US Daily: An Update on Supply Chain Disruptions and the US Economy (Abecasis)

- Core goods prices surprised to the downside in the March CPI report, with a notable decline in used car prices. Unfortunately, our aggregate measure of supplier delivery times has worsened for the first time in five months, suggesting the good news on goods prices might be short-lived. In today's note, we provide an update on the impact of the latest global supply chain disruptions on our US GDP and inflation forecasts.
- The renewed supply-side deterioration has three main causes. First, the Omicron wave in China has led to factory shutdowns and shipping delays. So far the impact looks roughly consistent with what we have allowed for in our inflation forecast since Omicron first appeared, but more prolonged disruptions would pose upside risk.
- Second, the Russian invasion of Ukraine has raised food, energy, and metals prices. Our estimate of the impact of commodity price changes on year-on-year core PCE inflation is now 10bp higher for 2022Q4 than when the invasion began, and we recently tweaked our inflation forecast accordingly. Here too, the possibility of further sanctions and trade disruptions between the West and Russia remains an upside risk to inflation.
- Third, disruptions to raw materials supplies and a slower pickup in semiconductor production recently led our autos analysts to cut their global auto production forecast by 3.4mn units. We had already assumed a delayed normalization of auto inventories and prices in our forecasts, and we expect used car prices to stop falling or even rebound a bit this spring before starting to fall again later this year and in 2023.
- These supply chain setbacks have been somewhat worse than we anticipated, and we have adjusted our growth and inflation forecasts slightly in response in recent weeks. Even so, Omicron in China and the war in Ukraine still pose additional risk. We expect below-consensus GDP growth of 1.9% Q4/Q4 in 2022, but further spikes in consumer prices or production disruptions pose downside risk. We also expect core PCE inflation to fall from 5.2% to 4.0% by end-2022, driven entirely by a 150bp decline in the contribution from goods categories, but further supply problems could hinder this.

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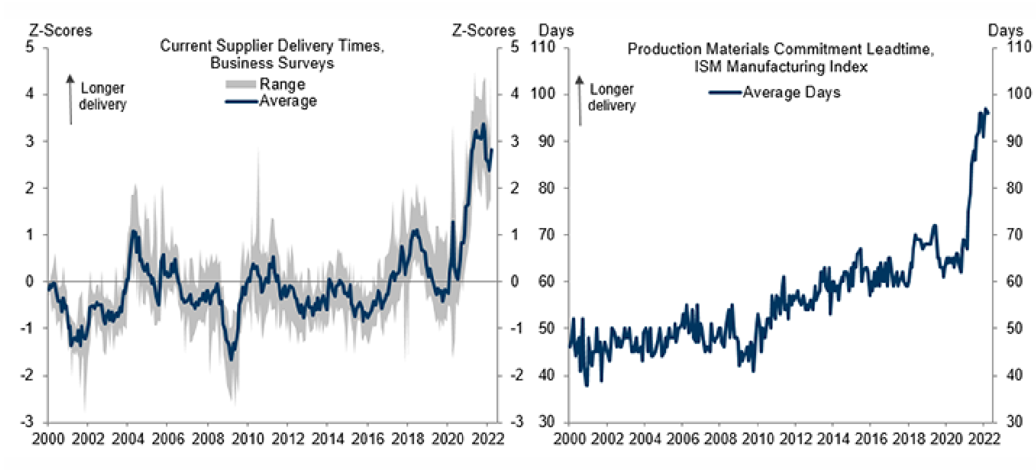
An Update on Supply Chain Disruptions and the US Economy

Core goods prices surprised to the downside in the March CPI report, with a notable decline in used car prices. Unfortunately, our aggregate measure of supplier delivery times has worsened for the first time in 5 months, suggesting the good news on goods prices might be short-lived (Exhibit 1). In today's note, we provide an update on the impact of the latest global supply chain disruptions on US GDP and inflation.

Exhibit 1: Supplier Delivery Times Worsened in March

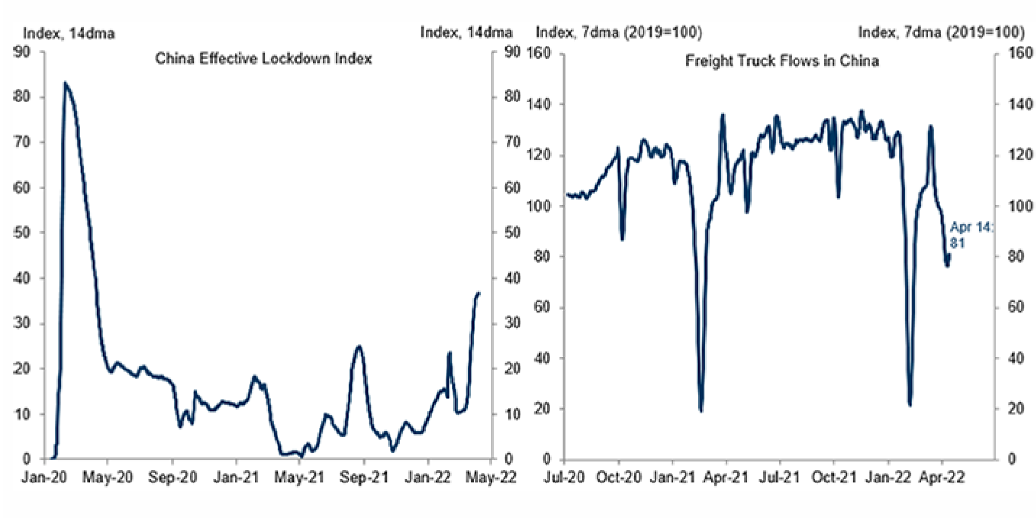


Source: Federal Reserve, Institute for Supply Management, Goldman Sachs Global Investment Research

We see three key reasons for the recent reversal of progress in resolving supply chain problems.

First, the Omicron wave in China caused a renewed, sharp tightening of virus-related restrictions. Our China Effective Lockdown Index now stands at its highest level since April 2020, and trucking flows in China have declined substantially more than seasonal norms in recent weeks (Exhibit 2). Our China economics team recently estimated that Chinese exports of computers, electronics, and manufacturing inputs face the highest risk of disruption.

Exhibit 2: Our China Effective Lockdown Index Stands at Its Highest Level Since April 2020, and Trucking Flows Have Declined Meaningfully in Recent Weeks



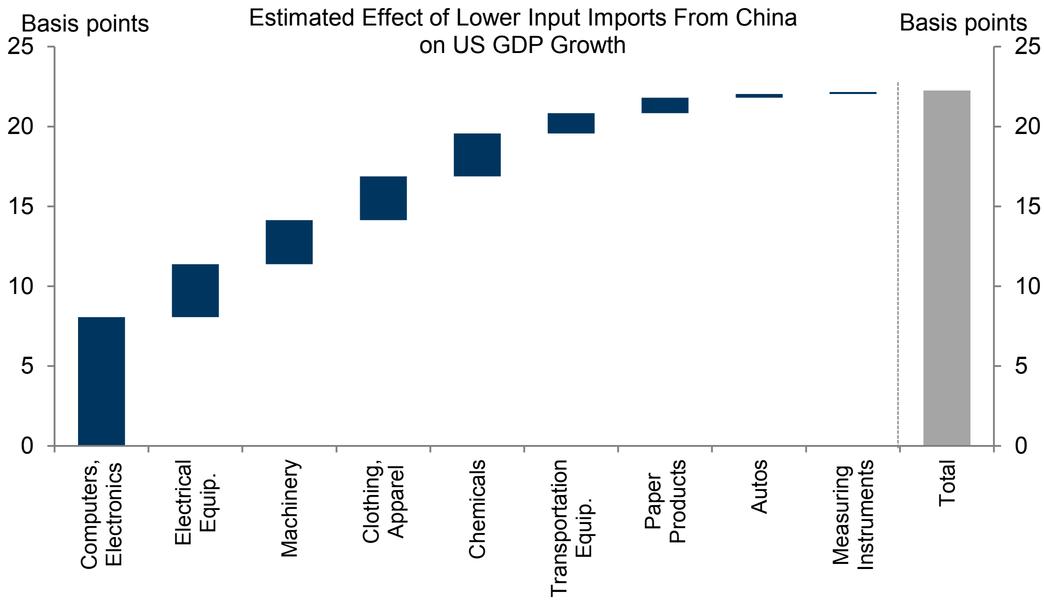
Source: Wind, Goldman Sachs Global Investment Research

Since Omicron first appeared last year, we have made a sizeable allowance in our inflation forecast for eventual challenges in China by assuming a fairly delayed and gradual normalization of goods inventory levels and prices. Overall, accounting also for the fact that Omicron is receding and restrictions are declining across most of the rest of the Asia-Pacific region, the impact on US inflation looks roughly consistent with what we have been assuming.

To quantify the impact on US GDP, we use our China economists' estimates of the share of Chinese exports at risk of disruption. We estimate that highly exposed industries in the affected provinces account for roughly $50bn of US imports annually (0.2% of GDP). Assuming a 20% reduction in these imports in 2022Q2 and 2022Q3—about two-thirds of the peak decline in imports from China in March 2020—would imply a $10bn annualized reduction in US imports in each quarter, or 0.05% of GDP. Substitution toward domestic production could boost US GDP, but this would likely be offset by a hit from US production disruptions caused by missing imported inputs from China. Using the input-output accounts and data on import usage by industry, we estimate that hit is worth about 0.2pp on annualized GDP growth, as shown in Exhibit 3, implying that these disruptions should have a modest net negative effect on US GDP.

The situation in China remains highly uncertain, and more prolonged disruptions would pose upside risk to US inflation in the second and third quarters and downside risk to US growth.

Exhibit 3: We Estimate That a 20% Reduction in Imported Inputs From China Would Result in a 0.2pp Drag on Annualized GDP Growth in Both 2022Q2 and 2022Q3

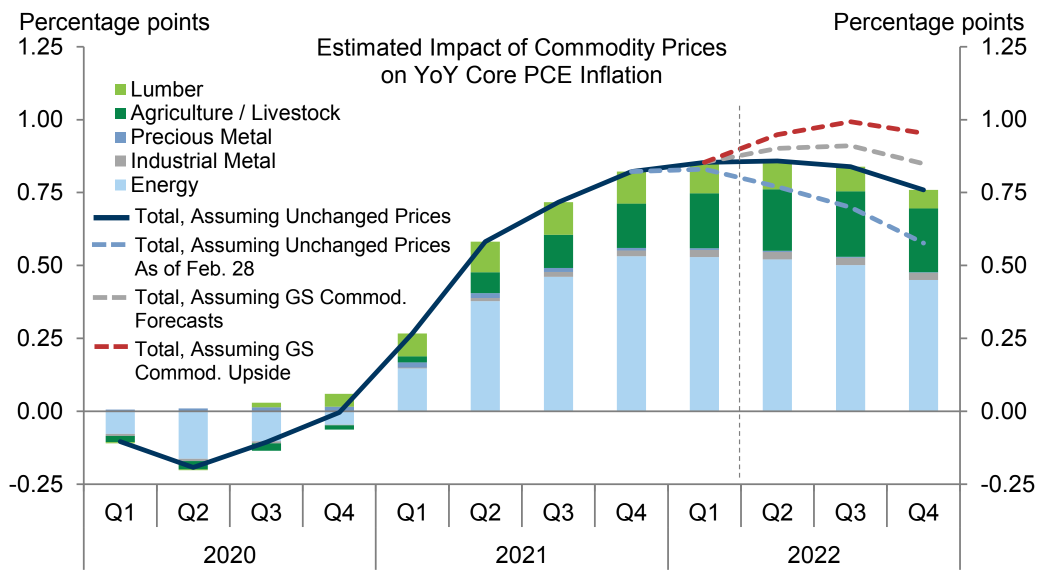


Source: Department of Commerce, Census Bureau, Goldman Sachs Global Investment Research

Second, the Russian invasion of Ukraine has led to sharp increases in food, energy, and metals prices. Oil prices are roughly 15% higher since Russia invaded Ukraine, implying a 35bp boost to headline PCE inflation according to our rule of thumb. Our estimate of the boost from changes in commodity prices to year-on-year core PCE inflation, which assumes that prices stay at their current levels, is now 10bp higher for 2022Q2 than when the invasion began and 15bp higher for 2022Q4, and we recently tweaked our inflation forecast accordingly. Our commodities team's forecasts would imply an additional 10bp boost for 2022Q4, and an additional 20bp under their upside scenario for oil prices (Exhibit 4).

The possibility of further sanctions and trade disruptions between the West and Russia remains an upside risk to inflation. In particular, our commodities team recently stressed that copper and aluminum stocks are significantly depressed, leaving prices particularly vulnerable to incremental supply shocks, and a few European smelting and tire factories have already cut capacity or halted production as a result of input shortages and high energy prices. While transportation lags have so far dampened the effects of the Russian invasion of Ukraine on global metals supply, they are likely to worsen further in the near term.

Exhibit 4: Commodity Prices Have Risen Significantly Since the Russian Invasion of Ukraine, Boosting Headline and Core Inflation

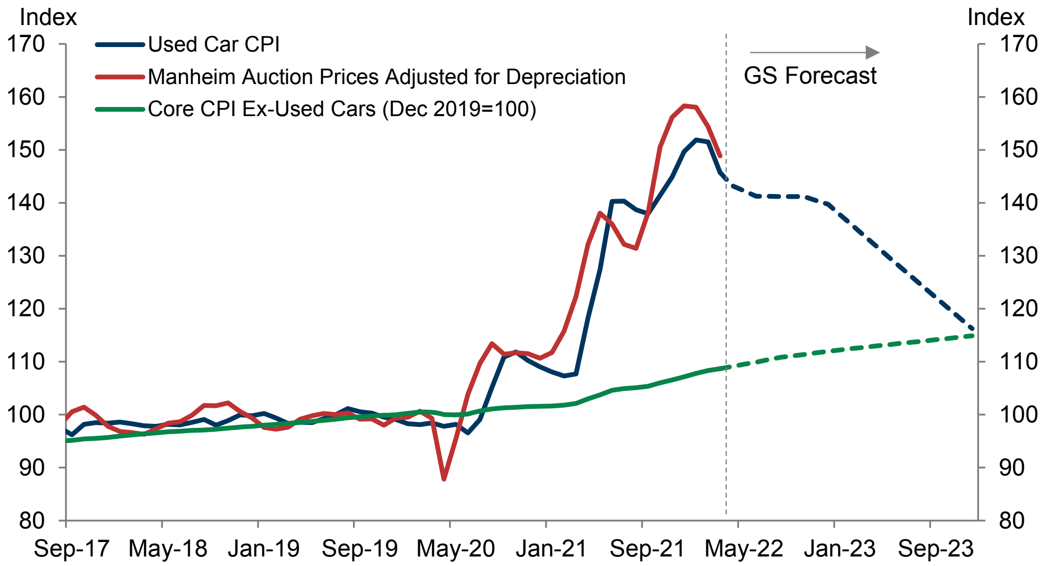


Source: Department of Commerce, Goldman Sachs Global Investment Research

Third, the recovery in global auto production is facing further setbacks. Our autos analysts recently lowered their global production forecast by 3.4mn to 81.6mn units in 2022, reflecting both disruptions to raw materials supply in Europe as a result of the war in Ukraine and a delayed normalization of semiconductor production. The downgrade was mostly driven by a lower European production forecast and included only a small downgrade to the US production forecast (from 15.75mn to 15.5mn units in 2022), implying roughly 360k fewer units available for sale to US consumers (200k fewer units supplied by domestic producers and 160k fewer units imported from abroad), or 2% of US new car sales.

Reduced global auto production will likely delay the inventory recovery and normalization of used car prices. We had already factored a delayed normalization of auto inventories and prices into our forecasts, and we continue to expect used car prices to stop falling or even rebound a bit this spring before declining more meaningfully towards the end of this year and in 2023 (Exhibit 5).

Exhibit 5: We Expect Used Car Prices to Remain Elevated Through the Next Few Months, and Decline More Meaningfully Toward the End of 2022 and in 2023



Source: Department of Labor, Manheim, Goldman Sachs Global Investment Research

These supply chain setbacks have been somewhat worse than we anticipated, and we have adjusted our growth and inflation forecasts slightly in response in recent weeks. Even so, Omicron in China and the war in Ukraine still pose additional risk. We expect below-consensus GDP growth of 1.9% Q4/Q4 in 2022, but further spikes in consumer prices or production disruptions pose downside risk. We also expect core PCE inflation to fall from 5.2% to 4.0% by end-2022, driven entirely by a 150bp decline in the contribution from goods categories, but further supply problems could hinder this and keep goods inflation somewhat higher for longer.

Manuel Abecasis

Disclosure Appendix

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We, Jan Hatzius, Alec Phillips, David Mericle, Spencer Hill, CFA, Joseph Briggs, Ronnie Walker and Manuel Abecasis, hereby certify that all of the views expressed in this report accurately reflect our personal views, which have not been influenced by considerations of the firm's business or client relationships.

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