Structural Shifts in the Global Economy

An Introduction to the Bank's 2023 Economic Symposium

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After two decades of near-target inflation, low interest rates, and relatively steady growth, inflation has reemerged as a top economic concern, interest rates have increased significantly, and the outlook for global growth has become unsettled. The global economy has experienced several significant and potentially long-lasting disruptions in recent years. While the immediate effect of the pandemic has faded, both the shock of the pandemic and the unprecedented policy stimulus that it provoked will likely have long-lasting consequences for how economies are structured, domestically and globally.

The pandemic and its aftermath have structural implications for the organization of the global economy, as trade networks shift and global financial flows react. Rising geopolitical tensions are also likely to shift the structure of the global economy, as existing supply chains, production networks, and financial flows come under pressure. How are these developments likely to affect the context for growth and monetary policy in the coming decade?

The past few years have seen an extraordinary loosening of monetary policy, as central banks responded to the pandemic by cutting interests rates and expanding their balance sheets, followed by a rapid tightening of policy in response to the post-pandemic surge in inflation. While policy has targeted the cyclical condition of the economy, could this historic shift in monetary policy have structural implications? Relatedly, will the large increases in the size of central bank balance sheets have a permanent effect on the conduct of monetary policy?

To contribute to the discussion around these issues, the Federal Reserve Bank of Kansas City sponsored a symposium titled "Structural Shifts in the Global Economy" on August 25 and 26, 2023. 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 progress that had been made lowering inflation over the previous year. Goods prices had decelerated most due to improvements in supply chains and curtailed demand from tighter monetary policy and higher interest rates. Declining rent inflation was expected to push down housing inflation in the official statistics, albeit with a lag due to technical factors. Inflation for non-housing services had remained elevated due to the continued tightness of the labor market and the relative insensitivity of consumption in this sector to higher interest rates. Despite these encouraging inflation developments, Chair Powell warned that sustainably returning inflation to 2 percent could require a period of below potential growth and the continued loosening of a tight labor market.

Chair Powell reaffirmed a commitment to Federal Reserve's 2 percent inflation objective while discussing some of the uncertainties contributing to the policy outlook. First, although monetary policy was restrictive by most measures, it was unclear how tight policy was due to uncertainty about the level of the neutral interest rate. Second, it was also uncertain whether the tightening that had already occurred had fully passed through to the economy. In the face of such uncertainty, Chair Powell suggested that policy proceed carefully and remain guided by the data.

Has the Macroeconomic Environment Impacted Long-Run Shifts in the Economy?

The first paper—presented by Yueran Ma and Kaspar Zimmermann—empirically examines whether monetary policy actions can affect the long-term growth prospects of the economy. Generally, monetary policy is calibrated to address cyclical conditions within the economy, with most models and analysis assuming that policy is neutral for long-run growth. The authors consider that shifts in monetary policy and financial conditions can affect the amount of innovation that occurs within an economy, potentially altering an economy's long-run growth path.

In their empirical analysis, the authors find that tighter monetary policy has a significant negative effect on innovation in the United States. Higher interest rates lower research and development (R&D) spending and lead to cuts in venture capital financing, an important source of funds for early start-up companies. In addition, policy tightening lowers the number of patents registered, especially for what the authors define as important technologies. Overall, the authors estimate that tighter monetary policy can significantly lower long-run economic output through its negative effect on innovation.

The authors discuss how tighter policy decreases innovation both by lowering demand, and thereby decreasing the returns on innovation, as well as by increasing the cost of funding. Their analysis suggests that monetary policymakers should consider the impact of their actions on long-run growth as well as the cyclical state of the economy.

In the discussion of the paper, John Haltiwanger highlighted the difficulty in correctly measuring innovation. A particular point of difficulty is capturing innovation activity among young and small firms. The data for public firms is generally more complete, but much innovation occurs outside public firms. Additionally, patents and R&D spending only offer a limited view into innovation, and one that is skewed toward certain industries—primarily manufacturing. Haltiwanger also discussed the relationship between periods of high start-up activity and productivity growth. High start-up periods are often associated with declining overall productivity but increased productivity dispersion. Productivity takes off at least six to nine years after increased start-ups.

Structural Changes in Financial Markets and the Conduct of Monetary Policy

The second paper, authored by Darrell Duffie, examines structural developments in the market for U.S. treasuries and suggests that long-run trends could impede liquidity in this crucial market. While liquidity in the Treasury market has been declining for some time, a "dash for cash" in the early days of the Covid-19 pandemic resulted in severe market dysfunction. Duffie attributes the stress in the Treasury market to regulatory limits on the size of dealer balance sheets that were eventually alleviated by the Federal Reserve's purchase of a large quantity of Treasuries and the temporary suspension of the supplementary leverage ratio (SLR). Over time, persistent fiscal deficits will continue to grow the stock of Treasuries relative to the size of dealer balance sheets, increasing the risk of episodes of market dysfunction and possibly threatening the appeal of Treasuries as a safe asset; this, in turn, would likely increase the government's funding costs.

The paper suggests several policy options that could lessen the risk of disruption in the Treasury market. The Federal Reserve could clarify its policy on using its balance sheet and asset purchases to address market disruptions. In theory, greater clarity on the Fed's response to illiquidity would make such episodes less likely and increase the willingness of investors to hold Treasuries. Moving a greater share of the Treasury market to central clearing could improve financial stability by lowering counterparty risk while also allowing a netting of trades, which would lessen the need for dealer balance sheet capacity.

In his discussion of the paper, Jeremy Stein broadly agreed with the premise and proposals of Duffie's paper. He advocated for a further reexamination of the leverage ratio as a constraint on dealer balance sheets and argued that relaxing the leverage ratio could reduce the chance of disruptions. He also suggested that broader access to the Fed's Standing Repo Facility (SRF) would increase the robustness of the Treasury market by increasing the liquidity of Treasuries without relying on lending from primary dealers and banks. Stein saw Federal Reserve purchases of Treasuries as a less attractive option for addressing disruptions and one that would require careful communication to separate market functioning purchases from monetary easing purchases.

Panel: Structural Constraints on Growth?

The first panel discussed the longer-term outlook for growth. Charles Jones led off the discussion, noting that economic growth is related importantly to the number of people searching for new ideas. Using this framework, Jones noted that a slowdown in the growth rates of educational attainment, R&D spending, and overall population growth could lower trend growth in the decades ahead. Conversely, increasing educational attainment globally, including in China and India, as well as reducing discrimination in employment could increase the number of people searching for new ideas and increase global growth.

Next, Nela Richardson discussed the post-pandemic labor market, highlighting ways that it had become more fragmented. Richardson noted increased demographic fragmentation as younger workers exhibited a greater willingness to shift professions in response to wage incentives. Richardson also noted the increased fragmentation between higher-skilled and lower-skilled workers, with professions with lower entry requirements generally seeing some of the largest wage gains. The pandemic was associated with a greater degree of labor market churn and an increase in the geographic dispersion of work, with upper management increasingly concentrating in large urban areas even as other workers migrated away from these same urban centers.

Chad Syverson closed the panel, stressing the importance of productivity for long-run economic growth. Syverson discussed the relatively tight correlation of weak output growth with higher inflation across industries, suggesting an important role for supply developments in the recent increase in inflation. Syverson noted that productivity growth in the construction sector in particular had been abysmal for decades. More generally, Syverson discussed the productivity J-curve, where difficulties in measuring the productivity of new technologies can depress measured productivity in certain sectors before artificially boosting apparent productivity once the technologies reach maturity.

Afternoon Remarks

In the afternoon session, President Lagarde discussed structural shocks affecting the global economy and their interaction with the conduct of monetary policy. She identified three significant changes in the global economy in recent years. First, she discussed a change in labor market dynamics brought on by the pandemic and influenced by hybrid work, including a fall in participation and a decline in hours worked, and raised the possibility that artificial intelligence could disrupt many occupations. Second, she argued that climate change required more investment in green technology. And third, she highlighted how increased geopolitical tensions engendering greater trade restrictions were changing the shape and efficiency of supply chain networks.

The changing structure of the global economy complicates our understanding of it, making historical models and relationships unreliable. President Lagarde discussed two ways in which structural change could shift important economic relationships. First, the nature of shocks affecting economics could change. Among other factors, trade frictions, climate change, and the green transition could increase the prevalence of supply shocks. The increased prevalence of these shocks could also increase the need for substantial investments to facilitate the energy transition as well as increased defense spending. Second, there could be a structural change in the way that shocks are transmitted through the economy. Shifts in the structure of production could require large relative price changes, adding urgency to central bank efforts to maintain anchored inflation expectations. President Lagarde discussed evidence that firms had adjusted their price-setting behavior, leading to large and more frequent updating of prices, but also that workers had gained pricing power, allowing for the possibility of more "catch-up" wage growth.

Responding to the changing economic environment, President Lagarde suggested that policymakers act with clarity, flexibility, and humility. For clarity, she urged central banks to remain focused on their price stability mandates so that monetary policy itself does not become a source of uncertainty. For flexibility, she warned against an overreliance on models and possibly stale relationships. And finally, she asked that policymakers show humility by acknowledging the limits of what can be achieved.

Global Production Networks

The third paper, presented by Laura Alfaro and Davin Chor, discusses the shifting structure of the United States' trade relationships. The dominant trend in trade and global growth over the past few decades has been increasingly specialized and fragmented production. More recently, however, economic actors have increasingly focused on supply chain risk, suggesting the globalization trend has largely played out. The vulnerabilities of far-flung supply chains became particularly acute during the pandemic, when a patchwork of production shutdowns and economy-wide lockdowns resulted in logistical snarls that took upwards of a year to unravel. In addition, the reemergence of geopolitical risk has led producers to reconsider supply chains, with some calling for increased "friendshoring," or concentrating production networks in countries with closer political ties.

The authors show that the United States' trading patterns have shifted in recent years, which they dub the "Great Reallocation." Although U.S. imports remain at all-time highs, the source of those imports has changed noticeably. In particular, the United States has seen a shift in import shares away from China and toward Vietnam and Mexico. However, the authors caution that such a shift may not lower overall U.S. dependence on China, given that the substituted imports from other countries retain a high share of value-added production from China. Relatedly, China has increased its investment into production in Mexico and Vietnam even as the U.S. has decreased investment in China.

In the discussion of the paper, Katheryn Russ reviewed how recent trade policy may benefit workers, ensure national security, and achieve climate goals. From the worker's perspective, higher tariffs and an onshoring of input industries can increase costs and decrease employment in downstream sectors. As such, it is not clear that an onshoring of production benefits workers across the economy. On national security, a lack of good firm-specific data makes it difficult to truly assess the vulnerability of individual industries to disruption. On climate, there could be a benefit of shifting production of the most carbon-intensive industries to those countries with tighter environmental standards.

Global Financial Flows

The final paper, authored by Barry Eichengreen and Serkan Arslanalp, reviews the outlook for the global stock of sovereign debt. Fiscal stimulus during the pandemic added to already elevated stocks of government debt around the world. The authors outline several reasons why they are skeptical that government debt levels would fall anytime soon. First, they see little prospect that fiscal balances will move into surplus, especially given political considerations and the relatively slow pace of global growth. Second, an increase in interest rates increases pressure on government finances and makes fiscal consolidation more difficult. Third, governments are unlikely to be able to inflate away the real value of debt since only surprise inflation is effective in lowering debt-to-GDP ratios. And fourth, governments have less scope for financial repression than they did in the past—a meaningful development given the historical importance of this channel for reducing debt.

The authors suggest that the advanced economies are better situated for maintaining high debt levels given continued demand for their securities as safe assets. In contrast, despite starting with lower debt ratios in general, emerging markets could face greater difficulty finding buyers for their debt. As such, some emerging market economies could find their debt burdens unsustainable and in need of restructuring.

In discussing the paper, Carmen Reinhart agreed with the authors that high sovereign debt levels appeared unlikely to decline anytime soon. She highlighted that taking account of high private debt levels could make the situation look even worse, since private debts often migrate to the public balance sheet during crises. However, she also noted that the authors did not lay out the argument for why high debt levels should concern policymakers.

Panel: Globalization at an Inflection Point

The second panel examined the outlook for globalization against a backdrop of pandemic disruptions and rising geopolitical tensions. Deputy Governor Broadbent started the panel with a warning that increased trade restrictions come with a high economic cost. Shocks to the supply of imports can lower national income and increase domestic prices. This has been particularly true for energy shocks, as the effects of recent disruptions in the natural gas trade have affected some countries more than others.

Next, Director General Okonjo-Iweala discussed the outlook for global trade and the importance of trade liberalization for economic development and the conduct of monetary policy. Director General Okonjo-Iweala suggested that falling trade costs, both for goods and services, would continue to support further globalization and that continued global integration would promote economic development in a wider range of countries and boost global productivity. Okonjo-Iweala also noted that the productivity enhancements resulting from globalization had been a source of disinflationary pressure, helping keep prices in check while dampening macro volatility.

Governor Ueda discussed the pattern of trade and foreign direct investment (FDI) in Asia and the United States, noting that trade patterns can change both in response to trade restrictions and geopolitical tensions as well as to shifts in the pattern of relative wages. In response to trade tensions with the United States in the 1980s, Japan increased its FDI in the United States and expanded its production network throughout Asia; trade patterns with China came under similar pressure. Governor Ueda warned that these trends would have to be carefully monitored for their impact on global growth and monetary policy.