Challenge, 62(4):242–252, 2019
© 2019 Taylor & Francis Group, LLC
ISSN: 0577-5132 print/1558-1489 online
DOI: 10.1080/05775132.2019.1632000

What the Fed Has Forgotten: The Inflation Cycle Is Not the Business Cycle

ANIRVAN BANERJI and LAKSHMAN ACHUTHAN

The Federal Reserve has been confounded by the inability to get inflation to rise. The authors argue that the central bank is confusing the business cycle with a separate inflation cycle. If it looked to inflation indicators, it might well understand the course of future inflation, they say.

The U.S. economic expansion is now the longest in U.S. history and the unemployment rate near a half-century low, well below Federal Reserve estimates of "full employment." Unable to explain how inflation could still fall well below its 2 percent target, Fed chairman Jerome Powell has ventured "that some transitory factors may be at work" (Powell 2019a).

Even so, he has declared that it is "one of the major challenges of our time . . . to have . . . downward pressure on inflation" (Powell 2019b). And having asserted that "inflation expectations are now the most important driver of actual inflation" (Powell 2019c), he wants to raise those expectations.

To that end, the Fed has embarked on a review of its policy framework, including a months-long "national listening tour" (Harrison 2019). As a recent *Bloomberg* article put it, with "all brakes, and no engine, central banks seek new inflation ideas" (Torres and Curran 2019). Convinced that the inflation target determines inflation expectations, policymakers are looking for the most effective way to shape them into some sort of inflation "engine."

This line of reasoning, however, overlooks the fact that, due to structural reasons, inflation has mostly undershot its target for seven long years—essentially since the Fed first set an official inflation target in 2012. Another key problem is that the Fed has lost its institutional memory about inflation cycles, which are distinct from business cycles, undermining their credibility as promises of steady monetary policy tightening run into cyclical downturns in growth and inflation.

Anirvan Banerji is co-founder of the Economic Cycle Research Institute (ECRI) in New York. Lakshman Achuthan is co-founder of ECRI.

CONFUSING CYCLICAL CHANGES WITH STRUCTURAL SHIFTS

In the second half of 2016, based on *cyclical* leading indexes of economic growth and inflation, ECRI (Economic Cycle Research Institute) "predicted global reflation and an upturn in U.S. inflation," followed by forecasts of upswings in U.S. and global growth (Banerji and Achuthan 2018). And in early 2017, it correctly proclaimed the "brightest global growth outlook since 2010" (Economic Cycle Research Institute 2017).

These cyclical upswings were widely misunderstood. "Following a few quarters of synchronized global growth and rising inflation," by "mid-2017, the world's central bankers were increasingly convinced that we had turned the corner in a structural sense." Sure that "they were looking at a structural shift away from low trend growth and 'lowflation,'" they emerged from their group meeting in Sintra, Portugal, sounding "more hawkish, or less dovish, about 'normalization' of the world's economies and their own policies" (Banerji and Achuthan 2018).

As is normal with cycles, the leading indexes of global growth eventually turned down, followed by the leading indexes of inflation. Unfortunately, "the inability to distinguish between the structural and the cyclical heightens the risk of policy error."

In that context, we noted,

> Hawkish shifts in the face of economic slowdowns that policymakers do not see coming rarely turn out well for the economy. But when that mistaken belief drives policy—in particular the timing of the big shift from quantitative easing (QE) to quantitative tightening on a global scale—monetary policy goes on a collision course with the economic cycle. And if policy does not change course in time, it raises the risk of a new recession. (Banerji and Achuthan 2018)

To be clear, this is the basic reason behind the abrupt U-turn in Fed policy this year, followed by the recent inversion of the ten-year-three-month treasury yield curve, widely considered a recession warning.

STRUCTURAL "LOWFLATION" AND CYCLICAL DISINFLATION

While inflation did pop briefly in early 2018 above the Fed's 2 percent target, as measured by the Personal Consumption Expenditures (PCE) deflator, this was due to a cyclical upswing in inflation that we had predicted the prior summer, compounded by a one-off tariff-related uptick. Fed policymakers mistook it, however—in the context of their "normalization" hopes—for a structural shift.

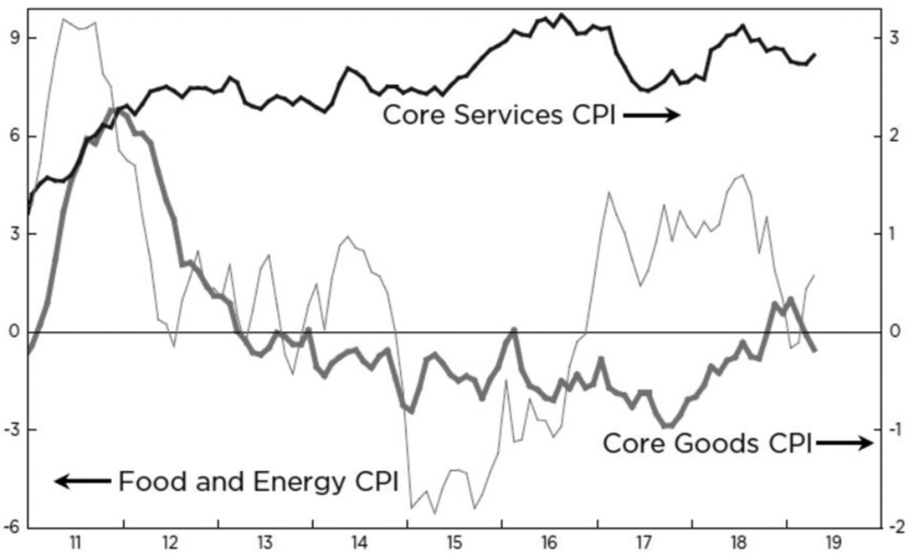


FIGURE 1. Components of U.S. CPI Growth (%)

But the longstanding structural problem with inflation had not gone away. This is illustrated by a breakdown of inflation into core goods inflation, core services inflation, and food and energy inflation, which is feasible when using the Consumer Price Index (CPI) as an inflation measure.

As Figure 1 shows, core services CPI inflation is in a cyclical downturn (thin black line). So is CPI food and energy inflation (thin gray line), despite a recent pop in energy prices spurred by a “risk-on rally” in the prices of risk assets.

In contrast, core goods CPI growth fell into deflationary territory shortly after the Fed adopted its official inflation target in 2012 (thick gray line). And there it has stayed, with hardly any breaks. While there was a recent tariff-related pop, it has already dropped back below zero.

Basically, globalization and technological change, coming on top of the structural weakness in trend growth, has resulted in sustained deflation in the goods sector. This is a key reason that inflation has kept falling short of the Fed’s target for years on end.

Certainly, a cyclical upturn in inflation had pushed overall PCE deflator growth above the Fed’s 2 percent target in 2017, and again in 2018, during the global growth upturn. But that was just a temporary cyclical spurt, which has since been followed by a cyclical downswing in inflation.

Even as that inflation downturn was beginning, the consensus was banking on a full-blown bond bear market. In August 2018, with ten-year treasury yields approaching 3 percent, JP Morgan Chase CEO Jamie Dimon declared, “I think rates should be 4 percent today . . . you better be prepared to deal with rates 5% or higher” (Franck 2018). The pressure was on for higher rates.

PRAISING GREENSPAN'S "PATIENCE"

But later that month at Jackson Hole, Fed Chairman Jerome Powell pushed back against conventional models—emphasizing, in particular, how unworkable they were in practice. Indeed, he went on to draw a contrast, pointedly reminiscing about the success of the Greenspan Fed in the 1990s.

To quote Powell,

> In mid-1996, the unemployment rate was below the natural rate . . . and many FOMC participants . . . were forecasting growth above the economy's potential. Sentiment was building . . . to raise the federal funds rate to head off the risk of rising inflation. But Chairman Greenspan had a hunch that the United States was experiencing the wonders of a 'new economy' in which improved productivity growth would allow faster output growth and lower unemployment, without serious inflation risks. Greenspan argued that the FOMC should hold off on rate increases. (Powell 2018)

Powell went on to say,

> Over the next two years, thanks to his considerable fortitude, Greenspan prevailed. . . . Starting in 1996, the economy boomed and the unemployment rate fell, but, contrary to conventional wisdom at the time, inflation fell. . . . Greenspan was also right that the potential growth rate had shifted up . . . accommodat[ing] the very strong growth that actually materialized. . .. The Committee converged on a simple risk-management strategy: Let's wait one more meeting; if there are clearer signs of inflation, we will commence tightening. Meeting after meeting, the Committee held off, and meeting after meeting inflation gradually declined. (Powell 2018).

So, Powell's apparent bottom line was to be patient and wait to see the "whites of inflation's eyes" before rushing to tighten, the way Greenspan was patient, having recognized the productivity miracle.

"PATIENCE" AND THE "PRODUCTIVITY MIRACLE"

Given this widely accepted narrative about why Greenspan had been so patient, it is worth taking a look at productivity growth in the 1990s. As Figure 2 shows, productivity growth certainly did strengthen, moving from the 1–2 percent range in 1996 to the 3–4 percent range by 1999.

But if strong productivity growth curbing inflation allowed Greenspan to be "patient" for years (light-gray shaded area), why did

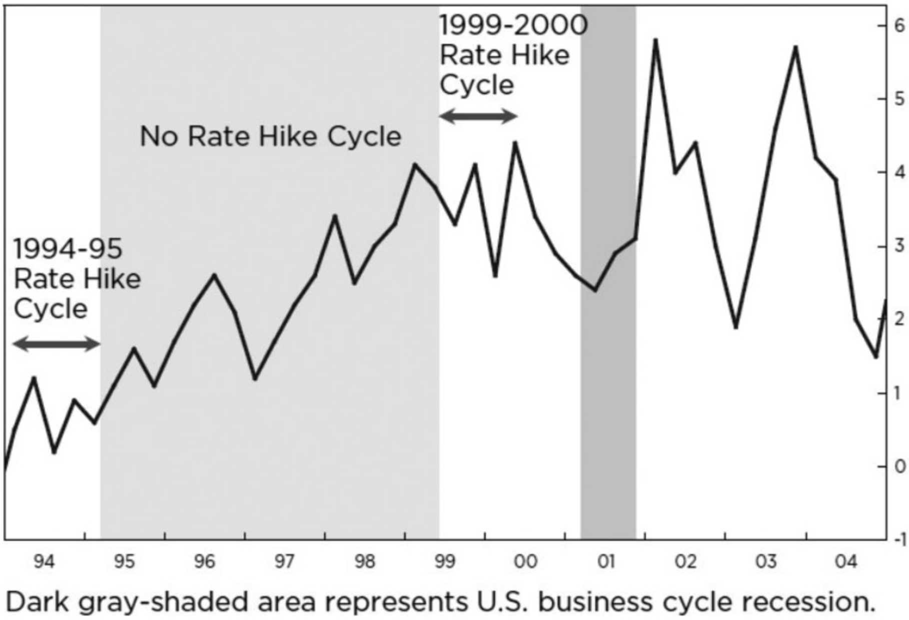


FIGURE 2. U.S. Productivity Growth (%)

the Fed launch an aggressive rate-hike cycle in 1999–2000, even as productivity growth remained robust? Clearly, that rate-hike cycle fails to jibe with Greenspan's productivity-miracle "hunch" being the rationale for his patience.

From our cyclical perspective, the explanation is straightforward. It has everything to do with inflation cycles and, in particular, the decisive 1999–2000 upturn in ECRI's U.S. Future Inflation Gauge (USFIG), which is designed to anticipate turning points in the inflation cycle. It is therefore useful to understand the origins of the USFIG.

THE IMPORTANCE OF INFLATION CYCLES

ECRI co-founder Geoffrey H. Moore turned his attention to inflation cycles after developing the original index of leading economic indicators over half a century ago. He did this because the stagflationary 1970s had shown that inflation cycles were distinct from business cycles. Accordingly, Moore focused on forecasting inflation cycle turning points, culminating in the development of the USFIG.

Please recall that the 1994–95 rate-hike cycle was a huge surprise to the markets, and Greenspan was grilled about it in Congress. The leading inflation indicators came up during the question-and-answer segment of his testimony, when he basically said that anything his former professor Geoffrey Moore did, he looked at "very closely" (Greenspan 1994a).

We can personally attest to the back and forth between the two until Moore passed away in March 2000. In essence, the 1994–96 period was indeed about preemptive rate-hike and rate-cut cycles—but not based on the Phillips curve.

A quarter of a century ago, it was already obvious to Greenspan that the Phillips curve did not work. Indeed, he observed in Congressional testimony that "the experience of the past three decades has demonstrated that what appears to be a tradeoff between unemployment and inflation is quite ephemeral and misleading" (Greenspan 1994b).

And his was not a solitary view; other FOMC members agreed. During the July 1996 meeting that Powell referenced at Jackson Hole, Dallas Fed President Robert McTeer explained why he did not support rate hikes at the time.

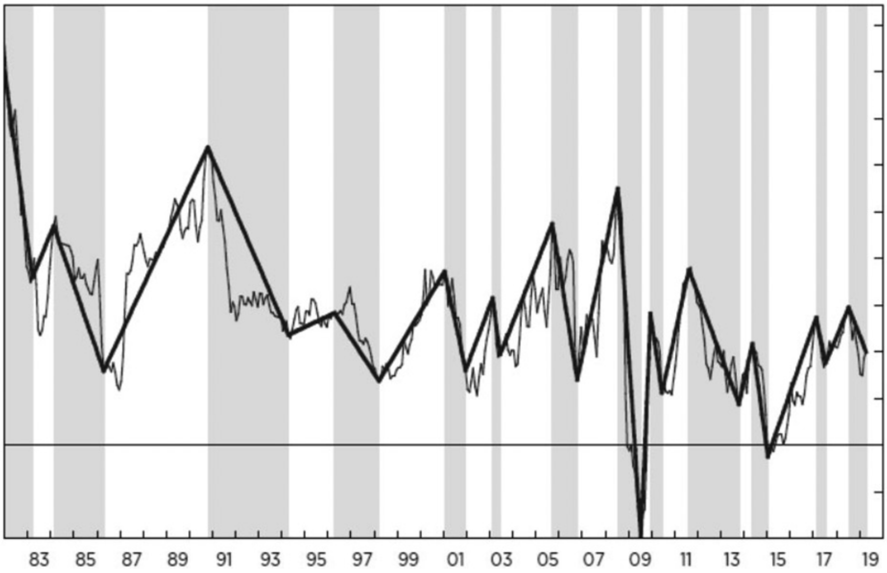
To quote McTeer, "On principle, I prefer not to tighten monetary policy on the basis of strong output and employment growth or even a low unemployment rate. I know that we should not wait to see the 'whites of inflation's eyes' before acting, but I do think we might well wait for some leading indicators of rising inflation before we act" (Federal Open Market Committee 1996).

First, like Greenspan, he did not believe in the Phillips curve as a basis for policy moves. Second, he was not waiting for *coincident* measures like CPI inflation—"the whites of inflation's eyes"— but explicitly wanted to wait for *leading* indicators of inflation before acting.

By this time, even the mainstream American Economic Association (AEA) had recognized just how critical Moore's insights were, giving him their highest award—Distinguished Fellow of the AEA—in 1995. ECRI's USFIG was also well known in the bond market, with *Barron's* magazine editor Alan Abelson later writing, "We're indebted to the ECRI, that unnapping watchdog of inflation, for the FIG data" (Abelson 2000). In other words, in the mid- to late 1990s, inflation cycles were front and center for the FOMC, the AEA, and the bond market.

A FORGOTTEN FRAMEWORK: INFLATION CYCLES

Thus, the Fed's present amnesia about inflation cycles—which is shared in academia and the markets—is remarkable indeed. Powell's Jackson Hole description of what transpired in 1996, which reflects the current consensus view, does not even touch on the centrality of leading indicators of inflation to monetary policy.



Shaded areas represent U.S. inflation cycle downturns.

FIGURE 3. CPI Growth (%) and Inflation Cycles

Indeed, Moore's cyclical framework stands in sharp contrast to the current received wisdom. Yet this framework is just as critical today for understanding the behavior of inflation as the Fed embarks on its "listening" tour (Harrison 2019).

Unfortunately, the Fed has forgotten what it once knew—that inflation is not only cyclical, but also has its own distinct cycles. In effect, it is missing a vital part of its institutional memory.

Inflation cycles consist of alternating periods of rising and falling inflation, as shown in Figure 3. The thin line shows actual CPI inflation since the early 1980s, and the thicker line segments mark off upturns and downturns in the inflation cycle, with inflation cycle downturns shaded in gray.

In fact, there are many more inflation cycles than business cycles. This is evident from Figure 4, showing business cycles (overlaid on the cyclical ups and downs in the growth rate of ECRI's U.S. Coincident Index) in the upper panel and inflation cycles (overlaid on the cyclical ups and downs in the growth rate of CPI) in the lower panel. Clearly, the vast majority of inflation-cycle downturns—marked off by light gray shaded areas—occur away from recession.

This is precisely why the Fed's reliance on the Phillips curve is so damaging. The Fed's framework is likely to function reasonably well only in the aftermath of recession, which reliably kills inflation, as erstwhile Fed chairman Paul Volcker well knew.

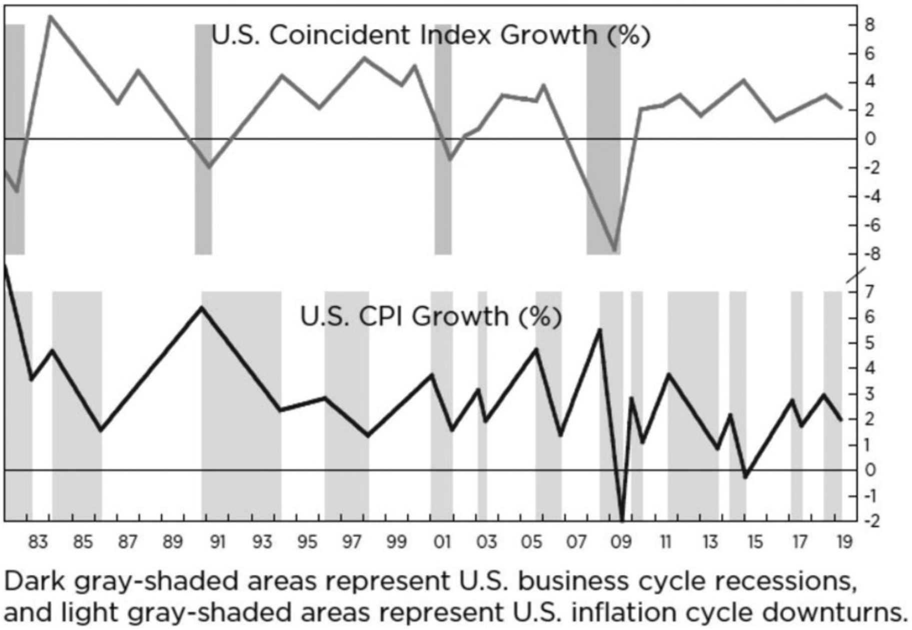


FIGURE 4. The Inflation Cycle Is Not the Business Cycle

The recent Powell "pivot" exemplifies the problem with the Fed's Phillips curve–based framework. It is worth recalling that, in late August 2018, a real-time GDP print of 4.2 percent for Q2 2018 had just been released. The jobs report that followed reported the unemployment rate to be at a forty-nine-year low.

Also, a year earlier, in September 2017, the New York Fed had released the so-called "underlying inflation gauge" (UIG), designed to capture "the persistent common component of monthly inflation." Updated daily, it was based on a dynamic factor model derived from a broad data set extending beyond price series to include a wide range of nominal, real, and financial variables (Amstad, Potter, and Rich 2017).

The name aside, the UIG bears little resemblance to the USFIG and had little to do with inflation cycles, as the previous Fed chairman, Janet Yellen, found out in 2017 when the UIG was predicting higher inflation during an inflation cycle downturn that she called the "biggest surprise" of the year (Torry 2017a). The USFIG was not similarly blindsided.

The UIG had ramped up above 3.3 percent in the lead-up to the September 2018 rate hike and was still above 3 percent ahead of the December hike. No wonder the Fed was so hawkish. The "bond bears" were also on the prowl, which is why ten-year treasury yields rose to 3.25 percent in early October 2018, approaching that high again in early November.

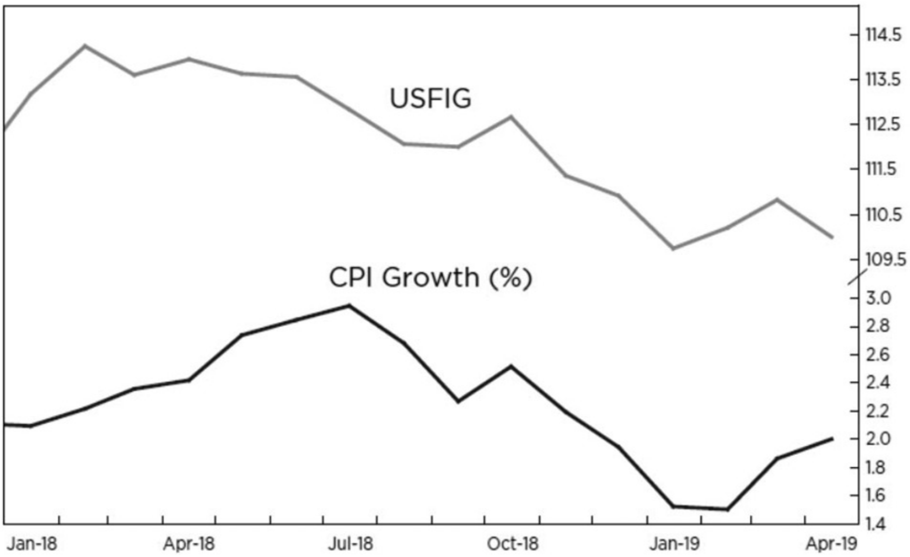


FIGURE 5. U.S. Future Inflation Gauge and CPI

But unbeknownst to both the Fed and the markets, the inflation cycle was already in a downturn. As Figure 5 shows, the USFIG had already turned down decisively (top line), and CPI inflation was following suit, after peaking in July (bottom line).

In retrospect, many people today say the Fed's December rate hike was a mistake, but the Powell pivot should not have been a surprise, given the downturn in the USFIG. In fact, *Barron's* wrote about it in October 2018, provocatively headlining their story "Why Trump May Be Right About the Fed*"* (Forsyth 2018).

Of course, this was not the first time that the Fed's plans had run smack into the economic cycle. In 2016, a similar about-face occurred when Yellen was forced into a year-long rate-hike "pause" (Banerji and Achuthan 2018).

Resuming the rate-hike cycle in December 2016, she was confronted a few months later by an inflation cycle downturn the Fed had not anticipated. Since the UIG was designed to capture the "persistent" component of inflation, she attributed the shortfall in inflation to "transitory" factors. But by November 2017, faced with a drop in inflation that she characterized as the biggest surprise of the year, she had to concede she was "not certain that it [was] transitory" (Torry 2017b).

In spring 2019, confronted once again with an inflation cycle downswing the Fed had failed to anticipate, with the UIG pegging "underlying" inflation near 3 percent, current Fed chairman Powell tried to explain inflation well below that figure by saying, "We suspect that some transitory factors may be at work" (Powell 2019a).

BACK TO THE FUTURE

Our cyclical perspective provides a very different account of Fed policy in the 1990s that is lost on most observers—specifically regarding Greenspan, Moore, inflation cycles, and the USFIG. It is clear that we are now in a different era of monetary policy frameworks, focusing on inflation targets. The problem is twofold. Not only has a longstanding structural downshift in inflation not been clearly recognized, but the Fed's present analytical framework is not up to the task of anticipating inflation cycles, which have blindsided it twice in the last couple of years.

The solution is not far to seek. Instead of hewing slavishly to academic fads and fashions, such as dynamic factor models that have already been found wanting, the Fed could simply look deeper into its own history. It merely has to go back to the future, to the inflation cycle framework—using leading indicators of inflation—with which it had been familiar only two decades ago.

FOR FURTHER READING

Abelson, Alan. 2000. "Calling All Vigilantes." *Wall Street Journal*. Accessed May 2019. https://www.wsj.com/articles/SB949708581813809393.

Amstad, Marlene, Simon Potter, and Robert Rich. 2017. "The New York Fed Staff Underlying Inflation Gauge (UIG)." *Federal Reserve Bank of New York Economic Policy Review*. Accessed May 2019. https://www.newyorkfed.org/medialibrary/media/research/epr/2017/epr_2017_underlying_inflation_rich.pdf?la=en.

Banerji, Anirvan, and Lakshman Achuthan. 2018. "The Danger of Mixing up Cyclical Changes with Structural Shifts." *Challenge* 61(4):290–302. doi: 10.1080/05775132.2018.1524056.

Economic Cycle Research Institute. 2017. *International Cyclical Outlook* 22(2): 1–2.

Federal Open Market Committee. 1996. Meeting of the Federal Open Market Committee, Washington DC, July 2–3, 1996. Accessed May 2019. https://www.federalreserve.gov/monetarypolicy/files/FOMC19960703meeting.pdf.

Forsyth, Randall W. 2018. "Why Trump May Be Right about the Fed." *Barron's*. Accessed May 2019. https://www.barrons.com/articles/why-trump-may-be-right-about-the-fed-1540601023.

Franck, Thomas. 2018. "Jamie Dimon Cautions the 10-Year Treasury Yield Could Hit 5%: 'It's a Higher Probability than Most People Think." *CNBC*. Accessed May 2019. https://www.cnbc.com/2018/08/06/jp-morgans-jamie-dimon-cautions-10-year-treasury-note-rate-to-hit-5-percent.html.

Greenspan, Allan. 1994a. *Hearing before the Subcommittee on Economic Growth and Credit Formation of the Committee on Banking, Finance and Urban Affairs*. February 22. Washington, DC. Accessed May 2019. https://fraser.

stlouisfed.org/files/docs/historical/house/cmp/1990s/CMP_103HR_02221994.pdf.

———. 1994b. *Semiannual Monetary Policy Report to the Congress: Testimony before the Subcommittee on Economic Growth and Credit Formation of the Committee on Banking, Finance and Urban Affairs*. Washington, DC. Accessed May 2019. https://fraser.stlouisfed.org/files/docs/historical/greenspan/Greenspan_19940222.pdf.

Harrison, David. 2019. "Fed to Review Inflation Targeting, Policy Tools and Communications." *Wall Street Journal*, April 9. Accessed May 2019. https://www.wsj.com/articles/fed-to-review-inflation-targeting-policy-tools-and-communications-11554849900.

Powell, Jerome. 2018. "Monetary Policy in a Changing Economy." Remarks delivered at a symposium sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming. Accessed May 2019. https://www.federalreserve.gov/newsevents/speech/powell20180824a.htm.

———. 2019a. "Transcript of Chair Powell's Press Conference." Washington, DC. Accessed May 2019. https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20190501.pdf.

———. 2019b. "Transcript of Chair Powell's Press Conference." Washington, DC. Accessed May 2019. https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20190320.pdf.

———. 2019c. *Semiannual Monetary Policy Report to the Congress before the Senate Committee on Banking, Housing and Urban Affairs*. Washington, DC, February 26. Accessed May 2019. https://www.banking.senate.gov/hearings/02/07/2019/the-semiannual-monetary-policy-report-to-the-congress.

Torres, Craig, and Enda Curran. 2019. "All Brakes and No Engine, Central Banks Seek New Inflation Ideas." *Bloomberg*, April 5. Accessed May 2019. https://www.bloomberg.com/news/articles/2019-04-05/all-brakes-and-no-engine-central-banks-seek-new-inflation-ideas.

Torry, Harriet. 2017a. "Yellen Says Gradual Rate Increases Should Help Sustain Economy's Growth." *Wall Street Journal*. Accessed May 2019. https://www.wsj.com/articles/yellen-says-gradual-rate-increases-should-help-sustain-economys-growth-1508072402.

———. 2017b. "Yellen Says She's Uncertain Weak Inflation Is Transitory." *Wall Street Journal*. Accessed May 2019. https://www.wsj.com/articles/yellen-says-shes-uncertain-weak-inflation-is-transitory-1511312660.