Preface

Michael Bordo and John H. Cochrane

This volume collects essays and comments from the annual Hoover Monetary Policy Conference, held on May 9, 2025. Each year, the conference brings together academics, policymakers, media members, and others to consider big-picture issues affecting monetary policy. The conference lies between academic conferences that present original research and policy conferences that focus on the pressing issues of the day. Conference participants are asked to write a short essay based on their presentations. This volume is a collection of those essays. The reader will find, in our view, an unmatched collection of clearly expressed, important, and deep insights on the economy and monetary policy.

The theme of this year's conference is "finishing the job and new challenges," which we clarified for the volume title that the "job" is returning inflation to its target level, and the challenges are for monetary policy. When we put the conference together, and as it turned out, when the conference was held, inflation was still stubbornly above the Federal Reserve's 2% target. How to finish the inflation-reduction job was the first obvious question to discuss. But many other challenges lie ahead: How should central banks counter a new surge of inflation, should one arise? What lessons should we take from the 2021–22 episode? Was inflation due to some "shock" beyond the central bank's control? Or was inflation a choice, in part a choice on how to respond to shocks, that could be made differently in the future? How should central banks prepare for the next shock, which will surely come sooner or later? Are tariffs the next supply shock? How will central banks fight inflation in the shadow of large debts and deficits, which can put direct pressure on inflation and mean that higher interest costs on the debt will constrain monetary policy? How should central banks adapt their formal strategies, constructed in an era of zero interest rates and low inflation? How should financial regulation adapt to recent troubles and the big innovations going on around us? And more.

This year's conference followed an event celebrating the life and career of John Taylor, held on May 8, 2025, and resulting in a companion book from the Hoover Institution Press. John has also been the inspiration and central organizer of the Hoover Monetary Policy Conferences series over the years. Much of the spirit of celebration carried forward into this conference, with many participants noting John's influence and thanking him for his personal and professional contributions over the years.

This year's collection of essays opens with Hoover Director Condoleezza Rice, who offers a global view. The international order is shifting, in an "avalanche," with tariffs, supply chains, the status of the dollar, and the nature of international cooperation changing quickly. Monetary policy must adapt to this very new world.

John Taylor and Taylor Rules in Policy

The first group of essays is, in part, a continuation of the John Taylor celebration, focusing on John Taylor and the Taylor rule's influence on policymaking. But the session is also well-suited to the monetary policy conference, since one of John's great contributions was to launch the conference series, with its stress on rule-based policymaking over the years, and its effort to bring together academic and policymaker audiences.

Volker Wieland reminisces about his time as a PhD student under Taylor at Stanford University, and how the Taylor rule influenced analytical work in his first job at the Fed. He presents two informative graphs on policy and the 2021–23 inflation surge, showing how several variants of the Taylor rule would have counseled a much swifter reaction, and also documenting references to the Taylor rule and their absence in Fed communications.

John C. Williams tells of his time as a research assistant for Taylor. He emphasizes a central characteristic of John's work: He combines theory and practice and makes theory useful for policy practice.

Agustín G. Carstens tells of his work with John in developing collective action clauses for sovereign debt in the wake of the Latin American and East Asian crises of the late 1990s. The Taylor rule was useful to many emerging markets central banks, including Mexico, when he was governor of the Bank of Mexico. He adapted the Taylor rule to deal with currency markets by responding to the US interest rate. And the Taylor rule remains the benchmark for policy analysis at the Bank for International Settlements today.

Christopher J. (Chris) Waller gives a deep and personal summary of the larger question of rules versus discretion in monetary policymaking. Waller explains the time consistency problem as analyzed by Finn Kydland and Edward Prescott: A central bank wants people to believe inflation will be low tomorrow, which improves the inflation-output trade-off today. But when tomorrow comes, the bank will prefer high inflation. People know that, so they won't believe inflation will be low, and the bank faces a poor trade-off today.

A rule helps, but rules are meant to be broken. Rules need a mast and a rope. Waller describes his odyssey in pondering these issues. In response to a long-ago comment by John Taylor, Waller shared that a question that John wrote in 1983, "How does society build credibility into the institution instead of relying on the credibility of an individual?" set him off on a 20-year journey studying central bank design.

A "conservative" central banker, who naturally prefers less inflation, helps, but he must be protected by independence. This time-consistency issue is a fundamental reason underlying central bank independence and one that distinguishes central banks from other government agencies. Waller goes on to share his thoughts about a society and political parties with different preferences over inflation, and how to produce a central bank that can control inflation, respond democratically, but avoid cycles of inflation and disinflation with each change of government. The current structure of the Fed is pretty good to this end by Waller's analysis. He concludes by noting how John Taylor's ideas and influence have accompanied him full circle in life, as a researcher on central bank independence to serving as a Federal Reserve board member.

Loretta J. Mester emphasizes that, as Taylor has argued, monetary policy should not follow a mechanical rule, but rather the rule is a background for "a consistent, systematic approach." Mester explains how policy rules are used at the Fed, both internally and externally, in the Monetary Policy Reports, staff forecasts, the Tealbook, and in policymakers' public explanations of their current and likely future actions. Describing her time at the Federal Reserve Bank of Cleveland, she notes that "intuition can lead you astray," and how "economic models and policy rules discipline one's thinking." When rule deviates from intuition, it forces her to "carefully consider whether there were factors or alternative model assumptions that could support that deviation." She finds it useful to reverse-engineer to determine which rule accounted for different projected policies by different participants. A more direct comparison of the rules implicit in different recommendations would help produce better internal communication. Communicating in terms of a rule would help the bank in its communication with the public. It would stabilize the public's expectations of future Fed actions and also restore the public's trust.

Charles I. Plosser warns that although casting policy and policy expectations in terms of a rule is nearly uniform in academia and central bank staff research, discretion remains attractive in practice. He gives credit for several important advances: formal inflation targets and much greater transparency. But he bemoaned the lack of credibility of central bank promises.

Credibility can come from a good reputation, but reputations are fragile. "The inflation spike in 2021–24 was a step backward for the Fed's reputation-building efforts," going back to 1980. Institutional constraints and mandates—which imply commitments not to act—are useful, but the Fed has stretched those boundaries. Independence is useful, but can only come in a democracy along with strict limits. Rules build credibility, but they must be clear and accountable. "Data dependent" does not constrain discretion if one does not say which data and how dependent.

The natural problem, to Plosser, is that the Fed "retains a desire to be discretionary." As Kydland and Prescott showed, rules are regretted ex post. He closes that the Fed should "spend less time and effort seeking or justifying the expansion of their powers and more time arguing for limitations that might support independence and strengthen their ability to make credible commitments."

Kevin M. Warsh gives a perceptive overview of how the Taylor rule does and does not influence policy. He recalls his own initial attraction, and reflects how the Taylor rule "has a simplicity, an elegance," in contrast to the "voluminous commentary we receive from modern central banks." He points to Taylor as the inheritor of Milton Friedman's efforts to promulgate rule-based policy, but adapted to the fact that central banks set interest rate targets and not money supplies. He recalls how, through John's influence, he "grew somewhat skeptical of big black-box models." John's rule is an alternative approach to apply what economics knows to the sausage factory of policy.

"We have learned . . . [that] low inflation and low unemployment are not at war with each other." They are actually good friends. "The idea that we should push up one variable [unemployment] to move the other variable down [inflation] has hopefully been written out of the current practice of policy." Warsh here refers to current thinking in which inflation, as the central task of central banks, if stabilized, will do as much as central banks can on employment. We are less sanguine that the 1960s Phillips curve has been written out of current thinking and practice, but we hope (as perhaps he does) that his well-articulated comments will help!

As Warsh emphasizes, the rule is not an exact rule, but it is "aspirational." Monetary policy should more closely follow rules, but just which rule is unsettled and using it will remain "a craft."

Warsh emphasizes an important point, especially regarding the lessons of the recent inflation surge. "Inflation is a choice . . . Inflation is not caused by pandemics or autocrats . . . inflation . . . is set by the world's central bankers." (He acknowledges that "it is principally determined by government spending and printing," however, including fiscal policy in that "choice."). Given the voluminous excuses for inflation, such as "supply" and "relative demand" shocks, which cry "it wasn't our fault" and imply "it's beyond our control," this is an important truth.

The Taylor rule is notable for what it *omits* from both the right-hand side, where we write what variables central banks do and do not respond to, and the left-hand side, which specifies which policy levers the bank does and does not use. These omissions are perhaps its greatest strength, and how the rule works against discretion. Warsh emphasizes that quantitative easing is missing on the left-hand side, and he views that absence as an important commitment the Taylor rule offers not to engage in balance sheet policy.

Also, missing is “trust,” a good word for reputation and credibility. Here, Warsh draws an important connection. Central banks target inflation going forward. They do not typically try to make up for past mistakes, for example, running inflation below target after a surge so that average inflation attains the target over long periods of time. The Fed lets bygones be bygones. We note that the European Central Bank (ECB) formally targets inflation on a forward-looking, medium-term basis. But if central banks let surges of inflation happen without response, especially with the aforementioned excuses, the public has less trust and sees much less commitment.

Finally, Warsh notes that the Taylor rule is not an eternal verity needing only to be implemented. Times change, questions remain, and conferences like this one are alive. “This is an appropriate moment to thank John for his contributions, as much as it is a time to call on our profession to think anew. This is a time of inquiry. This is a time of choosing.” It is.

Digital Assets, Payment Systems, and Financial Regulation

The second group of essays focuses on current issues in finance and financial regulation. These central bank activities are as important as, or more important than, setting short-term interest rates. The panelists focused on the challenges posed by cryptocurrency.

Arvind Krishnamurthy introduces the essays, noticing how much the technology of finance, "particularly around money, payments, and settlements," has changed in the last decade, as well as the landscape around financial regulation, and many activities moving out of banks. Krishnamurthy also warns of cracks in the treasury debt pillar of our financial system.

Darrrell Duffie starts his remarks by remembering John's work, with Darrell, on restructuring the bankruptcy code so that large financial institutions can be allowed to fail.

Duffie focuses on how tokenizing payments can implement a substantial improvement. Once upon a time, banks could lose a lot of money on intraday payments. If a bank buys deutsche marks in exchange for dollars, receives its deutsche marks but fails before sending dollars, its counterparties could lose a lot of money. Eventually, the Continuous Linked Settlement (CLS) Bank emerged. Like an escrow account, it would not disburse one payment until it received the other payment. But "CLS Bank is complex in terms of operations, governance, and oversight."

A cryptographic system can play the same role. "The US bank cryptographically assigns its dollars to the European bank, conditional on the European bank cryptographically assigning its euros to the US bank." The two-way conditionality ensures no losses, and the cryptographic transfer is self-executing, without an intermediary institution. It bundles payments and anonymous escrow. The system has been tested. It is not yet widely used, but Duffie predicts that it will be.

Treasury trading can use the same mechanism, thus avoiding both the fragile dealer bank telephone system and conventional trading and clearing on an exchange. This too is already in motion.

Tokenized reserves are not being speedily adopted. Treasury traders are unlikely to widely move to stablecoins, and current legislation and Fed policy are not swiftly developing viable alternatives to reserves. How the US will provide more widely accessible large instant payments is a pressing policy question. Duffie emphasizes that improving the liquidity and stability of Treasury markets is very important given the US fiscal situation.

Luis Garicano places European digital currency in the context of the centuries-long development of money. ”The European Union (EU) pursues a twin-track approach: launching a digital euro while concurrently building high regulatory walls around the private market.”

Stablecoins are emerging in both the US and the EU. As Garicano explains, stablecoins function as a narrow bank: they promise \$1 or €1 and are backed (hopefully) by a risk-free portfolio of liquid short-term government debt or central bank reserves.

Garicano characterizes the EU approach as a “walled garden,” including strict regulation and prior EU authorization for any euro coins sold in the EU. The US is aiming for a more open market in private coins.

Both initiatives are hobbled by a legal restriction against paying interest on stablecoins. “This common stance underscores a shared policy direction to delineate stablecoins primarily as payment instruments rather than savings or investment vehicles, aiming to prevent direct competition with traditional bank deposits or money market funds.” Store of value is a traditional function of money along with being a medium of exchange, and our governments wish to have the second without the first. Garicano naturally predicts that issuers will offer other services in place of interest rates to attract customers, as some banks in the 1970s gave out free toasters to depositors.

Garicano warns that the European effort may fail. There are many reasons that Europeans might prefer the less-regulated and more internationally accepted dollar stablecoins. The digital euro is intended to counter that evident possibility. Better government money has historically driven out private innovations, such as banknotes. But only when the government version was better. The digital euro is hobbled by strict limits (€3,000 has been proposed), a mandatory link to a bank account, no interest, and merchants are prohibited from holding any digital euros. "It's like designing a fantastic new car but limiting it to thirty miles per hour to avoid competing with existing taxis," writes Garicano.

The ECB defends these limits as important to "financial stability," vaguely defined. Garicano acknowledges the standard story that banks fund some lending with deposits but shows how little that matters in the current banking system, and how many alternatives there are. He concludes, "Europe . . . wants to protect its banks from competition while also defending the euro in the digital age. This won't work. By coddling banks with a deliberately hobbled digital euro, Europe may hand victory to dollar stablecoins in its own backyard."

Charles W. Calomiris focuses on how stablecoins will transform banking. He offers an eloquent view that stablecoins are as fundamental a change as that from physical coins to paper money and checks. Stablecoins will replace "bank deposits and the antiquated Fed- and bank-based payment system that is based on check writing and interbank deposit clearing. Instead, stablecoins offer a new decentralized retail payments network and a new way to clear payments among stablecoin issuers." It will, "result in major social benefits."

Stablecoins will also "allow payments to occur in combination with the transmission of other, related information in new ways." Darrell Duffie provides an example of how stablecoins can combine payment and escrow. Calomiris writes that "stablecoins could be accompanied by messages related to payments that would permit the execution of more complicated, conditional payments. For example, one will be able to demonstrate (using third-party verification) one's age, residential location, citizenship, and other personal details to counterparties as one sees fit when purchasing goods and services." We note that regulators might also require such verification, for good and evil.

Like Garicano, Calomiris distrusts the story that major social losses will occur if banks lose deposits in competition with stablecoins. Banks can raise money for risky lending by wholesale and long-term borrowing (and, we note, equity issues), and they can engage in more securitization rather than hold balance-sheet risk. We note that such a change would be good for financial stability and remove bailout guarantees. He likewise dismisses the story that there is an important synergy between deposits and lending. If that were the case, then deposits would not lose in competition with stablecoins. And fintech firms would not rapidly take over much of the loan origination.

Calomiris looks beyond stablecoins, which are essentially narrow banks or money market funds that liquify government debt denominated in dollars, to the creation of a new unit of account that could be superior to the dollar. A stable unit of account that governments are not tempted to occasionally inflate is attractive. "The technology to produce those new units of account already exists, but making use of that technology to supplant the dollar entails major economic, political, and legal challenges that will determine how quickly it diffuses." Calomiris essentially proposes a coin that is worth one bundle of goods, such as the Consumer Price Index, but instead uses data collected from the blockchain itself. In his vision, sellers first tokenize units of their product, such as a Big Mac or one month's rent.

Then a coin can be established that is worth so much of each product token. In this way, a broad-based commodity money can be implemented.

(The conference also included a presentation by Larry Summers.)

Finishing the Job, and Risks Ahead

The third group of essays bears the same title as the conference and is focused on these central and integrative ideas.

Mickey D. Levy's introductory essay frames the issues: "Inflation remains well above 2% and the general price level is nearly 25% higher than it was prepandemic. . . . To finish the job, the Fed needs a robust strategic framework that guides it toward the right monetary policy." The upcoming policy review is an excellent opportunity for the Fed to incorporate lessons of the recent inflation surge. He argues for symmetry, as opposed to the Fed's current inflation bias, and naturally, that he "would love to see the Fed consider how to better make use of systematic rules like the Taylor rule as an input to its discretionary conduct of monetary policy."

For risks ahead, Levy points to tariffs and other potential supply shocks. He also notes political risks, not just pressure from President Donald Trump but also political risks stemming from the "Fed's enlarged balance sheet, involvement in credit markets, and the proper scope of its monetary policy." We would add the political risks, already evident, stemming from large debts and deficits and political desire for lower interest costs on the debt.

Peter N. Ireland reminds us to think outside of the current box and apply an alternative analysis based on money and nominal GDP. He describes the current consensus view behind policymaking as Keynesian. Prices and expected future prices are sticky, so higher nominal interest rates raise real interest rates; higher real rates lower spending; lower spending lowers output and employment; and those lower inflation. "The Phillips curve, describing an inverse relationship between unemployment and inflation, becomes the key mechanism through which monetary policy actions that start by affecting interest rates ultimately impact the economy as a whole."

The Phillips curve is at the center of this understanding, and Ireland points out the instability of this curve. Unemployment declined in the 2010s with no change in inflation. Inflation declined in 2022–23 with no rise in unemployment. We note this observation is just the beginning of the theoretical and empirical problems of the contemporary Phillips curve, especially if one regards the Phillips curve as the central causal channel driving inflation.

Ireland bemoans the lack of intellectual diversity in central banking. "With no other analytical framework to rely on except the Keynesian one, FOMC [Federal Open Market Committee] members have been left adrift . . ."

Ireland proposes an alternative view "based on the idea that the Fed should control inflation by targeting nominal GDP instead of relying on a potentially unstable Phillips curve. Its intellectual origins are monetarist instead of Keynesian."

Just what does a nominal GDP target entail? Ireland writes "Ideally, the FOMC would implement a nominal GDP targeting strategy by following a specific, preannounced monetary policy rule, according to which it would adjust the federal funds rate in response to forecasted deviations of nominal spending growth from the target." Here, it functions as a variant of the Taylor rule, with equal weight on forecast inflation and real output growth. Shy of this goal, Ireland would like policymakers to consistently refer "to nominal GDP growth as an indicator of the stance of monetary policy in public statements." Here it functions as a summary measure.

That use as a guide to interest rate setting does not, per se, offer an alternative mechanism to the Keynesian-demand-plus-Phillips-curve view for understanding how interest rates translate to inflation. Here, Ireland advocates more attention to monetary aggregates, particularly M2. Though he acknowledges that the V in MV=PY has also proved unsteady, nonetheless, he views measuring and adjusting M with an eye on PY as at least a complement to changing nominal interest rates.

He concludes that "monetary policy analysis built around the concept of nominal GDP targeting would provide a useful 'cross check' against the far more popular Keynesian approach." Nobody really knows how monetary economics works, so a wise policymaker or policymaking institution puts some Bayesian weight on many different theories.

Kristin J. Forbes offers "Lessons for the Next Battle" stemming from the recent inflation surge. She notes that the 2022–23 disinflation was essentially "sacrifice-free," involving no rise in unemployment, though many people suffered from the 25% price-level rise.

Forbes offers three lessons for how central banks should react to the next inflation shock. First, central banks should consider the price level and not just focus on returning inflation to the target with minimal output losses. People are both hurt and angry about permanently higher prices. She does not go so far as to advocate a price level target, however.

Second, central banks should avoid the "start late, then sprint" approach. Forbes offers several explanations for the unprecedented delay in responding to inflation in 2021–

22: "inaccurate forecasts; belief the Phillips curve was flat so that inflation and wage growth would remain muted; caution about derailing the nascent recovery after the post-2008 stagnation; belief the inflation surge would be transitory;" and the shadow of forward-guidance promises to keep rates low. She warns that fast rate rises can "break something."

Third, "central banks should prioritize maintaining well-anchored inflation expectations and central bank credibility." Indeed, inflation comes down quickly without unemployment if expected inflation comes down quickly or does not rise in the first place. She warns that central banks will not face as well-anchored expectations in a new surge.

James B. Bullard encourages us to think more deeply about the foundations of monetary economics, prompted in part by the fact that money and debt are no longer as distinct as they once were. Reserves pay interest, and near the zero bound, cash becomes free.

First, why is there monetary policy at all? Government intervention needs to be motivated by some market friction. "In monetary economics, this friction is attributed to sticky prices." But when introduced, it was understood that "the sticky price assumption was a shortcut and would be revisited later. I suggest that now would be a good time to revisit it." Frictions that mimic observed dynamics are not necessarily good foundations for welfare analysis.

Prices are sticky until they aren't. Firms changed prices quickly in 2021–22. Bullard advocates that we rethink the foundations of apparent price stickiness. He emphasizes one approach: nominal contracting. Prices, wages, and assets are widely denominated in dollars, without state-contingency such as indexation. There are good contracting reasons for doing so, but it means that unexpected inflation has big distributional effects. Bullard does not think this perspective radically changes what monetary policy should do: Monetary policy should still aim for the "Wicksellian" rate of interest. But it changes communication a lot. Rather than exploit stickiness, the central bank aims to make long-term nominal contracts work as if they were real.

Second, Bullard writes that economists should incorporate inequality and heterogeneity into the modeling of monetary policy. However, he thinks that such understanding can preserve the distinction between monetary and fiscal (transfer) policies. We think this is wise, as the Fed can no longer remain independent if it makes income transfers and social insurance an important goal.

Third, Bullard writes that we should better understand the large lifecycle demand for nominal assets, including Treasury debt. These may make larger amounts of debt sustainable without sparking inflation.

(The conference also included a presentation by Jason Furman.)

The Growing Role of Private Credit

Torsten Slok's essay focuses on private credit, outside the banking system. As the banking system has become more regulated, lots of activity has predictably moved out. "Private credit is no longer a niche strategy. It has become a core channel through which capital is allocated across the economy, funding corporate borrowers, financing real estate and infrastructure projects, and increasingly supporting the consumer sector as well. . . . Private credit assets have grown to $1.7 trillion from $300 billion in 2010, and the trend shows no signs of reversing."

Naturally, one wonders whether private credit will also suffer the same sorts of problems that banks have suffered. Slok is optimistic. “Private credit investing is, by design, structured. Loans are often bilateral (so-called club deals), with extensive covenants, active monitoring, and tight alignment between lenders and borrowers. This type of lending is built on rigorous underwriting, tailored deal terms, and contractual protections that often exceed those found in the syndicated loan or high-yield bond markets. Perhaps most importantly, in periods of volatility, private credit funds have proven willing and able to step in and provide liquidity when other lenders are retreating.” We would add that private credit is not funded by short-term, run-prone debt, the central ingredient of bank panics. The market is expanding. “Private markets, once limited to a small group of insiders, are becoming more broadly available through new platforms and fund structures.”

He concludes that “We’ve seen financial innovations before, many of which have come with tremendous benefits. Private credit channels long-term capital toward productive uses, and it can reward prudence, alignment, and long-horizon thinking.”

Global and Strategic Issues: Implications for Monetary and Fiscal Policy

Ross Levine introduces the essays in this section by pointing out that, since ancient times, economic strength has been the key to military power, and that alliances bound by trade strengthen both economies and national security. Economic policies reverberate throughout the economy and have security implications. Tariffs, for example, “have effects that extend well beyond the domestic winners and losers created by those policies.” If we reduce trade deficits with tariffs, then we also reduce the US’s ability to borrow abroad and raise the cost of borrowing. That hurts the economy, as well as our ability to make military investments or respond to crises.

H.R. McMaster brings a national security perspective to our economic discussion. “The defining competition of the twenty-first century has been and will continue to be one between closed, authoritarian systems and free, open societies.” The free world has been complacent, however. We have suffered from “strategic narcissism: the tendency . . . to define problems as we might like them to be and indulge in the conceit that others have no aspirations or agency of their own . . . that the arc of history had guaranteed the primacy of free and open societies over authoritarian and closed systems,” that “global governance and a great-power condominium had displaced great-power competition.” We need instead “strategic empathy [which] attends to the ideology, aspirations, and emotions that drive and constrain competitors.” Know thy enemy.

McMaster delves into an analysis of the Chinese Communist Party’s (CCP) economic and strategic behavior, including “a campaign of cooption, coercion, and concealment.” He warns against common misunderstandings advanced by the CCP. First, that “Chinese aggression is the result of US-China tensions,” and fundamentally the result of anything the US does. No, the CCP has its own aspirations and plans. Second, that “competition with China is dangerous or even irresponsible,” that any competition will lead to a disastrous war.

We are not helping ourselves by mistreating allies. “The Trump administration’s tariffs on allies and occasional gratuitous insults are undermining cooperation. As I often said to President Trump in 2017–18, “If we shoot our allies to get to China, China wins.”

We must instead turn "what the CCP views as our weaknesses into our greatest competitive advantages." The first is the free exchange of information and ideas. This includes robust efforts against CCP intimidation of Chinese nationals in the US, protecting the freedom of journalists abroad, and spreading news that the CCP would rather suppress from inside China.

Rather than view every Chinese person as a potential spy, McMaster argues that the "United States and other free and open societies should consider issuing *more* visas and providing paths to citizenship for *more* Chinese people, especially those who have been oppressed at home. Immigrants who have experienced an authoritarian system are often most committed to and appreciative of democratic principles, institutions, and processes. They also make tremendous contributions to our economies."

Where some argue that we must match China industrial policy for US industrial policy, subsidy for subsidy, control for control, McMaster stresses that "our free-market economies need to demonstrate the competitive advantages of decentralization and unconstrained entrepreneurialism."

McMaster advocates a unified "statecraft that draws on all sources of national power in an integrated manner. These sources of power include US military strength, its global diplomatic reach, the gravitational attraction of American ideals such as liberty and opportunity, and the US economy." This includes "economic statecraft" consisting of the "strategic application of economic power." He lays out a detailed set of interventions. Fundamentally, however "strengthening free-market economies and democratic governance could be the best means of countering the CCP's campaign of cooption, coercion, and concealment." That includes "deregulation and permitting reform" to produce a strongly growing private US economy.

Matteo Maggiori writes about "Fiscal and Geoeconomic Risks." He starts with a simple plot of the unsustainable debt-to-GDP ratio. But how much is too much? Maggiori explains that there are three zones. When debt is low enough, people are sure it can be repaid. When debt is very high, it will quickly collapse. In between, however, lies a zone of instability. At low interest rates, debt is sustainable. If investors get scared and demand higher interest rates, the same debt is not sustainable. We may well be in this danger zone.

Maggiori dispels the illusion that the US can never default. Crises always happen unexpectedly, as in 2007 and in the European sovereign debt crises that followed. "When you look through the arc of history . . . there is nothing that should make you confident that, because you've been a reserve country for long enough, you'll always be one . . . England had a stellar reputation and ended up going off the gold standard, which is largely a form of default on a promise that repayment offers a stable value. At the beginning of the Depression, it depreciated the pound unexpectedly and never really recovered its reputation."

Add to fragile debt "a big surge in geoeconomic activity and uncertainty." This is dangerous: "If you're already in a position where you don't want bad multiple equilibrium outcomes, you don't want to induce more uncertainty and potentially trigger a change in investors' expectations."

Maggiori presents results from his research, using AI to analyze text data, and documents a surge in firms' uncertainty about tariffs, quotas, sanctions, and prices. "The policy message is that when you look at the data, both for the lead-up in March 2025 and the more recent results in April 2025, you see massive uncertainty. . . . A large debtor country like the United States, inducing global volatility while not keeping its fiscal situation in order, is not a good combination."

Christopher M. Meissner paints us at a historic crossroads. Since World War II, the US has advocated "economic integration as a handmaiden of economic growth, development, and geopolitical stability," and yet, "Since January 2025, the United States has abruptly changed the terms." It has "started a global trade war . . . clamped down on immigration, mooted the possibility of taxing foreign investments in the US, and emphasized the burden of operating the world's dominant currency." Meissner looks to economic history to understand this shift and how it may play out.

He does not see the shift exclusively as the idiosyncrasies of one man and a few of his chosen advisers. Instead, the 2008 financial crisis led to a loss of faith in both people and policy makers, including "a revival of capital controls to contain financial flows, a greater degree of regulation on financial institutions, a willingness to blame import competition for economic losses, and a focus on the burden of trade imbalances and financial imbalances." In addition, the rapid rise of China led many to blame it for a variety of ills.

Meissner recounts the waves of openness and isolation over the last century and a half, summarizing a great deal of economic history research. The US grew in the late nineteenth century despite, not because of, tariff protection. Elsewhere, trade prospered under Pax Britannica. "The period 1870 to 1913 coincides with the first wave of globalization. In this period, economies that had improved their access to global markets by lowering tariffs, improving infrastructure, and reducing overall trade barriers had significantly higher average incomes. Moreover, as global integration rose, international cooperation improved."

That came crashing down, and the 1930s were notoriously a decade of isolation. "The epic trade war of the early 1930s debilitated the global economy." Again, summarizing a good deal of research, the postwar "reduction in tariffs brought significant economic gains . . . economies with lower trade barriers and better market access are richer . . . Such economies have better access to low-cost industrial inputs, a greater variety of consumer goods, a lower cost of living, and enhanced employment and incomes."

Given this record, what will the new trade war bring if it is continued? In the short run, "the US economy will almost immediately see higher prices of imported goods, lower terms of trade, consumer and producer input shortages, and potential quality declines in tradable goods. The overall effect will be to lower employment and real income." Also, "heightened uncertainty will almost certainly lead to significantly lower investment and consumption." To the point of this conference, "An easing of monetary policy by the Federal Reserve could mitigate the negative employment effects of this shock. However, this would come at the cost of higher inflation." Tariffs are a classic supply or stagflationary shock. The medium run is likely to be worse if other countries retaliate.

Meissner offers a more hopeful scenario as well. In this scenario, other countries respond to US pressure by dropping trade barriers. Then the US responds by dropping its trade barriers as well. Even if the rest of the world integrates but excludes China, the increased trade among us and our allies would lead to substantial gains for our economy.

Harold James connects the economy to geopolitics. Big changes in globalization are not just intellectual fashions but come in response to shocks. "Why do some shocks foster globalization while others seem to reverse globalization?" James distinguishes supply from demand shocks. The latter includes financial crises.

In James' telling, adverse supply shocks lead to greater globalization. "The surge of interconnectedness in the nineteenth century started as a response to a shock: the harvest failures, famines, and then financial and business collapses of the mid-1840s. Europe then experienced a continental wave of revolution in 1848." In the aftermath, however, "prices rose, trade expanded, governments reduced tariff barriers, capital surged, and people moved across continents in response to the experience of misery but also to the promise of new prosperity."

Similarly, the 1970s oil shocks were paradigmatic supply shocks. "Initially, more protectionism emerged as a response to big trade deficits in industrial countries and as a remedy for exposure to global risk . . . But instead of limiting trade, the policy community shifted toward deregulation, disinflation, and more openness."

How? "The radical character of the shock spurred a search for alternatives, including new products but also new mechanisms to move goods." The aftermath of the 1840s and the 1970s led to the widespread diffusion of railroads and steamships in the first instance, and the container ship in the second. The "wider implementation" of these technologies transformed "the supply problem by radically reducing transport costs."

By contrast, "the course of globalization was interrupted by two serious, very negative demand crises, each brought about and amplified by financial turbulence: the Great Depression of 1929–33 and the Great Recession after the 2008 financial crisis."

COVID-19 was a supply shock, or at best a snowstorm shock, simultaneously depressing supply and demand. The geopolitical tensions with China also affect supply.

Thus, James sees the current period as somewhat like the 1840s and 1970s. "Each led to a substantially increased pace of technical transformation, which was the basis for the transition and was driven by the price signals sent out by scarcity, by the negative supply shock." In place of steamships, railroads, and containers, "In today's world, the equivalent transition is the fast adoption of AI. . . . Each also led to increased geopolitical tension as states struggled for access to resources."

In James' analysis, this situation should lead to an *increase* in globalization. In this light, the US choice to go in the other direction is even more damaging. "The supply shocks affect consumers in the United States, and they will focus on ordinary products that become more expensive, scarce, or even unavailable. The impact on high technology will be even greater and more devastating, especially in supercomputing and AI, but also in the key technology of nuclear fusion. Cuts in research funding will also reduce the capacity for long-term scientific innovation. If that course is maintained, people will treat the twenty-first-century American story as a parallel to the long declines of imperial Spain or twentieth-century Britain."

Globalization will still work, and James hopes that the rest of the world will continue to globalize and prosper. He hopes that "the United States will come to a realization that the tariff regime is like shooting oneself in the foot, or rather in the head (because it is stupid) and the heart (because it is cruel)."

To the theme of the conference, "These developments have immediate consequences for the appropriate design of monetary policy." Tariffs are a negative supply shock, and uncertainty is a negative demand shock. This combination produces stagflation, as in the 1970s. That situation makes "any application of any rules-based monetary policy (notably in Taylor rule variants) harder to apply." Rules developed for demand shocks may not do well for supply shocks.

Fiscal Sustainability Issues and Their Implications for Monetary Policy

The fifth group of essays focuses on the interplay of fiscal and monetary policies. John F. Cogan's introductory essay sets the stage. The US is on a path of ever-increasing deficits, fueled by ever-increasing spending. Federal spending in 2025, excluding interest payments "on the debt, will be about $6 trillion. This amount is 50% larger than federal spending in 2019. . . . Add in interest payments, and it's 60% larger."

"It would be one thing if the deficits were used to finance investments," which would result in future tax revenues to repay the debt. But "most expenditures consist of transfer payments" that are consumed. How will the US address its fiscal challenge? And how will it impact monetary policy? Those are our questions.

Alan J. Auerbach admits that he, like many other economists, has been warning of debt for a long time while "interest rates fell, inflation (until recently) was modest, and the dollar remained the world's reserve currency." But he argues this time is different.

The debt-to-GDP ratio has grown to 100%, the level it was at the end of World War II. Moreover, the pattern has changed. Debt surged in the financial crisis and pandemic, but historically, debts were repaid by surpluses after crises ebbed. Now each surge is just followed by more deficits. Indeed, primary deficits seem likely to stay at 3% of GDP for the foreseeable future—and that assumes no new crises. Auerbach projects a debt-to-GDP ratio of 134% by 2035. Higher interest costs could raise that even more. This is "uncharted territory."

In his research, Auerbach also reports that "Congress has stopped responding to budget conditions." Reacting to larger debt by raising surpluses is a key move to produce sustainable debt and market confidence. But "no matter how large projected deficits are, there is no policy response."

Pressure is mounting on the Federal Reserve to hold interest rates low in order to lower interest costs on the debt. This, too, will threaten more inflation. But Auerbach warns that a surge in inflation will not solve our fiscal problems. Even if we wiped out all debt today, the gaping deficits remain.

Michael J. Boskin reminds us that contemporary governments "are primarily redistributors of income through transfer payments and social insurance, not purchasers of goods and services, like defense, or builders of roads, among other things. . . . A large fraction of the US budget is on autopilot," in that entitlements are not annually appropriated. We face an urgent need for military spending. When the Social Security and Medicare trust funds run out, it will force either a sharp rise in taxes or a much less likely sharp cut in benefits. The later the adjustment, the more painful it will be.

Boskin puzzles that a debt crisis has not happened yet, though acknowledging that the spurt of inflation has some of that character. Foreigners have been funding that debt, but may not do so forever.

Boskin also reminds us that deficits per se do not matter so much, but "whether the spending is on consumption or on productive government investment," with an accent on productive, does matter. It matters whether the taxes that finance debt are well-crafted or if they hurt the economy without producing much revenue, which is particularly true of taxes on savings and investment. The point, after all, of reducing the debt-to-GDP ratio is to raise economic growth. The best way to lower the debt-to-GDP ratio is with more GDP, more economic growth. "Tax structure, spending and debt, entitlement, labor market, and regulatory reform—all these things can help," along with immigration.

When do the bond vigilantes come? Hanno Lustig presents a detailed look at the Treasury markets. The debt crisis is not here yet, but Lustig sees many signs of fragility and weak demand for government debt. "We have seen several instances in which government bond yields in advanced economies spiked in response to fiscal and macro shocks."

These events include September 2022 in the UK following the Truss budget announcement; December 2024 in France, following trouble in Prime Minister Michel Barnier's fiscal consolidation plan; March 2025, when Germany released its constitutional debt brake, triggering "a roughly 30-basis-point increase in the 5-year German Bund in the following twenty-four hours;" and April 2025 when the first US tariff announcements drove the yield spread between 10-year US Treasury bonds and 10-year German Bunds up by 50 basis points.

Central banks, unwilling to consider sovereign debt as anything but perfectly safe, diagnose market "dysfunction," and have intervened.

Lustig provides a detailed analysis of the Truss budget episode in the U.K., revealing both that fiscal news was the fundamental shock but also amplification through what might be regarded as "plumbing," overleveraged funds selling in a panic. (So much for the hundreds of regulators watching out for interest rate exposure, we note.) Still, the interest rate surge did not end until the UK withdrew the budget plan.

The March 2020 COVID-19 pandemic episode in the US is even more revealing. "Between March 9 and March 18, 2020, the 10-year US Treasury yield increased by 68 basis points." US Treasuries are supposed to be securities that receive flight to safety. This time, the opposite happened. The same pattern held in Europe. Again, the Fed diagnosed plumbing blockages, and "primary dealers in the United States may have been running out of balance sheet capacity in March of 2020." But that too is an amplification mechanism, not a shock. The Fed stepped in, monetizing $500 billion of debt and absorbing "all of the subsequent massive issuance of U.S. Treasury notes and bonds between March 2020 and March 2021."

Lustig emphasizes that the price discovery process in Treasury markets provides vital signals to the government. Large increases in yields in response to bad fiscal news signal market expectations and should force swift fiscal reforms. If central banks dismiss any bad news as "dysfunction" or "fragmentation" and suppress yield increases by rapid monetization, they suppress this vital signal as well, and can make the final reckoning much worse, "potentially at a great cost to taxpayers and to savers."

John H. Cochrane emphasizes the fiscal constraints on monetary policy that large debt and continuing deficits are likely to impose. "Inflation is always and everywhere a *joint* monetary-fiscal phenomenon."

Governments in fiscal stress often print money to finance deficits, or demand that central banks hold down interest costs on the debt, as the US did during and after World War II.

Conversely, monetary policy has fiscal consequences. With a 100% debt-to-GDP ratio, every one percentage point higher real rate engineered by the Fed results in one percent of GDP higher deficit. Tighter money also softens the economy, resulting in additional deficits. If inflation does fall, taxpayers must pay a windfall to bondholders who get paid back in more valuable currency.

Cochrane stresses that “in all current economic theories, if fiscal policy cannot or does not tighten to pay these costs, higher interest rates cannot durably lower inflation.” Cochrane reviews this proposition analytically and shows how even the 1980s were a joint monetary and fiscal policy. Surpluses did, in the end, pay higher interest costs on the debt, pay down the early 1980s deficits, and pay a windfall to bondholders who bought at 15% yields. The social security reform, tax reform, and growth-enhancing regulatory reform were integral to the disinflation.

Cochrane stresses that debt and deficits must be balanced by a long present value of future surpluses. This is good and bad news. A tighter monetary policy must only be accompanied by a present-value fiscal tightening. The government can continue to borrow if markets believe the extra debt will be paid by later surpluses. Sharp and temporary “austerity” is not needed or helpful. On the other hand, the usual short-term budget gimmicks do no good. Only small, long-run structural surpluses pay off debt over decades. Long-run structural surpluses come most easily from growth, spending reform, and microeconomic liberalization, not higher marginal tax rates. The present value Laffer curve likely bites much sooner than the traditional static labor-leisure Laffer curve.

Cochrane also briefly summarizes the state of monetary-fiscal interactions in Europe. The European Monetary Union’s separation of fiscal and monetary policies has broken down. The ECB holds large portfolios of sovereign bonds and is widely expected to intervene to make sure yields do not rise and bonds never default. He outlines several reforms.

Finally, Cochrane sounds a fiscal-monetary warning on tariffs. If tariffs indeed lead to balanced trade, as their advocates seem to want, then tariffs must also lead to a balanced capital account. If the US is to invest, it must save. Foreigners with no dollars earned from trade can no longer buy Treasury debt, so the government will have to run a balanced budget immediately and stop writing a lot of consumption-supporting checks. Equilibrating savings and investment would require much higher interest rates. And "when the day comes that Americans work long hours to put goods on boats to get our paper back, trade surpluses might not seem like such a great idea. Be careful what you wish for. You just might get it."

Policy Panel

The final group of essays stems from the traditional policy panel, where we hear from active policymakers. Peter Blair Henry introduces the panel. After pointing out the tremendous growth in prosperity from the 1980s to 2024, he notes how much change looms: "Whether the move, from free trade and the 'invisible hand' to record-high tariffs and the 'state hand,' is a permanent or temporary change, the uncertainty it has unleashed, and its attendant consequences for asset prices, investment, growth, inflation, and unemployment, are real, if not yet fully manifest. In short, the US and global economy have been hit by a multifaceted supply shock that continues to unfold and has consequences for the leaders charged with formulating monetary policy strategies."

Isabel Schnabel gives a detailed tour of the view from the ECB. She notes the instability of the Phillips curve, apparently shifting, steepening and flattening, in ways not apparent in real time.

The modern Phillips curve relates inflation to expected inflation and the output gap, or employment. Both elements are unstable. Schnabel emphasizes that if expectations are "anchored," then inflation will generally go away on its own. Surveys of expectations put some doubt on that anchoring. The relationship of inflation to the output gap has been extremely unstable. Rather than regard this as a flaw in the whole framework, however, Schnabel seeks to understand why an exploitable Phillips curve shifts, steepens and flattens over time. High inflation leads firms to change prices more often. Wages are more sticky downward than upward. But evidence for this nonlinearity is sensitive to just which inflation expectations one uses. Expectations also may be nonlinear, reacting more quickly upwards than downwards.

Moving to risks ahead, Schnabel addresses the obvious one: tariffs. "For central banks, this is a difficult environment to navigate. Memories of high inflation are still fresh . . . as during the pandemic, there is considerable uncertainty about how firms and households will respond to shocks that are largely outside the historical empirical range." Nonetheless, "ultimately, the impact of current shocks on prices and wages, and hence the appropriate monetary policy response, will depend on the shape and location of the Phillips curve."

Her outlook is nuanced: In the short run, "the high level of economic uncertainty, together with the sharp fall in energy prices and a stronger euro exchange rate, will likely dampen headline inflation." But this may hide contrary "meaningful signals about the net impact of current shocks on medium-term inflation. . . . Two main forces could have the size and persistence to pull underlying inflation sustainably away from our 2% medium-term target. . . . One is fiscal policy, which is set to expand on a scale unseen outside periods of deep economic contraction. . . . Global fragmentation is the second." But there is great uncertainty about how it will play out. "An ideal outcome, the 'zero-for-zero' tariff agreement advocated by the European Commission, could even boost growth and employment on both sides of the Atlantic. However, should these negotiations fail, the euro area will simultaneously face adverse supply and demand shocks." Stagflation is the central banker's nightmare. Schnabel follows with a detailed examination of the effect of tariffs on both supply and demand.

Schnabel concludes that "The lessons from the postpandemic surge in inflation suggest that, from today's perspective, the appropriate course of action is to keep rates close to where they are today—that is, firmly in neutral territory." Now is the time to keep a steady hand. In the context of pressure for central banks to ease, this is a strong statement.

Why, given the widespread view that central banks, including the ECB, moved much too slowly in the post-pandemic surge? Her main concern is overreacting to low inflation with stimulus while tariff and fiscal pressures threaten to push inflation up in the medium term. Keeping rates where they are puts the ECB "in a good place to evaluate the likely future evolution of the economy and to take action if risks materialize that threaten price stability."

Alberto G. Musalem begins with a review of the state of the US economy. "Activity has moderated," but although inflation has declined, it "remains above target" with a rise in short-term expectations. Thus, "monetary policy is currently modestly restrictive, and I believe appropriately so."

Shocks lie ahead: "consequential trade, immigration, fiscal, and regulatory policies." He advocates a "balanced" approach to stagflationary shocks such as tariffs, in which "tolerance of higher inflation will lessen the cost of an employment shortfall." However, "a balanced approach requires anchored inflation expectations," so "policy must prioritize inflation if expectations threaten to become unanchored."

Musalem explores different tariff scenarios. In one, tariffs induce a one-time price level rise, i.e., transitory inflation that some may wish to look through. He warns of the possibility that tariffs could unleash more persistent inflation, since inflation is starting above target, expectations are more sensitive to events, and tariffs apply to intermediate inputs, snarling supply chains. "Committing now to looking through the inflation impact of tariffs or to an easing of policy runs the risk of underestimating the level and persistence of inflation." More broadly, Musalem is "also focused on the net total impact of evolving fiscal, immigration, and regulatory policies on the outlook."

In sum, Musalem argues that it is "prudent to navigate according to two key principles. First, I continuously update my outlook for the US economy and my assessment of the balance of risks. . . . Second, prioritizing well-anchored inflation expectations is crucial." He believes "the FOMC's current policy stance aligns with these principles."

Beth M. Hammack describes her approach to monetary policy, noting that "simple policy rules provide a good starting point for assessing how monetary policy may wish to respond in different scenarios. . . . I combine this information with a variety of economic and financial data, forecasts, and anecdotes from business and community contacts as I think about the appropriate path for monetary policy." With that in mind, she shares her "current view on finishing the job amid new challenges in the economy."

She begins with a summary of the economic outlook, including GDP, detailed regional analysis, labor market, and inflation, where "we have made good progress, but there is still more work to do to return the economy to price stability." Looking ahead and contemplating tariffs, she recognizes that "it will take some time for the overall economic effects of these recently enacted and other proposed changes to government policies to become clearer in the hard data.” This leads her to consider “higher-frequency data on evolving conditions,” including “anecdotal reports,” new data constructed by Cleveland Fed staff, and financial conditions.

The bottom line for monetary policy: “uncertainty is elevated” with risks both to inflation and to employment. Given that fact, “there is a strong case to hold monetary policy steady at its current modestly restrictive setting.” Like others, she is concerned that inflation expectations stay anchored, thus emphasizing continued progress on that front despite other shocks. “When clarity is hard to come by, waiting for additional data will help inform the path ahead . . . If the economy should falter and inflation decline, then it may be appropriate to ease policy. . . . If the labor market remains healthy and inflation moves up persistently, then monetary policy may need to follow a more restrictive trajectory.”

Hammack concludes with some longer-run issues, in line with the conference theme. She notes the difficulty in assessing r* or the neutral rate of interest and thus knowing whether a particular interest rate is, in fact, accommodative or restrictive. She brings up many vital questions about the balance sheet and its role in future Fed policy. “Rapidly expanding the balance sheet is easy, but shrinking it with minimal market impact is harder and takes more time, especially after purchasing a lot of long-dated assets.” Finally, she calls attention to the large increase in private credit. It has some financial stability benefits, but also some unknown risks, including “market’s relative opacity, the growing exposure of pension funds and life insurers, and interconnections between private credit and the banking system.” What will happen when the first big private credit losses manifest, we wonder?

Lisa D. Cook addresses a (perhaps *the*) crucial long-run issue, productivity growth. She starts by considering the 2023 reduction in inflation. How did that happen without a recession? In her view, the unwinding of pandemic supply restrictions is part of the story, but a greater-than-usual rise in productivity is an overlooked part as well. "From 2007 to 2019, productivity growth in the business sector averaged 1.5% annually. In the past five years, productivity growth accelerated to 2%." Some of this change reflects reactions to labor shortages. Restaurants, for example, installed self-service ordering machines. Greater productivity growth makes a central banker's job easier.

Cook is currently studying how tariffs and AI will affect productivity. "Uncertainty around trade policy is likely to reduce business investment going forward," and thereby slow productivity growth. Protectionist trade policies often "prop up less efficient firms," to the detriment of productivity. And supply disruptions also make "production slower and less efficient." AI, on the other hand, is likely to create a surge in productivity. Of course, "the productivity gains from AI may not be uniform across all sectors, job types, or tasks," just as previous innovations have been uneven.

The editors found this group of comments fascinating. We could not help but notice that the long discussion of rules, strategies, commitments, and expectations that characterize this conference, the whole conference series, and academic writing largely disappears from the discussion when policymakers are faced with discussing actual policy decisions.

The policy authors review the economic situation in detail. They look far beyond inflation and employment, or the output gap, in simple rules. They consider a wide range of causal effects, far beyond what's captured in models, to peer a bit into the future and to think about risks. Then they recommend a decision to raise or lower the short-term rate in a way that can only be called discretionary. In describing their current policy recommendations, they do not mention rules at all. (Hammack mentioned rules, but only in passing and one suspects as a politeness to her hosts, since she did not mention what any rule says to do right now.)

Their causal thinking is well described by an expectations-augmented Phillips curve plus aggregate supply and demand. Inflation is driven by expected inflation, employment slack, and "shocks." Slack labor markets mean that monetary policy drives employment, while tight labor markets mean that monetary policy more quickly produces inflation. They pick a point on the Phillips curve. "Shocks" move inflation around in ways beyond the central bank's immediate control. This framework would be recognizable to economists from the 1970s.

The policy authors, like many conference authors, all put great importance on anchored expectations. They frequently mention surveys of expectations to assess anchoring. But anchored by what, one wonders? In academic writing, the point of rules, mandates, commitments, and independence is precisely to assure people that should inflation get out of hand in the future, the central bank really will clamp down on it, even though doing so will be unpleasant when the time comes—the classic Kydland and Prescott precommitment problem. Anchoring requires people to believe the bank will deviate in the future from its choices over a perceived inflation versus employment Phillips curve menu, and prioritize inflation. At best, one reads here a small tilt to not lowering interest rates quickly at the moment, temporarily prioritizing "finishing the job" on inflation, and perhaps building a bit of reputation for this future in the process. But that is clearly not a hugely effective step.

Likewise, what are the lessons of the recent surge in inflation? Not much was said except that some "shock" hit about which the central bank could do little. If one wishes to build reputation and anchor expectations, surely a statement that the Fed has the power to control inflation and has changed procedure, rule, strategy, mandate interpretation, etc., to make sure it doesn't happen again would be more effective than a small delay in lowering rates while inflation remains above target and employment largely full.

We do not write these thoughts as criticism. These authors are sophisticated economists and now thoughtful policymakers. They speak and write with great depth on these issues in other contexts. The first group of essays, also by policymakers, expressed rules and commitments with eloquent clarity. But those considerations do not seem to enter the policy process, at least as seen here. Neither of us has ever been in a policy position, and we must conclude that were we to trade places, we would likely follow the same well-trodden path.

Thus, it is we who are missing something, not necessarily the policymakers. What is it about the policy process that has proven so durable and so resistant to the endless chorus for change? One possibility is simply the inversion of rewards. Economists are rewarded for eventually being right with a novel view, but being wrong carries little risk. Avoiding being drastically wrong is more important for a policymaker. Thus, policymakers naturally must weigh many possibilities and economic models and move slowly.

This view also makes sense of the theoretical views they express. As the policy process seems rather untainted by the whole rules and commitments thread, so the economic analysis is rather untainted by the New Keynesian apparatus that has been in place in academia for three decades. And, as Peter Ireland complains, even monetarism has fallen out of fashion. The policy view is even untainted by rational expectations from the 1970s. That framework requires us to think of policy as a rule, because people in the economy always do. It emphasizes that expectations react to policy changes. Central bankers look at expectations as an outside, and perhaps manipulable, force but do not think about how expectations react consistently to each surprise in the federal funds rate. Again, new models can be wrong, and policymakers are perhaps right to incorporate new ideas slowly. Just how slowly should be a bit humbling to academic economists.

In the end, we toot our conference's horn. This profound gap between academic thought and practice is why conferences and volumes of this sort are valuable. And it is as much or more academics who must learn from practitioners as to why they do what they do as the opposite.

We do note two points of (what seems to us at least) progress. First, the policymakers resolutely do not wish to move policy based on forecasts. The experience of moving preemptively based on forecasts, and just how terribly wrong past forecasts have been, has apparently made an impression. They wish to move policy on data, and even then, on data that has sunk in and become clear. This is, of course, what the standard Taylor rule recommends—move interest rates based on inflation and output, not forecasts of inflation and output to come—though if one believed forecasts, a good case could be made for moving more quickly. You turn the steering wheel to avoid the pothole ahead, not the one under the car. Evidently, one does not believe forecasts.

Second, the policymakers describe their future moves clearly in a "data-dependent," or wait-and-see way. They do not think it wise at all to describe future actions as a forecast for the path of rates. Instead, they will wait, see, and then act. And it's not much of a secret how they will act: They will respond to inflation (though how durable, transient, embedded, etc., is a bit up for debate); they will react more strongly to measures of inflation expectations; and they will react to economic weakness. Perhaps that is rule enough.

The Long History of the Price Stability Objective

François R. Velde's essay places our efforts into a long historical context. Money is a human construct, and people have been thinking about how to construct institutions that better define and protect its value for millennia. Perhaps today is totally different. But perhaps the experience of centuries bears on arrangements today. "The tension between conservatism and innovation has been with us for a long time."

Velde starts with two wonderful quotes: "Money measures everything" from Aristotle and "Divers weights and divers measures, both of them are alike abomination to the Lord" from the Bible. Money is, in the end, a measure of value. And it's lovely to hear an endorsement of a large optimal currency area from biblical sources. The ECB might want to post that on the front of their building in Frankfurt.

Julius Paulus, a late second to early third century Roman jurist, explains the foundation of money in the lack of double coincidence of wants with great clarity. And he understands the liquidity value of fiat money. Having chosen one commodity to be money, "this material, struck with a public imprint, provides use and ownership less from its substance than from its quantity."

"Monetary policy" then consisted of debasement—changing the metallic content of coins—changing mint spreads and taxes, and changing the face value of coins. The ancients certainly understood debasement and seigniorage!

Velde chronicles the emergence of the idea that price stability is desirable. In the Middle Ages, "civil lawyers" focused on debt repayment in undepreciated units. The Catholic Church pondered monetary questions, admitting that money was the province of the king, but limiting the king's rightful powers because money is so socially useful and thus, in some sense, common property. Then, "in the fifteenth century, they [church lawyers] added this interesting notion that, in an emergency, you can issue really bad coinage, but afterwards, you have to buy it back. You have to make whole the people to whom you gave the coins, or rather, the people who hold the coins at the time the emergency ends." State-contingent default and temporary suspension of convertibility, non-discrimination of debt payments, are doctrines we think of from the nineteenth century, which have deep roots.

Fiscal-monetary interactions and the costs, transfers, and benefits of inflation are nothing new. Nicole Oresme (1320–82) "talked . . . about essentially the effect of inflation on nominal contracts, and why it was bad. He explained that the prince's gain was the community's loss, but it was grounded in the notion that money is a tool that belongs to everyone, and you cannot manipulate it, even when you're being invaded by the English."

Juan de Mariana (1536-–1624) wrote about the Spanish invention of copper coins, essentially fiat money, which Spain minted to predictable inflation. He saw that inflation "as an illegal tax, taking away the properties of the king's subjects, without their consent. He did see the benefits of having this kind of inflation, including a very interesting analysis of foreign trade. But on balance, the costs outweighed the benefits. And he also noted very pointedly, when bad things happen, people in power get blamed."

And Velde tells the long story of recoinage. Metal coins lose weight over time, and governments must either debase the official standard to lower weight or melt down and renew the coins at the previous weight. Each choice has the predictable distributional effects.

Interestingly, these thinkers weighed the effect on nominal contracts, who wins and who loses, the provision of credit, and fiscal affairs. The concept of inflation versus unemployment, and inflation as a "stimulus," is more recent. Perhaps some wisdom of the ancients will be more important in today's indebted times.

Paper money came into use by the 1600s. It was now possible to "disconnect the substance and the unit of account, by suspending convertibility. Did that change the prescriptions? Not very much. That princes can do what they want does not mean that they should. . . . No doubt that was because of the examples of disconnections gone bad," such as John Law. The gold standard, punctuated by periods of inconvertibility, emerged in the nineteenth century.

World War I was a monetary watershed, of course. The initial suspension of convertibility proved difficult to restore after the immense fiscal expense of the war. "The diversity of experiences after World War I among countries is staggering," with most countries accepting a permanent price level rise and implicit default. The end of the gold standard and the transition from price stability to (hoped-for) inflation stability at hand.

The price level rise after the pandemic also resembles a war-style state-contingent default achieved through inflation. But its course is not yet settled. "The shock of the recent COVID-19 pandemic is large by Great Moderation standards, but by the standards of history, it's not really that large, and certainly within the realm where a make-up strategy is feasible," meaning that governments could choose lower than usual inflation to return the price level and nominal contracts to something like their previous value. "What is the right choice?" That's a good question.