We find ourselves in the foothills by the bay on another perfect day at the epicenter of the innovation economy. The long drought is over. The flowers are in full bloom. And the construction boom is on full display—even we at Hoover cannot resist erecting a new edifice.

Students are gravitating to novel fields of study. Their ideas are funded as they walk to the edge of campus. Exceptional skills are rewarded like never before.

Deep interconnectivity, low-cost computing power, novel analytic tools, and tremendous advances in artificial intelligence are driving massive changes in industry structure.

According to popular lore, Silicon Valley finds itself in the middle of long epoch of prosperity. And we are assured this is a sustainable, durable equilibrium.

What could possibly go wrong?1

That is the central question central bankers should be asking.

The Fed was founded in response to a crisis. Financial and economic shocks tested the central bank with some frequency in the

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1. Tail risks run in both directions. A subject for another day is, what could possibly go right? The more material constraint on further economic expansion is on the productive side of the economy. If a pro-growth reform agenda were adopted across a range of macroeconomic policies, higher labor and capital supply into the real economy would cause economic growth to track substantially above Fed forecasts.
century that followed. And shocks test the resilience of the economy. Economic and financial shocks threaten to knock the Fed farthest from its statutory price stability and employment objectives.

Leading Fed officials are confidently predicting a benign external environment for the next several years: steady growth, stable inflation, and financial assets trading at fair values. Policy makers have all but proclaimed their monetary mission accomplished, their employment and inflation targets largely achieved. The dot forecasts from members of the FOMC are nearly on top of one another.

The last time I recall such uniformity of opinion—among central bankers, academics, and market pros—was just over ten years ago.

We gather at this year’s Hoover Institution Monetary Policy Conference at an important time for the US economy and the broad conduct of US macroeconomic policies.

Many of the issues addressed over the last day mirror the agenda of the Federal Reserve in recent years. A few observations: We should not encourage policy makers to fiddle with the non-accelerating inflation rate of unemployment (NAIRU) to rationalize the near-term conduct of monetary policy. We should not accept the Fed’s newfound conviction that a very low neutral equilibrium real short-term interest rate ($r^*$) is a fixed feature of future monetary policy.2 We should resist the pseudoscientific precision being assigned to the Fed’s preferred measure of inflation, and we should not consider it a good arbiter of the output gap or a good proxy for financial stability.

Judgments on these issues are of tactical importance and keen academic interest. But they should be considered in the context of the Fed’s most difficult and consequential mission: to mitigate

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2. Total factor productivity fell markedly in the past decade, reasons for which are uncertain and were assuredly not foreseen. I see little reason for the Fed to assume that low productivity is a permanent feature of the forecast.
the likely damage to the economy that may arise from the next shock. The Fed’s price stability and employment mandate demand nothing less.

The central bank and the academic community should engage in a fundamental rethinking of the Fed’s strategy, tools, governance, and communications. A reform agenda could improve the modal outlook for the US economy by clarifying the Fed’s responsibilities, improving its decision making, and bolstering its credibility. No less, a reformed central bank would prove useful to mitigate the risks of the next crisis and essential to a forceful and efficacious response to the inevitable challenges on the horizon.

There is no holiday from history. Policy makers should not squander the grace period on a victory lap.

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My crystal ball is scarcely perfect. But neither is the Fed’s.

The most important trait in a forecaster is humility. The most important forecasting measure is the confidence interval, not the point estimate. The most common forecasting error is groupthink. The best forecasting fix is to assemble a humble, independent, diverse, intellectually rigorous, and cohesive group.

The Fed has a lot riding on its outlook, and its institutional inclinations give me pause. Policy makers should evaluate the tail risks of their forecasts with more care than the central tendency. And scrupulously judge their ability to respond in less likely but more disruptive scenarios.

Maybe the scars of the last crisis burden me with unnecessary worry. Maybe the levers of macroeconomic policy are sufficiently improved that business, economic, credit, and financial cycles are an artifact of history. Maybe the economy gets another decade of moderate growth and inflation.

We should not mistake the present situation for permanence.
We should not confuse the postcrisis period of benign, however modest, aggregate macroeconomic conditions with a sustainable, durable equilibrium.

We should not be comforted by the low implied measures of volatility across financial markets. We should query whether a sudden shift in expectations would make asset prices an amplifier of distress rather than a shock absorber.

We should not encourage the financial markets to be the handmaiden of the central bank. We should allow asset prices to be an independent source of economic insight and discipline.

We must not allow a failure of imagination, a failure of preparation, or a lack of courage to keep monetary policy makers from pursuing a robust reform agenda equal to the risks ahead.

And we should not conflate a forward-looking policy of reform with a policy of revanchism, pining for the good old days when monetary policy was ostensibly perfected. The conduct of monetary policy has never been easy or simple. And the lessons learned in the last decade about money, credit, banking, finance, markets, and global interconnectedness should be incorporated into a twenty-first-century monetary framework.

The challenges of the next several years are different from those that confronted the Fed in the late 1970s when Paul Volcker stood tall, or those that confronted the Fed in the darkest days of the financial crisis when Ben Bernanke stood strong. But the challenges are no less consequential.

What type of reforms could make a real difference? A few observations.

**STRATEGY**

The familiar refrain from the last crisis was that “a plan beats no plan.” True, but a strategy beats a plan every time. A durable strat-
egy can be understood and relied upon. It should be operative through the business and financial cycle. It would scarcely require Fed speakers to rush to update their guidance to market participants between blackout periods.

A reformed Fed strategy should make the medium-term time horizon its North Star. The Fed would not be beguiled by the caprice of day traders and the variance of lagging data. The Fed’s reaction function should be less sensitive to normal financial market ups and downs.

A reformed strategy should account for the possibility of demand- and supply-side changes to the economy. And it should show greater respect for the micro-foundations of macroeconomics.

To inform future inflation and output, it should take special note of contemporaneous, real-time data and pay careful attention to forward-looking trends.

International spillovers in monetary policy include intellectual spillovers. The G20 relies upon the leadership of the United States to deliver strong economic growth as the anchor of the global economy. Foreign central banks and finance ministers also rely upon a steady and well-understood Fed strategy. Absent reform of the Fed’s framework, foreign central bank policy choices risk limbo. And the lack of reform by the Fed makes it more likely that the next foreign financial shock finds its way to our shores.

TOOLS

The Fed’s comfort with its conduct of monetary policy seems based, in part, on the Dodd-Frank-inspired changes in the regulatory area. The argument goes that monetary policy’s mission can be focused on the modal outlook because micro- and macro-prudential policies will manage tail risks.
Would it were so.

Microprudential regulatory changes in the postcrisis era are likely inadequate to deal with the next financial shock. And the macroprudential tool kit is underdeveloped with regard to systemic risks. Until those areas of regulation and supervision are made more robust, monetary policy bears the substantial burden.

I am confused by the Fed’s “normalization” strategy in monetary policy. Its preferred sequencing of rate increases and balance sheet reductions differs markedly from what was agreed when we conceived quantitative easing in the “war room” amid the crisis. There might be good reason. But the transmission mechanisms of rate changes and balance sheet adjustments are markedly different than projected. So too are the distributional effects. This merits a more robust public explanation.

According to the Fed’s recent commentary, the balance sheet taper could well come by year end. The Fed would be prudent to engage in substantive discussions with the Treasury Department, so that the flow of issuance is well coordinated and the duration of outstanding securities understood. The absence of clarity around important questions at this late date does no favors to the Fed, the rest of government, or the broader economy.

**GOVERNANCE**

The Fed’s existing model of governance is ripe for reform. The Fed should straighten itself from its defensive crouch. And it should resist the reflexive response that any proposed changes in governance are a threat to the institution’s independence.

My time at the Fed and subsequent experience reviewing the Bank of England’s institutional structure confirm the wisdom of Peter Conti-Brown’s recent exhortation: “Having the right institutional design . . . isn’t a side show to the real questions of mon-
etary policy and financial regulation. Governance may in fact be the whole show.”

Changes are in order regarding how the Fed organizes itself, conducts its business, deliberates policy choices, and makes its monetary policy decisions. In short, deliberations should be more robust and decisions less constrained. The existing governance structure reinforces a groupthink of the guild. It places the Fed at considerable institutional risk when the next crisis strikes. And it makes the next crisis more likely to be more harmful to the economy.

**COMMUNICATIONS**

The Fed has come a long way from Montagu Norman’s famed motto “Never explain, never excuse.” Nothing compares with the zeal of the converted: the Fed of modern times is always communicating.

Communication has become so important to Fed policy makers that they now find themselves communicating about communicating, lest they be misunderstood.

Leading Fed policy makers believe that the so-called taper tantrum of 2013 was a communications failure that caused financial instability, and so they must toil to ensure that the error is not repeated. The spike in volatility of the long bond, however unanticipated, was a useful reminder to investors that complacency is a killer. If that’s the magnitude of the tail risk event that consumes the central bank, we indeed have much about which to worry. Some emerging market economies were pushed to put their houses in order. And bond investors were made a bit less complacent.

In the monthly window between FOMC meetings, policy makers provide the minutes of the preceding meeting and make dozens of statements, speeches, interviews, forecasts, and other predic-

tions. They pay great attention to the latest payroll data and inflation prints and their immediate effect on the next decision. There is, however, little to be learned from the latest Fed forecast, little insight to be gleaned from the last piece of government data.

I worry that Fed policy makers find themselves settling scores with one another while Fed watchers score-count hawks and doves. All the while, the big questions for the economy go unanswered. And the big risks over the horizon go unaddressed.

Walter Bagehot captured the essence of this dynamic when he said, “Two hosts of eager disputants on this subject ask of every [discussant] the one question—are you with or us against us? And they care for little else.”

There is much else about which we should care.

CONCLUSION

Those in the bright white lab coats in the life sciences lab on the other side of Stanford campus should be the starry-eyed true believers. The t-shirt-wearing coders in the Palo Alto garages should be the eternal optimists. And those in the venture community can play the role of evangelists. I wish them nothing but fame and fortune.

But central bankers should be different. Their fifteen minutes of fame should end with the crisis. And they should use the interregnum to take stock, deepen their knowledge base, bolster their capabilities, and work to reform the institution before the next siren sounds.

When the next shock strikes, the Fed is unlikely to have conventional or unconventional armaments in sufficient supply. So the Fed’s credibility will be at premium. Its credibility would be significantly enhanced by first reforming its own policies and practices.
References


ANN SAPHIR: I just wanted to ask a quick political economy question to Kevin. What kind of indications are you seeing that the administration wants the kind of approach to the Fed and the kind of changes that you’ve been advocating?

KEVIN WARSH: The good thing about being back at Stanford is that we are able to explain what we think is the right outcome. We do not have to be burdened by the opinion polls or the latest comings and goings in Washington. I would say this: Both in the context of Dodd-Frank on the regulatory side and in the conduct of monetary policy, there’s much Congress might choose to do to change the law. But there’s also a lot of self-help that can be applied by the Fed. Almost all the authority granted to the Federal Reserve under Dodd-Frank was authority that—broadly speaking—the Federal Reserve already possessed. There are some exceptions, of course. Almost all the changes I’ve discussed today—the need for a robust strategy, the importance of fixing Fed governance, the need to be clearer to the public about the differing transmission channels of the Fed’s tools and their distributional consequences, and changing Fed communications—these are reforms that can be taken up by the institution without delay. In some sense, if the institution doesn’t look first to itself for reform, then its leaders might not like what happens at the other end of the political lens (i.e., Congress), particularly after the next slowdown, the next recession, the next shock. So my remarks are really a call for self-help. You and others can judge whether it’s feasible in the broader Washington context. But part of the benefit of being three thousand miles from Washington is that we can focus on what we think is the best public policy choice. And leave it to others who are now burdened with official
responsibilities to decide whether they wish to take up a reform agenda.

JAMES BULLARD: I have a question for Kevin. You seem to characterize one of the major problems for the Fed as groupthink. First of all, I’m not sure that is the core problem, but maybe you can defend that a little bit. What would you do to break down groupthink? What do you think the Fed should do in that dimension?

KEVIN WARSH: It’s a great question. I’ve written a paper about it, but I’ll try to summarize a couple of the ideas here, Jim. As Stan Fischer suggests, when Congress establishes a committee as large as the FOMC, there is a tendency to try to find an anchor, try to find some commonality. That’s a natural part of human behavior.

And FRB/US—the dynamic, stochastic, general equilibrium model that has served at the core of the Fed’s thinking for decades—ends up being the leading device through which a lot of discussions are conducted in formulating policy. This was assuredly true in my day, though I departed the Fed six years ago. The flaws in the dominant model should not be hidden but exposed.

Allow me to mention a couple of nontrivial things missing from the model. First, financial markets: there are virtually no asset prices in the model. Why would that be? In a prior period, it might well have been believed that assets are always perfectly efficient, so the Fed need not clutter up its elegant model with such things. But much has been learned about efficient markets in recent decades, most recently since the global financial crisis. The economic literature, including Markus Brunnermeier’s work about booms and busts and other shocks, reveals a more nuanced view: market prices are often efficient but not always so. The Fed’s dominant model scarcely includes asset prices, yet much of the purported benefit of monetary policy through quantitative easing happens through asset prices.
Second, the Fed’s predominant model hardly includes the dynamic effects of the economies of the rest of the world on the US economy. Adding a couple of lines to the model to account for net exports is insufficient to capture the interconnectedness of the United States to the rest of the G20. A few decades ago, a closed-economy model might serve as a fair approximation of output and employment in the United States, but no longer.

My friend and former colleague Ben Bernanke might reply to my critique with a famed aphorism: It takes a model to beat a model. Well, if we had that other model, I’d be serving it up here. We don’t. But we shouldn’t hide from the frailties of the dominant model and the dominant economic framework. We shouldn’t hew without reservation to a model that we know is fundamentally flawed and missing key elements. So a broader discussion about what ails the conduct of policy would be very useful to mitigate groupthink.

Groupthink does not come from bad intentions. It comes from a desire for comity in the committee, a will to get along. This is about good intentions of patriots who are trying to do the right thing for the economy. But if the intellectual backgrounds of the participants are so similar, if the long tenured history in the system is beyond reproach, some fresh air could be useful—fresh air from the real side of the economy, fresh air from financial markets, fresh air from overseas.

In an understandable attempt at civility, the Fed finds itself at press conferences and in testimonies seeking to use dominant models and their outputs, however unreliable, to show the commonality among committee participants. The Fed’s dot-plot forecasts of growth and inflation are an example. These dot plots have proven quite inaccurate for most of the postcrisis period, and the cluster of dots suggests a groupthink about future prospects for both output and inflation.
Imagine, for example, that at the next FOMC press conference, Fed leadership did not dwell on the change in the forecasts by a tenth of a point to inflation, a tenth of a point to GDP. Instead, imagine if the Fed leadership discussed the central issues driving the Fed's decision making, such as the productivity puzzle. If the Fed doesn't wrestle—privately and publicly—with productivity, for example, it is unlikely that the Fed will be able to correctly assess r-star, the unobservable neutral equilibrium real rate. If the Fed doesn't assess r-star rightly and rigorously, it won't be able to conduct monetary policy optimally.

It is not a sign of weakness for the Fed to be uncertain about the future. It's a sign of strength. Reforms in governance, including those undertaken by the Bank of England, for example, could ensure more robust deliberations and greater comfort of participants in sharing their heterodox views.

The Fed expends a couple billion dollars of taxpayer money. The dollars should be deployed on the most difficult and fundamental questions confronting the US economy. The incredible brainpower of the hundreds of economists—and the leaders of the Fed system that gather around the FOMC—should be focused on these bigger, harder questions, like productivity, financial shocks, the role of markets and asset prices, and international flows. There is plenty of opportunity therein to break with groupthink in pursuit of better economic outcomes.