The views expressed in this presentation are my own and do not necessarily reflect those of the Federal Reserve Bank of Chicago or of the Federal Reserve System.
Economy Buffeted by Gales

• US and world survived economic hurricane in 2020
• Economy sailed ahead after April 2020 trough, as the recession lasted just two months
• 2021’s crisp pace already led in Q2 to a larger US economy than prior to the pandemic
• Cash registers ringing, yet 2021’s breezy recovery came with logistical hurdles
• How long will the economic blowback from inflationary headwinds persist?
Covid-19 rising, yet fewer ICU patients and deaths for the U.S.

Source: The New York Times
Chicago Fed National Activity Index (CFNAI) says growth above trend

Source: Federal Reserve Bank of Chicago based on 85 indicators
FOMC kept the Fed Funds rate target range low to put wind in the sails before tightening.

Source: Board of Governors of the Federal Reserve System
Fed’s balance sheet continued growing in 2021, providing monetary stimulus.

Note: Other assets includes swaps, repo, loans, and liquidity and credit facility LLCs; Asset values are weekly Wednesday. Key identifies curves from bottom to top.

Source: Board of Governors of the Federal Reserve System
Stock markets breezed higher but flailing

Real S&P 500 stock index

Index: 1990 = 100

Sources: Standard & Poor’s; U.S. Bureau of Labor Statistics
GDP in 2021 cruised ahead with a gain of 5.7%, edging 1.4% lower in Q1 of 2022.

Source: Bureau of Economic Analysis
GDP growth of 2.8% for Q2 of 2022 forecasted by the Blue Chip, then tailing off.
Labor supply is still tight, though initial claims no longer declining

Source: U.S. Department of Labor
Employment nearly all the way back, but full-time workers already higher

Source: U.S. Bureau of Labor Statistics
However, some groups seem to be drifting, while others see stronger employment gains.

Cumulative increase in employment since January 2010

- High wage occupations
- Mid wage occupations
- Low wage occupations

Unemployment rates lowest for those with more education, but now all ships coming in.

Source: U.S. Bureau of Labor Statistics
Still concerns about the duration of unemployment spells

Source: U.S. Bureau of Labor Statistics
Many people left the workforce and not all have returned on deck

Source: U.S. Bureau of Labor Statistics
With strong demand for workers, there are again fewer than available jobs.

Source: U.S. Bureau of Labor Statistics
Wages and salaries, as well as benefits, rising for U.S. workers, but....

Source: U.S. Bureau of Labor Statistics
Inflation has blown in on hot markets, rising well above the Fed target of 2%

Source: Bureau of Economic Analysis
Oil prices jumped higher as economy heated up in 2021

Sources: Wall Street Journal and Bureau of Labor Statistics
Natural gas prices climbed as demand rebounded and exports surged

Sources: Wall Street Journal and Bureau of Labor Statistics
Housing and construction have risen

Sources: Wall Street Journal and Bureau of Labor Statistics
Even as mortgages have gotten pricier

Sources: Wall Street Journal and Bureau of Labor Statistics
Home prices were even hotter than during the housing boom of 2005-06

Source: National Association of Realtors
Credit spreads between Corporate High Yield securities and Corporate Aaa securities moved higher.
The 10-year vs. 3-month Treasury yield curve has been increasing again in 2022

Source: Board of Governors of the Federal Reserve System
Dollar’s exchange value strengthening

Trade-weighted exchange value of the U.S. dollar (real)

Index: March 1973=100

Source: Board of Governors of the Federal Reserve System
Imports bounced back faster than exports and both kept going up

Source: U.S. Census Bureau
Argonne State Government Vulnerability Index

Source: Argonne National Laboratory
FIGURE 1
State revenue growth in FY 2021 and forecasts for FYs 2022 and 2023

- 43.1% Personal income growth in FY 2021
- 33.7% Corporate income growth in FY 2021
- 17.6% Sales growth in FY 2021
- Total revenues growth in FY 2021: 18.5%

- FY 2022 forecast:
  - Personal income: 10.0%
  - Corporate income: 8.5%
  - Sales: 4.4%
  - Total revenues: 1.9%

- FY 2023 forecast:
  - Personal income: 1.1%
  - Corporate income: 0.4%
  - Sales: -8.6%
  - Total revenues: -0.1%

Source: Tax Policy Center (43 states reported forecasts)
State and Local Revenues Demonstrate Strong Growth

### TABLE 1

State and Local Government Tax Revenue Trends

<table>
<thead>
<tr>
<th>Tax source</th>
<th>Millions of Dollars (Inflation Adjusted)</th>
<th>Y-O-Y Real Percent Change</th>
<th>Average quarterly Y-O-Y real growth rate, prior four quarters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2021 Q3 vs 2019 Q3</td>
<td>2021 Q3 vs 2020 Q3</td>
<td>2021 Q2-Q3 vs 2020 Q2-Q3</td>
</tr>
<tr>
<td>Total state and local major taxes</td>
<td>$388,991 vs $882,059</td>
<td>7.5% vs (7.3%)</td>
<td>13.6% vs 18.9%</td>
</tr>
<tr>
<td>State major taxes</td>
<td>$234,947 vs $563,521</td>
<td>13.5% vs (8.7%)</td>
<td>21.3% vs 24.6%</td>
</tr>
<tr>
<td>Personal income tax</td>
<td>110,465 vs 282,518</td>
<td>12.7% vs (19.9%)</td>
<td>17.1% vs 32.6%</td>
</tr>
<tr>
<td>Corporate income tax</td>
<td>21,137 vs 60,819</td>
<td>50.3% vs (7.0%)</td>
<td>57.8% vs 65.6%</td>
</tr>
<tr>
<td>Sales tax</td>
<td>98,509 vs 210,434</td>
<td>9.3% vs 7.6%</td>
<td>20.1% vs 9.4%</td>
</tr>
<tr>
<td>Property tax</td>
<td>4,837 vs 9,750</td>
<td>0.2% vs (4.2%)</td>
<td>3.2% vs 6.2%</td>
</tr>
<tr>
<td>Local major taxes</td>
<td>$154,044 vs $318,538</td>
<td>(0.5)% vs (5.2)%</td>
<td>2.0% vs 10.0%</td>
</tr>
<tr>
<td>Personal income tax</td>
<td>9,321 vs 23,478</td>
<td>(0.5)% vs (14.1)%</td>
<td>10.9% vs 14.7%</td>
</tr>
<tr>
<td>Corporate income tax</td>
<td>2,380 vs 6,316</td>
<td>23.5% vs (10.2)%</td>
<td>20.7% vs 20.7%</td>
</tr>
<tr>
<td>Sales tax</td>
<td>26,489 vs 53,292</td>
<td>6.0% vs 8.7%</td>
<td>8.5% vs 3.4%</td>
</tr>
<tr>
<td>Property tax</td>
<td>115,854 vs 235,452</td>
<td>(2.2)% vs (7.1)%</td>
<td>(0.6)% vs 10.0%</td>
</tr>
</tbody>
</table>

Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP).

Notes: Q = quarter; Y-O-Y = year-over-year. Data are adjusted for inflation.
Rapid recovery for state and local governments post pandemic

**FIGURE 1**
State Major Tax Revenues Fluctuated Wildly during the Pandemic

*Year-over-year inflation-adjusted change in state and local taxes from major sources*

- Recession
- State major taxes
- Local major taxes

**Source:** US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.

**Notes:** Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation. Data are for four major tax categories only: personal income, corporate income, general sales, and property.
State Tax Revenue exceeds GDP growth in many states

**FIGURE 6**

Growth Disparity: State Tax Revenues versus State GDP

*Year-over-year change in real state taxes and real GDP, 2021 quarter 3 versus 2020 quarter 3*

Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.

Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation. Red lines show US averages. Alaska and Wyoming are outliers and excluded from the figure.
ARPA bringing $1.9 trillion to the table

- $350 billion for state and local governments from Coronavirus State and Local Fiscal Recovery Funds (CSLFRF for supporting public health, replacing lost revenue, addressing economic harm to workers and small businesses, providing premium pay for essential workers and investing in water, sewer and broadband infrastructure.)

- In addition, the CSLFRF do not include other direct grant programs established in ARPA such as $126 billion for K-12 education, $40 billion for higher education as well as a host of other categories including transit, housing and rental relief, nutrition assistance, childcare and vaccine distribution. Also $500 million in infrastructure funds.

- Bottom line—huge influx of Federal dollars into the sector
FOMC projections for the economy

- Inflation dropping close to 2% target by 2024
- Real GDP growth edging down toward trend
- Unemployment rate flattening at low level in 2022
Source: Federal Open Market Committee of the Federal Reserve System
Updated path for the Federal Funds Rate from 2021 FOMC meeting and this year.
Summary

• The outlook is for the US economy to continue expanding at a pace somewhat above trend in 2022, with a smaller gain in 2023.

• Employment is expected to continue rising, while the unemployment rate will decline and flatten out at a low level.

• Inflation is forecast well above the Fed’s inflation target but should fall toward the 2% target and be close by 2024.

• Housing predicted to show slower improvement with rising rates.

• Logistical hurdles should clear up as the year progresses.

• Big influx of support for states and local governments.