



# ISRI 2022 Economic and Recycling Industry Outlook

ISRI Webinar Series, January 20, 2022.

Bret Biggers, ISRI Senior Economist

Joe Pickard, ISRI Chief Economist and Director of Commodities

# Inflationary Pressure for Recyclable Materials

## Recycling Industry Producer Price Percent Changes

	% Change from preceding month (NSA)						% change from Dec 2020 (NSA)
	Dec-21	Nov-21	Oct-21	Sep-21	Aug-21	Jul-21	Dec-21
<b>Final Demand*</b>	<b>0.2</b>	<b>1.0</b>	<b>0.6</b>	<b>0.4</b>	<b>0.9</b>	<b>0.9</b>	<b>9.8</b>
<i>Commodities</i>							
<b>Aluminum base*</b>	<b>-1.1</b>	<b>1.1</b>	<b>0.8</b>	<b>-0.6</b>	<b>6.0</b>	<b>1.1</b>	<b>52.0</b>
<b>Copper base</b>	<b>-0.6</b>	<b>0.2</b>	<b>2.9</b>	<b>-0.2</b>	<b>-0.3</b>	<b>-0.8</b>	<b>24.5</b>
<b>Iron and Steel</b>	<b>-2.7</b>	<b>9.6</b>	<b>-0.4</b>	<b>-4.5</b>	<b>-1.7</b>	<b>2.0</b>	<b>37.6</b>
<b>Nonferrous*</b>	<b>-5.0</b>	<b>0.0</b>	<b>0.9</b>	<b>-7.0</b>	<b>-1.0</b>	<b>0.4</b>	<b>13.2</b>
<b>Recyclable plastics</b>	<b>0.0</b>	<b>1.4</b>	<b>0.0</b>	<b>6.9</b>	<b>1.8</b>	<b>-3.0</b>	<b>38.7</b>
<b>Recyclable paper</b>	<b>7.2</b>	<b>-2.0</b>	<b>6.3</b>	<b>4.8</b>	<b>14.2</b>	<b>13.0</b>	<b>85.1</b>
<i>Wholesaling of:</i>							
<b>Metals, minerals, and ores</b>	<b>0.7</b>	<b>-7.0</b>	<b>-4.5</b>	<b>-0.6</b>	<b>1.5</b>	<b>6.9</b>	<b>34.2</b>
<b>Chemicals and allied products</b>	<b>2.1</b>	<b>-2.5</b>	<b>0.6</b>	<b>-3.1</b>	<b>7.9</b>	<b>-1.3</b>	<b>2.1</b>
<b>Paper and plastics products</b>	<b>-0.1</b>	<b>3.2</b>	<b>1.6</b>	<b>3.4</b>	<b>-0.9</b>	<b>1.6</b>	<b>20.2</b>

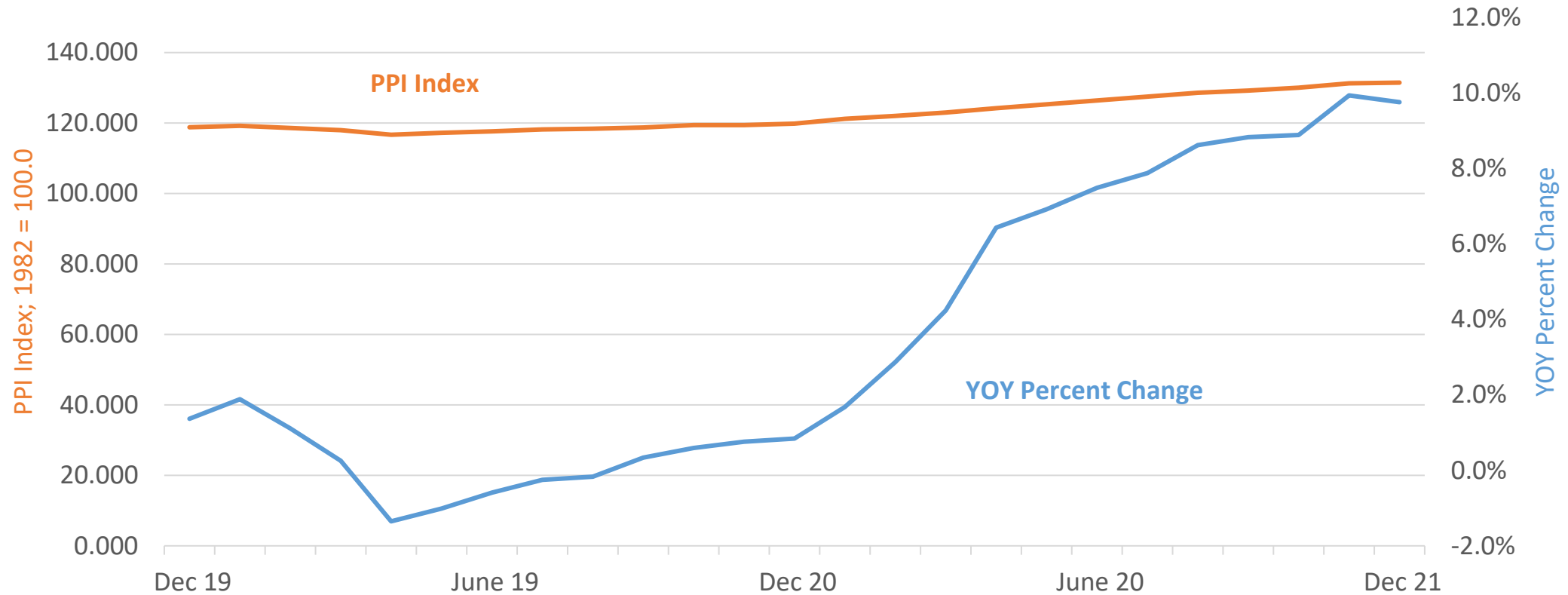
Note: Data includes revisions.

\* monthly data for these series are seasonally adjusted

Source: Bureau of Labor Statistics

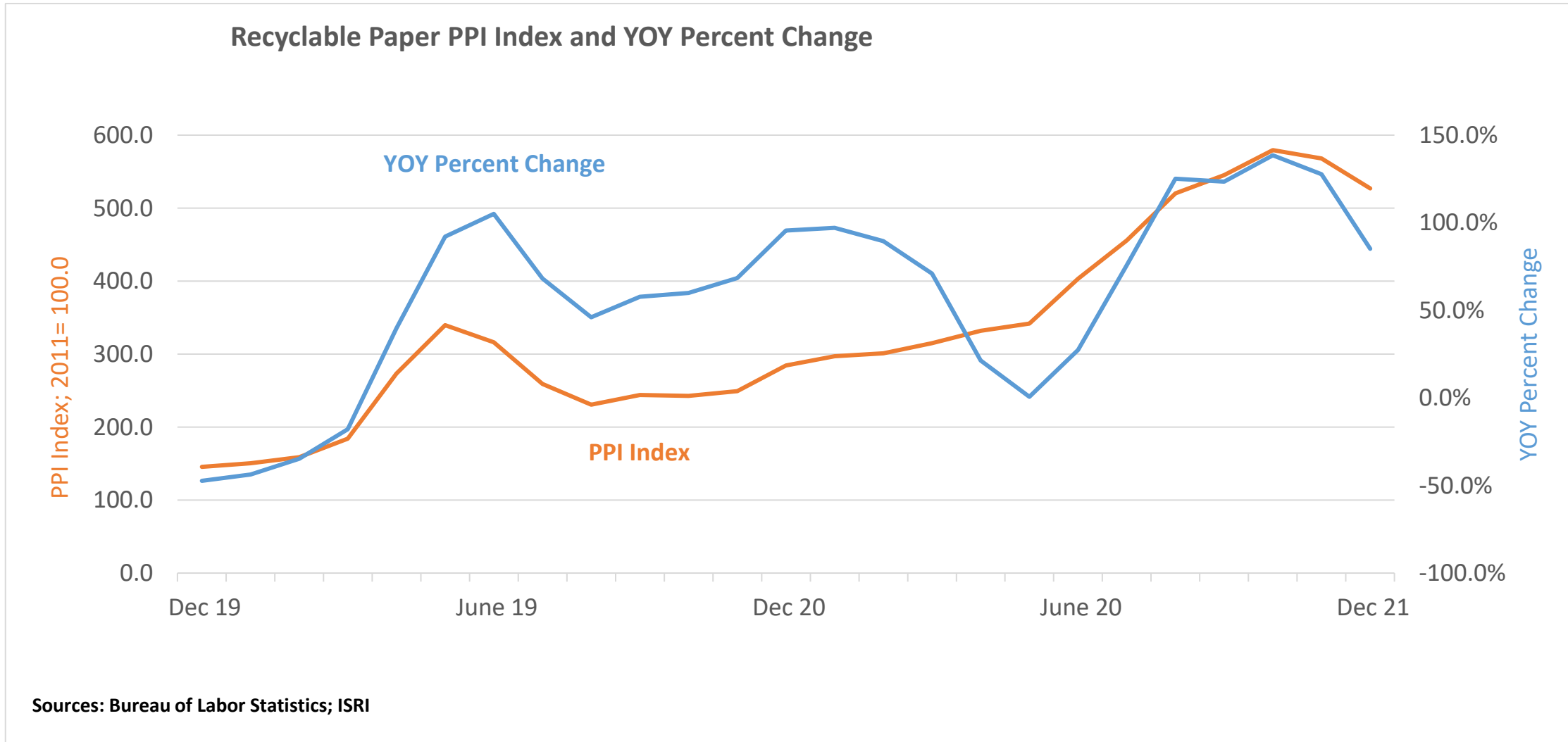
# PPI Final Demand All-Time Index High Oct 21

Final Demand PPI Index and YOY Percent Change

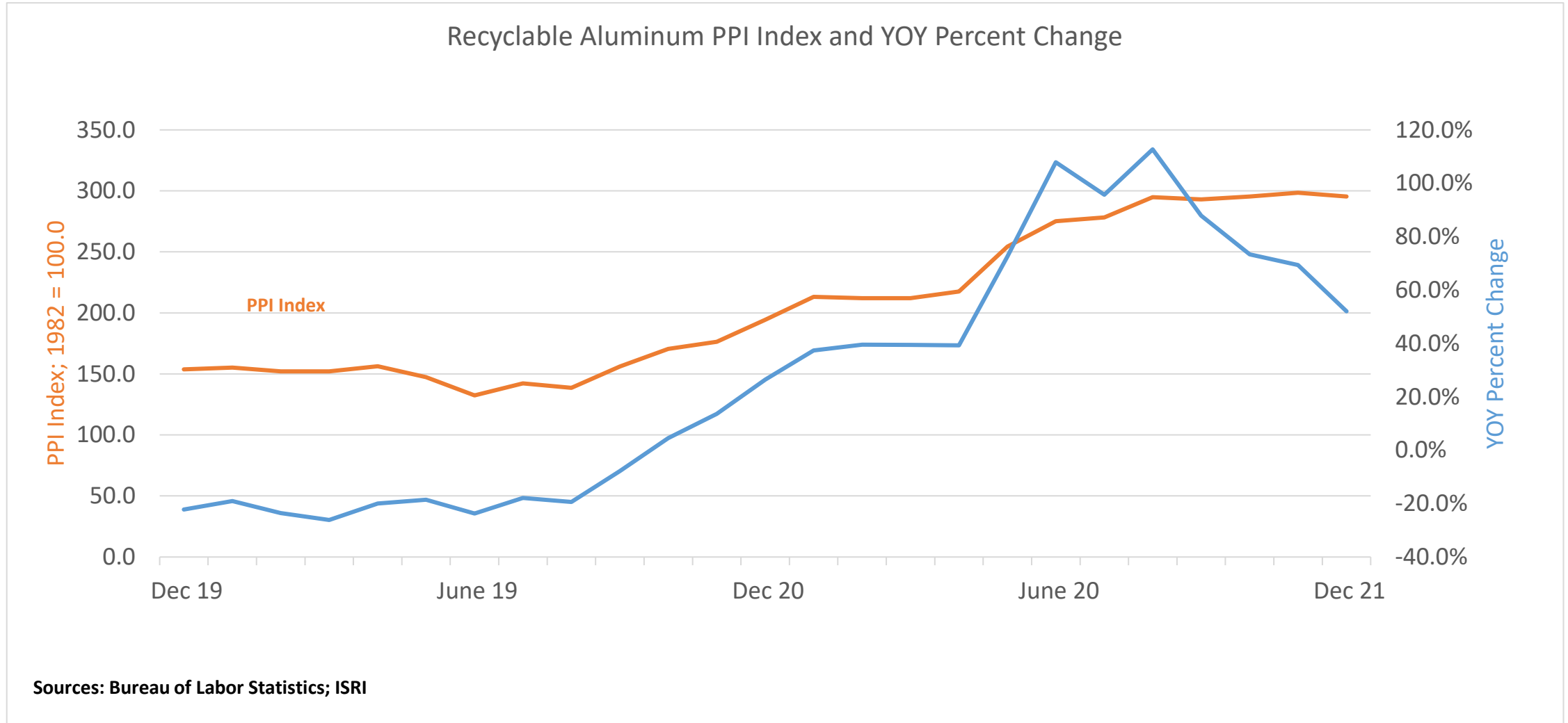


Sources: Bureau of Labor Statistics; ISRI

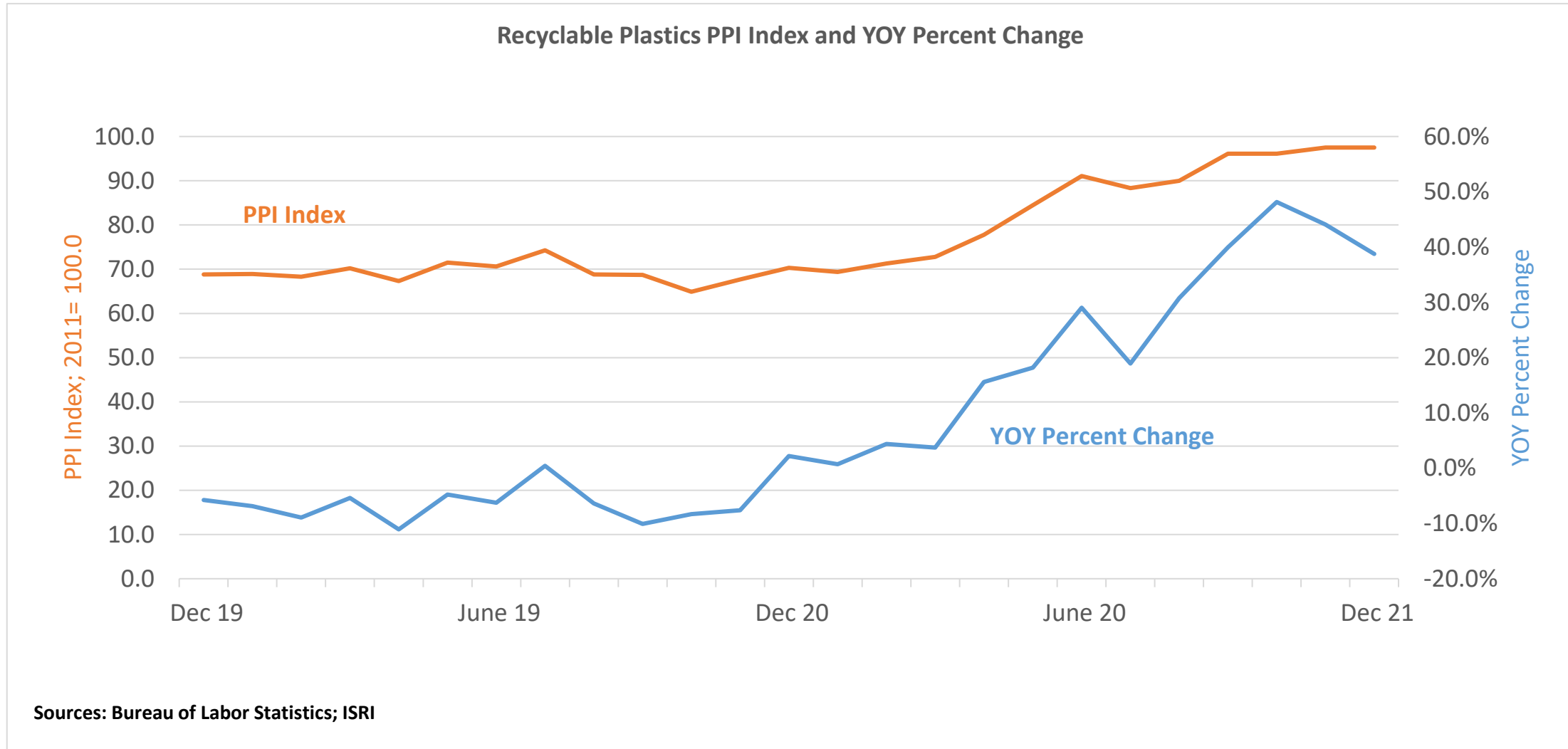
# Recyclable Paper All-Time Index High Oct 21



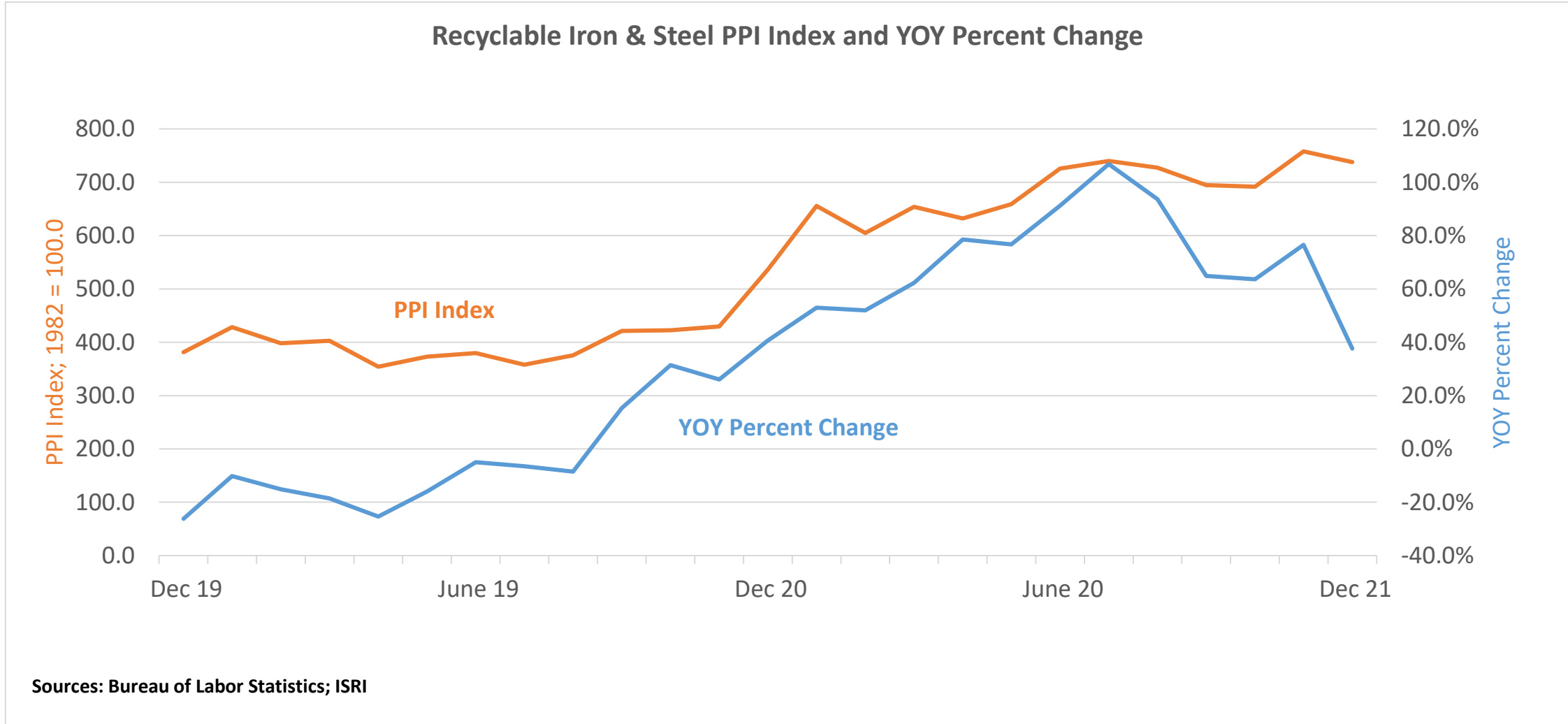
# Recyclable Aluminum Fourth Highest YOY



# Recyclable Plastic All-Time Index High Oct 21

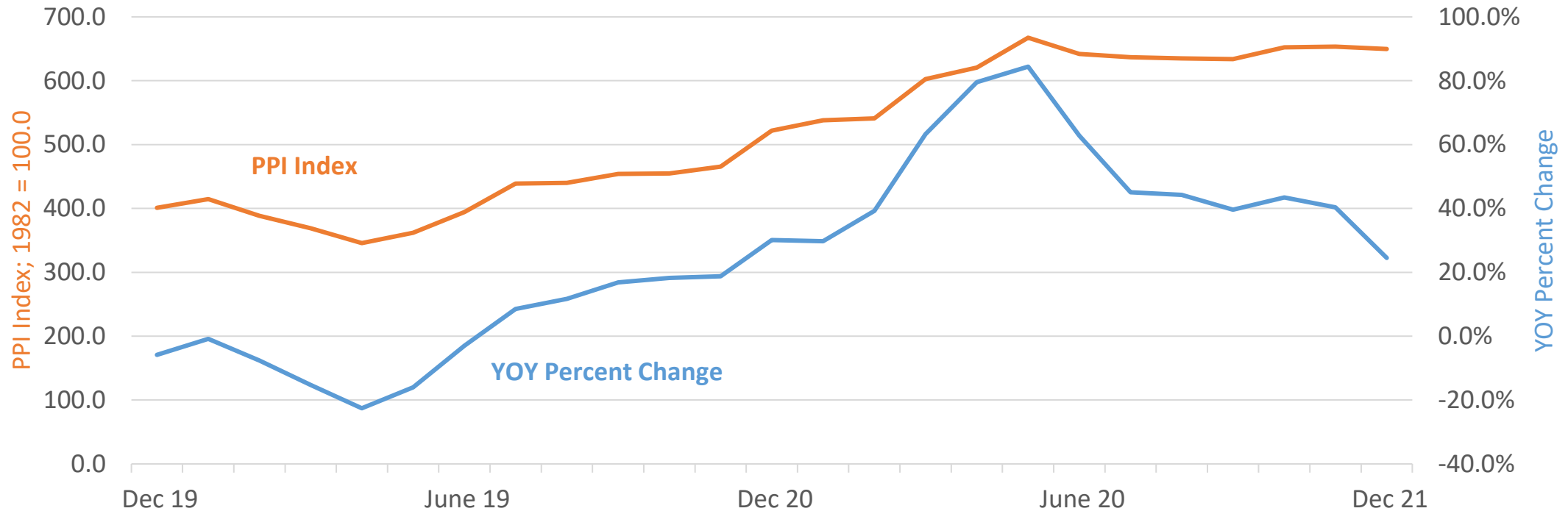


# Recyclable Iron & Steel Peaked July 21



# Recyclable Copper Peaked May 21

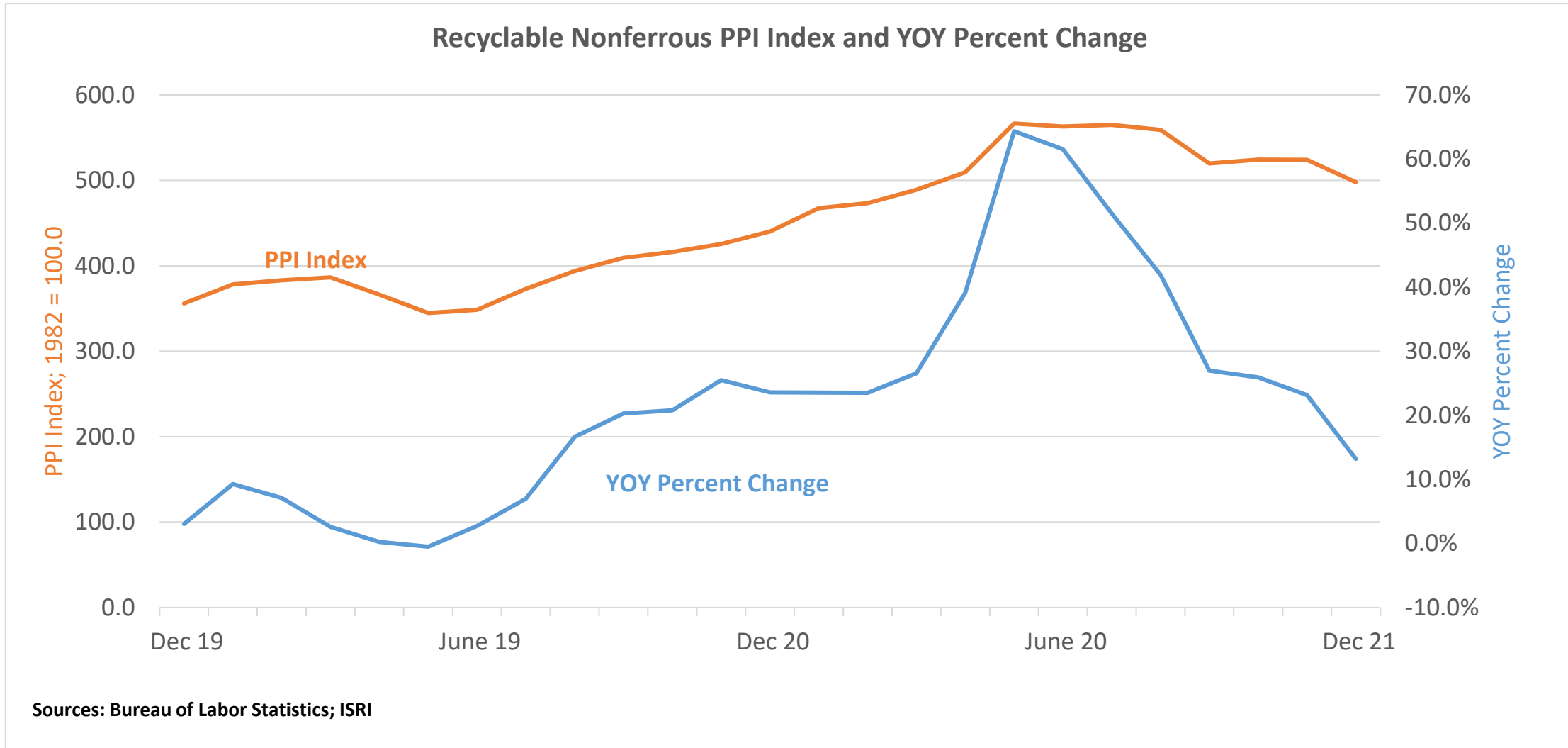
Recyclable Copper PPI Index and YOY Percent Change



Sources: Bureau of Labor Statistics; ISRI



# Recyclable Nonferrous 2021 Record Year



# U.S. Industrial Production and ISRI Index

ISRI Index and U.S. Industrial Production: Jan 2007 - Dec 2021,  
Not Seasonally Adjusted  
(Jan 1998 = 100)



## Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, December 2021



Source: FOMC

Source: FOMC

# Federal Reserve Board Economic Projections

## Federal Reserve Board's Economic Projections, December 2021

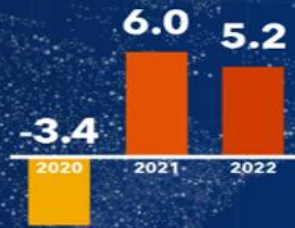
	2021	2022	2023	2024	Longer Run
<b>Change in real GDP</b>	5.5	4.0	2.2	2.0	1.8
September projection	5.9	3.8	2.5	2.0	1.8
<b>Unemployment Rate</b>	4.3	3.5	3.5	3.5	4.0
September projection	4.8	3.8	3.5	3.5	4.0
<b>PCE Inflation</b>	5.3	2.6	2.3	2.1	2.0
September projection	4.2	2.2	2.2	2.1	2.0
<b>Core PCE inflation</b>	4.4	2.7	2.3	2.1	
September projection	3.7	2.3	2.2	2.1	
<b>Federal Funds Rate</b>	0.1	0.9	1.6	2.0	2.5
September projection	0.1	0.3	1.0	1.8	2.5

## WORLD ECONOMIC OUTLOOK OCTOBER 2021 GROWTH PROJECTIONS BY REGION

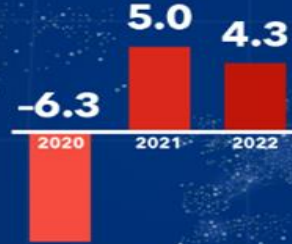
(PERCENT CHANGE)



**UNITED STATES**



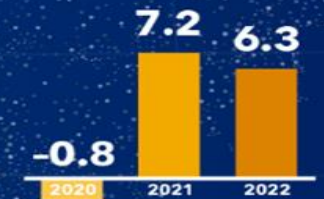
**EURO AREA**



**MIDDLE EAST AND CENTRAL ASIA**



**EMERGING AND DEVELOPING ASIA**



**LATIN AMERICA AND THE CARIBBEAN**

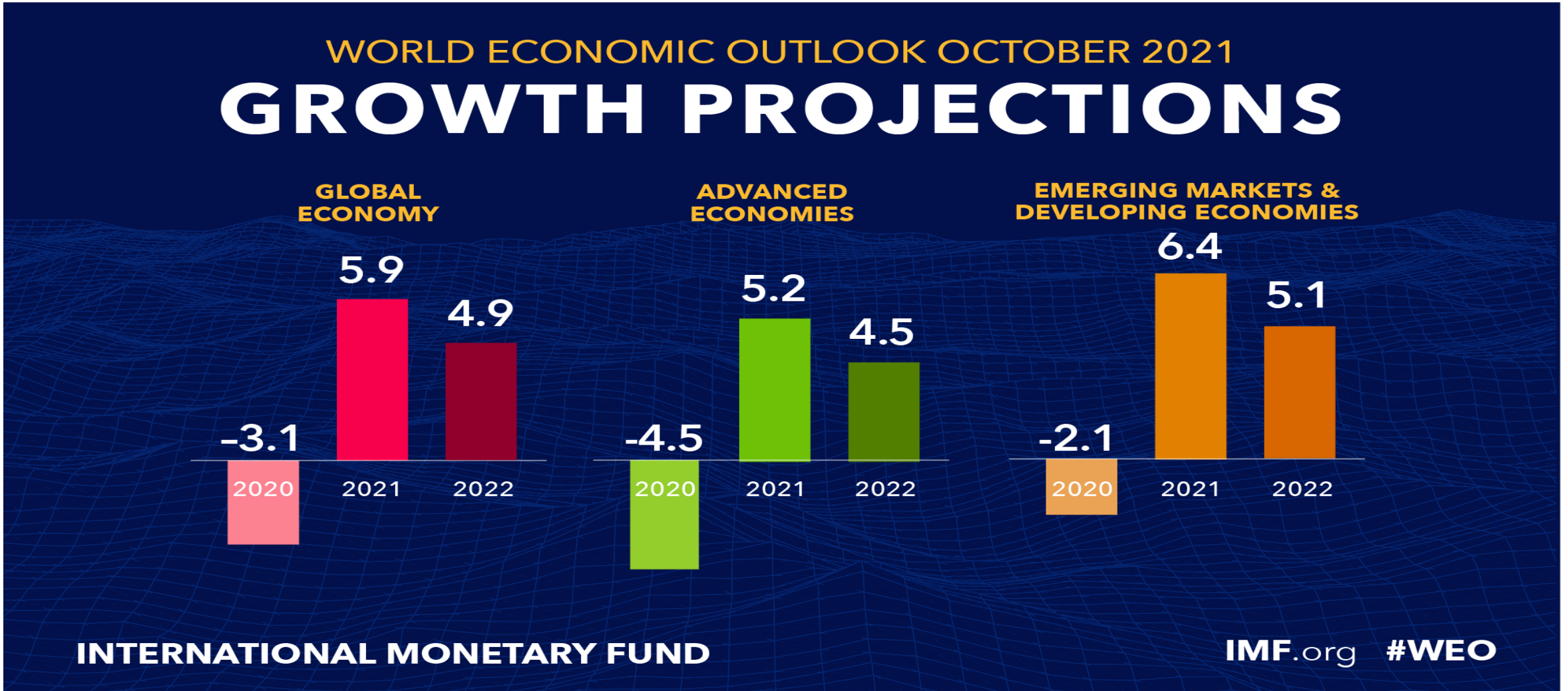


**SUB-SAHARAN AFRICA**



Source: IMF, *World Economic Outlook*, October 2021.

Note: Order of bars for each group indicates (left to right): 2020, 2021 projections, and 2022 projections.



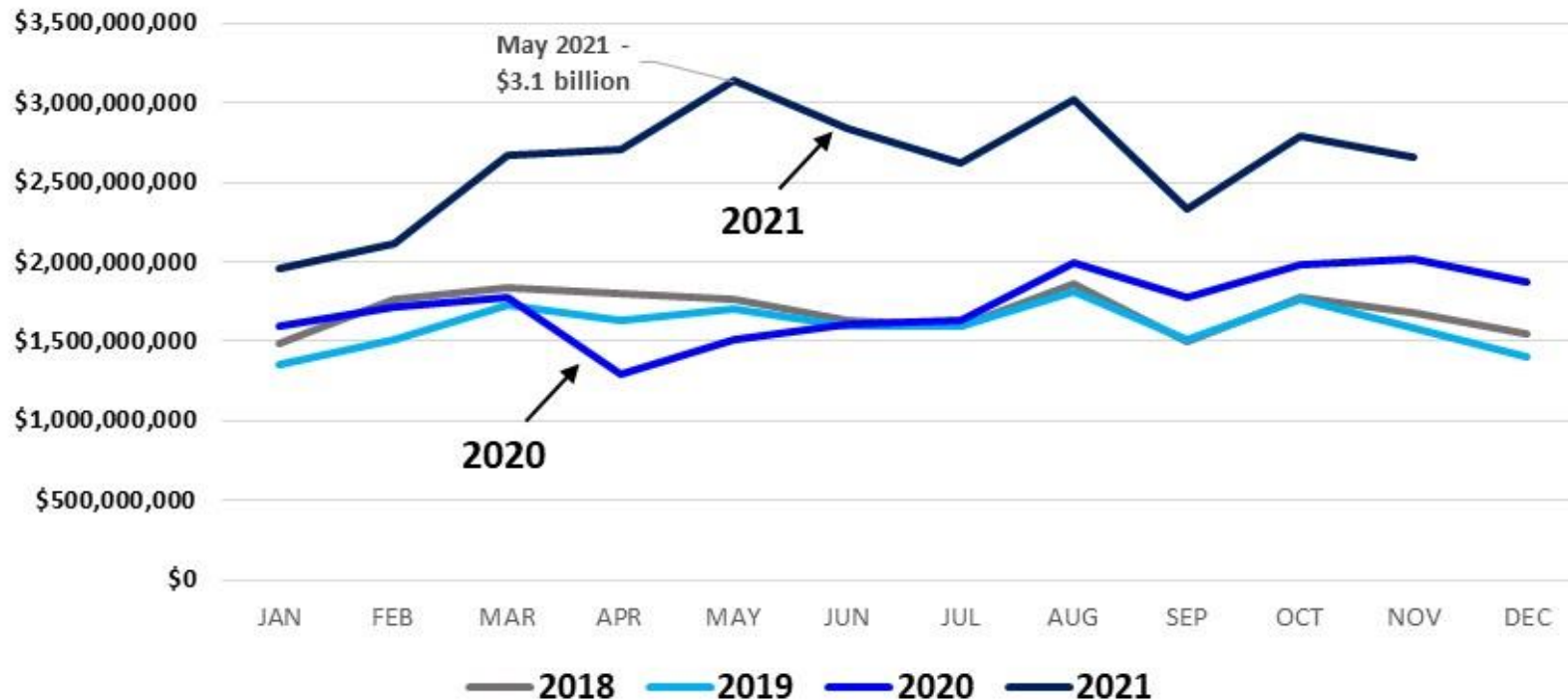
Source: IMF World Economic Outlook, October 2021.

# Recycling Industry Outlook: Global Demand

- Positive global economic growth, elevated primary commodity prices, and the increased focus on sustainability, the green economy and decarbonization initiatives are key to demand for recyclables: global growth is growing.

**Monthly U.S. Exports of All Recycled Commodities, FAS Value (\$),  
2018-YTD 2021**

Sources: Census Bureau/U.S. International Trade Commission, ISRI.

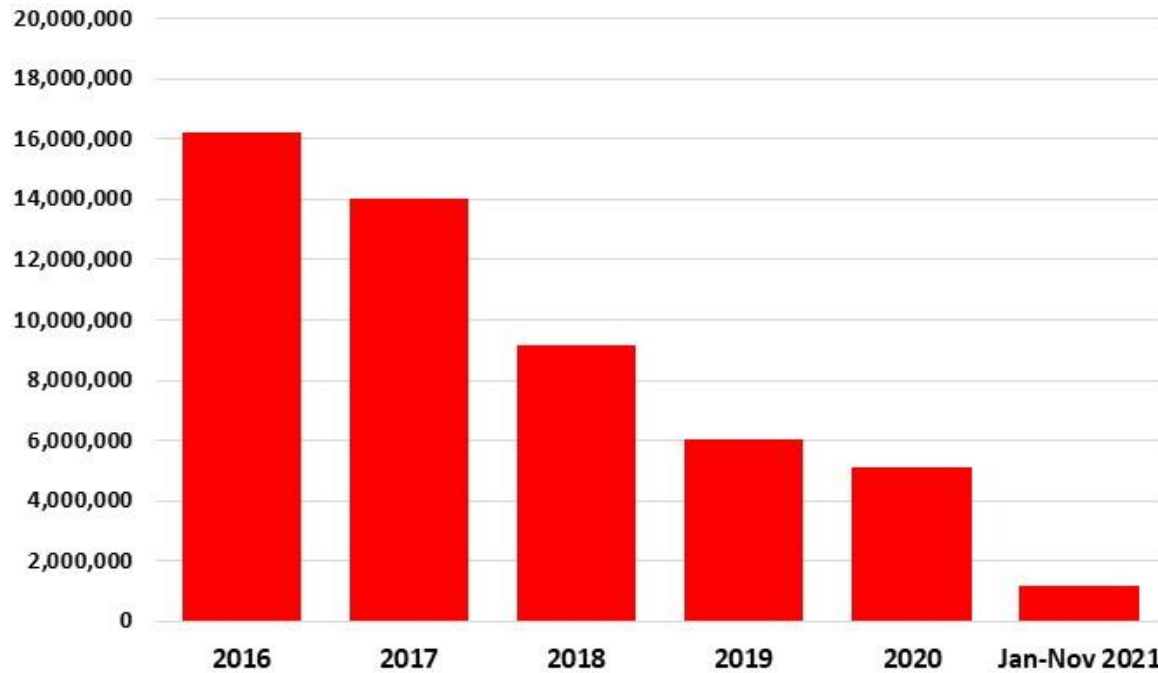


The latest trade data from the U.S. Commerce Department show U.S. exports of all recycled commodities (including ferrous and nonferrous metals, paper, plastics, textiles, rubber, glass, etc.) during Jan-Nov 2021 **increased 10% year-on-year by quantity to 35.6 million metric tons and surged 53% higher in dollar terms to \$28.8 billion.**

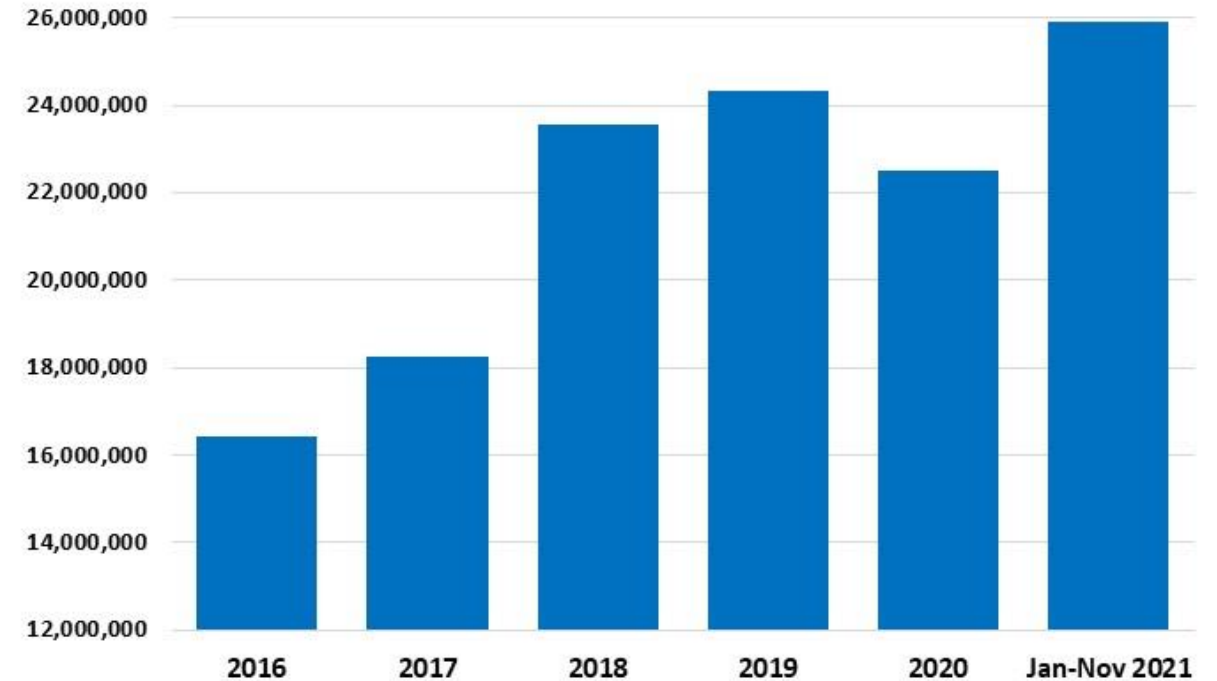
# Global Demand (cont.)

- While trade restrictions will continue to impact the global flow of commodities, recycled commodities will find a home.

**U.S. Exports of All Recycled Commodities to CHINA,  
2016-YTD 2021**  
Metric tons



**U.S. Exports of All Recycled Commodities to TOP 10  
DESTINATIONS\*, 2016-YTD 2021**  
Metric tons



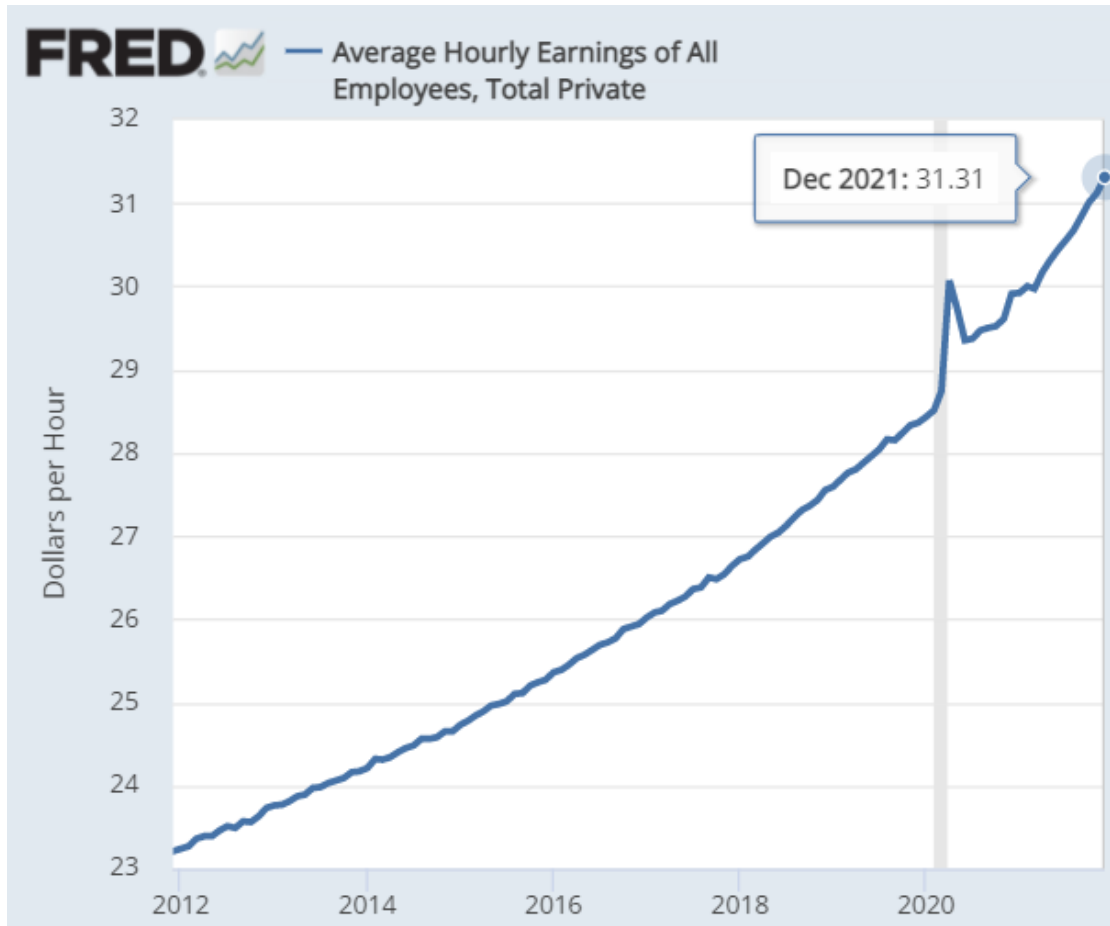
\*Top 10 destinations for U.S. recycled commodities in 2021 (by quantity): Mexico, India, Turkey, Vietnam, Taiwan, Canada, Thailand, South Korea, and Bangladesh.

Sources: Census Bureau/U.S. International Trade Commission; ISRI.



# Recycling Industry Outlook: Costs Rising

- Higher regulatory, labor, and input costs (Goldman Sachs is forecasting \$100/bbl oil in 2022) will raise the cost of doing business and barriers to entry.



## Environmental Justice

- Core Administration policy across entire federal government.
- States are targeting permitting where there may be negative environmental and social impacts on disadvantaged communities.
- ISRI focused on community engagement and outreach efforts.

## Extended Producer Responsibility

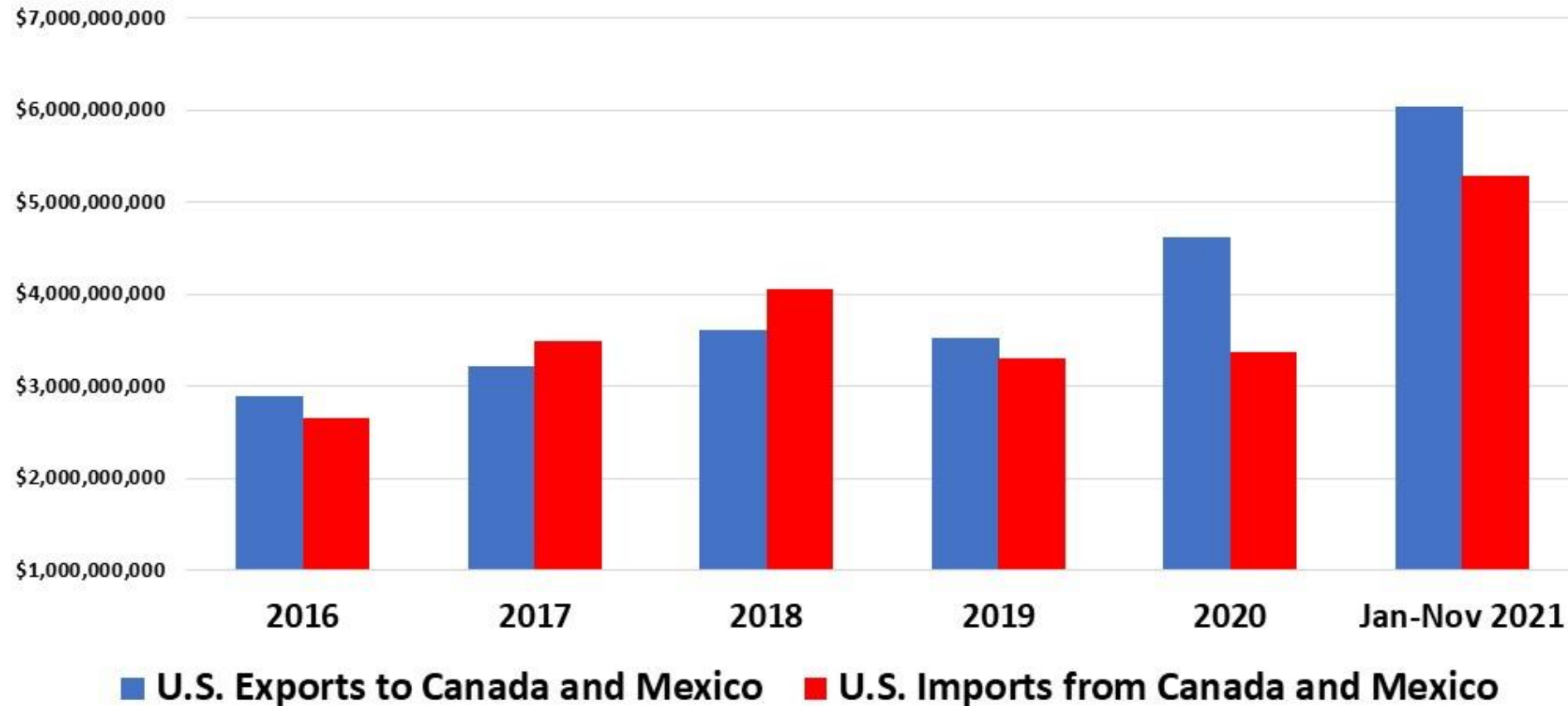
- Well-intentioned policies at the federal- and state-level to pay for recycling and (ostensibly) improve sustainability.
- Potential to interfere with markets.

# Recycling Industry Outlook: Regional Networks

- Logistical headaches are not going away anytime soon. While container availability could improve over the course of the year, truck driver shortages and other transportation bottlenecks are likely to persist. Sourcing material closer to home will become increasingly important for many manufacturers.

**Trade Flows of Recycled Commodities in North America, 2016-YTD 2021 (\$)**

Sources: Census Bureau/U.S. International Trade Commission; ISRI.



# Recycling Industry Outlook: Domestic Investment

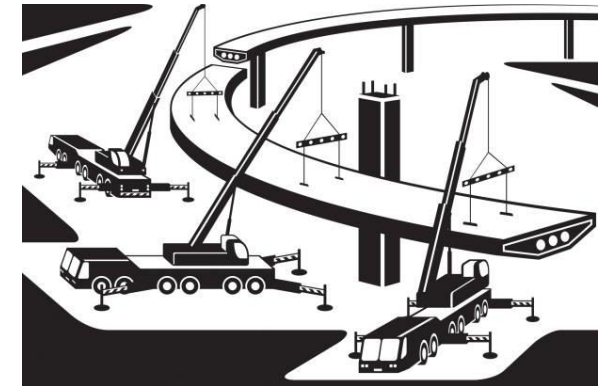
- Domestic demand rising as new capital investments in metal and commodity production will be coming on-line along with increased infrastructure investment.

## *\$1.2 Trillion Infrastructure Package*

### Focuses on “Hard” Infrastructure

(i.e., roads and bridges, water and sewer lines, sanitation facilities, rail and port improvements, EV and charging station deployment, electricity grid improvements, and broadband infrastructure)

➔ Will lead to increased demand for raw materials, including recycled materials



### Part of Package that Passed: Recycle Act

\$75 million for public education & awareness; mandatory review of CPGs

➔ Will lead to reduction in contamination in the recycling stream, and thus increase in commodity-grade recyclables to manufacturers; greater recycled content demand based on federal purchasing requirements

**\$400 million: Mining & Recycling of Critical Minerals**

**\$150 million: Battery Recycling**

## BlueScope to Buy Two MetalX Scrap Assets for US\$240M

**MarketWatch**

## Cleveland-Cliffs Acquires Ferrous Processing and Trading Company for \$775M

**yahoo!finance**

## SA Recycling buying PSC Metals

SA Recycling has agreed to buy PSC Metals from Icahn Enterprises for \$290mn, the latest move in a wave of consolidation across the US scrap metal recycling industry.



# Summary: Bullish Scenario for U.S. Recycling Industry

- Positive global economic growth, elevated primary commodity prices, and the increased focus on sustainability, the green economy and decarbonization initiatives are key to demand for recyclables: **global growth is growing.**
- While trade restrictions will continue to impact the global flow of commodities, **recycled commodities will find a home.**
- Higher regulatory, labor and input costs (Goldman Sachs is forecasting \$100/bbl oil in 2022) will **raise the cost of doing business and barriers to entry.**
- **Logistical headaches are not going away anytime soon.** While container availability could improve over the course of the year, truck driver shortages and other transportation bottlenecks are likely to persist. **Sourcing material closer to home will become increasingly important for many manufacturers.**
- **Domestic demand rising as new economic investments in metal and commodity production will be coming on-line along with increased infrastructure investment.**
- Pricing power has always resided with the consumers: that is changing as **the effects of industry consolidation set in.**
- Result: **Bullish outlook for recycled commodity markets this year, despite downside risks** from COVID, rising interest rates, China property market, concerns about emerging market debt, geopolitical risks, etc.

# The Voice of the Recycling Industry™



<b>Manufacturers</b>	<b>Brokers &amp; Traders</b>
<b>Processors</b>	<b>Equipment/Services</b>
<b>Industrial Consumers</b>	

**\$117 Billion Industry Annually Recycling  
More Than 130 Million Tons of Recyclables**

**Our Mission** *To promote safe, economically sustainable & environmentally responsible recycling through networking, advocacy & education.*

Workplace Safety  
Responsible Recycling  
Education, Training & Networking  
Specifications  
Design for Recycling™  
Market Intelligence  
Awareness  
Advocacy  
COVID-19 Resources



REGISTER NOW

March 21 - 24 | Mandalay Bay Resort & Casino, Las Vegas

The recycling industry's largest in-person event returns for the first time in two years! We are back and bigger and better than ever. Be part of the fun, networking, education, and recycling community once again. This will be a convention and exposition for the ages!

[www.isri2022.org](http://www.isri2022.org)