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Global Linkages: Supply, Spillovers, and Common Challenges

Remarks by

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Thank you, Sylvain, and thank you for the opportunity to speak to you today.<sup>1</sup> It is fitting and timely that today we are gathered here to talk about global linkages. It is fitting not only because we are beside the Golden Gate—where, just a few blocks away, one can marvel at the massive cargo ships making their way to port—but also because this conference has once again brought together scholars and friends from as far away as Shanghai, Atlanta, and Fontainebleau. And it is timely because the discussion of the ties that bind us is as important as ever.

To start off this conference on global linkages, I am going to discuss supply shocks, policy spillovers, and common challenges faced by monetary policymakers in recent years and going forward. When the global pandemic hit in the spring of 2020, economies around the world shut down or sharply limited activity, especially for in-person services. Also, it quickly became apparent that shutdowns in any one economy were exacerbated by reduced availability of supplies from other economies.

Policymakers around the world faced the common challenge of supporting incomes and limiting the scarring from temporary shutdowns in activity. The response was similar across countries: fiscal support, particularly to help those most in need, although the magnitude differed, in part because of differences in fiscal space. Initially aimed at preventing sharp financial and economic deterioration, monetary policy easing was later extended to support the nascent economic recovery. Policy rates were cut to or held near zero in both advanced and emerging market economies. A wide range of central banks also bought assets to support market functioning and provide stimulus once overnight policy rates hit their effective lower bounds.

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<sup>1</sup> The views expressed here are my own and not necessarily those of my colleagues on the Federal Open Market Committee.

As economies gradually reopened, demand surged, especially for goods. But supply chains were slower to recover, leading to a global surge in inflation. That surge was followed by a further upswing in inflation after February 2022, when Russia's invasion of Ukraine caused a shock to global supplies of commodities, including oil and natural gas, food and fertilizers, and numerous manufacturing inputs.

With inflation unacceptably high, monetary policy turned toward tightening. Central banks in several emerging market economies began to tighten first, seeking to prevent a de-anchoring of inflation expectations that could cause elevated inflation to become entrenched. Starting in March 2022, the Federal Reserve raised its policy rate 5-1/4 percentage points, and it has been shrinking the size of its balance sheet since June of that year. Those actions have tightened U.S. financial conditions, acting to dampen U.S. aggregate demand. Activity in the housing sector has slowed significantly, with 30-year mortgage rates rising to more than 7 percent, and business spending has been constrained by high interest rates and reduced credit availability.

Over the past year, amid tightening financial conditions globally, inflation has come down from its peak in most economies. In the U.S., inflation (as measured by the 12-month change in the personal consumption expenditures price index) has fallen from 7.1 percent in June 2022 to 3.4 percent in September of this year. Core inflation has declined from a peak of 5.6 percent in February 2022 to 3.7 percent in September. I believe the Federal Reserve's actions contributed to this fall in inflation both by restraining aggregate demand and by keeping longer-term inflation expectations well anchored.

The fall in headline inflation was helped by declines in global commodity prices from their 2022 peaks. The spot price of Brent crude oil dropped from about \$115 per barrel in April 2022 to just over \$80 most recently. Global agricultural prices also have retreated from their peaks, though they remain elevated. These price declines occurred partly because the supply of energy and other commodities has been less disrupted than feared in mid-2022. In addition, the U.S. has become an increasingly important supplier of energy on the global market, with U.S. production of crude oil and natural gas reaching all-time high levels.

Importantly, global supply chains have largely recovered from their disruptions, with a return to pre-pandemic levels of indicators such as the share of manufacturing inputs in short supply. This recovery has occurred both because of supply responses motivated by high prices for transportation and key inputs and because of a shift of demand from goods back toward services. One big open question we will discuss at this conference is how global supply chains have changed since the pandemic.

Supply is also a significant part of the deceleration in U.S. shelter prices. A surge in completions of multifamily housing has contributed to the sharp slowing of rent increases on new leases this year. That slowing will feed over time into a continued decline of inflation in rents and owners' equivalent rents (the rents that homeowners forgo by living in their own homes rather than renting them out), thus contributing importantly to the expected further reduction in overall U.S. inflation.

In the U.S., labor supply, which fell because of the effects of the pandemic, has recovered significantly over the past two years, boosted by rebounds in labor force participation and immigration. The labor force participation rate, at 62.7 percent in

October, has increased by 0.5 percentage point over the past 12 months, while participation of prime-age workers (those 25 to 54 years of age) has increased nearly twice as much. As a result, the prime-age participation rate is now above its pre-pandemic level and is near its highest point since 2002. The rise has been especially strong for prime-age women, whose participation recently reached a record-high level.

Over this year, payroll growth has slowed but remained strong. And a broad set of indicators show labor demand and labor supply coming into better balance. Currently, there are 1.5 job openings per unemployed worker. While still a high level historically, it is down from its peak of 2.0 early last year and is much closer to the pre-pandemic ratio of 1.2. Quits, which soared during the pandemic, have fallen since early 2022 and were close to their 2019 average in July, an indication that workers are less certain of finding another job in a cooling labor market. The workweek, which rose to very high levels during the pandemic when firms could not find enough workers, has returned to pre-pandemic levels. And surveys of employers suggest that hiring and retention are not as difficult as they were last year.

To be sure, it is a good thing that the easing in supply–demand imbalances in the labor market and the disinflation we are seeing thus far have taken place with only a modest increase in the unemployment rate, which was 3.9 percent in October. As I have discussed, that favorable combination likely reflected an easing of supply constraints, including in the labor market. I am also encouraged by the strong growth in labor productivity over the past two quarters, which, if sustained, could contribute to further progress toward price stability. I believe that a soft landing is possible, with continued disinflation and a strong labor market, but it is not assured.

In setting monetary policy, we need to seek a policy stance that is sufficiently restrictive to bring inflation back to 2 percent over time. I see risks as two sided, requiring us to balance the risk of not tightening enough against the risk of tightening too much. We have seen continued momentum in economic growth and consumer spending, even in the face of monetary policy tightening over the past year and a half. There is a risk that such continued momentum in demand could keep the economy and labor market tight and slow the pace of disinflation.

But I am also attuned to the risk of an unnecessarily sharp decline in economic activity and employment. Some parts of the economy are showing strain from tighter financial conditions. Households at the lower end of the income and wealth distributions have largely exhausted their excess savings, while delinquencies on auto loans and credit cards have risen to pre-pandemic levels or higher. Small businesses generally borrow for shorter terms than larger businesses, and they are facing tighter credit conditions and higher rates as they roll over those short-term loans. Homebuilders have done surprisingly well over the past year and a half, but they see the current level of mortgage rates as substantially slowing demand.

As we try to identify the full, lagged effects of monetary policy tightening, I am considering whether small businesses, the housing sector, and low- and moderate-income households could be warning of broader stress ahead.

The linkages we are talking about today connect us in ways that are economically beneficial but also have the potential to transmit stress. For that reason, I am also attentive to the risk of renewed global economic shocks. In recent weeks, oil prices have been volatile but are down from their September peaks. Amid highly elevated

geopolitical tensions, however, the risk of a sharp rise in global energy prices remains salient. I also see signs of subdued economic growth in our major trading partners, whose health affects U.S. economic conditions related to our dual mandate. China's economic growth has remained below pre-pandemic rates, and activity in its property sector has been extremely weak. In Europe, recent data point to muted growth as the region deals with tightened financial conditions and the effects of past energy price shocks.

The Federal Open Market Committee is, of course, focused on our dual mandate of maximum employment and stable prices in the U.S. But I recognize that we act in a world of global markets and strong economic linkages. I pay close attention to the spillovers of our policies abroad and spillovers to our economy from monetary policy in other countries. And Federal Reserve staff have done considerable work over the years to understand and quantify these two-way spillovers. I will draw on some of that work in the discussion that follows.

We would expect the monetary policy of one country to have spillovers to other economies through three main channels.<sup>2</sup>

The first channel works through *domestic demand*. Taking the U.S. as an example, when U.S. monetary policy tightens, U.S. aggregate demand slows, lowering U.S. imports of foreign products and dampening foreign gross domestic product (GDP) and foreign inflation. The second channel, the *financial channel*, captures the effects of the rise in U.S. longer-term yields that typically accompanies a tightening of U.S. monetary policy. Higher U.S. longer-term yields lead international investors to rebalance

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<sup>2</sup> See Ammer and others (2016) for an extended discussion and quantification of these channels.

their portfolios from foreign to U.S. assets, tightening foreign financial conditions and reducing GDP and inflation in foreign economies.<sup>3</sup> The fact that the bulk of international transactions are denominated in dollars gives U.S. monetary policy an especially salient role through the financial channel.

The third channel is the *exchange rate channel*. A surprise increase in U.S. interest rates relative to foreign rates usually leads to dollar appreciation. This currency movement lowers the prices of foreign goods and services relative to those of the U.S., thereby restraining U.S. GDP and strengthening foreign GDP. The weaker currency and the resulting higher activity abroad tend to push up foreign inflation. But for economies that rely heavily on dollar-denominated debt and have less well-anchored inflation expectations, exchange rate depreciation can increase balance sheet mismatches and increase risk premia, with adverse consequences for GDP. So in the end, while currency depreciation unambiguously raises inflation, its effect on GDP can be ambiguous for some countries.

All told, the relative strength of the three channels determines the overall sign and magnitude of the foreign effects of domestic monetary policy tightening. However, quantifying spillovers is challenging, as the magnitudes (and even the signs) through the different channels depend on a multitude of structural features of the global economy.

Moreover, the size of spillover effects also depends on the drivers of the monetary policy tightening. For instance, when the tightening occurs in the context of high growth, the positive spillovers of that growth can partially offset the adverse spillovers from the

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<sup>3</sup> The financial channel has been documented in recent academic literature, including Rey (2013) and Iacoviello and Navarro (2019). Estimates of financial spillovers can be found in Curcuro, De Pooter, and Eckerd (2018).



tightening of financial conditions. The importance of the context in which monetary policy is changing is increasingly being emphasized in the literature, such as the paper to be presented in session 4 of this conference. The staff at the Federal Reserve also have looked at these differences using both event-study and model-based approaches.<sup>4</sup>

An additional concern, very relevant to the current situation, is what happens when monetary policy is being tightened simultaneously across a wide set of economies. When this concurrent tightening happens, cross-border financial spillovers could amplify the effects of our respective tightening.<sup>5</sup> Of course, when others are also tightening, each respective central bank may need to do a bit less to achieve the same outcomes because of these spillover effects. But in a world of uncertainty, it is hard to judge the exact size of these spillovers.

Given the extent of monetary tightening globally over the past two years, it is striking that emerging market economies have fared relatively well compared with what might have been expected. A number of factors may be at play. Several emerging market central banks undertook preemptive rate hikes that helped limit capital outflows, perhaps avoiding worse outcomes. Effective communication by advanced-economy central banks may also have prevented greater financial market volatility. In addition, in these recent stress episodes, commodity prices were rising rather than falling, which benefited some vulnerable emerging market economies that are commodity exporters. Of course, many other (commodity-importing) economies did not have such an advantage. And some emerging market and developing economies, especially those with high dollar-denominated debt, have struggled amid high commodity prices and food security issues

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<sup>4</sup> See, for example, Hoek, Kamin, and Yoldas (2022) and Ahmed, Akinci, and Queralto (2021).

<sup>5</sup> See Caldara and others (2023).

as well as the resulting global rise in interest rates following the inflationary shocks from Russia's war against Ukraine.

In sum, U.S. monetary policy actions can produce spillovers abroad and create tradeoffs for foreign monetary policy. Spillovers from foreign economies can be sizable for the U.S. as well, especially in the current environment, in which many central banks have tightened policy rapidly to fight inflation.

In a world of spillovers and global linkages, all of us have our unique responsibilities. At the Federal Reserve, we are responsible for getting U.S. inflation down to our target. And in doing so, we are aware that we are affected by and have effects on the world around us. Conferences like this one help to explore and understand our common interests and common connections and to spark ideas for addressing the challenges that confront all of us.

Thank you.

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