021, pp.266-7). Should we keep trying to "make the most of existing monetary systems" or should we undertake deeper reforms, aiming for "something altogether new?" Sumner (1989, 2021) proposes a complete overhaul of the Fed's operational strategy, under which the central bank would conduct open market operations to stabilize the price of a publicly-traded futures contract for nominal GDP or the nominal price level. His unique brand of "market monetarism" uses efficient markets to replace policymakers' discretion and judgment in accurately targeting the underlying nominal aggregate. In a similar spirit, Selgin (2015) and Luther (2021) describe how a privately-issued "algorithmic" cryptocurrency might combine the same long-run rule-based nominal stability offered historically by the gold standard with faster and more efficient, but still automatic, adjustments to short-run disturbances, while also economizing on the real resource costs imposed by any commodity standard. Free market mechanisms and technological progress, always key to rising standards of living, might also trigger the "change" that Friedman (1984) calls for, allowing us to replace today's Federal Reserve with something that is both altogether new and altogether better.

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Figure 1. US Macroeconomic Data, January 2000 - March 2024. Source: Federal Reserve Bank of St. Louis, FRED Database.