

PMMTS

2021

PRECISION MACHINING TECHNOLOGY SHOW

PRESENTED BY:



CO-PRESENTED BY:

PRODUCTION
Machining

PF PRODUCTS
FINISHING

Modern
Machine
Shop

PMTS
2021

HUNTINGTON CONVENTION CENTER
AUGUST 10-12, 2021
CLEVELAND, OHIO

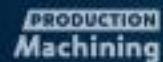
Using Data to Move Forward in Unprecedented Times

Michael Guckes – Gardner Intelligence

PRESENTED BY:



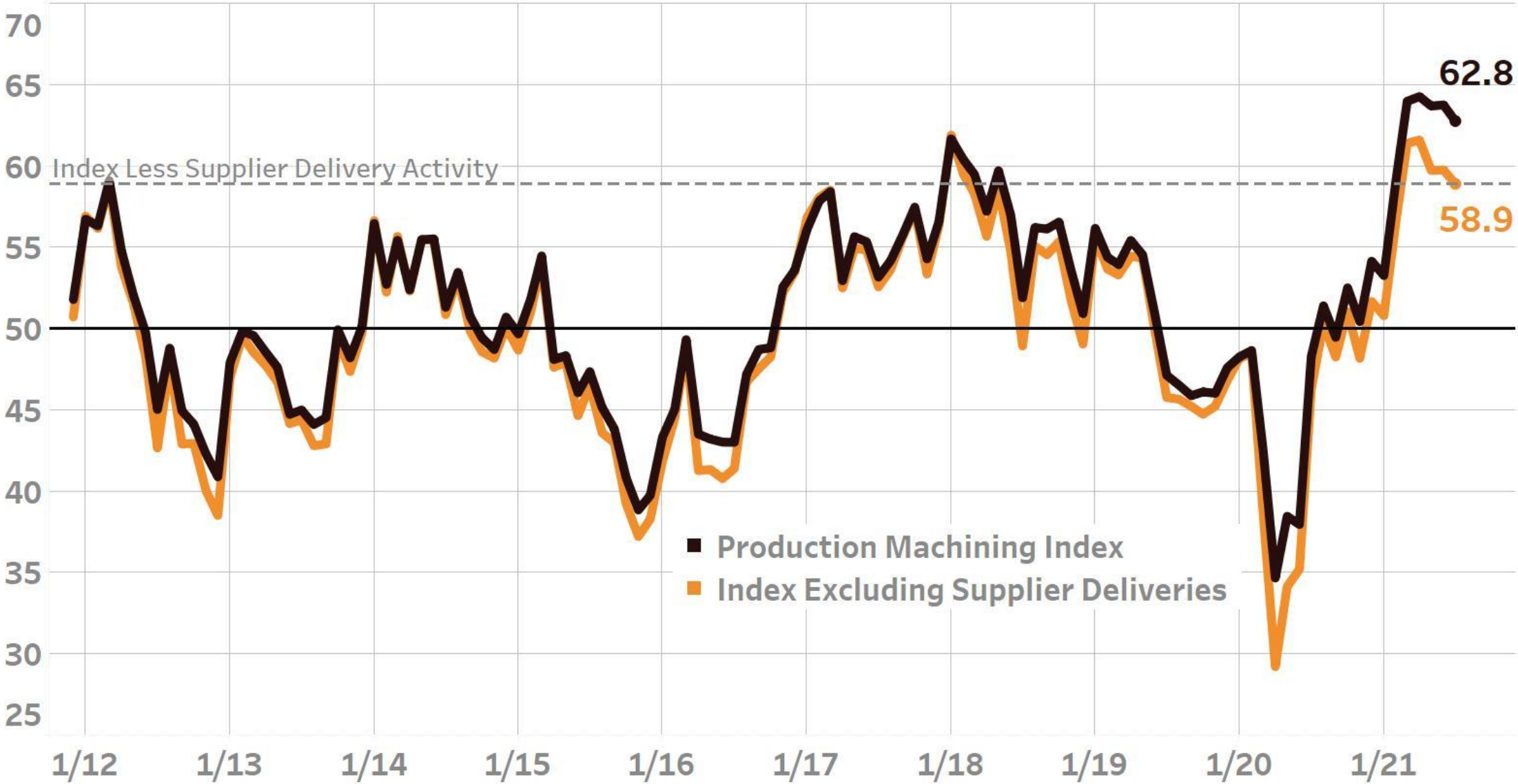
CO-PRESENTED BY:



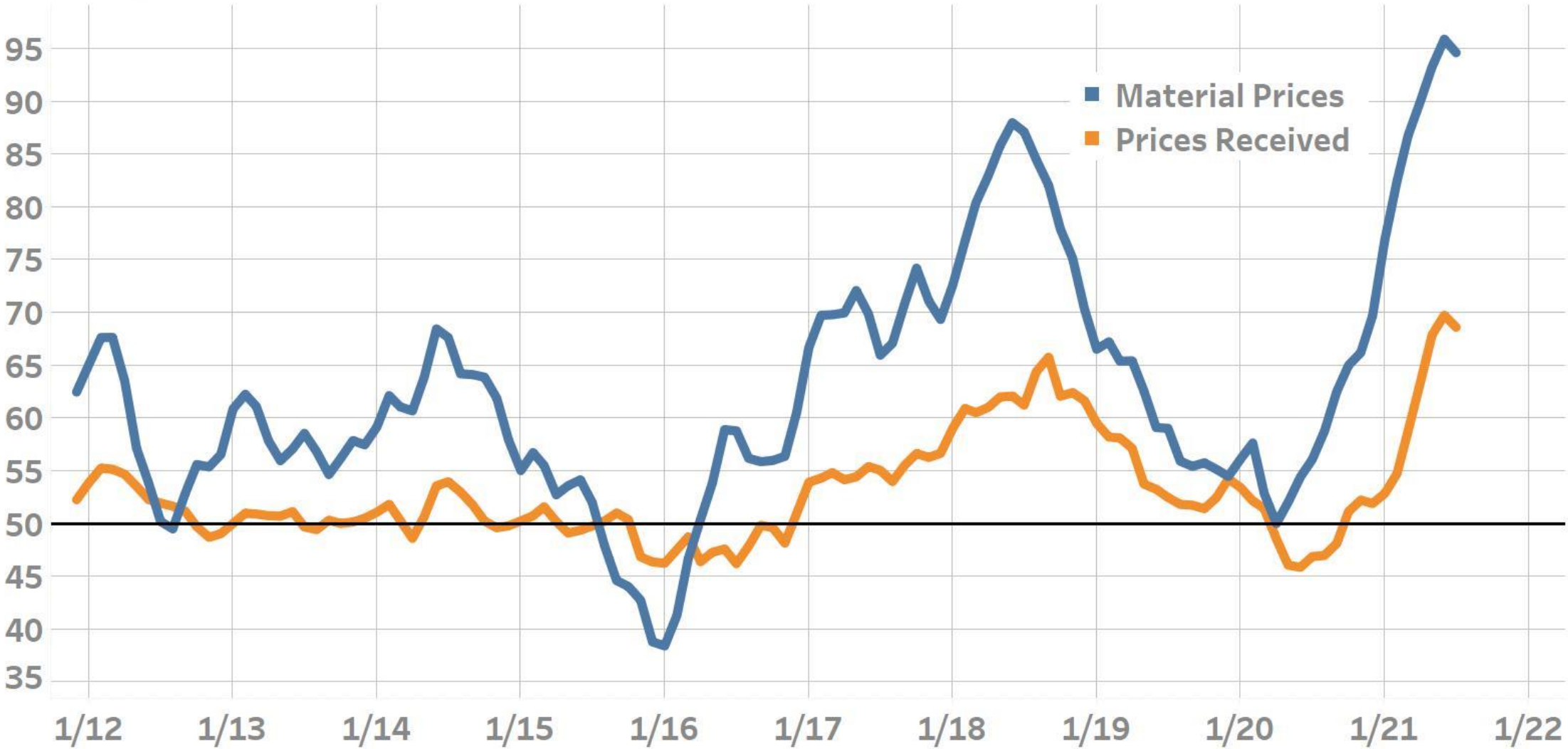
Production Machining Index



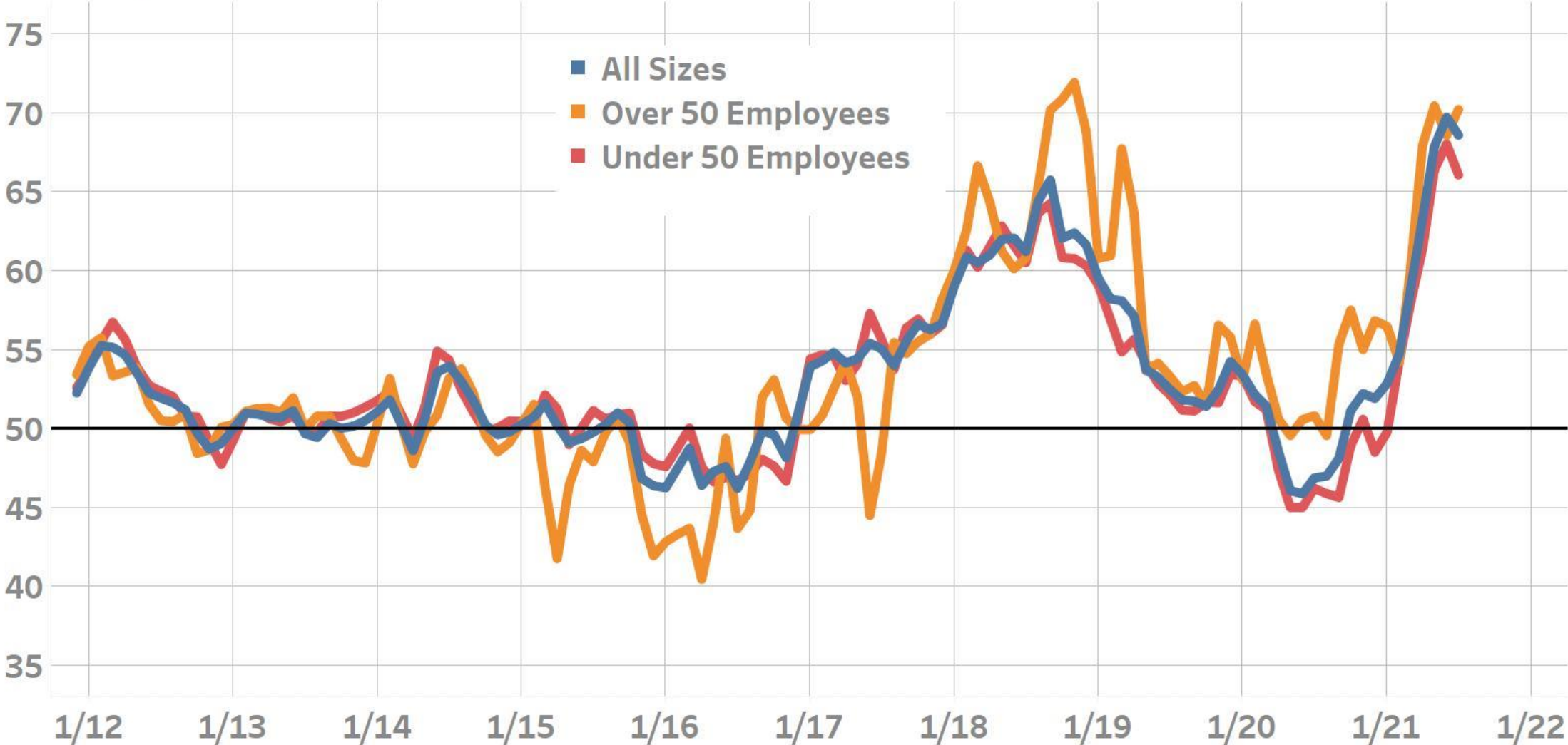
Production Machining Index



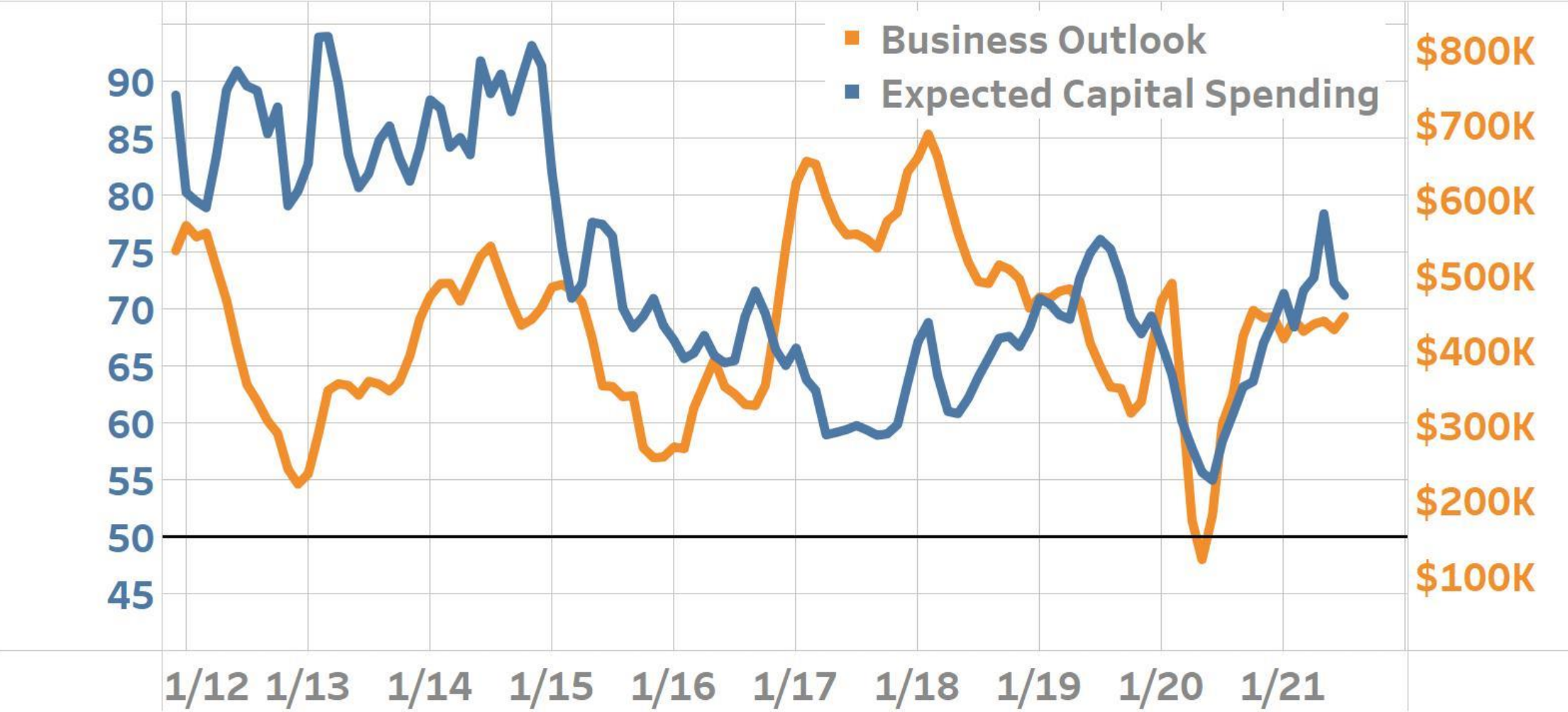
PM: Material Prices & Prices Received (2-MMA)



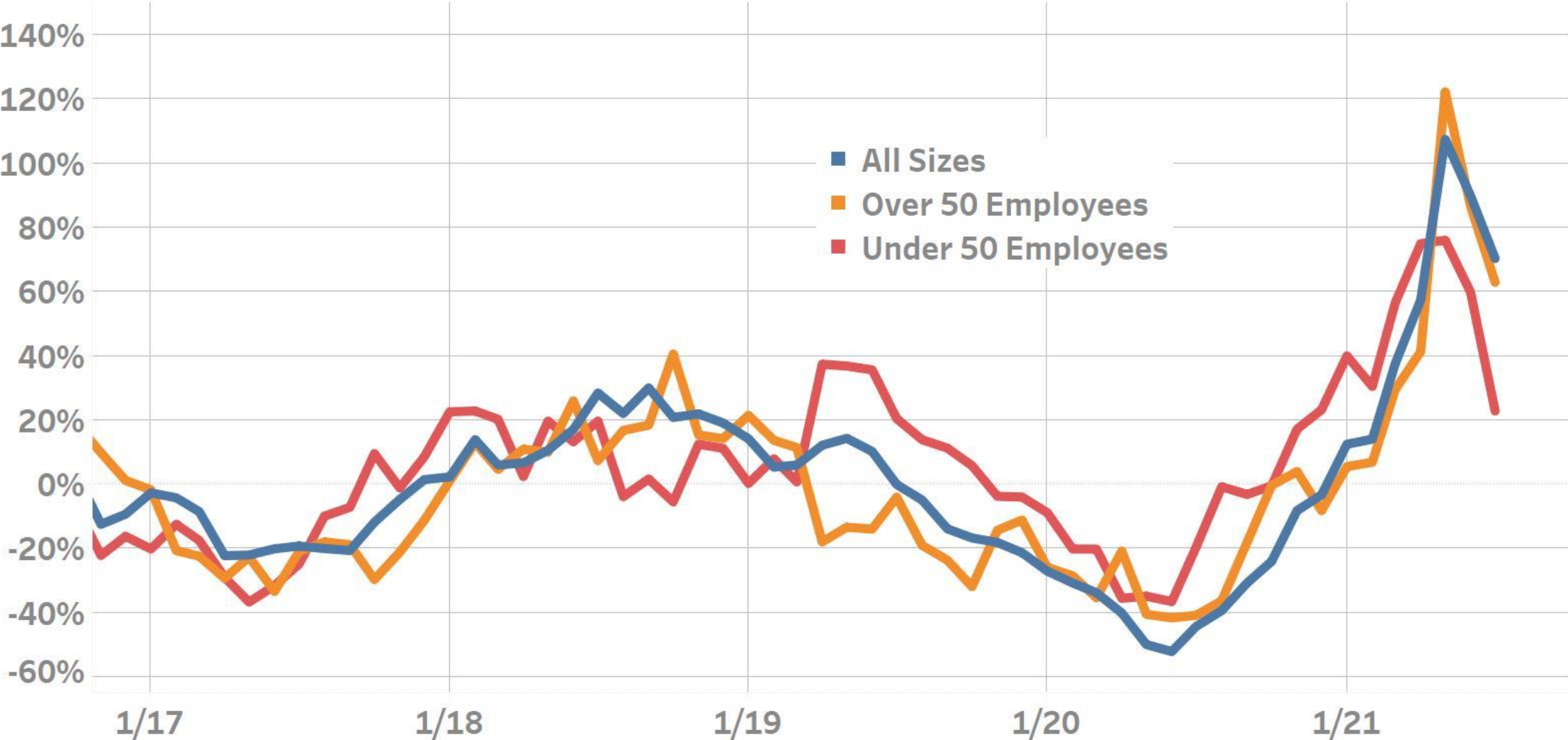
PM: Prices Received - By Co. Size (2-MMA)



PM: Business Outlook and Expected Capital Spending (3-MMA)



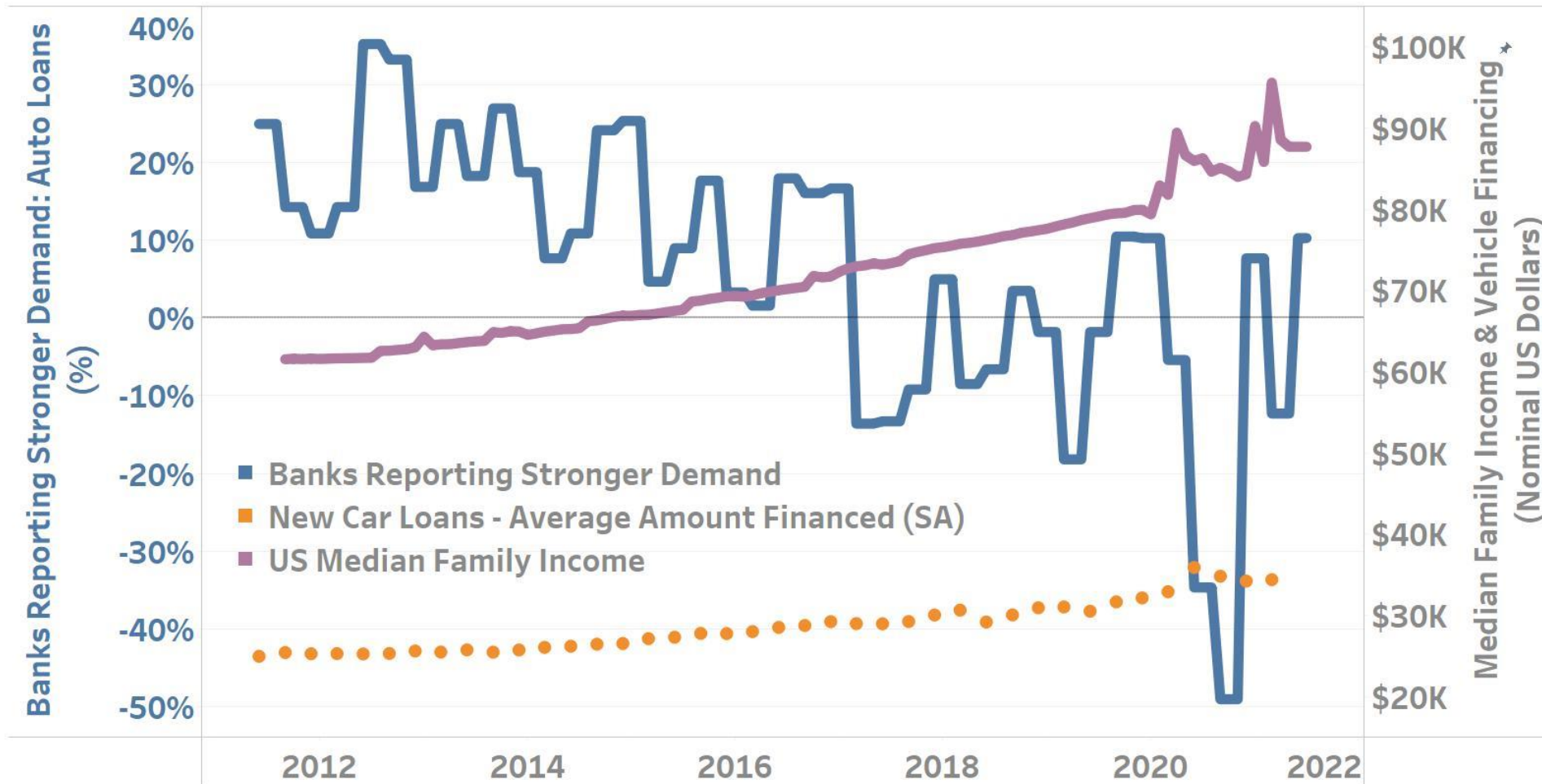
Metals: Expected Capital Spending in Next 12-Months (3/12 Rate of Change)



Automotive Outlook

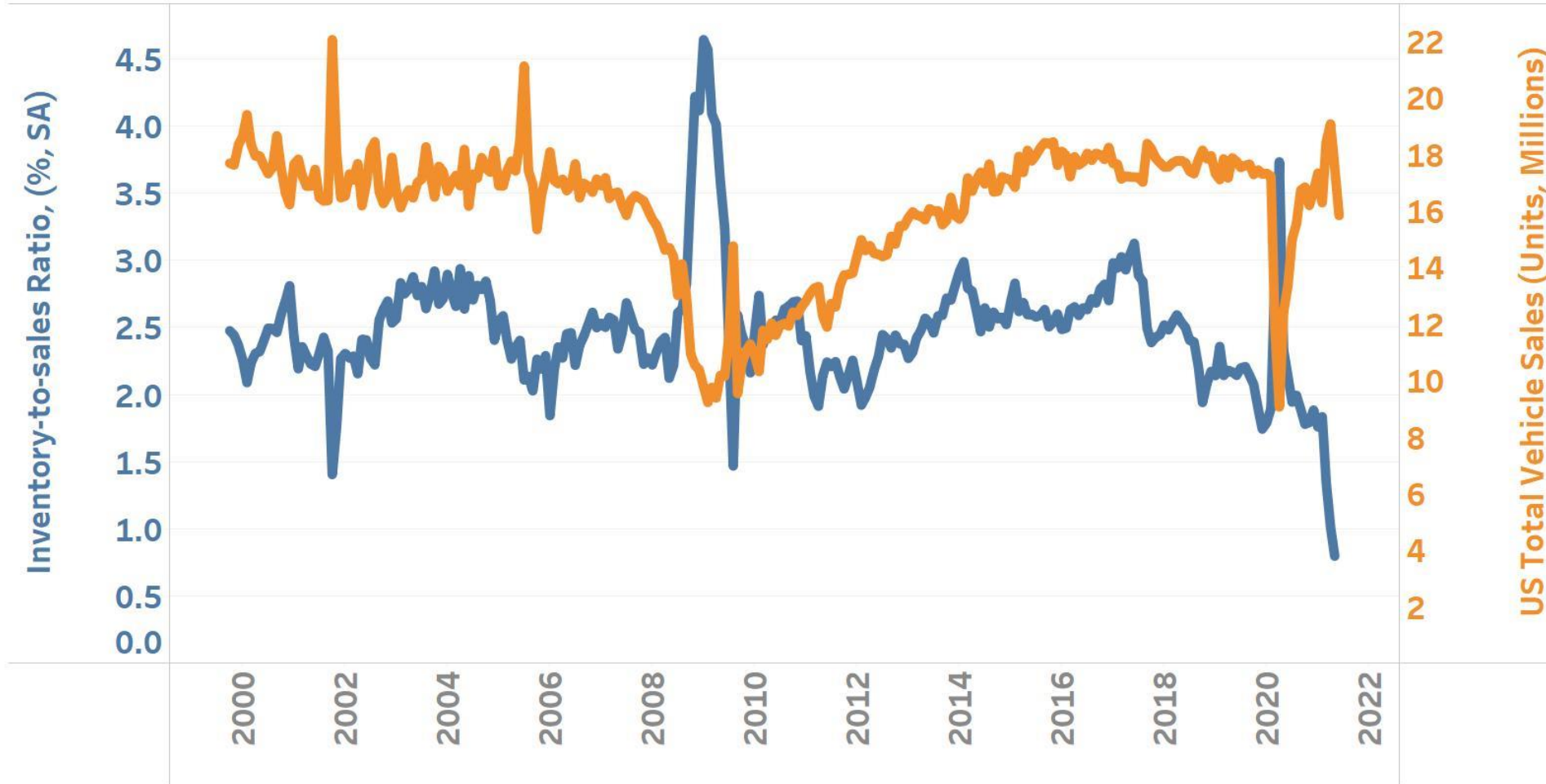
Demand Remains Very Strong

Automotive Demand & Median Income



Normalization May Take a While...

New Vehicles - Inventory : Sales and Unit Sales



Normalization May Take a While...

- **How long until chips are produced at volume?**

- Forrester: **2023** (Forrester 4/21/2021)
- Infineon CEO: sometime in **2023** (CNBC 5/12/2021)
- TSMC said that it would take **7-8 months** for them to work through the auto supply chain (Reuters 5/3/2021)
- Intel CEO Pat Gelsinger: "While I expect the [chip] shortages to bottom out in the second half, it will take another **one to two years** before the industry is able to completely catch up with demand."
- TSMC states it is on-track to increase microcontrollers in automobiles by 60% over LY. Expects chip shortage in auto to abate in 2H21. The broader shortage will last **into 2022** (WSJ, 7/15/2021)

USMCA

- **Content rule creates manufacturing and assembly opportunities in N.A.**
- **\$16/hr. Minimum wage requirements will reduce the wage gap between nations (40%-45% content constrained).**
- **Lesser-known benefits*:**
 - Better IP protection for U.S. manufacturing & Trade Secret Theft
 - Prohibition on local data storage
 - Improve the financial “playing field” for investors and investments

*<https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement/fact-sheets/modernizing>

Defense Outlook

Changing Challenges

Naval Assets Construction

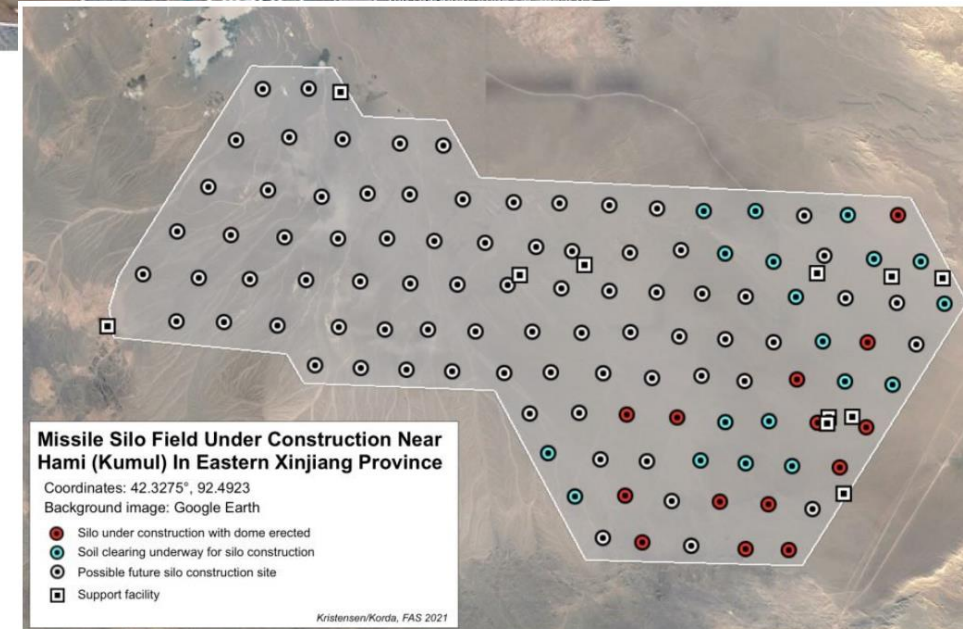
- “China’s overall battle force is 350 ships and subs and over 130 major surface combatants”*
- The U.S. fleet needs to grow more “distributed”
- Navy, Marines, Coast Guard joint strategy to work more closely together

Missiles


- **250 New ICBM Silos being built across multiple sites in China**.** Supporting its 20 existing silos
- New builds alone exceed Russia’s active total ICBM silo count*.
- China has no nuclear arms restrictions (NPT) and no obligations to reveal its platforms

*2020 China Military Power Report, DOD, published August 2020

**Data from Federation of American Scientists and International Institute for Strategic Studies



The Hami missile silo field covers an area of about 800 square kilometers and is in the early phases of construction.

A man in a blue shirt and grey pants is leaning over a red fire hydrant. A large plume of white smoke or steam is coming out of the hydrant, partially obscuring the man. The scene is outdoors on a paved surface.

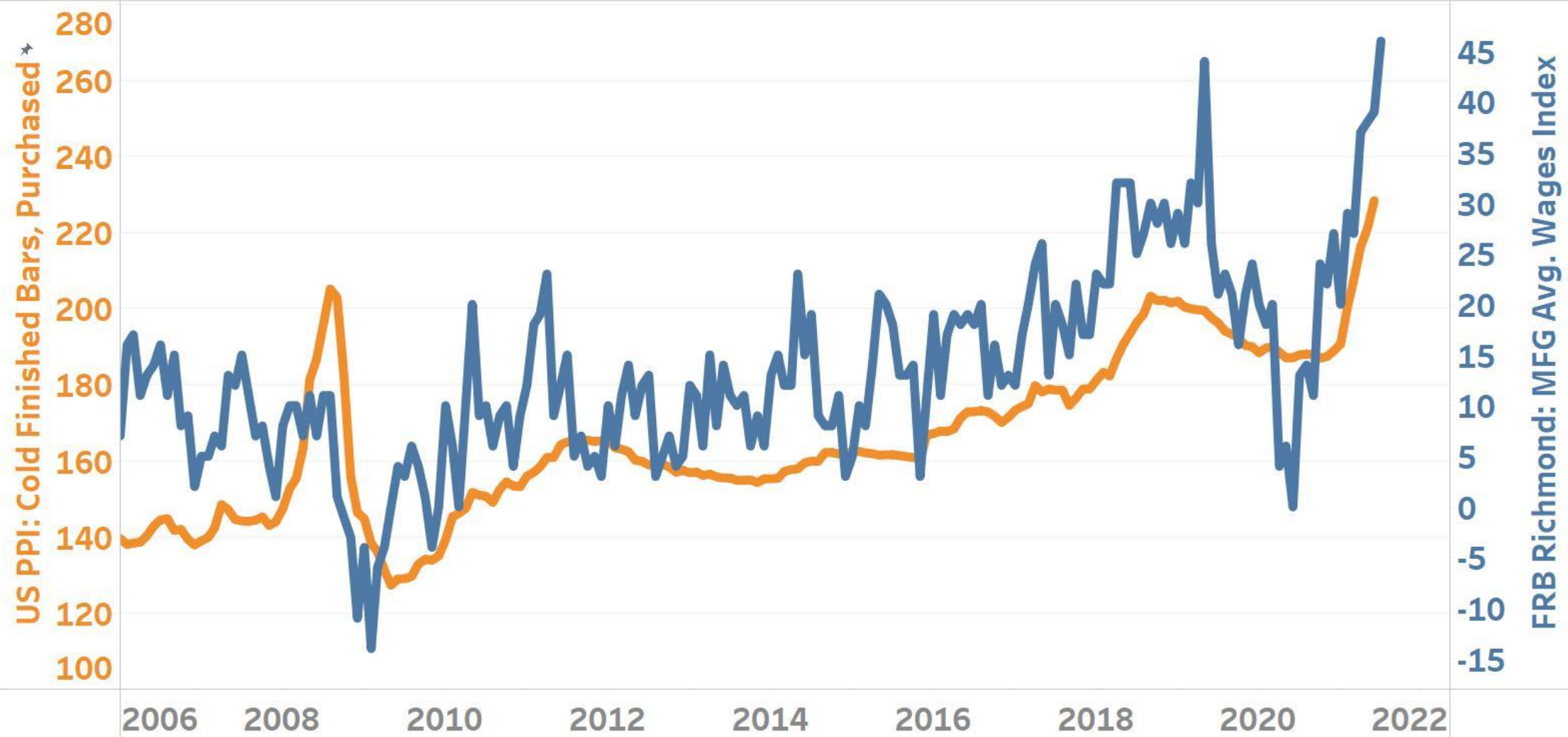
Macroeconomic Highlights (Just a Few)

Q2 Domestic Numbers:

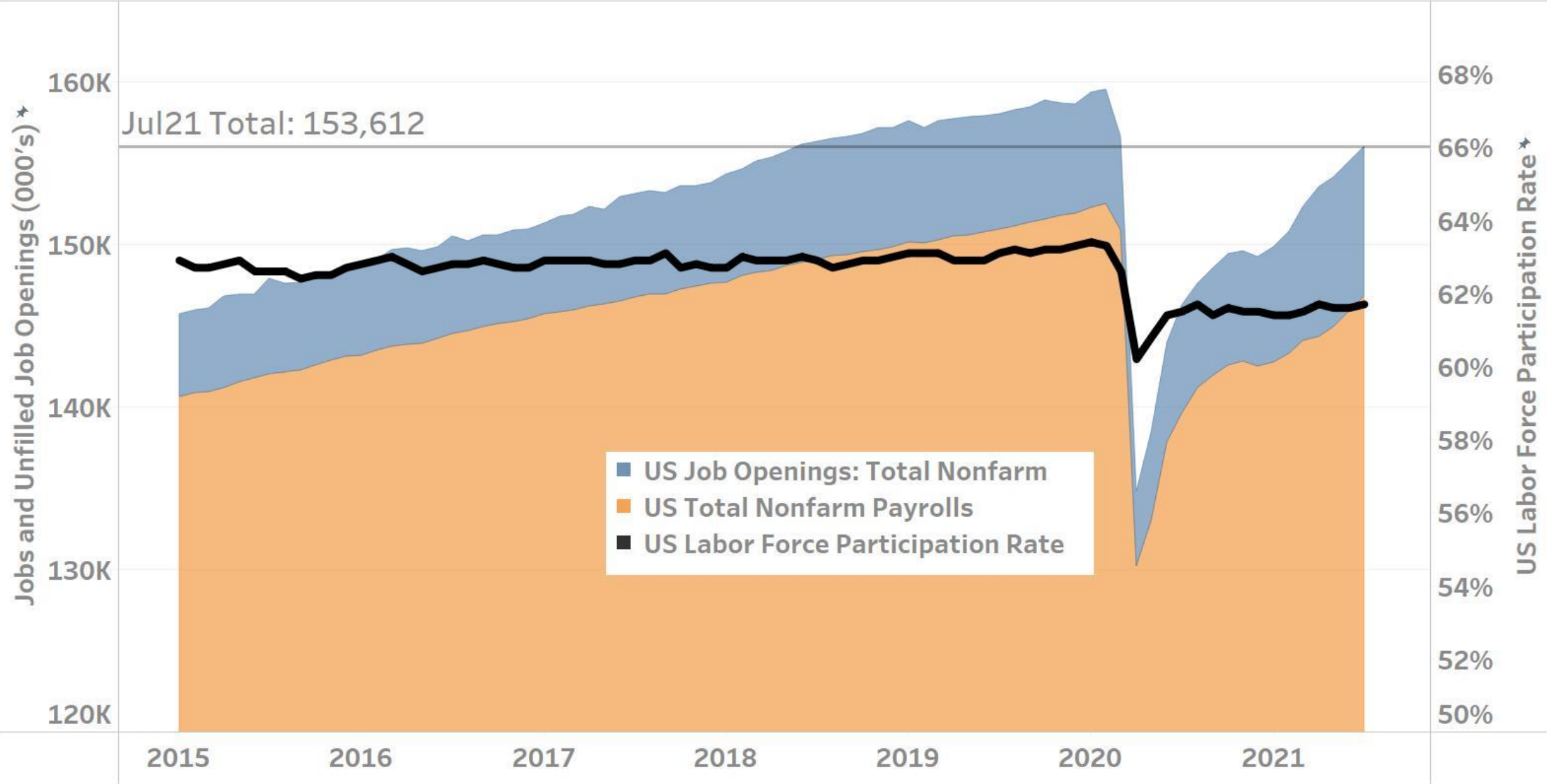
- **U.S. GDP +6.5% in 2Q21**
- **Demand: Consumer Spending +11.8%**
- **Supply: Manufacturing Capacity Utilization 75.5%**
 - 3% below 2018 levels at comparable business cycle time.
- **June U.S. Manufacturing New Orders @ \$505B, above 2018 highs. Unfilled orders at \$106B, highest since 2014.**
- **Inflation remains high: 5.4%**

Manufacturing Costs Reflect Strong Demand

(PPI: June 1982 = 100, Wage Index: % Incr. - % Decr.)



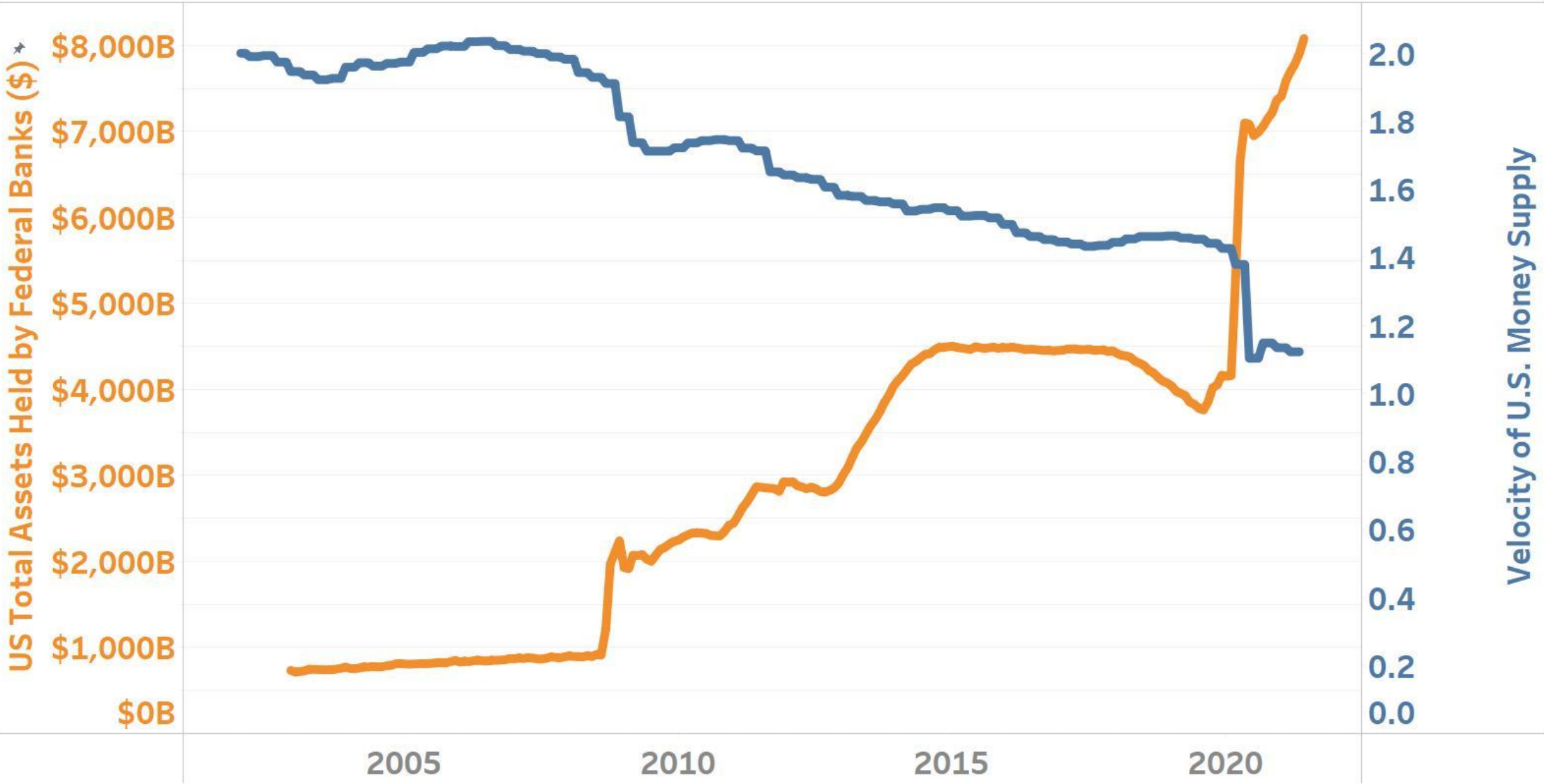
U.S. Unfilled Jobs at Record Levels



Inflation Rate Crosses Above BBB Corporate Rate



Federal Asset Balance Sheet (Millions \$) and Money Velocity



Boiling Down the Economy:

Positives

- **Asset Prices**
(stocks, bonds, real estate)
- **Jobs Picture**
- **Disposable Income**
- **Household Savings**
- **Corporate Borrowing Costs**

Concerns

- **Inflation**
- **COVID Variants**
- **Unwinding of Moratoriums & Forbearance policies**
- **Bullwhip Effect**

Be Your Own Economist!

Free Resources for Tracking the Essentials After You Leave:

- Home Prices: <https://fred.stlouisfed.org/series/USSTHPI>
- Unfilled Jobs: <https://fred.stlouisfed.org/series/LMJVTTUVUSQ647S>
- Corporate Borrowing: <https://fred.stlouisfed.org/series/DBAA>
- Disposable Income: <https://fred.stlouisfed.org/series/DSPIC96>
- Inflation: <https://fred.stlouisfed.org/series/CPIAUCSL#0>

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