Reassessing Constraints on the Economy and Policy: An Introduction to the Bank's 2022 Economic Symposium

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Constraints are a central element of economic theory: budget constraints, intertemporal constraints, production possibility frontiers, opportunity costs, and the Phillips Curve. However, over the past two decades, the macroeconomic conversation has been increasingly dominated by concern over deficient demand, with supply constraints fading into the background. Supporting this shift, recent recessions (prior to the pandemic) have been largely attributed to financial disruptions rather than the supply shocks and inflationary dynamics that had driven earlier post-war recessions.

The economic recovery following the pandemic shock has brought supply constraints back to center stage. Bottlenecks and shortages related to pandemic disruptions have limited supply and pushed up prices. More generally, supply has struggled to keep pace with a surge in demand, supported by historic levels of fiscal and monetary accommodation. Once again, supply constraints are a key factor in the outlook for economic activity.

While these dormant constraints have reemerged in the broader economy, long-assumed macroeconomic policy constraints seem, at first glance, to have disappeared. Fiscal debt-to-GDP ratios jumped with little apparent effect on the pricing of government debt.

Likewise, central banks have greatly expanded their balance sheets with little discussion of associated costs or constraints. Where do the constraints on policy lie? And when are they likely to reemerge?

To contribute to the discussion around these issues, the Federal Reserve Bank of Kansas City sponsored a symposium titled "Reassessing Constraints on the Economy and Policy" on August 26 and 27, 2022. The symposium brought together a distinguished group of central bank officials and academic, policy, and business economists to discuss economic and policy developments. The symposium began with a keynote address followed by a morning session of two papers with discussants and a panel discussion. The afternoon session opened with another set of remarks, followed by an additional two papers and a final panel discussion.

Opening Keynote Address

The symposium opened with a keynote address from Federal Reserve Chair Jerome Powell. Chair Powell discussed the current elevated rate of inflation and the importance of the Federal Reserve taking action to return inflation to its 2 percent objective. In particular, Chair Powell stressed the importance of price stability for the longer-run health and performance of the economy. He attributed the current pace of inflation to imbalances in the economy, with demand exceeding supply and driving up prices. These imbalances were especially evident in the labor market, where demand for labor outpaced the supply of available workers. Ameliorating these imbalances would require a restrictive stance of monetary policy. Although the Federal Reserve could not improve supply conditions, monetary policy could moderate demand to bring it into better alignment with supply.

Chair Powell drew three lessons from the experience of monetary policy during the high and volatile inflation of the 1970s and 1980s. First, the Federal Reserve must acknowledge and act upon its responsibility for price stability. This responsibility includes managing aggregate demand to mitigate prices pressures. Second, the Federal Reserve must act to maintain anchored inflation expectations. A prolonged period of high inflation can change price-setting dynamics

in the economy by encouraging households and businesses to alter their expectations for inflation. To illustrate this point, Chair Powell spoke of the concept of "rational inattention." When inflation is low, households and businesses largely ignore it, as it does not meaningfully impact their decision-making. However, high inflation draws attention, increasing the risk that current inflation will influence households' expectations for future inflation in a self-perpetuating dynamic. Third, the Federal Reserve must not waver in its in commitment to bringing inflation down. Start-and-stop policymaking in the 1970s and 1980s allowed inflation expectations to drift, eventually increasing the cost of returning to price stability.

Reassessing Economic Constraints: Maximum Employment

The first paper—by Alexander Bick, Adam Blandin, and Nicola Fuchs-Schündeln—examines employment trends across Europe and the United States, looking at both the overall level of employment as well as the average number of hours worked per employed person. The authors document that even as employment rates have increased across most countries in their sample, hours worked per employed person have declined in every country. The authors stress that the number of hours worked provides more information on both labor input and potential GDP than the number of employed people alone.

The authors also show that the decline in average weekly hours worked is correlated with increases in overall employment across countries. Specifically, the authors present a model to explain this correlation via a decline in the fixed cost of employment. With a lower fixed cost, workers who might want to work fewer hours find employment more affordable and move from outside the labor market into employment. Thus, employment increases at the national level, while the average number of hours worked per person declines. The authors suggest that a greater acceptance and ease of part-time work could increase labor force participation among older workers and mothers of young children, thereby increasing overall employment but lowering average hours worked. The increased prevalence of work from home could further lower the costs of working and drive further increases in employment and declines in average hours worked.

One important implication of the declining trend in hours worked per employee is that measures of potential output based on overall employment may be overly optimistic. In this respect, the authors argue that policymakers may want to pay close attention to shifts in hours worked per employee when judging the position of the economy relative to its longer-run potential.

In the discussion of the paper, Stephanie Aaronson pointed out differences between the United States and Europe. For example, though labor force participation grew rapidly in Europe over the authors' sample period, participation was considerably flatter in the United States. In addition, much of the increase in women's labor force participation that drove the increase in European employment rates had already occurred earlier in the United States. Aaronson was less optimistic that participation would increase post-pandemic in the United States, particularly without significant further investment in child care. Aaronson also argued that the unemployment rate remained the best cyclical indicator of the state of the labor market.

Reassessing Economic Constraints: Potential Output

The second paper, authored by John Fernald and Huiyu Li, also analyzes the effect of the pandemic on potential output; however, Fernald and Li focus on output per hour worked, or labor productivity. The authors argue that the pandemic appears to have had little medium-term effect on the pace of labor productivity growth. The United States had been suffering from relatively low productivity growth for over a decade before the start of the pandemic, and evidence suggests that the U.S. remains on a similar low-growth trajectory outside of the near-term disruptions of the pandemic. As in previous recessions, labor productivity initially rose during the pandemic recession, as declines in employment fell predominantly in industries and among workers with low measured productivity. As the economy has recovered, and output in these industries has rebounded, overall productivity has declined back to its previous trend.

Despite this overall decline, the authors find evidence that productivity growth has increased in industries better positioned to take

advantage of expanded telework. They suggest that remote work could lead to better matches between workers and employers, and that improved communication could lead to more rapid knowledge diffusion. However, they also point out that the pace of measured productivity growth can differ substantially depending on whether it is measured relative to income growth or output growth, adding uncertainty to the outlook for productivity growth.

In her discussion of the paper, Janice Eberly pointed out that during the COVID-19 recession, hours worked per employee rose even as employment plummeted. This contrasts with earlier recessions when both hours and employment fell. Eberly attributed this divergence from the norm to sectoral differences and the effect of work from home policies, which allowed hours worked to climb in teleworkable industries. Productivity growth was also relatively strong in industries better positioned for remote work. Eberly attributed the relatively robust productivity growth in these industries to their ability to adjust quickly to the pandemic shock, such that output and capacity utilization were largely unaffected during the downturn. Finally, Eberly argued that remote work could have dramatic long-term implications for measured productivity given the creation of a large stock of remote workspaces and the sheer size of teleworkable industries in the economy.

Panel: An End to Pre-Pandemic Trends or Just a Temporary Interruption?

The first panel examined whether the COVID-19 shock had permanently disrupted pre-pandemic trends or only temporarily disrupted longer-run developments. Jason Furman led off the discussion, cautioning that it is easy to overestimate the permanent effects of large shock and that it is often safer to assume earlier trends remain intact. Furman argued that it was unlikely that the pandemic shock would have lasting effects on interest rates or productivity growth but that it could have more persistent effects on employment and inflation.

Next, Gita Gopinath discussed how the pandemic and the war in Ukraine had affected the outlook for monetary policy. The recent sharp run up in inflation has been difficult to explain relative to pre-pandemic trends. As such, Gopinath argued that monetary policymakers should be cautious in not reacting to inflation shocks they view as being transitory especially when the economy is already running hot. Policymakers need to remain vigilant to risks that inflation expectations could shift in an unfavorable way. She suggested that greater attention should be paid to the supply side of the economy, especially against the backdrop of climate risks and production network related risks.

Valerie Ramey warned of three trends, all predating the pandemic, that could weigh on the macroeconomic outlook: fiscal indiscipline, weak productivity growth, and institutional failure. Even before the surge in fiscal spending that accompanied the pandemic, many countries were on unsustainable fiscal paths, with large increases in debt-to-GDP ratios. Ramey was pessimistic about the path of productivity growth and cautioned that weak productivity growth could also exacerbate growing income inequality. She also discussed a growing risk of spillovers from institutional failure, in which one institution's failure to achieve its mandate has negative consequences on another institution's ability to fulfill its own objectives. For example, Ramey highlighted spillovers from the interaction of fiscal and monetary authorities as well as from primary and secondary schools to institutions of higher education.

Afternoon Remarks

In the afternoon session, Agustin Carstens called for a renewed emphasis on supply-side developments. Carstens argued that the supply side had transitioned from a tailwind for macroeconomic policy to a headwind and highlighted that managing demand alone would likely be insufficient to stabilize economies going forward.

Carstens started by elaborating the positive supply factors that had contributed to a benign policy environment prior to the pandemic.

A stable geopolitical environment had promoted the spread of market-based economic policy and supported further global integration. Technological developments had lessened the constraints of geography and distance. And demographic trends had led a to large increase in working age populations. These factors worked to keep inflation muted, while also disconnecting domestic inflation from domestic growth. With little constraint from inflation, both fiscal and monetary macroeconomic policy were free to react aggressively to any downturn in growth.

However, the aggressiveness of policy in the pre-pandemic period masked problematic developments on the supply side of the economy. Productivity growth sagged, and the global economy came to rely on low interest rates and expanding financial imbalances to maintain demand. The pandemic and the war in Ukraine revealed the brittleness of the supply side of the global economy. Global production networks were less robust than expected, and supply proved incapable of meeting the surge of stimulus-related demand, pushing up prices and raising inflation to 40-year highs.

Looking ahead, Carstens suggested that many of the tailwinds that eased macroeconomic stabilization in recent decades are shifting to headwinds. The process of global integration has largely run its course, such that further gains to productivity and growth are likely to be muted. Likewise, the backlash against globalization has strengthened, as the economic gains of recent decades are thought to have contributed to economic inequality. In addition, demographic trends have become less favorable, with slower population growth and increasing retirements among an aging population.

In response to these challenges, Carstens suggested that policymakers pay renewed attention to the supply side of the economy and structural reforms that promote growth while acknowledging constraints on stabilizing the economy through demand management alone.

Reassessing Constraints on Policy: Fiscal Constraints

In the third paper, Francesco Bianchi and Leonardo Melosi discuss the importance of fiscal credibility in determining inflation. If the fiscal authority is thought to be unable or unwilling to address an existing fiscal imbalance, then the public will expect inflation to rise, decreasing the real value of existing debt and maintaining the long-run sustainability of government debt. The authors argue that the monetary authority can only control inflation if the public believes that the fiscal authority will repay its debts. Without fiscal credibility, monetary tightening can lead to "stagflation," in which growth slows but the continued fear of insolvency keeps inflation expectations elevated.

The paper presents a model that switches between regimes of monetary-led policy, in which the monetary authority has control of inflation, and fiscally led policy, in which fiscal credibility determines inflation. The authors argue that there is an increased probability that the United States has moved into a fiscally led regime since the pandemic. If this is the case, the Federal Reserve might find itself unable to control inflation until the fiscal authority presents a credible framework for achieving fiscal solvency. Perversely, without fiscal credibility, tighter monetary policy and higher interest rates could actually worsen the inflation outlook by increasing the cost of government debt and further eroding fiscal sustainability.

In his discussion of the paper, Ethan Ilzetzki suggested that the data appeared somewhat inconsistent with inflation arising from a lack of fiscal credibility. He pointed to measures of breakeven inflation from bond prices, which suggested that investors in government debt expect a fairly quick decline in inflation. He also highlighted the global nature of the rise in inflation and questioned whether such a wide range of fiscal authorities could simultaneously lose credibility. He suggested it was important to examine all of the factors contributing to demand for government bonds, including the global economy's underlying need for safe assets.

Reassessing Constraints on Policy: Central Bank Balance Sheets

In the final paper, Viral Acharya, Rahul Chauhan, Raghuram Rajan, and Sascha Steffen examine how changes in the size of the Federal Reserve's balance sheet interact with the structure of the banking system. The authors note that when the Fed expanded its balance sheet after the global financial crisis (GFC), short-term demand deposits and lines of credit increased; however, when the Fed subsequently shrunk its balance sheet from 2017 to 2019, these claims on liquidity did not decline. They find this pattern is replicated within individual banks.

The authors show that accounting for liquidity demand through bank-issued claims on liquidity is important in explaining the pricing of liquidity. The authors argue that the increase in liquidity demand following balance sheet expansion creates a liquidity mismatch that makes the financial system more prone to disruption when reserves are subsequently withdrawn. The asymmetric response of the financial system to Fed balance sheet changes—in which claims on liquidity increase as reserves grow but do not decrease as reserves shrink—presents a fundamental challenge to unwinding past asset purchases and may instead ratchet up the size of the Fed's balance sheet.

In discussing the paper, Wenxin Du argued that private bank balance sheet constraints were an important factor in explaining liquidity disruptions in financial markets rather than banks' own liquidity mismatches. To illustrate her point, Du discussed the role of Foreign Banking Organizations (FBOs) as arbitragers of liquidity across markets. FBOs are distinguished from other banks by the reduced balance sheet constraints they face relative to domestic banks. As a result, FBOs play a central role in expanding their balance sheets to facilitate arbitrage when reserves are ample, such as during quantitative easing, or QE. This arbitrage activity can be scaled down quickly if foreign banks face large funding withdrawals, suggesting that liquidity mismatches may be less problematic during periods of quantitative tightening (QT). Instead, Du attributed liquidity strains during QT to the constraints on bank balance sheets to conform to regulatory and internal liquidity metrics. She concluded that these post-GFC

balance sheet constraints limit the ability of the banking system to redistribute reserves and provide liquidity during stress episodes. Du stressed the need to understand the intricate plumbing of financial markets in the conduct of monetary policy.

Panel: The Outlook for Policy Post-Pandemic

The second panel examined the outlook for monetary policy following the disruptions of the pandemic. François Villeroy de Galhau started the panel with a discussion of some considerations for monetary policy coming out of the pandemic, including the slope of the Phillips Curve, how inflation expectations interact with realized inflation, and how and when to use forward guidance. Villeroy de Galhau called for a new predictability in monetary policy, suggesting not a predetermined path for policy but rather an understandable framework through which the public and financial markets can view policy decisions. In this regard, he recommended a focus on the objectives of policy rather than the particular path of policy. In addition, he suggested policy could move quickly as long as markets understood this movement. As such, communicating policymakers' reaction function is essential to effective monetary policymaking.

Next, Thomas Jordan discussed monetary policy in Switzerland. Jordan argued that the current Swiss objective of inflation in the 0 to 2 percent range was appropriate and did not need revisiting. He doubted that a slightly higher target would help alleviate the constraints associated with the zero lower bound on nominal interest rates, and he argued that targeting an average was not necessary given that inflation expectations remained well anchored in Switzerland. Jordan also warned against expanding central bank mandates beyond price stability. Central bank independence is rooted in a consensus that price stability is best achieved when monetary policy is insulated from political decision-making. Such consensus is not apparent for many other policy areas in which central banks are increasingly being called to intervene.

Chang Yong Rhee discussed the use of unconventional monetary policies in emerging market economies. Although the limits to

conventional policy that have been apparent in advanced economies are also relevant for emerging markets, Rhee argued that emerging markets have additional considerations before adopting unconventional monetary policies.

Isabel Schnabel closed out the panel with remarks on monetary policymaking in an environment of heightened volatility. Schnabel noted that many of the factors that had contributed to a relatively benign policy environment in the decades preceding the pandemic—including the capacity of globalization to absorb shocks and the greater elasticity of oil production—had shifted in recent years. Climate change, the green transition, and an increased demand for less efficient, localized supply chains could all contribute to a step up in macroeconomic volatility and increase the demand for policy to buffer shocks. Schnabel suggested that monetary policy would have to react forcefully to shocks that threaten the stability of inflation expectations. An increase in inflation expectations would present central banks with unappealing tradeoffs, especially in the context of a flat Phillips curve, a decreased sensitivity of the economy to interest rates, and the heightened influence of global factors on inflation.