A SYMPOSIUM OF VIEWS

GRADING THE NEGATIVE RATE EXPERIMENT

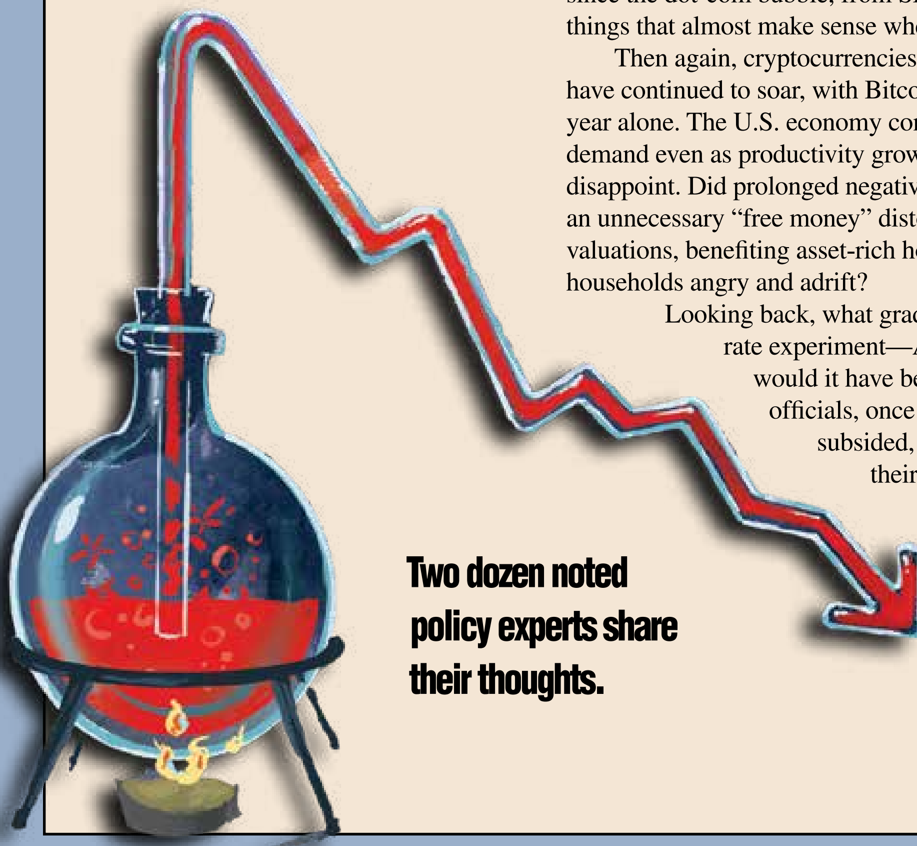
Did keeping interest rates low for so long create an unnecessary "free money" distortion, increasing income inequality?

The world central bank experiment with pushing interest rates below zero percent ended this past March when the Bank of Japan raised its short-term interest rate. What grade would you give the negative interest rate experiment of the past dozen years?

On the one hand, the world economy survived a global financial crisis and is still functioning. On the other hand, as Spencer Jakab wrote in the *Wall Street Journal,* the system never fully gained traction while leading to a lot of financial craziness: "Negative rates in Europe and Japan and the aggressive response to Covid-19 in the U.S. helped spawn some of the most inane investment opportunities since the dot-com bubble, from SPACs to joke cryptocurrencies—things that almost make sense when money is free."

Then again, cryptocurrencies, even with today's higher rates, have continued to soar, with Bitcoin up by nearly 70 percent this year alone. The U.S. economy continues to see significant consumer demand even as productivity growth rates and workers' wages disappoint. Did prolonged negative rates create, as Jakab suggests, an unnecessary "free money" distortion? Did low rates raise asset valuations, benefiting asset-rich households while leaving poorer households angry and adrift?

Looking back, what grade would you give the negative rate experiment—A, B, C, D, F, or Incomplete? And would it have been wiser for Federal Reserve officials, once the fallout from the financial crisis subsided, to have returned interest rates to their historic levels a lot sooner than they did?



Two dozen noted policy experts share their thoughts.

Grade: A. And heightened inequality didn't happen.

ADAM S. POSEN
President, Peterson Institute for International Economics

What's worse than a zombie economic idea? A zombie economic idea with quite lively adherents in places of influence. The idea that negative central bank instrument interest rates "create an unnecessary free money distortion, increasing income inequality" is sadly undead though completely without thought. People should be ashamed to be peddling this nonsense, whatever their motivation for doing so.

There are well-established facts which this question ignores:

- Income and wealth inequality have decreased in almost all of the high-income economies during the period of negative or zero interest rates. Inequality rose more during the earlier periods of positive interest rates and bubbles in the 1990s and early 2000s.

- The extent to which real estate prices, equity prices, and other financial asset values have risen is uncorrelated with movements in central bank interest rates. Simple observation bears out any statistical analysis, in that these prices have surged in the United States and most of the G7 while rates have been steeply increased. This was true of Greenspan's "conundrum" twenty years ago, too.

- The counter-factual is also important. Low interest rates in response to financial market crisis and to covid initially reduced what unemployment rates over time would have been. Had unemployment been allowed to stay higher for longer, inequality would have worsened.

- The extreme concentration of U.S. and global equity market gains in information technology, semiconductors and chips, and potential artificial intelligence beneficiaries has nothing to do with financial conditions. Those companies get financing due to their real prospects improving, irrespective of what happens to interest rates. More tellingly, the returns on other stock sectors have been limited under zero or negative rates.

- Japan is no exception—its record does not support the negative rates lie, either. Asset prices moved sideways for nearly two decades during zero-interest rate (and negative rate) monetary policy. Real estate and equity prices in Japan have gone up despite interest rates rising. When ZIRP was ended, there was no purge of companies subject to non-zero interest costs.

Talking about long and variable lags is simply a cheat on this claim, just like insistent but falsified claims that money supply growth predicts inflation. The evidence goes resoundingly the other way—we have run the experiment across time in multiple economies, and low or zero central bank interest rates have no consistent impact on asset prices or inequality. Why some people are so insistent on this argument is beyond me, but the sheer weight of evidence on its falsity should not be beyond any fair observer's grasp.

So, yes, negative rates policy in Japan and elsewhere as needed gets an A.

The views expressed here are solely the author's own, and not necessarily shared by members of the PIIE staff or Board of Directors.

Grade: F. The major central banks benefited asset-rich households and left poorer households behind.

THOMAS MAYER
Founding Director, Flossbach von Storch Research Institute, and former Chief Economist, Deutsche Bank Group

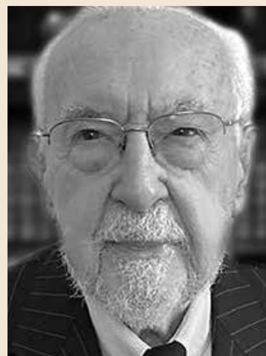
"ZIRP" and "NIRP" stand for zero and negative interest rate policies. Since the Great Financial Crisis of 2007–2008, central banks in major industrial countries have tried both, following in the footsteps of Japan, which pioneered these policies in the wake of the bubble economy of the late 1980s. In my view, these

policies have been counterproductive and hence deserve the grade of F for three reasons.

First, they have not helped. In the United States, economic growth declined from 3.0 percent on average in the pre-ZIRP and NIRP years (1990–2007) to 2.4 percent in the ZIRP and NIRP years (2010–2019, leaving out the exceptional years of the Great Financial Crisis and the covid pandemic). Inflation fell from 2.9 to 1.8 percent. These developments echo those of Japan, where growth declined from 4.4 percent on average in 1980–1990 to 0.8 percent in 1991–2019, and inflation fell from 2.6 percent to 0.4 percent. Short-term liquidity injections in serous financial crises may be needed to avoid financial meltdowns, but long-term zero and negative interest rates do not help. If the aim of these policies was to prevent a decline in both long-run growth and inflation, they have failed.

Second, they have had negative side effects. While ZIRP and NIRP have not succeeded in raising consumer price inflation to the level desired by central banks, low interest rate policies have prevented structural adjustment by creating so-called "zombie firms" which need low rates to survive. As a study by economists of the Bank for International Settlements found, "zombies weigh on economic performance because they are less productive and because their presence lowers investment in and employment at more productive firms" (*BIS Quarterly Review,* September 2018). Low rates have also raised asset valuations and fueled asset price boom-bust cycles. For instance, Robert Shiller's Cyclically Adjusted Price Earnings Ratio (CAPE) rose from 15.9 in 1990 to 44.2 in 1999, fell to 15.4 in 2008, and surged again to 38.3 in 2021. Moreover, from 1881 to 1989 CAPE averaged 14.4. Since then, it has averaged 27.0. The multiple expansion has benefited asset-rich households and left poorer households behind. Such undeserved gains create resentment and delegitimize the market economy.

Third, ZIRP and NIRP are theoretically flawed. As well explained in a recent book by financial historian Edward Chancellor, interest is "the price of time." This is the most important price in every economy, as it relates the future to the present. Since for every human being time is scarce, economics 1.0 rules out a price of zero or below. Misguided central planning that forces interest rates to and below zero is therefore bound to create severe economic distortions with the consequences of asset overvaluation, financial system instability, lower economic growth, unwarranted wealth redistribution, and a backlash against market liberal economic policies.



A world where central bankers favor borrowers and punish savers is a world where central banks step into politics.

JACQUES DE LAROSIÈRE
Former Managing Director, International Monetary Fund, and Honorary Governor, Banque de France

Western monetary policy ran at full speed for more than fifteen years. The prevailing idea at the time was that the more money created, and the closer interest rates were to zero or even negative, the greater the chance of reinvigorating growth.

However, the facts show that this desire to stimulate the economy by increasing domestic demand over a long period of time was one of the biggest mistakes made by central bankers.

They believed that zero interest rates would boost investment. But productive investment has never been so depressed (productive capital shrank by 2.5 percent of world GDP during this period). So, far from encouraging investment, the prolonged fall in interest rates encouraged borrowing, which soared like never before in peacetime.

Economist John Maynard Keynes' predictions on the negative consequences of low interest rates at zero for a long period of time were fully realized. Savers, who were not remunerated, preferred to keep their funds in super-liquid instruments (banknotes under mattresses or immediately accessible bank accounts) rather than invest in long-term projects involving risks that can only be taken if there is sufficient return on savings. This "liquidity trap" is evidenced by the higher and higher proportion of European households' financial savings invested in the very short term.

We thought we were encouraging investment, but in fact we were promoting borrowing and discouraging long-term investment.

The world had become "financialized," and the massively inflated debt was invested in very short-term placements, encouraging asset bubbles and the search for profits through the variations in valuations that had become the rule of the game.

Meanwhile, productivity gains crashed, while the financial system, over-leveraged, became extremely fragile and zombie companies proliferated.

In the end, this profligacy of money creation cost our societies dearly. It favored speculative borrowing to the

detriment of productive investment, and ultimately led to the return of inflation, which central bankers sought to reduce by raising interest rates—in a way, the tribute of vice to virtue.

Have the lessons of this deplorable monetary episode been learned? Nothing is less certain, given the haste with which some central bankers are lowering rates, and their distrust of quantitative tightening, while the world is still over-liquid.

A world where central bankers favor borrowers and punish savers is a world where central banks step into politics, which is not their job.

It's time to come to our senses and admit, at last, that medium- to long-term interest rates should be set by the supply and demand of capital on the market, and not by central bankers deliberately seeking to repress long-term savings in favor of short-term financial speculation and easy budgeting.

A high grade, but not an A.

JOSEPH E. GAGNON
Senior Fellow, Peterson Institute for International Economics

There is a tremendous gulf between how economists and non-economists think about money and interest rates.

To economists, modern fiat money is a government-created asset that gives central banks complete control of interest rates to steer the economy between the rocks of high inflation and the whirlpool of deep recession. The covid-era inflation shows that central banks are far from infallible. Yet there is a strong case that the previous thirty or forty years were the most placid epoch of recorded economic history thanks to central bank adoption of formal or informal inflation targets and predictable interest rate policies aimed at achieving those targets.

Nevertheless, the existence of money in the form of paper banknotes that pay zero interest proved to be a problem from the economists' point of view when inflation got too low in the 2010s. Banknotes are like a block in the steering mechanism that keeps the rudder of interest rates from turning all the way to the left. The slow recovery from the Great Recession called for deeply negative interest rates, but if central banks tried to impose such a tax, households and firms would withdraw their deposits from the banking system and hold untaxed paper currency in vaults and mattresses.

Central banks probed to see how far they could go below zero, but the answer appears to be "not far." No central bank dared to set rates as low as minus-1 percent, let alone the deeply negative rates economic models called for. Clever economists dreamed up schemes to tax or eliminate paper banknotes, but such schemes got no traction with policymakers.

Meanwhile, non-economists were shocked at the idea that banks might apply a negative interest rate on their deposits. Whereas economists conceived of interest rates on a scale from negative to positive, non-economists believed interest rates could be only positive, with the zero rate on banknotes a begrudged necessity in exchange for their convenience.

Financiers also detested negative interest rates, arguing that they encourage speculative bubbles, but the evidence for that view is weak to nonexistent. Moreover, countering harmful speculation is the job of financial supervision, not monetary policy.

It is not likely that the public will tolerate the elimination of banknotes or deeply negative interest rates anytime soon, so central bankers need to prepare for future encounters with zero interest rates.

A slightly higher inflation target (say, 3 percent) and aggressive use of quantitative easing are the best and easiest options, but they may not suffice in the event of a deep recession. Giving central banks the power to distribute cash to the public (Milton Friedman's "helicopter money") would be a useful last resort, but it would require strict conditionality and buy-in from the legislative and fiscal authorities.

In light of the constraints under which they operated, central banks deserve a high grade for the negative rate experiment, perhaps a B. But the slowness with which most central banks embarked on the experiment (and on quantitative easing) cost economies dearly and prevents central banks from meriting a grade of A.

Grade: D

LORENZO BINI SMAGHI
Chairman of the Board, Société Générale, and former Member of the Executive Board, European Central Bank

The assessment is different depending on the monetary area and country, and should consider the low level of interest rates—in some case negative—in combination with other policies, such as forward guidance and quantitative easing.

In the euro area, negative rates were implemented because forward guidance proved to be ineffective, and because of concerns by some national central banks that quantitative easing could entail losses that would have to be shared, thereby leading to monetary financing of public debt.

Negative rates proved over time to have a small impact on inflation and growth, mainly through the exchange rate, and the European Central Bank was the last central bank to finally decide to implement quantitative easing. The combination of these policies pushed long-term rates on the safe assets into negative territory, thereby leading to losses for central banks, paradoxically larger for those that were afraid to share the proceeds of quantitative easing.

The primary effect of negative rates is to depreciate the exchange rate, which may be an effective tool for small open economies but less for the larger ones. Negative rates also entail a tax for the banking system, which cannot translate the negative rate on to its customers. This weakens the transmission of monetary policy. Finally, negative rates also make it more difficult to normalize policy, once deflationary pressures diminish, for the fear that this may be interpreted by the markets as the beginning of a series of rates hikes rather than a normalization.

Although the counterfactual is difficult to design, the sharp tightening of monetary policy begun in 2022 did not produce the disruptive effects that could have been produced by the prolonged period of low interest rates. If low rates had indeed produced distortions and incentivized zombie investments, the rapid rise of interest rates should have led to a series of bankruptcies and abrupt recession. This did not happen. It may suggest that the low interest rates have contributed to helping companies restructure and strengthen.

All in all, while negative rates may indeed have created distortions, the long period of low interest rates did not do the harm that many had been feared.

Overall, I'd assign a D grade.

Whatever the judgment on the Fed, it certainly acted more rapidly than the ECB to normalize rates and then to tighten monetary policy once inflation soared.

A well-deserved A.

CHEN ZHAO
Chief Global Strategist, Alpine Macro

In my humble opinion, the extremely low interest rates that prevailed prior to the 2020 pandemic were not a distortion. Rather, they reflected a chronic problem of over-saving and its resulting deflationary tendencies in the world economy throughout the 2010s. During that period, U.S. households were focused on rebuilding their balance sheets by saving more and spending less. With American consumers retrenching, Chinese producers were also dealing with excess capacity and growing liquidation pressures. The entire world economy was suspended dangerously on price deflation.

Throughout the 2010s, world trade prices dropped precipitously, Japan's price deflation deepened, and Europe was on the verge of a general fall in price levels. All of this occurred despite nominal interest rates falling into negative territory. In the United States, the real rate of interest was brought deeply into the negative territory, but this still could not drive inflation back to 2 percent. The average core PCE inflation for the decade was only 1.6 percent. To claim that low rates created massive distortions is not consistent with economic reality. Negative real rates were necessary to clear the saving market for most high-income economies. Some people describe the low-interest rate environment as "financial repression." This description is extremely superficial, if not misleading.

I would give the major central banks an A grade for their timely, aggressive, and well-calibrated reactions to the global financial crisis and its aftermath. Without these

actions, the world would have gone through extremely disastrous adjustments like those of the 1930s.

Have rates created financial excesses and froth? It is hard to generalize. What were the "insane investments" or asset bubbles when rates were zero or negative in the 2010s? In fact, throughout the period, equity multiples were very reasonable and much lower than today's, even though rates are much higher now. For example, the forward price-to-earnings ratio for the U.S. equity market was anywhere between thirteen and fifteen times during the 2010s when the Fed fund rates were zero and the Fed was doing quantitative easing. Today it is twenty times when the same rate is 5.25 percent and the Fed is doing quantitative tightening.

Of course, crazy investments and financial excesses often appear, and they are often fed by low rates. In 2021, we had a brief period of a bubbly environment where SPACs proliferated and crypto shot up, but that period ended quickly when the Fed jacked up rates. Just to be clear: market speculation, Ponzi schemes, and financial excesses do prevail from time to time, and I think cryptocurrencies are a Ponzi scheme, but I don't see market speculation or financial excesses in today's financial environment anywhere remotely close to what prevailed during the dotcom mania in scale, scope, and depth.

A well-deserved D.

DESMOND LACHMAN
Senior Fellow, American Enterprise Institute

Rudi Dornbusch, the late MIT economist, remarked of the Bank of Mexico's board members that he could understand their making mistakes. After all, they were human. However, what he could not understand was how the same people could make the same mistake time after time again.

Something similar might be said of the world's major central banks. It is difficult to understand why they generally react to each economic downturn with excessively loose monetary policies that they maintain for too long. By so doing, they encourage reckless lending, cause financial market mis-pricing, and facilitate the excessive buildup in debt. That in turn sets us up for the next financial market crisis.

Take, for example, the U.S. Federal Reserve. What was it thinking in 2021 when it maintained its zero-interest policy and allowed the money supply to balloon at a time when the economy was recovering satisfactorily and was receiving its largest peacetime budget stimulus on record? What too was it thinking when it kept buying $120 billion a month in U.S. Treasury bonds and mortgage-backed securities even at a time when the stock market and credit markets were on fire?

One result of the Fed's monetary policy largess was its contribution to a surge in inflation to a multi-decade high. Another was that it subsequently forced the Fed to slam on the monetary policy brakes hard to regain inflation control. That in turn caused massive mark-to-market losses in excess of $1 trillion in the banking system's bond and loan portfolios, and it aggravated the slow-motion commercial property train wreck in process caused by changed work habits in a post-covid world. This must make it only a matter of time before we have another round of the U.S. regional bank crises.

For its part, the Bank of China's excessive monetary policy response to the 2008–2009 Great Economic Recession led to the mother of all housing and credit market bubbles. The bursting of that bubble now all too likely sets China up for a lost economic decade. Meanwhile, the European Central Bank's negative interest rate policy and massive bond purchasing programs have contributed to a situation where the debt levels of key eurozone member countries such as France, Italy, and Spain are now higher than they were at the time of the 2010 eurozone debt crisis. That all too likely is setting us up for another round of the eurozone debt crisis.

In the same way as a student who does not learn from his mistakes is given a D grade, so too should the world's major central banks for once again having flooded the market with excessive lending and for setting us up for yet another financial crisis.

First an A, then a C, then A-plus.

ROBERT E. LITAN
Non-Resident Senior Fellow in Economic Studies, Brookings Institution

Grades: A (from the onset of the 2008 financial crisis until mid-2018, when the real Fed funds went positive); C (from the onset of the pandemic in March 2020 until mid-2022); and A-plus since.

I cover all three periods because the 2008–2018 years of negative real interest rates cannot be accurately assessed without taking account of what happened in subsequent years. I divide the grades for the Fed into three different periods, taking fiscal policy as a given largely because I greatly doubt that, had the Fed pursued a different monetary policy during any of these three periods, it would have changed what Congress and the president otherwise would or could have done given the party make-up of Congress. I base the grades on how well the Fed achieved its dual statutory mandate—price stability and full employment—and then discuss the relationship between negative real interest rates and financial stability, which is essential for the Fed to achieve its dual mandate.

Start with the post-financial crisis years until mid-2018, by which time the Fed had lifted the real Fed funds rate into positive territory. Before that time, spanning four presidential administrations, the Fed not only maintained negative real short-term rates, but also debuted a series of "quantitative easings" that, in combination, were designed to bolster anemic post-pandemic growth. In combination, the Fed's policies did so despite repeated warnings, some from dissenting Board members, that easy money would reignite inflation, which never happened—until many months into the pandemic. Grade A for Fed.

The Fed's worst performance, a C, accounting for hindsight bias, was its slow reaction to the foreseeable inflationary pressures from the 2021 stimulus on top of the pandemic-induced supply-chain disruptions. Inflation was already picking up in the spring of 2021, but the Fed waited until the following year to begin raising the Fed funds rate. By then, annualized core inflation had soared above 5 percent, while CPI inflation hit 8 percent. After that, the Fed began tightening by methodically hiking the Fed funds rate, engineering, at least so far, a remarkable soft landing, against all conventional wisdom and historical experience. Grade A-plus.

What about the impact of negative real interest rates on financial stability? Earlier, during the 2008–2009 financial crisis, the Fed had an A-plus record for helping to prevent a depression (aided by major fiscal stimulus, though it was not enough). But thereafter, the Fed's negative real interest policy should not be held responsible for any excesses in crypto markets, since no crypto asset, or lending against it, has threatened financial stability. Moreover, whereas at one time, some buyers may have bought Bitcoin or other crypto assets as a hedge against inflation, crypto prices since have been largely uncorrelated with inflation or interest rates. Whatever one believes about the merits or demerits of crypto, Fed monetary policies cannot be blamed for any crypto excesses (if that is what they are), and certainly not for any crypto malfeasance.

Negative interest rates went on far too long.

JIM O'NEILL
Former Commercial Secretary to the Treasury, United Kingdom, and former Chairman, Asset Management, Goldman Sachs International

With the considerable benefit of hindsight, as well as some reasonably obvious facts, I share the view that negative interest rates and aspects of quantitative easing went on far too long. I can sympathize with the original decisions to move that way, but once it became obvious a financial catastrophe was averted, it also became reasonably clear that persistence of these policies was not really carrying many benefits and was raising questions about both the allocation of capital and the perceptions and the realities of equality, as well as the worryingly persistent low productivity challenges.

Having discussed these issues over the years with many policymakers and advisers, I also understand well that the existence of quite precise inflation targets added some perhaps subtle, but significant, expectational pressure to keep these policies in place. The fear of persistent

undershooting of inflation and reoccurring deflation concerns must have been quite psychologically tricky for central bank policymakers.

One can also understand how the horrendous breakout of Covid-19 provided fresh reasons for all the same concerns.

But once a vaccine had been found and after a period of such buoyant financial conditions, the downside and indeed, upside inflation risks became reasonably clear.

In theory, persistent easy financial conditions especially comprised of low interest rates and strong equity markets, combined with apparently strong reported profits, should have led to a significant rise in private investment spending. But in many developed economies this never happened, and indeed it still hasn't outside of the leading U.S. tech sectors. Instead, easy financial conditions added to the strong incentives for sophisticated balance sheet management and the continuation of this era of strong share buy backs.

Until the last eighteen months, all of this added to the reality that asset owners have strongly outperformed wage earners in terms of the spoils of modern economic development. Not surprisingly, this has played into broader narratives and helped fuel the rise of populist parties, and played its own role perhaps in fostering the narrative that unfettered global trade has also failed many citizens of developed countries. Add in the now hugely popular view that immigration lowers wage settlements even though minimum incomes have been deliberately raised in recent years, and that overly easy monetary policy has played a role, unintentionally.

I am also in the camp that the rise of SPACs and so many crypto instruments were vaguely symptoms of monetary excess, despite the fact that bitcoin prices have risen further since the Fed started raising interest rates sharply.

I have found myself wondering many times in recent years whether my good friend Otmar Issing, the former European Central Bank chief economist, was right all along, and having a secondary target, whether it be a monetary aggregate or an index of financial conditions, might be a wiser pursuit than just a single inflation target. I also simultaneously often wonder whether monetary policymakers did get a bit carried away by some clever intellectual ideas a few years ago about deliberately pursuing a "temporary" inflation overshoot to compensate for the years of undershoot but were shocked by the reality and surprise of inflation reappearance.

Hopefully, the inflation genie is not truly out of the bottle, and it is reasonably comforting that a return to positive real interest rates hasn't caused mayhem, at least yet. What is less reassuring, indeed troublesome, is that productivity remains much weaker than is both desirable and necessary.

A grade of incomplete.

J. ALFRED BROADDUS
Former President, Federal Reserve Bank of Richmond

I'd give a grade of incomplete. More "experiments" will be necessary to determine the longer-term viability of negative interest rates as a significant monetary policy tool. The challenges negative rates present for policymakers, financial markets, and the broader public are well known. Negative rates can disrupt financial markets unaccustomed to them. They put an exclamation point on extended periods of generally low rates and, as we saw in the decade leading up to the pandemic, can distort investment decisions and capital allocation.

That said, the effect of negative rates on many national economies and the global economy during the 2010 decade probably deserves at least faint praise. We cannot know the counter-factual, but inching below the zero lower bound may well have helped prevent a decline into deflation in the aftermath of the global financial crisis and may have helped the global economy confront the risk presented by the pandemic. Even Japan, where the risk of deflation was arguably greatest in the developed world—and had been for many years—managed to escape conditions that could be labeled a depression.

When I assign an incomplete to the experiment overall, I have in mind the longer-run end game in the ongoing evolution of monetary policy strategy. Views regarding what constitutes a "best" or optimal strategy have traveled a long road from the straightforward Keynesian models of the mid-1960s to today's efforts to synthesize neoclassical and neo-Keynesian models.

During the last two decades, New Neoclassical Synthesis models (in the development of which my longtime Richmond Fed colleague Marvin Goodfriend played a leading role) have emerged as a central element in the way many policymakers in central banks around the world approach the implementation of monetary policy. At the risk of oversimplification, the NNS model can be viewed in a Wicksellian framework that guides central banks to, first, anchor inflation expectations with a credible longer-run goal for inflation, in practice often using an explicit numerical target such as the Fed's 2 percent

target, and second, stabilize the real economy by aligning its policy instrument (the federal funds rate for the Fed) continuously with a credible estimate of the natural real rate of interest.

But as Goodfriend emphasized in his presentation to the Kansas City Fed's Jackson Hole Symposium in 2016, for this approach to reach its full potential in the United States, in particular, the Fed must be free to move its funds rate instrument without encumberment (his phrase) to whatever level is needed to keep it in close alignment with the estimated natural rate. It may be difficult to achieve this ideal routinely for some of the reasons noted above. But if it can be approached more closely in future trials and experiments, perhaps we will be able to replace the incomplete grade with a more informative letter grade, perhaps in the lower-A to B range.

Central banks have done reasonably well.

JASON FURMAN
Aetna Professor of the Practice of Economic Policy, Harvard University's Kennedy School, Nonresident Senior Fellow, Peterson Institute for International Economics, and former Chair, President's Council of Economic Advisors

The world's central banks had basically no choice about where to set interest rates. Moreover, the dangers of low rates were greatly exaggerated—just look at how economies and financial systems have adjusted to much higher interest rates without any problems beyond a few isolated incidents.

We ask central banks to hit an inflation target and, in the United States, also an employment target. Prior to the pandemic, inflation was below target in all of the major economies. If anything, central banks were doing too little, not too much.

Why then were rates so low? One part was inadequate fiscal policy which was not doing enough to support demand. Another part was structural factors that lowered interest rates, like weak demand for investment and high levels of inequality which led to high savings. Regardless of the exact causes of structurally low interest rates—and these are debated—central banks had to take all of these fiscal and structural factors as given in setting their policies.

Central banks made clear mistakes in the second half of 2021 and the first half of 2022, keeping rates too low and asset purchases too high. That contributed to the subsequent inflation, although likely less than other causes such as fiscal policy and post-pandemic dislocations. Fortunately, they rapidly corrected their mistakes, moving faster and further than even many of their biggest critics recommended.

One of the biggest arguments against low interest rates was the claim that the financial system was getting addicted to them, leading to more risk-taking, leverage, and other problems that would inevitably end badly. There is a modicum of truth to that, but overall the economy and financial system has coped much better with the dramatic change in current and expected future interest rates than I would have anticipated. We have seen a few bank failures, but those are mostly explicable by poor supervision and idiosyncratically bad choices by those banks, with the problems contained relatively easily.

We should judge central banks by the mandate we assigned them, which is inflation and overall macroeconomic performance, not the level of interest rates. On that criteria they have done reasonably well—and to the degree their errors were in the overly expansionary direction that started in 2021, not earlier.

Grade: A-minus. And today's dominant theory of inflation is wrong.

HEINER FLASSBECK
Director, Flassbeck-Economics, and Former Director, Division on Globalization and Development Strategies, United Nations Conference on Trade and Development

A-minus is a fair grade for monetary policy after the global financial crisis.

There can be no doubt. The extremely expansionary monetary policy following the global financial crisis of 2008–2009 has caused a lot of collateral damage. However, the question is this: would the damage not have

been much greater if monetary policy had tried to apply orthodox methods at a time characterized by the collapse of most orthodox ideas about the economy?

It is all too easy to forget which orthodox beliefs have been shaken since the beginning of this century. First, monetarism died a less-than-heroic death, depriving central banks of the yardstick they had relied on for thirty years. Then the hitherto unshakable belief in efficient financial markets, for which Eugene Fama was awarded the Nobel Prize in 2013, had to be ceremoniously buried because the herd behavior of the financial markets had driven the world into the biggest crisis since the Great Depression.

Slightly less obvious to the mainstream, but still clearly demonstrable, is the collapse of the idea that you only need to impose sufficiently flexible wages on the labor market and the problem of unemployment will be solved. In Greece, wages were cut by 30 percent under pressure from the international troika and the result was much higher unemployment! In the end, companies all around the world abandoned the role of being the most important debtor and investor in the economy. The company sector became a net saver and forced the state into the role of the most important debtor, which it only took on very reluctantly.

In this brave new world, there was only one institution that—free from political constraints—was able to do what was necessary to prevent the worst from happening. The central banks had to jump over their own shadows and, come hell or high water, give the economy the stimulus it so desperately needed. Nevertheless, it was not possible without the help of fiscal policy. In Europe, where orthodoxy in terms of government debt was already dominant in 2010 and where it still dominates economic thinking, economic performance was simply catastrophic compared to that of the United States. The average growth rate for the years 2010 to 2023 was 2.1 percent in the United States and 1.2 percent in Europe!

The only thing you can criticize monetary policy for is its failure to understand and explain to the public what is at stake. The brief phase of high price increases from 2021 and the subsequent interest rate hikes have shown that there are still many undeclared monetarists sitting in the central banks who firmly believed that this "inflation," which was a one-time price shock, was the result of monetary policy laxity after 2010. The reflexive increase in interest rates has caused great damage because the dominant theory of inflation was still very orthodox.

Grade: D, with caveats.

BRIGITTE GRANVILLE
Professor of International Economics and Economic Policy, Queen Mary University of London

I'd assign an overall grade of D, with some caveats. My low grading of the experiment stems from the "horse's mouth"—namely, Mario Draghi, who, alongside the Bank of Japan's Haruhiko Kuroda, was the world's most important exponent of negative interest rates during his time as ECB president.

Draghi's public statements accompanying the European Central Bank's negative rate decisions repeatedly stressed the importance of coordination with fiscal policy. That is, the experiment's stated goal of getting inflation back up to the 2 percent target (and, in turn, stimulating economic growth) would remain elusive unless supported by more fiscal stimulus—especially by countries with "more fiscal headroom." That phrase was Draghi's code language for Germany.

The problem he was highlighting boils down to the famous "pushing on a string" metaphor. The decisive motivator for private investment will not be cheap money alone but the prospect of stronger demand. With much of the private sector focused on post-Great Financial Crisis balance sheet repair, it was up to governments to stimulate demand. But the logical effect of the negative interest rate experiment in removing governments' fiscal inhibitions was blocked by politics—until the pandemic removed that political blockage and the long-desired higher inflation materialized.

To the extent that firms took advantage of negative rates to borrow very cheaply, much of the proceeds of that borrowing was used to finance share buybacks. This practice amplified the most notorious general result of quantitative easing (of which the negative rates experiment amounts to an incremental subcomponent). This result was not the hoped-for higher inflation but, instead, galloping asset price inflation and the accompanying increase in inequality with all its adverse economic, social, and political consequences.

Although eschewed by the U.S. Federal Reserve, the negative rate experiment still affected the United States.

This was because the European Central Bank's and Bank of Japan's official inflation-targeting rationale camouflaged an exchange-rate target. The idea was to weaken their currencies (euro, yen) and boost activity—by tapping foreign demand. The international economy needed the opposite of this anti-social practice—that is, stronger domestic demand in Europe and Japan. As it was, the "hunt for yield" drove European and Japanese savings into U.S. bonds and other assets. This "savings glut" effect intensified the unhealthy combination of booming asset markets and mediocre growth.

Talking of savings gluts, the negative interest rate effect of penalizing savers took a perverse turn in Europe by stimulating higher pensions and insurance savings to offset the threat to targeted long-term returns from ultra-low interest rates. In Japan, meanwhile, the glut showed up on the balance sheets of exporting companies instead of the competitive exchange rate feeding through into their employees' wages—as was really needed to tackle deflation and lackluster growth.

The toll of distortionary effects is rounded off by the phenomenon of "zombie companies" being kept afloat by low interest rates instead of exiting from markets. This depressed overall productivity, further contributing to the dismal economic performance seen in the years of the negative rate experiment.

Grade: B

J. W. MASON

Associate Professor of Economics, John Jay College of the City University of New York, and Fellow, Roosevelt Institute

Overall, I give the negative interest rate experiment a grade of B. The costs of negative rates have been greatly exaggerated. But so have the benefits. The main lesson is that conventional monetary policy is surprisingly weak in a depressed economy, even when carried to extremes. The next time we need stimulus, greater weight should be put on fiscal policy.

The case against ultra-low rates on distribution grounds is not very strong, in my view. Yes, low rates do tend to raise asset values, and it's the rich who own most of the assets. But we should not make the mistake so many people do, and confuse a change in the present value of future income streams with a change in those streams themselves. Low rates, for example, imply a greater present value of the same future dividend payments, and thus higher stock prices. But that has no effect on income distribution—the owners of the stock are receiving the same payments as they were before.

The bigger criticism of ultra-low rates is that they didn't have much effect one way or another. Did twenty years of zero nominal rates in Japan significantly boost demand and growth? It doesn't seem like it.

At the same time, we should be careful of language like "distortion," which suggests that there is some true, natural level of interest rates and investment. Whether high or low, interest rates are always set by policy. And this always involves trade-offs between competing social goals.

Whether ultra-low rates contribute to bubbles is debatable. Many of the world's great bubbles—from the 1920s in the United States to the 1990s in Sweden—have occurred in environments of high interest rates. But let's say for the sake of argument that cryptocurrency is socially useless, and that it would never have taken off if rates were higher. Is this a problem with negative rates? Or is it a problem with the financial system? The reason we have so many well-educated, well-compensated people working in finance is that they are supposed to direct credit to the best opportunities. If cheap money leads them to invest in projects that are worthless, or worse, rather than ones with moderate returns, they're not doing their jobs.

If jet fuel were free, we would all probably fly more. But if planes kept crashing into the ocean, we'd blame the airlines, not the cheap fuel.

Speaking of airlines, it's easy in retrospect to see the subsidized loans to them and other pandemic-hit industries as excessive. But we don't know what the counterfactual is—it's possible that without public support, they would have collapsed into bankruptcy, leading to a much slower recovery. Certainly we couldn't be sure at the time. Under the extraordinary circumstances of the pandemic, there was no safe course, only a balance of risks. The high inflation of 2021–2022 was unfortunate; a prolonged depression would have been much worse. Perhaps next time—and climate change ensures that there will be a next time—we will strike a better balance. But it seems to me that under the circumstances, policymakers did pretty well.

Central banks have been rightly blamed for not responding quickly enough to the post-covid resurgence of inflation.

WILLIAM R. WHITE
Former Economic Adviser, Bank for International Settlements

Following five thousand years or more of positive interest rates on loans, the introduction of a negative rate on bank reserves by the Swedish Riksbank in July 2009 would rightly be called "experimental." A number of other central banks then did the same, with the Bank of Japan being the last to return to positive rates in March 2024. The intermediate span of almost fifteen years should provide enough data to gauge the success of this unparalleled monetary experiment.

Confounding the fears of many, there was no "phase shift" in the operations of the financial system as the experiment proceeded. Some had worried that banks would be unable to lower deposit rates commensurately and that bank profits might fall sharply and threaten financial instability. The supply of loans might also weaken (the "reversal interest rate") impeding aggregate demand rather than supporting it. Others raised concerns that the banks would be able to lower deposit rates, but this would trigger a wholesale and disruptive movement into cash.

In the event, nothing extreme happened. Indeed, a recent IMF study concluded that "The evidence so far indicates that negative interest rate policies have succeeded in easing financial conditions without raising significant financial stability concerns." Yet this approbation must be qualified by noting that only a few central banks ever participated in the experiment and even these did so very cautiously. Moreover, the Riksbank terminated its experiment even though the unemployment rate was then increasing, apparently because of concerns about rising house prices and household debt. It also seems plausible that the negative rate experiment was limited because central banks simply felt it was too risky compared to the use of the other nonconventional instruments of monetary stimulus that were still available.

But if negative rates affect the economy and the financial sector in a similar way to successively lower positive interest rates, then they also share the same downsides. Repeated recourse to monetary stimulus becomes less effective over time as it encourages a buildup of debt. Monetary stimulus also has a host of undesired side effects: it worsens wealth inequality; threatens financial instability by reducing the profits of financial institutions and by creating "everything bubbles" in asset prices; promotes fiscal instability and the likelihood of fiscal dominance; leads to resource misallocation (zombies, unicorns, and excessive risk taking) and to lower potential growth; and promotes excessive sectoral concentration with implications for lobbying and even the legitimacy of democracies.

In recent years, central banks have been rightly blamed for not responding quickly enough to the post-covid resurgence of inflation. Had more attention been paid to the other downsides of easy money, criticism of central bank policies might have arisen much earlier. Should these downsides eventually manifest themselves in another serious financial and economic crisis, potentially with implications for the democratic order, the reputation and independence of central banks will be severely tested.

Grade: F, for a flawed world view.

JAMES K. GALBRAITH
Lloyd M. Bentsen, Jr., Chair in Government/Business Relations, LBJ School of Public Affairs, University of Texas at Austin, and author, with Jing Chen, of* Entropy Economics: The Living Basis of Value and Production *(forthcoming)

I'd give a grade of F—not for low rates but for a fatally flawed worldview.

Interest rates paid by the general public have never been negative. Only a small tranche in the deep interior of Big Finance—discount rates, overnight interbank rates, very short-term government paper—were ever even at zero. Rates paid to the public—on demand deposits—have been close to zero as the historical norm, since long before financial deregulation in the early1980s. That's not experimental.

Yes, loan demand and big budget deficits are today keeping capitalism afloat, in our post-industrial era of sequential bubbles and crashes. When finance is divorced from social needs like housing, infrastructure, and industry, then manias, fads, waste, and abuse run rampant. And

yes, speculative bubbles drive income inequality through the roof.

But low interest rates are not at fault. Deployed wisely, low long-term interest rates foster long-term capital investments that underpin an efficient economic system and the prosperity of a stable middle class. It is no accident that interest rates fall as economies develop—they have been doing so for centuries—and that they are lower in rich than in poor countries.

Nor do high interest rates bring investment wisdom. Two years into the Fed's return to "historical" interest rates, it's clear that high rates have lost their bite, and have had nothing to do with the slow decline in inflation. On the contrary, sometimes high interest rates accelerate the madness, in stocks and Bitcoin as we now observe.

The fault lies in the failure to regulate finance for public purpose. If you want sensible financiers, then you must impose guidelines, margin requirements, credit and capital controls, all under strict supervision by government officers, backed by effective law enforcement. Forty years after Reagan and deregulation, economists have forgotten what public purpose is. The Chinese and the Russians have not.

The negative interest rate experiment can only obtain an "incomplete."

LORENZO CODOGNO

Visiting Professor in Practice, London School of Economics and Political Science, and Founder and Chief Economist, Lorenzo Codogno Macro Advisors Ltd.

The need for a central bank to respond forcefully with negative interest rates to avoid deflation has long been discussed in macroeconomic textbooks. However, it was only with the Great Financial Crisis that it moved from theory to practice. Today, bringing interest rates below zero until the so-called "effective lower bound" is hit has become part of the conventional toolbox of many central banks. Should a major shock hit the economy again, and central banks be left with no other effective tool, they would certainly use negative rates again. However, it remains an extreme case that central banks are very keen to avoid.

In fact, negative interest rates have many well-known drawbacks. The main one for the long-term health of the economy is the disruption of the allocative function of the economy, or the "free money distortion," leading to substantial misallocation of resources if the period of negative or very low interest rates is sufficiently long. The European Central Bank was late in responding to the Great Financial Crisis, and the response was too muted. Amid persistently low inflation and the lack of effectiveness of other tools, it had no choice but to trespass the zero threshold in an attempt to avoid deflation and bring inflation back to target. Negative interest rates might also produce an increase in inequality in the short term, but the analytical evidence is scant. The benefits of contributing to bringing back price stability more than offset any near-term adverse impact.

Many central banks remain reluctant to adopt negative interest rates even in extreme scenarios (Federal Reserve), while others have changed their reaction functions to ensure a more rapid and substantial response when shocks hit and a risk management approach to prevent the need for negative interest rates again.

The reaction function of the European Central Bank is now asymmetric. Should the risk of deflation or overshooting the inflation target from above materialize, the European Central Bank is now willing to take some upside risk on inflation. This seems to have happened recently. Although having widely publicized its data dependency, in June the European Central Bank decided to cut policy interest rates from 4.0 percent to 3.75 percent despite inflation, wages, and economic growth all having recorded higher figures compared to previous quarterly staff projections. The European Central Bank placed more emphasis on staff forecasts over a two-year horizon, pointing to convergence towards the inflation target. The central bank's preference went to preventing an undershoot of the inflation target in the medium term at the price of running some upside risks on inflation.

With a euro-area GDP growth potential of about 1.0 percent and a neutral rate probably in the range of 2.0–2.5 percent, interest rates have only limited leeway before dropping into negative territory. Over time, this situation may well justify a higher inflation target to ensure sufficient wiggle room in the case of a severe shock. Yet this can only happen in the medium term and when there is no risk of compromising the central bank's credibility.

The negative interest rate experiment needs to be contextualized. Given the struggle to bring inflation back to target since the Great Financial Crisis, central banks had no choice but to go negative or keep rates low for longer. Even once the fallout from the financial crisis subsided, inflation remained too low to allow central banks to bring interest rates back to their historic levels much sooner than they did. So the negative interest rate

experiment can only obtain an "incomplete," and the challenge for the future is to act preemptively and avoid getting to that point again.

Grade: B-plus. Negative rates were more a statement of purpose than policy action.

STEVEN B. KAMIN
Senior Fellow, American Enterprise Institute, and former Director, International Finance, Federal Reserve Board of Governors

The negative rate experiment was always more of a statement of purpose than a substantial policy action. At their lowest levels, the Swiss policy interest rate reached -0.75 percent, the Swedish rate hit -0.50 percent, the euro area rate hit -0.40 percent, and Japan's dipped to a barely perceptible -0.1 percent. Moreover, exemptions from the negative rates to protect depositors and other parties further watered down the measures. In consequence, the negative rates were never, by themselves, going to meaningfully boost household and business spending and jumpstart the recovery from the 2008–2009 global financial crisis.

That said, the negative rates were an important part of the central banks' communications efforts, signaling their resolve to take unprecedented actions to stimulate their economies and keep interest rates extremely low for an extended period. Together with ongoing asset purchases, they pushed down longer-term interest rates, boosted the value of bonds held by banks, eased financial conditions, and probably propped up inflation expectations. Moreover, negative rates likely contributed to currency depreciations, providing tangible support to demand and prices.

As well, negative rates failed to trigger the financial stability problems that some observers had feared. Despite some narrowing of their net interest margins, commercial banks generally found ways to shield their overall return on assets, including by cost-cutting, pulling in more fees, extending duration, and boosting mortgage lending. Even so, neither Japan nor the euro area exhibited the risk-taking, reach for yield, and financial froth that characterized the pre-global financial crisis period. (Sweden's property price boom was an exception.)

So, all told, I'd give the experiment with negative rates a B-plus, not least because it added another tool to the monetary authorities' toolkit. But while negative rates may be appropriate for limited periods of significant duress, they should not be maintained indefinitely. In 2018, the Bank for International Settlements' Committee on the Global Financial System released a report (which I helped organize) analyzing the risks of low-for-long interest rates. It featured a "snapback" scenario in which interest rates and inflation stayed abnormally low until 2023, when they then rose precipitously. That turned out to be quite prescient, of course, and so did the study's identification of risks in that scenario. It noted that rising yields could trigger a liquidity squeeze for insurance companies and pension funds that were using derivatives to protect against downturns in interest rates, because declines in the value of their contracts would compel them to post additional collateral. This is exactly what happened in the United Kingdom in 2022, ultimately requiring the Bank of England to intervene. And the study worried that prolonged low rates would lead banks to increase real estate lending and long-duration assets, exacerbating valuation losses in the event of a snapback in interest rates. This is exactly what happened in 2023 to SVB, Signature Bank, and First Republic Bank.

These considerations suggest the Fed probably kept rates low a bit longer than was desirable, both after the global financial crisis and then again after the pandemic recession. But given how frothy markets are at present, despite high rates, I wouldn't want to make that argument too strongly.

Both a success and a failure.

CHRISTOPHER WHALEN
Chairman, Whalen Global Advisors

The Federal Reserve Board's decision to use very low interest rates as the primary tool of policy after 2008 was both a great success and an abject failure. It was a success in a sense that the rush of liquidity that the Fed created by dropping interest rates offset the withdrawal of

liquidity by private investors. This first action was clearly needed and prevented a generalized debt deflation. But later, however, politics intervened.

Half of the large banks and nonbanks in the United States failed in 2008, a deflationary catastrophe. The Federal Open Market Committee recalled Irving Fisher, did the math, and substituted demand from the central bank for several trillion dollars in suddenly absent private demand, avoiding a 1930s-style debt deflation. Chairman Ben Bernanke and his colleagues picked benevolence instead of Bagehot-style deflation and won the day, proving the first rule of financial stability.

Then politics intervened. The Fed under Chairs Bernanke, Janet Yellen, and later Jerome Powell left accommodative policy in place far too long, after spreads in the bond market had normalized and markets began to function. The FOMC under Yellen and Powell made the same mistake as Arthur Burns in the 1970s and Paul Volcker in 1980. They played politics. The result is a far worse inflation problem than would have existed without extra years of quantitative easing and trillions in unnecessary fiscal stimulus.

Chairs Yellen and Powell erred by pretending to know how and when to fine-tune. Why did this occur? First and foremost, hubris. The Fed believes wrongly that they control markets. Thus by 2015, when the Fed belatedly tried to normalize interest rates, there was already too much liquidity in the system to prevent a generalized increase in prices and especially a massive increase in housing costs.

After the near-collapse of the markets at the end of 2018, the Fed embarked on a new, speculative injection of liquidity to prevent market contagion. By the middle of 2019, the massive increase in liquidity drove interest rates sharply lower, cutting the duration of $13 trillion in mortgages in half. Nine months later, when covid exploded onto the scene, the Fed responded with even more liquidity, driving mortgage rates down below 2 percent.

Externalities like Ukraine were the accelerant for global prices, but quantitative easing provided the fuel for the inflation fire seen today in U.S. stock valuations and home prices. The Trump-era tax cuts added to the inflation fires, pushing expenditures above 20 percent of GDP while revenues fell. Until the United States brings deficits under control, the economy will run hot and the Fed's role as the guardian of price stability will be at an end. When the Fed eventually cuts rates, housing prices will soar even higher.

All of this proves the judgment of economist F.A. Hayek: "It is wholly impossible for a central bank subject to political control, or even exposed to serious political pressure, to regulate the quantity of money in a way conducive to a smoothly functioning market order. A good money, like good law, must operate without regard to the effect that decisions of the issuer will have on known groups or individuals."

Major central banks were right to pursue unconventional monetary policies, warts and all.

MARK SOBEL

U.S. Chair, Official Monetary and Financial Institutions Forum, and former Deputy Assistant Secretary for International Monetary and Financial Policy, U.S. Treasury

Central banks are charged with the responsibility of fulfilling their mandates, including price stability.

In the wake of the global financial crisis and the euro crisis, the United States and eurozone joined Japan in facing deep-seated and destructive deflationary economic winds. Exhausting the scope for cutting interest rates, they pursued unconventional monetary policies, spawning a new acronym lexicon—ZIRP, NIRP, ZLB, ELB, LSAPs, QE, QQE, IORB, and more. Forward guidance was enhanced. In largely uncharted waters, they experimented and learned by doing.

Unconventional monetary policies are not a substitute for fiscal policy, which is a more potent tool in the face of sluggish growth and deflation. But the record shows that the use of unconventional monetary policies was effective in lowering yields, increasing credit, improving market functioning, and supporting real activity. It countered deflationary forces.

Monetary policy can be a blunt tool. Like any policy intervention or action, unconventional monetary policies have distributional consequences and side effects. These are not a reason to forgo use of a policy tool if the aggregate impacts are beneficial, no more than one would eschew a life-saving treatment due to manageable complications.

Unconventional monetary policies can exacerbate inequality, but that can be addressed through automatic stabilizers and tax policies. Financial stability concerns should be tackled through more robust supervision and regulation. That central banks might later realize balance sheet losses amid normalization and quantitative tightening is no reason to forgo unconventional monetary policies given central banks' central responsibility for achieving their mandated goals.

There will always be Monday-morning quarterbacks monitoring central bank actions, sometimes offering constructive and illuminating views and fairly asking if

central banks got it right or overstepped their bounds. But they are not in the trenches in real time. There is plenty of room for post-mortems and framework reviews.

Major central banks were right to pursue unconventional monetary policies, warts and all.

Grade: C-minus. The growth during the great experiment was disappointingly low, insufficiently inclusive, and lacked sustainability.

MOHAMED A. EL-ERIAN
President, Queens' College, Cambridge University, and Professor, Wharton School, University of Pennsylvania

I'd give the experiment a "C-minus" grade on the economy, and "incomplete" on markets with a big asterisk expressing residual concern!

After successfully avoiding a multi-year depression due to severely malfunctioning financial markets in 2008–2009, the economies of the advanced countries benefited only marginally from the great experiment of artificially floored interest rates supplemented by massive liquidity injections. The growth that materialized was accompanied by resource misallocations, including support for "zombie companies" that served to undermine productivity, agility, and longer-term economic and financial resilience. Meanwhile, wealth inequality worsened materially, adding to social and political pressures.

The experiment may also have inadvertently sidelined the longstanding need for measures to promote productivity and durable economic growth. Witnessing the hyperactivity of central banks, many governments retreated to the sidelines and dragged their feet on measures to enhance infrastructure and help retool and retrain segments of the labor force.

The experiment's impact on financial markets was more significant, but it was very unequal and, ultimately, could also be unsatisfactory. It considerably decoupled ever-higher financial valuations from more sluggish economic fundamentals. It pushed investors to take additional risks in search of higher yields, some of which may not have been fully understood. And it encouraged a massive shift of resources to the non-bank sector in a manner that still has regulators playing catch-up.

Given all this, it is unsurprising that the growth that materialized during the great experiment was disappointingly low, insufficiently inclusive, and lacked sustainability.

The hope now is that the United States, and the United Kingdom with the new government's emphasis on a "growth mission," will focus more on genuine measures to "unleash the brakes" on existing drivers of growth and productivity, as well as pursue the drivers of tomorrow's growth. Equally important is that this is not undermined by financial sector instability as the financial system adjusts fully to higher and less artificial levels of interest rates.

We need better crisis management policies.

PIROSKA MOHÁCSI
Visiting Professor, London School of Economics and Political Science

With the post-pandemic inflation period broadly behind us, it is high time to examine the entire monetary policy cycle since the global financial crisis of 2008–2009. There have been two phases. First, we saw very loose monetary policies in the wake of the global financial crisis, the eurozone crisis, and the Covid-19 pandemic. Second, there was rapid tightening to combat surging post-pandemic inflation. While much attention has focused on the timeliness of the second phase, research has started to revisit the effectiveness of the first phase, and the extent to which its ultra-accommodative policies contributed to the unprecedented flare-up of inflation from 2021.

Criticism of the extremely loose phase of the cycle can be well justified. The evidence is clear that keeping interest rates low or negative for too long can lead to excessive risk-taking, moral hazard, and possibly wealth inequality.

But the main issue is not the drawbacks of low or negative interest rates.

Low/negative interest rates have been part of a massive loose central bank policy. In response to the global financial crisis, central bankers created a triumvirate of

loose monetary policy tools: first, low/negative interest rates; second, quantitative easing via massive asset purchases particularly in the vicinity of the effective lower bound where interest rates could not be lowered further; and third, forward guidance that committed the central bank to keeping interest rates low even if the data suggested otherwise. These tools were self-reinforcing and quite powerful in averting major depression and restoring financial markets at the beginning of the global financial crisis. But they showed diminishing returns and, outside the crisis, also started generating risks for financial stability because of excessive risk-taking. Loose policies should have been wound down at that point, in the United States for example as early as 2013–2014.

Yet the political economy dynamics of loose policies gathered strength over time because monetary accommodation aligns the short-term interest of most market participants and (debtor) households on the one hand, and policymakers on the other. The latter, the central bankers, enjoyed rising political clout. All this created an environment where policymakers did not exit loose policies on time. Then the Covid-19 pandemic hit, and the same policies were applied "on steroids," that is, on a much larger scale.

The real problem is then the exit from such loose policies. Major shocks do require crisis management that includes loose monetary policies with the overarching objective of avoiding economic depression and financial turmoil. But for political economy reasons, it is very hard to exit such policies, which in turn give rise to pervasive incentives for the society as a whole. It creates the ground for, or further reinforces, economic populism on both the left and the right sides of the political spectrum. In such a context, government support is sought for every societal need. Such needs can be tremendous and most pressing—think, for example, climate change—but post-crisis, societies need to return to policy prioritization and working within hard budget envelopes for scarce resources. If they do not, and ultra-loose policies continue beyond crisis conditions, we will see the repetition of excessive risk-taking, moral hazard, entitlement, and eventual inflation. Crisis management metamorphoses into economic populism in the process.

Shocks and crises will, of course, happen again, so the question is how to create a system that ensures the use of effective but exceptional crisis management policies that also provide a mechanism for timely exit. The answer is legislative pre-commitment to do so. Parliaments can legislate time-bound crisis management policies that allow governments and central banks to start crisis management with loose policies only with a sunset clause. Such legislation should be underpinned by pre-set benchmarks and periodic reviews, say, every three to four months. When the benchmarks indicate that the crisis has been overcome, accommodative policies should be wound down. In the case of the massive pandemic response, this would have allowed a discontinuation of crisis policies by the autumn of 2020, and we might have avoided the highest inflation in a generation.

Grade: B-minus.

HOLGER SCHMIEDING

Chief Economist, Berenberg

I'd give the negative rate experiment a grade of B-minus.

What a relief. The period of negative rates in Europe and rock-bottom rates in the United States is over, and probably for good. With their aggressive response to the covid pandemic, central banks saw to it that the almost unprecedented freezing of economic activity did not trigger a wider financial crisis. They deserve top marks for this. Yes, cheap liquidity did spawn some funny financial instruments and propelled some cryptocurrencies into the stratosphere. Jointly with government interventions, ultra-low financing costs also tied up some real resources by keeping some zombie companies alive. However, there is little evidence that capital was misallocated in a serious way. In the wake of the covid shock, neither households nor companies took excessive advantage of low rates to overinvest into production capacities or real estate. Instead of borrowing up to the hilt, most of them strengthened their balance sheets instead. Of course, they often did so at the expense of future taxpayers as governments went ever-deeper into debt to offer generous, and in the case of the U.S. stimulus checks, outsized support.

Nonetheless, central banks deserve at best a B-minus for their conduct. They made three mistakes.

First, they probably could have contained the risks of a financial crisis with their well-designed aggressive liquidity injections without having to cut rates to quite such low levels. Their function as lenders of last resort in cases of looming financial turmoil is about supplying all liquidity needed to calm nerves, not about the precise rate at which they offer such emergency money.

Second, they failed to distinguish clearly between preventing an acute crisis and the more normal conduct of monetary policy. When economies started to recover in an almost V-shaped fashion upon the easing of the first covid shock, they should have returned faster to a more normal stance. Instead of reacting to the rapid rebound in demand and supply, they fretted too long about hypothetical downside risks to their 2 percent inflation targets. In the wake of a financial crisis that is usually followed by a long period of balance sheet repair and constrained demand, such concerns would have been appropriate. In the wake of the covid shock, such concerns were misplaced. To some extent, central banks based their decisions on the wrong post-crisis template.

Third, the U.S. Federal Reserve failed to take the excessive fiscal stimulus into account. When a government opens the fiscal floodgates by as much as the United States did with a succession of stimulus checks and spending programs known under acronyms such as JOLTS, IIJA and IRA, monetary policy must lean against it. Otherwise, demand outstrips supply and core inflation soars. Because the Fed stayed too low for too long, even the mislabeled Inflation Reduction Act with its subsidies for green and other investments ended up stoking inflationary pressures at least initially rather than alleviating them.

Let us hope that central banks now do not follow up their mistake of too low for too long by staying too high for too long.

A double distortion at work of negative interest rates and ballooning debt.

GARY CLYDE HUFBAUER
Nonresident Senior Fellow, Peterson Institute for International Economics

Ruchir Sharma put his pen on the double distortion of negative interest rates and ballooning federal debt. The second worst consequence (after inflation) is to price young people out of home ownership for decades—creating disaffected voters eager for populist nostrums. Double distortion also pushes equities to lofty levels, making the rich even richer, but without the "let them eat cake" impact of high housing prices.

Unfortunately, there is no painless path out of double distortion. Prolonged high real interest rates would eventually deflate housing prices, disappointing older owners and ensuring unemployment for new workers. Not a popular monetary policy. As for fiscal affairs, President Biden refuses to cut spending and Trump refuses to raise taxes. Federal debt looks sure to grow—absolutely and relative to GDP. Policy reversal by either the Democrats or Republicans could spell defeat for the responsible party in the next Congressional election. The benign impact on housing prices would take longer.

All considered, double distortion, despite its costs, seems a durable feature of the American economy. ◆